वार्षिक प्रतिवेदन
ANNUAL REPORT

2019-2020

Celebrating 60 years of Excellence

भारतीय प्रौद्योगिकी संस्थान कानपुर

Indian Institute of Technology Kanpur

संगठनात्मक स्वरूप

अध्यक्ष

डॉ. के. राधाकृष्णन	19 फरवरी, 2019 से प्रभावी

सदस्य

प्रोफेसर अभय करंदीकर	18 अप्रैल, 2018 से प्रभावी

परिषद के सदस्य

डॉ. सुखबीर सिंह संधू	11 जुलाई, 2018 से प्रभावी
श्री दीपक घैसास	11 जुलाई, 2018 से प्रभावी
प्रोफेसर त्रिलोक नाथ सिंह	11 जुलाई, 2018 से प्रभावी
प्रोफेसर उदय शंकर दीक्षित	11 जुलाई, 2018 से प्रभावी

राज्य सरकार द्वारा नामित सदस्य

प्रोफेसर श्रीनिवास सिंह

सीनेट द्वारा नामित सदस्य

प्रोफेसर देबोपम दास	31 दिसम्बर 2019 तक
प्रोफेसर एम एल एन राव	31 दिसम्बर 2019 तक
प्रोफेसर गौतम देव	01 जनवरी 2020 से प्रभावी
प्रोफेसर शलभ	01 जनवरी 2020 से प्रभावी

सचिव

श्री कृष्ण कुमार तिवारी
कुलसचिव

ORGANIZATIONAL CHART

CHAIRMAN:

Dr. K. Radhakrishnan	[w.e.f. 19 Feb., 2019]

Members:

Prof. Abhay Karandikar	[w.e.f. 18 April, 2018]

Council Nominees:

Dr. Sukhbir Singh Sandhu	[w.e.f. 11 July, 2018]
Shri Deepak Ghaisas	[w.e.f. 11 July, 2018]
Prof. Trilok Nath Singh	[w.e.f. 11 July, 2018]
Prof. Uday Shanker Dixit	[w.e.f. 11 July, 2018]

State Government Nominee:

Prof. Shriniwas Singh

Senate Nominees:

Prof. Debopam Das	[upto 31 December 2019]
Prof. M.L.N. Rao	[upto 31 December 2019]
Prof. Goutam Deo	[w.e.f. 01 January 2020]
Prof. Shalabh	[w.e.f. 01 January 2020]

Secretary:

Shri Krishan Kumar Tiwari
Registrar

Contents

Convocation Report of the Director

Honorable Dr Arvind Krishna, CEO IBM, Dr K Radhakrishnan, Honourable Chairman, Board of Governors of the Indian Institute of Technology Kanpur, Members of the Board of Governors, Members of the Academic Senate, all graduating students and their family members, members of faculty, alumni, staff and student community: I heartily welcome you all to the fifty-third convocation of the Indian Institute of Technology Kanpur. I would also like to congratulate the graduating students and their families on this joyous occasion.

Academic Activities

The academic session 2019-20 has been an unprecedented one in every sense of the term. Despite the shadow of a global health crisis looming large over us, the academic session ending in June 2020 has been a truly rewarding one, and it is a privilege for me to recount some of our activities pertaining to this year.

It is a moment of pride for me to inform you that the total number PhD degrees being awarded at this Convocation is 239. The number is by far the highest in the history of our Institute. Last year, at the Fifty Second Convocation, the number of PhD degrees awarded was 208. It is noteworthy that enrolment in the PhD programme has increased substantially in the last five years going from 1426 in 2014-15 to 1942 in 2019-20. Number of PhD degrees awarded at Convocation 2015 was 136.

To encourage outstanding scholars to join the doctoral programme directly after their Bachelors, the Senate approved the provision for an additional Master's degree to be awarded along with PhD, subject to the fulfillment of a defined set of academic requirements. I am delighted to inform you that 18 students are graduating in the second batch of MTech-PhD Joint Degree at this Convocation.

The details are as follows:

Degree	Number of Recipients
PhD	221
MTech-PhD (Joint Degree)	18
MTech	546
MBA	56
MDes	10
MS (by Research)	39
PGPEX-VLFM	39
MSc (5-yr)	01
MSc (2-yr)	135
Double Major	22
Dual Degree	181
MS-PD (MS part of the Dual Degree)	12
BTech	628
BS	100
Total	**2008**

In all, 2008 students are being awarded the degrees today. Total degrees being awarded at this Convocation, including the Dual and Joint Degrees, are 2207.

In keeping with the flexibility that IIT Kanpur academic programme is known for, 30 students are graduating with two Minors whereas 169 students are graduating with one Minor. You will be delighted to know that 02 of the graduating students are graduating with three Minors. In all, 235 Minors are being awarded.

Number of students completing one Minor	:	169
Number of students completing two Minors	:	30
Number of students completing three Minors	:	2

In addition, by spending one additional year at the Institute, 181 undergraduate students are graduating with a Master's degree along with their Bachelor's while 22 of our undergraduate students are graduating with a Second Major. 18 of our postgraduate students are graduating with an additional Masters along with their PhD degree by doing additional credits.

Of the 931 students of the Bachelor's and Bachelor's-Master's Dual Degree programmes who are being awarded the degree today, 204 students are graduating with Distinction (CPI of 8.5 and above).

To keep pace with the evolving knowledge in science, technology and other areas, 06 new undergraduate courses and 46 new postgraduate courses were approved by the Senate from April 1, 2019 to March 31, 2020.

Academic Initiatives

The academic semester 2019-20-II was concluded under the shadow of a grave health crisis. Several proactive measures were undertaken to ensure that the disruption in the middle of the semester in March 2020 did not hamper the academic activities. In an unprecedented move, all the courses were moved online and the semester was concluded by the end of June. The transition to remote teaching is now complete in the ongoing semester 2020-21-I, with a home-grown platform for content delivery being deployed for running the courses. The effort is guided by the belief that it is our duty to reach the student to the last mile.

On the Anvil

Several academic initiatives that are likely to impart strength to our academic programmes in the long run are in the pipeline.

- **Cognitive Science:** The proposal to establish a department of Cognitive Science (currently an Interdisciplinary Programme) is on the anvil. Research in various areas of cognitive science has huge potential in informing the stakeholders in various arenas like education, defense services, human-computer interaction design, product design, mental health etc. Through this new department, we will be exploring pathways to collaborate with various industry partners, psychiatric clinics, and government agencies to take up problems from their fields and make our contribution to solving them.
- **e-Masters:** A proposal for e-Masters in specialized areas such as Data Structures, Financial Engineering, Telecom, Manufacturing and several others that are perceived as emerging areas or areas that are in acute need of re-training is being finalized. The programme is being proposed with a special emphasis on the continuing education of those already employed in the industry.
- **Department of Space and Astronomy:** The Institute is working on a proposal to start a Department of Space Science and Astronomy with a special emphasis on instrumentation, space exploration, and astronomical observations. The discipline of space science and astronomy is a multi-disciplinary field which draws expertise from all areas of science and engineering. We believe that at IIT Kanpur, we are uniquely poised to harness the growing potential of this multidisciplinary field.

Research and Development

IIT Kanpur has registered steady growth in its research and development activities this year. Some of the highlights are mentioned below:

- 788 externally funded ongoing projects with a total sanctioned amount of Rs. 1065.99 crore.
- 200 sponsored projects got sanctioned during 2019 - 2020 worth Rs. 179.90 crore.
- 131 consultancy projects got sanctioned during 2019 - 2020 of Rs. 28.09 crore.
- During the year 2019-20, total funds received for sponsored projects are Rs. 222 Crore and the funds received for consultancy projects are Rs. 27 Crore.

Sponsored research: A summary

Leading Funding Agencies of the year:

Rs 56.65 crore

Department of Sciences & Technology Government of India

Rs 26.33 crore

SERB INDIA

Rs 20.40 crore

delhi.gov.in Govt. of NCT of Delhi

Rs 19.69 crore

birac Ignite Innovate Incubate

Rs 12 Crore

Leading Funding Industry Partners of the year:

LARSEN & TOUBRO It's all about Imagineering

Uttar Pradesh Pollution Control Board (UPPCB)

UPSIDA

Major Projects Sanctioned

Some of the major projects sanctioned during 2019-20 are briefly described below:

National Centre of Excellence in Geodesy funded by Department of Science & Technology (DST): Geodesy is the science of measuring the size and shape of the earth including its gravity field and their temporal variations. The objective of the Centre is to nucleate and strengthen education, capacity building and R&D activities in Geodesy by imparting regular training programmes through various courses and by supporting masters and doctoral programs with fellowships to researchers working in Geodesy.

The Centre will act as a hub for extending laboratory and resource support for students and researchers from universities and institutions and advise state/central government departments on issues related to Geodesy.

The Centre will take up R&D projects in the entire spectrum of geodesy, viz., geoid modelling, height reference system, polar motion, estimating total water storage and crustal deformation. The Centre will also establish a network of permanent GNSS stations including one IGS station along with automatic weather and meteorological sensors.

Rashtriya Avishkar Abhiyan (RAA) Labs For Samagra Shiksha Delhi sponsored by UEE Mission Education, Department Delhi Government: The Institute is setting up RAA labs in 136 government schools in Delhi. RAA Labs are based on Atal Tinkering labs of NITI Aayog and aim to leverage the potential for Science, Mathematics and Technology (SMT) learning in non-classroom settings. The Institute will be involved in assisting teachers in demonstrating experiments and conducting activities, content development (computer simulations, audio/visuals), and measuring the effectiveness of the program through national level competitions like NTSE and Children's Science Congress.

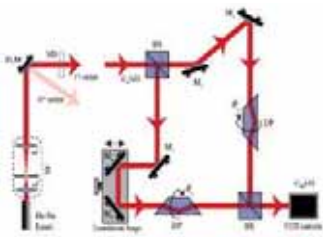
EMI/EMC and Electrical Safety Testing Facility funded by Biotechnology Industry Research Assistance Council (BIRAC): The project aims to establish a world

class EMI/EMC (Electromagnetic Interference and Compatibility) test facility at IITK, where the major focus would be to test the EMC compliance of modern electronic instruments and gadgets presently used in the medical industry. The major challenge with the usage of digital electronic gadgets is the mitigation of the electromagnetic interference (EMI) as they continuously generate broadband undesired electromagnetic (EM) fields. It is more challenging for the electronic instruments used in the medical field because of the human health risk involved in addition to the compliance with the regulatory EMC standard. The EMI/EMC testing facility will have special emphasis on medical instruments starting from low frequency to RF range, which would especially be quite helpful to start-ups developing new electronic and medical instruments. The proposed facility would conduct the electromagnetic interference and electrical safety tests as per IEC 60601, CISPR 11, and CISPR 16 standards.

At present, there are no certified EMI/EMC facilities to test electronic instrument in general and medical gadgets in particular in the northern, central and eastern part of India. The proposed facility would fill in this gap, and would eventually facilitate the growth of MedTech industry including startups in this part of the country. The medical institutes, public hospitals, private medical practitioners etc., especially in the surrounding region, would be encouraged to get all their biomedical instruments and electronic gadgets certified by the designated EMI/EMC Center at regular intervals. Additionally, the Center would conduct various workshops and short courses at regular intervals to create awareness about the significance of EMI/EMC issue among the medical professionals, the product designers as well as the academic community.

State-of-the-art Facility for Design and Fabrication of Medical Devices and Equipment with In House Quality Control System for Cultivating a Local Production Hub Of Medical Grade Technology and Solution Industry funded by BIRAC: As India progresses on her transformational journey towards global economic leadership, the biotechnology sector is recognized as one of the key contributing drivers. 'MedTech IIT Kanpur' would be a dedicated medical-grade product design and development center in this direction, which is being established while augmenting the existing facility, Imagineering Laboratory, at IIT Kanpur. The facility would cater to the medical devices research requirements of around 30 crore population in North India. After the development of high fidelity physical prototypes, the fabrication of devices could be further incubated using the materials and processes intended to be used in batch or mass-scale production. It is intended to establish a cost-effective and efficient fabrication facility at IIT Kanpur which will benefit from utilizing the resources under industry-academia collaborative effort for increasing the indigenization of Bio-pharma and medical devices in India. The facility will focus on both manufacturing design and industrial design where factors such as ergonomics, aesthetics will be given importance along with functionality and manufacturability.

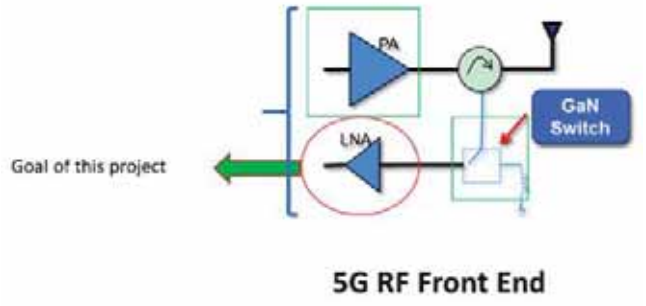
Developing Efficient Method For The Measurement And Characterization Of High-Dimensional Quantum States For Photonic Quantum Information funded by DST: The high-dimensional quantum information protocols are extremely important as they offer several unique advantages compared to the traditional two-dimensional protocols based on polarization of photons. Among all the available high-dimensional bases, the orbital angular momentum (OAM) basis seems to hold a lot of promise. One of the main challenges in the implementation of any classical/quantum information protocol based on the high-dimensional OAM basis of photons is the measurement of the state of an unknown light field in the OAM basis. The existing methods for measuring a state in the high-dimensional OAM basis suffer from either poor efficiency or strict interferometric stability requirements or too much loss. Accordingly, the first main objective of this proposal is to find efficient techniques by which high-dimensional quantum states can be prepared and measured with near-perfect fidelity. The second major challenge in exploiting the high-dimensional quantum state is the quantification of correlations in a high-dimensional quantum state. Even some of the available correlation witness and quantifiers are not easy to measure. So, as our second objective in this proposal, we will develop experimentally realizable techniques for characterizing the degree of quantum correlations in the high-dimensional quantum states. As our final objective, we will carry out proof-of-principal experimental demonstration of lab-scale high-dimensional quantum key distribution protocols in the OAM basis.



Elucidating the Conformational Dynamics of Non-Canonical Seven-Transmembrane Receptor Activation and Signaling funded by Wellcome Trust, Department of Biotechnology (DBT): Our body encounters and responds to numerous types of challenges and stimulations every day. The cells in our body are surrounded by a membrane, which acts as a barrier and protects the interior of the cells from harmful factors (e.g. pathogenic organisms). Embedded in this membrane are certain protein molecules called "receptors" which receive the signal on the outside of the cells and transmit it to the inside in a highly regulated fashion. This allows the cells and our body to respond appropriately to external stimulation. Receptors are involved in pathological symptoms of a number of deadly human diseases such as heart failure, hypertension and cancer. Interestingly, a number of medicines (drugs) that we take to treat various disease symptoms bind to these receptors and they work by either turning them "on" or "off". However, a number of these drugs also lead to undesired side effects in the body. Therefore, if we can directly visualize how these drugs bind to their target receptors, we will be better positioned to modify currently existing drugs and design new ones to treat human disease more efficiently. We aspire to embark on this long-term goal for a few selected receptors through this research proposal. In particular, we are trying to determine the atomic details of how these

receptors bind to their ligands and activate downstream signaling pathways to elicit physiological responses by using cryogenic electron microscopy and X-ray crystallography approaches.

A GaN based High Power LNA for 5G Applications funded by INDO-US Science & Technology Forum (IUSSTF): 5G is a key technology for mobile communication, IoT and automotive applications. 5G



5G RF Front End

technology has two distinct frequency ranges – mm Wave (20+ GHz) for very short range and sub-6 GHz long range. The 5G implementation will deploy large number of small cells with MIMO, which will increase the data rate significantly in 5G, as compared to what is available in 4G. The goal of this project is to develop the low noise amplifier (LNA) using both GaAs and GaN technologies in collaboration with Tagore Tech. Although, GaN LNA has drawback of higher noise figure, but it has the advantage of integration on the wafer level with Tagore's GaN switch and PA, whereas GaAs LNA gives better NF, but it faces the challenge of integration at the die level. We will work on both the approaches to realize LNA according to required specifications. Our small cell front ends can be deployed in cities and villages, where the range needs to be higher, whereas existing technologies using SOI/GaAs could only be deployed in cities. Tagore will first commercialize LNA as a standalone product, which will be quicker to market, and then it will follow up with a front-end module for the 5G small cell.

Design Of Flexible Sweat Sensors Snd Stretchable Batteries Embedded In E-Textile To Monitor Personal Health And Fitness Parameters funded by Indo-French Centre for the Promotion of Advanced Research (IFCPAR): The objective of this project is to design a scalable and flexible wearable system to predict the health and well-being of a user through sweat sensors. This activity involves the design of flexible sweat sensors to detect specific biomarkers, a processing module for analysis and communication, a stretchable battery to power the system and e-textile to embed these modules. A device prototype will be developed which can be subsequently scaled to various form-factors such as apparel, headband, armband etc. This is a collaborative Indo-French activity with one academic and one industry partner from each country. The academic partners are IIT Kanpur (India) and École des Mines de Saint-Étienne (France), and the industry partners are Samsung R&D India (India) and @Health (France).

Temperature-Sensitive Trp Ion Channels As Biological Thermometers To Gauge The Pain funded by DBT: Our abilities to sense temperature are closely linked to pain sensation because the same type of neurons is responsible for these two sensations. A subset of the TRP superfamily of ion channel, called thermoTRPs, which are largely calcium-permeable ion channels, are expressed in the free nerve endings and mediate the pain

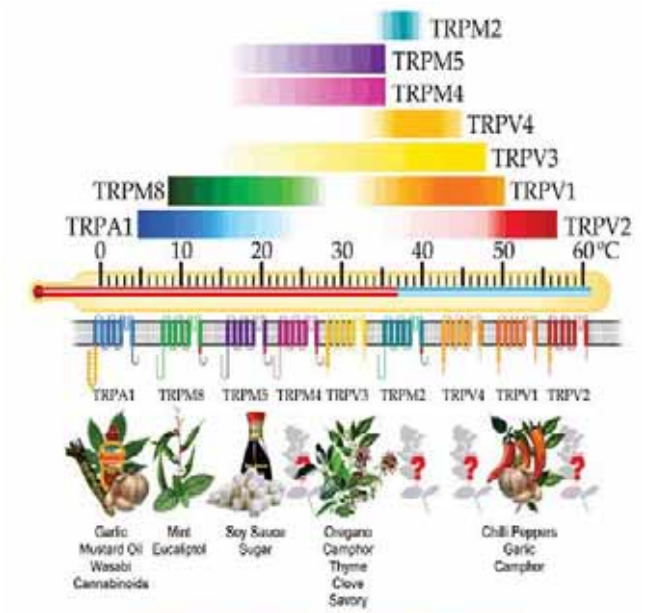
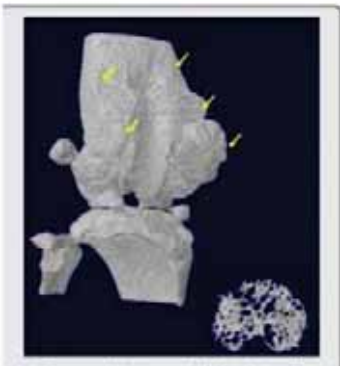


Figure 1. TRP channels as biological thermometer

and thermal sensation. There are 11 thermoTRP ion channels in mammals that together act as a biological thermometer to allow us to sense the whole range of physiological temperature ranging from noxious cold to noxious heat (Figure 1). It is believed that these thermoTRPs have an intrinsic thermosensing domain that undergoes conformational changes in a temperatur - dependent manner and allows the influx of calcium ions. However, the molecular identity of this thermosensing domain and mechanisms underlying the basis of the pain and temperature sensation by thermoTRPs remain enigmatic, limiting the design of novel analgesics drugs. To fill up this knowledge gap, we plan to study thermoTRPs and design new drugs for pain treatment. More specifically, we plan to determine the structure of thermoTRPs in temperature-activated state and identify the intrinsic thermosensing module that would greatly enhance our understanding of how these protein complexes undergo conformational changes to dictate the physical temperature perturbations into the biological process at the molecular level.

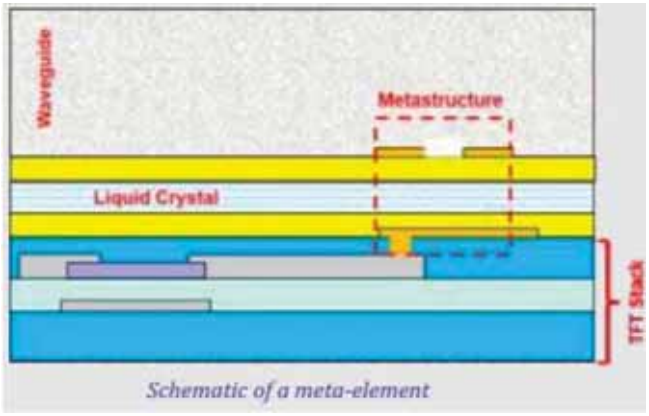
Deciphering the Role of Small RNAs in the Development of Hemophilic Arthropathy and Formulation of a MicroRNA based Therapeutic to Alleviate Joint Damage funded by Science & Engineering Research Board (SERB): Hemophilic arthropathy (Joint damage) due to repeated bleeds into the articular cavity is a major cause of morbidity in patients with hemophilia, a common genetic disorder, which affects 1on 5000 in the general population. On an average, these patients have 15 to 35 spontaneous joint and muscle bleeds per year. The current treatment is largely based on prophylactic administration of the missing coagulation factor VIII (recombinant) protein, which is expensive and

costs upwards of USD 100,000 per patient per year. Therefore, there is a need for newer and better strategies to prevent or delay the onset of blood-induced joint damage in these patients. Based on our preliminary studies, we reasoned that during these joint bleeds, microRNAs and its related processes play a significant role in the cartilage damage. A complete understanding of this process could not only pinpoint the mechanisms leading to cartilage damage but also reveal biomarkers of the disease and/or targets for intervention. Based on these findings, the project proposes to develop novel gene therapy strategies for this condition in a murine model of hemophilia.



Joint damage due to repeated bleeds in a Factor VIII deficient mice model of hemophilia. Micro-computed tomography and 3D rendering demonstrates calcification around distal femur (arrow) and reduced trabeculae in proximal tibia (inset).

Development of TFT Array and Liquid Crystal Layer and their Integration with Metasurface Antenna funded by Space Applications Centre, Indian Space



Schematic of a meta-element

Research Organization (SAC-ISRO): National Centre for Flexible Electronics at IIT Kanpur (FlexE Centre) is developing various enabler technologies in the field of large area flexible and printed electronics. FlexE Centre has a running program on fabrication of thin film transistor (TFT) based circuits for large area electronics. SAC-ISRO, and FlexE Centre are jointly developing Ka-band reconfigurable metasurface antenna integrated with Liquid Crystals that can be tuned using TFT array. Development activities include fabrication of high performance TFT based array, identification and characterization of suitable Liquid Crystals having high dielectric anisotropy, fabrication of Liquid Crystal cells, and integration of metasurface antenna with Liquid Crystals and TFT array. TFT array would act as a backplane for addressing capacitors at switching speeds in milliseconds. Liquid Crystal capacitor will be formed between meta-elements and waveguide structures which will jointly form scattering elements of antenna. Tunable metasurface antenna would enable to achieve electromagnetic (EM) beam steering in the desired angular range.

A list of major projects granted this year is given at the end of the Report.

A list of some of the other sophisticated facilities established in the Institute during this year is listed at the end of this report.

Collaborations through MoUs

The Institute signed an MoU with the Bureau of Indian Standards (BIS) for collaboration in standards education, standards based research and contributions to national & international standards.

An MoU was signed with UP Police to do research on data analytics, AI, Drones and Surveillance technologies. This will help to address the problems of policing.

IIT Kanpur signed an MoU with Prasar Bharti for setting up a center of excellence in next generation broadcast and broadband. Other areas of collaboration include setting

up AI Incubator, manpower training & capacity building and policy, regulation and standardization studies.

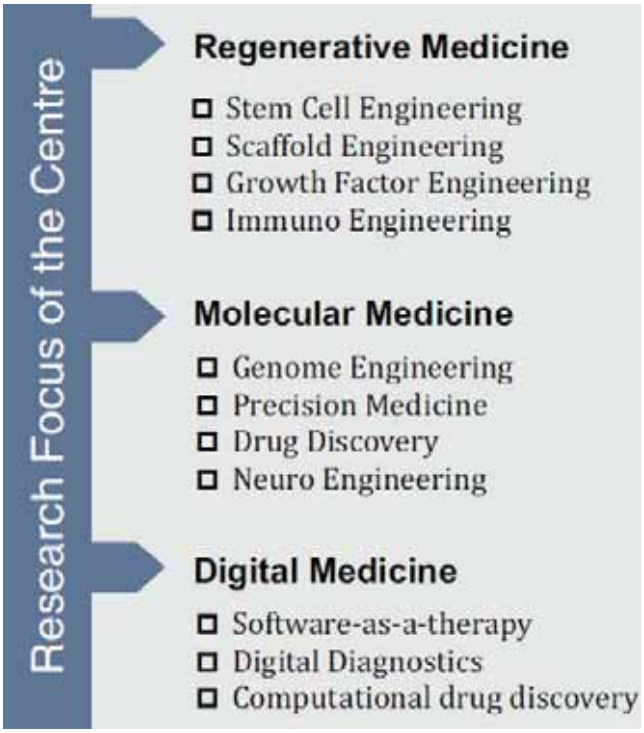
Centre for Engineering in Medicine

IIT Kanpur is poised to set up a 'Centre for Engineering in Medicine with the generous support from Mr. Rahul

Mehta of Mehta Family Foundation. On the 61 foundation day of the institute, director Prof. Abhay Karandikar and Mr. Rahul Mehta signed a Memorandum of Understanding. Professor Shankar Subramaniam of

the University of California, San Diego, is the first international advisor of the 'The Mehta Family Centre for Engineering in Medicine'. This would be the first centre of its kind in the country in terms of manpower it would train at the interface of engineering and medicine.

The vision of the centre is to generate significant impact in health care in India in terms of research/technology



output in addition to the grooming of next generation leaders that are well trained in these interdisciplinary areas.

The centre would leverage the existing strengths within core engineering departments of IITK and department of Biological Sciences and Bioengineering (biomedical research) while diversifying into new/frontier areas to enable more impactful research (fundamental and applied).

Simultaneously, IIT Kanpur also proposes to set-up a medical school in the institute. The long term plan is to have the presence of an engineering school, a medical school and a 'Centre for Engineering in Medicine' on the campus with the 'Centre' bridging between the faculty from Sciences, Engineering & Medicine to enable research at the interface of these areas.

Hon'ble Union Minister of Human Resource Development (MHRD) Shri. Ramesh Pokhriyal 'Nishank' visited IIT Kanpur on November 02, 2019 as the Chief Guest for the Foundation Day of the Institute. During this visit, Shri Nishank and several other dignitaries were present to witness the demonstration of ten selected incubated startups of the Startup Incubation and Innovation Centre (SIIC), IIT Kanpur. The selected startups for this showcase event were Earth Analytics, CD Space, Saptkrishi Scientific , Kritsnam Technologies , Phool, Offgrid Energy, Duosis, PhotoSpiMedex, Acquafront Infrastructure and Invoviron. The visitors appreciated that IITK incubator is supporting the deep-

tech innovations solving the challenges of our country.

Smart City Project

A Smart Grid Control Centre set up was inaugurated by joint secretary, Ministry of Power, Mr. Mrityunjay Kumar Narayan along with Mr. A K Mishra, Director, National Smart Grid Mission (Project management unit) NSGM-NPMU, on February 24, 2020.

The centre has been set up as part of the smart grid pilot

project jointly funded by the Ministry of Power (MoP) and IITK. This is one of the 14 Smart City pilot projects

sanctioned by the Ministry of Power in 2014.

The main benefit is that the prototype will act as a testbed for smart-city related research, development, and training activities for industries, research institutes, and academicians in India. The key achievements/impact include implementing network reconfiguration, distribution system state estimation algorithm usable by typical Indian utilities, improvement in the overall power quality, reduction in the duration of outages by implementing fast restoration techniques, implementing demand response algorithms, savings on electricity bills for households with renewable solar PV and battery storage, improvement in overall customer DR participation and satisfaction, and the design of hybrid solar inverter suitable for the Indian condition.

Research and Innovation related to Covid 19

PIPES: PPE Kit

The PIPES (Polythelene-based Improvised Protective

Equipment under Scarcity) Kit is designed based on thin cylindrical rolls/pipes of Polyethylene which are non-porous and commonly used in the industry for packaging and making plastic-bags. Polythene material makes airtight enclosure for required protection. The design and the production process of the PIPES Kit is kept open-source through the website www.pipeskit.org, so that any small /medium-scale factory can start manufacturing them in large quantities. The manufacturing cost is envisaged to be less than Rs. 100. Cops of Agra have already started to use this low cost PIPES Kit.

UAVs for Surveillance

The drone will be used for surveillance of an area of radius up to 15 km. It has high-resolution camera with night vision capabilities. The endurance of these UAVs ranges from 1.5 to 10 hours. The team is working with the Kanpur city administration to help them in the day and night surveillance of the hotspots in the city.

Invasive Ventilator

Nocca Robotics Pvt Ltd, a start up at the Institute designed and developed a high-end yet affordable, indigenous ventilator necessary for providing life support to critically ill COVID19 patients under the overall supervision of the Institute.

Salient Features

Modular design, high end ventilator.

- Rapidly manufacturable at large scale across India.
- Low Power Pressure controlled (Version 1), Pressure and Volume Control (Version 2).
- Versatile operations: works with both medical air / ambient air + oxygen.
- IoT-based system to create a Ventilator Management System.
- Easy transition from invasive to non-invasive ventilation.

Bharat Dynamics Ltd, leading defence PSU under the Ministry of Defence, Govt. of India, has signed MoU with IIT Kanpur for the large scale production of the device.

Fake News Verification App

This is a user-friendly solution for fake-news detection on instant messaging & microblogging platforms. The app won the second prize in the MHRD AICTE SAMADHAN competition in response to COVID19. The Beta version of the app is ready and currently, it is being tested in a closed group.

Positive Pressure Respiratory System

The team has developed a working prototype of a Positive Pressure Respirator System to addresses the problem of the acute global scarcity of N95 respirators. It provides uncontaminated air and isolates the health professionals from the exposure to the virus.

Salient Features

- Relies on positive pressure to stop entry of contaminated air.
- Universal (one size fits all) design.
- Fail safe and rugged design.
- Easy to follow production process.
- IoT-based system to create a Ventilator Management System.
- Easy transition from invasive to non-invasive ventilation.

Oxygen Concentrator

This economic, indigenous design will separate oxygen from the atmosphere to be used by a homemade respirator. Unlike an air filter/purifier (which only removes dust and bacteria), this device will selectively filter out oxygen from air which can then be compressed

to serve acute respiratory problems. The advantage is that it will be no longer required to store and carry oxygen

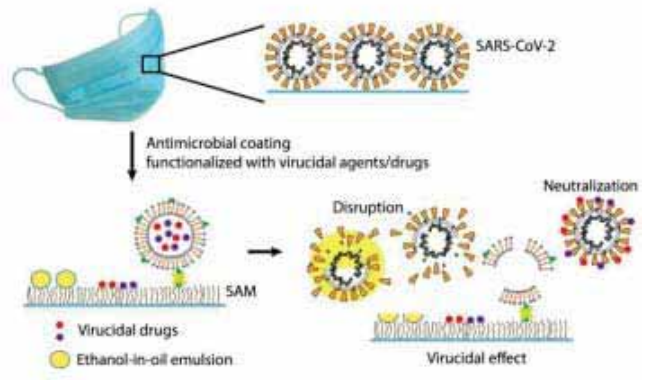
cylinders. The device is currently undergoing incubation for commercialization. It is in the testing stage in the Regency Hospital, Kanpur.

Reusable N95 and N99 Masks

These advanced reusable masks have three filters: a Nonwoven filter, a Coarse filter, a Nanofiber filter, and a

supporting layer. The supporting layer can kill coronavirus as soon as it enters the mask filter. These masks will be equipped to eliminate the secondary source of contamination.

Preventive and Cost-effective Surface Coating sponsored by SERB: The objective of the project is to



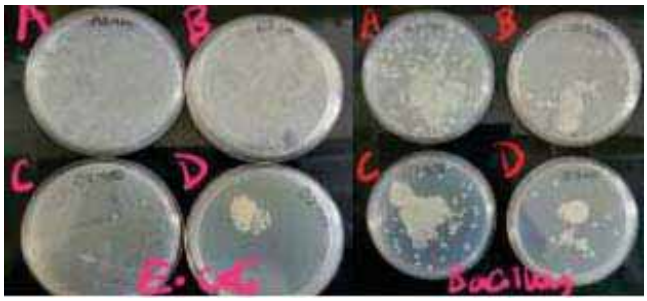
develop virucidal coatings for inanimate surfaces used in healthcare settings such as surgical masks for the prevention of infectious diseases caused by highly contagious pathogens like SARS-CoV-2. The concept is based on a combination of antimicrobial polymer coating and functionalized virucidal drugs/agents to attain a synergistic anti-viral effect.

Chemical and Thermal Disinfecting System

The product combines two disinfection approaches to achieve a cost-effective & rapid disinfection process. The

system utilizes two chambers, viz. atomization chamber and thermal shock chamber. Initially, the individual will be sprayed with disinfectant solution safe for external human use and this will be followed by exposure to thermal shock in a drying chamber. This two-stage process is aimed to achieve a high rate of personnel disinfection within 2 minutes.

The system is deployable at various facilities where safe access control is necessary. Currently the system is in use at five places inside the campus. Local hospitals & district



administration have approached IITK to implement this system at different strategic locations in Kanpur.

Novel Electrostatic Sprayers

This electrostatically charged Air-assisted sprayer will result in better surface adhesion of the disinfectant. The quantity of disinfectant used can be limited. The expected rate of consumption of disinfectant solution is 10

ml/min. The nozzle is designed keeping in mind current manufacturing and assembly constraints. The system can be used to disinfect public spaces in an effective and efficient manner.

Solar-powered Natures Box Smart Bin system

Nature box is a Smart Bin system which ensures maximum hygiene and timely cleaning of the bins.

Salient Features

Image of a Under-construction piece for demonstration purpose only (not scaled)

- Inlet mouth of Natures Box has special coating that reduces the life of Corona Viruses on it by up to 95% as compared to its life on plastic or other bins.
- The systems are made up of steel with indigenous designs that prevents access to animals and thus ensuring zero possibility of pathogens and garbage getting littered outside the bins.
- The system has been indigenously developed by integrating an IoT module that provides fill level information of each bin on the map and informs about past cleaning of each bin, load on each bin and required frequency for cleaning of bins. This empowers the authority with tools to monitor and manage the timely cleaning of bins. This also reduce the manpower and resource consumption in cleaning of bins by up to 80%.

Development of Alternative Mask Material

This low-cost protective face mask is equivalent to N95 face mask for the frontline medical staff and people. The team has tested various available filter media and developed the low-cost protective respirator. A filter testing rig equipped with an aerosol laser spectrometer will be set up with identification of non-woven polypropylene based 3-4 layer material for making such mask.

Vaccine against the COVID-19

The objective is to create a live attenuated and replication-competent virus vaccines against Novel T coronavirus (SARS-CoV-2) based on attenuated recombinant vesicular stomatitis virus (rVSV) vectors expressing the novel corona virus spike (s) glycoprotein (rVSV-SARS-CoV- 2S). Simultaneously, it is also being aimed for the candidate antivirals, which has potential to stop the viral infection. For this purpose, the team has designed a cell based in-vitro infectivity assay for screening potential antiviral therapeutics.

Modelling & Forecasting of COVID-19

The project aims for Modelling and Forecasting of COVID19 pandemic. After analysing the real-time Tinfection data of COVID-19 epidemic for nine nations, the researchers have identified daily infection count and number of infected individuals as the key parameters. It is envisaged that the long term community transmission may be inducing power law growth of the epidemic. The project is granted under SERB's Short-term MATRICS special call on Mathematical Modelling and Computations for COVID-19 Infections.

The project titled **Optimization of Lockdown, Testing & Isolating Strategies to contain COVID-19 in India** has been granted by SERB under its call on Mathematical Modelling and Computations (MATRICS) for COVID-19 Infections. The objective of the project is the optimization of strategies related to lockdown period, successful testing and isolating.

Innovation and Incubation

During the year, 65 patents including 13 design patents were filed, and 46 previously filed patents were granted, besides getting 2 technology licensed for commercialization. Amount received from licensed technologies during 2019-20 is Rs. 8.04 lakhs.
Till date, 655 IPRs have been filed, out of which 208 have been granted so far along with 110 technologies licensed for commercialization.

A total of 61 companies are currently incubated at Startup Innovation & Incubation Centre (SIIC), IIT Kanpur and 62 have graduated so far.
Notable recent achievements of the incubator are as follows:

- IIT Kanpur has been awarded the STEM Impact Award 2019, for engaging in Impactful Technology Transfer activities. The STEM Impact Award was handed over by Dr. Marc Stedam, President AUTM (AUTM is a leading association of Technology Transfer Professionals of USA).
- One of the Impactful technologies transferred by IIT Kanpur, is "DesKit - Convertible School Bag" (https://twitter.com/tiitkanpur/status/1180066767021854721) which was featured in the Compendium of Impactful technologies by STEM.
- IIT Kanpur participated in the IIA International Innovation Fair and won 5 Gold medals & 2 Silver medal in different categories. The details of awarded Patented technologies are as follows:

  - Antibacterial Nanotechnology Based Nasal Air Filter for Breathing
  - A Bionic Prosthetic Hand Device for Trans-Radial Amputee
  - Electrosurgical Cautery with Suction Inbuilt
  - A Phototherapy Unit for Treatment of Hyperbilirubinemea or Neo-natal Jaundice of Multiple Babies
  - A Novel Integrated System for Gynecological

Examination (DeeScope)
- An Integrated Hybrid Bio-Artificial Liver Bioreactor Design
- School Bag Convertible into Study Table

Notable recent achievements of a few Incubated Companies are as follows:

- Kritsnam Technologies was the winner of Smart Cities Technology Showcase and received LoI from New Delhi Municipal Council (NDMC) Winner of Pitch Session at Smart Cities India Expo 2019.
- Saptkritshi was selected at the Nepal Innovation Challenge (Agritech) by the UN Capital Development Fund.
- CD Space Robotics received appreciation from Amitabh Kant for first of its kind blood samples transportation using UAV with Tehri District Administration.
- KrishiHub was selected for sponsored participation at Facebook Developer Conference & Global Startup Summit Cofounder Jyotiska was selected for the prestigious Forbes 30 under 30 Asia list.
- Garv Toilets won in the 'Sustainable Cities' category of the Global Maker Challenge.
- BioScan Research was Semifinalist in the Lufthansa Runway Season 5.
- HelpUsGreen was appreciated by Sachin Tendulkar on World Environment Day initiative of DBS Bank.

SIIC organized its annual startup showcase event 'Abhivyakti ' 2019. Over 35 selected incubated companies displayed their products. Endure Air, demonstrated the capabilities of their gasoline powered helicopter drone which can fly for 3.5 hours, 200 km, at a stretch. Another Drone company, CD Space Robotics, displayed their VTOL drone which delivered blood samples from a village in Uttarakhand to the district headquarter. Other major attractions were companies such as Saptkrishi, whose product Sabjkothi could keep green vegetables fresh at ambient temperature for up to 40 days; Invoviran, which has made compostable, water resistant plastic from Keratin available as waste material and Intignus, which has developed a novel method for detecting Preeclampsia, a pregnancy related complication associated with high pressure. More than 500 students from various schools and colleges of UP, prominent investors (Angel Investors and Venture Catalysts) and FICCI leadership were present in the event.

SIIC announced the launch of the NTT DATA IITK Innovation Fellowship. The event was graced by senior team member of NTT DATA which was led by IITK Alumni Dr. Harsh Vinayak who is currently Senior Vice-President, NTT DATA. Any recent graduate can apply for the fellowship program which offers a monthly stipend support upto INR 50,000 per month of a period of 12 months along with other support from SIIC.

Technopark@iitk

IIT Kanpur Research and Technology Park (Technopark@iitk) celebrated its first Foundation Day on March 2, 2020 on its successful completion of one year of its formal operations. The year was replete with local industry events, special interest group meets, visits by industry experts and many insightful interactions on industry-academia partnerships. The Chief Guest for the program was honourable NITI Aayog member Dr V.K. Saraswat. Dr Saraswat delivered a plenary talk titled 'Importance and way forward for industry-academia interactions' sharing his personal experiences on the nature of academia-industry interactions and how they have evolved over time. The seven companies currently housed in Technopark@iitk namely VTOL Aviation India, Injectoplast, Threads India, AR Thermosets, iSMRITI, Kanopy Techno Solutions and Dataman Solutions presented their work and the ongoing R&D collaborations with IITK. Besides, IITK Student-Industry engagement program titled ReWoP "IITK Students tackling Real World Problems' was once again launched and received an overwhelming response from industry and students. In this program, students will get a chance to work on real industry problems and industry will be benefited by out-of-the-box solutions as well as future workforce.

Technopark@IITK hosted a Special Interest Group Meet on Artificial Intelligence (AI), Internet of Things (IoT) & Robotics on November 09, 2019 at IIT Kanpur. The One-Day Meet provided an opportunity to eminent industry professionals & academia of IIT Kanpur to exchange views on current & future trends, applications & industry expectations in the fields of AI, IoT & Robotics. Industry leaders from Tech Mahindra, Analog Devices, GE Aviation, Microsoft, Wipro, Gaia Smart Cities and Boeing gave series of talks. IITK faculty talks highlighted their research in the areas of AI, IoT & Robotics. The Science and Technology Club comprising IITK students exhibited its innovations and products. The event provided an open platform and opportunity for fruitful discussions and collaborations between industry and academia for mutually beneficial long-term partnership.

Open House

As part of the Diamond Jubilee celebrations, the institute organized an "Open House" on January 25, 2020, in which over 3000 students from various schools visited IIT Kanpur campus to get a glimpse of our educational & research activities. The main goal of the Open House was to motivate senior school students towards science and technology careers. Stalls had been set up by media center,

incubation center & different departments to show the students the various activities being undertaken at IITK. As part of this event, Vijnana Bharti (VIBHA) Brahmavart, in association with IIT Kanpur and Stem Robo organized the InterState Science & Tinkering Fest (ISSTF) where students and startups showcased

innovative science projects and products.

Science Day

On February 28, 2020, IIT Kanpur celebrated the National Science Day with a thematic workshop on Space Science designed to introduce recent exciting developments in this field to the IIT community. It provided a platform to the Space Science community within IIT Kanpur to share their research experiences and ideas. A Public lecture was organised on Space Science – the everlasting excitement by Prof. V. Koteswara Rao, Vikram Sarabhai Distinguished Professor, ISRO. The final event in the Science Day celebrations was a night sky viewing session organized by the Astronomy Club at the air strip.

A pseudo-dynamic test facility (PDTF) has been set up at IIT Kanpur with the generous support from DST. This state-of-the-art facility, the first of its kind in India, will be used for testing of prototype structures for evaluation of seismic performance.

International Academic Collaborations

In the last one year, our international collaborations have grown by leaps and bounds. In just 12 months, we have signed 11 MoUs with international universities from Japan, Taiwan, USA, Finland, Australia, Jordan, Russia, Scotland, across areas of academic & research collaboration, student exchange and joint degree programs. These MoUs include the ones with highly reputed universities such as La Trobe University, National Chiao Tung University and William Marsh Rice University.

We have also signed a MoU with Tandon School of Engineering, New York University for a dual doctoral program for Computer Science Engineering and Electrical Engineering departments. With this partnership, we have yet another prestigious option for our students to be able to conduct world-class research under the guidance of faculty from both IITK and a reputed partner university.

Rice-IITK Collaborative Center

In January 2020, IIT Kanpur hosted a high-level delegation from Rice University for the inauguration of the Rice-IITK Collaborative Center, a one-of-its-kind center where a prominent US university has established a physical center at a leading Indian institute. Both Institutes are world leaders in the field of energy solutions and this Center will enable them to collaborate at a deeper level to find solutions to the world's pressing energy demand. The Center aims to conduct high impact collaborative research in the areas of Sustainable Energy, Materials, Water, Alternative Fuels and others. It is also envisaged that faculty from both Institutes will co-supervise graduate students for high-impact research in the aforementioned areas.

IITK-La Trobe Academy

Earlier this year, IIT Kanpur also signed an agreement with La Trobe University for the setting up of IITK-La Trobe Academy to boost both organizations' research capabilities and to create a globally recognized centre for research in health, food and water security, urban planning and transport.

IIT Kanpur has also partnered with La Trobe University for the Asian Smart Cities Research and Innovation Network (ASCRIN), a major research initiative to address the growing challenges of urbanization. The areas of research and industry collaboration include infrastructure and technology; economic development; mobility and transport; health and well-being; education; urban planning; governance and engagement; security and safety; culture and heritage; and energy, water and waste.

Government-Aided Programs

The Office of International Relations also manages the several government-funded programs for training and student fellowships. One recent program started by the Government of India is the ASEAN Fellowship which, in recognition of the deep and historical ties between Indian and ASEAN, offers students from these countries a

chance to pursue their doctoral degree at one of the IITs with funding at par with their Indian counterparts. Out of the 16 applications received by IIT Kanpur, four students have been accepted for the PhD program under this scheme. In the coming admission rounds, we plan to scale up our outreach efforts and therefore expect the number of applicants to go up.

The Office of International Relations also organizes iTEC courses for professionals from developing countries. This year, before COVID19, the Office organized five courses with over 100 participants, providing them training in diverse areas such as communication and cyber security.

Financial Resource Mobilization

Out of the total amount of around Rs. 4000 Lakhs ($57.00 Lakhs @ Rs.70/$) pledged by donors in the last 12 Months, a total of Rs. 1915.00 Lakhs ($10.30 Lakhs) has been received this year as compared to Rs. 1406.00 lakhs last year and the balance is expected to be received based on the milestones achieved as set by the donor in the next one year.

Some Notable Contributions: (All Figures are in Lakhs)	Pledged (Rs.)	Recd (Rs.)	Balance (Rs.)	Pledged ($)	Recd ($)	Balance ($)
Mehta Foundation Endowment	1750.00	152.30	1597.70	25.00	2.00	23.00
Ranjit Singh Endowment	1330.00	213.60	1116.40	19.00	3.00	16.00
Arjun Dev Joneja Faculty Chair in Civil Engineering	150.00	150.00	0.00	2.00	2.00	0.00
BVR Mohan Reddy Family Endowment	100.00	100.00	0.00	0.00	0.00	0.00
1984 Class Fund	0.00	81.00	0.00	0.00	0.00	0.00
Next Generation Broadcasting Chair	128.70	128.70	0.00	1.80	1.80	0.00
Dr. Mahua Menon and Mr. Ranodeb Roy Young Faculty Research Fellowship	0.00	45.00	0.00	0.00	0.00	0.00
1995 Class SJR Fund	175.00	41.70	133.30	0.00	0.00	0.00
1980 Class Fund	200.00	29.50	170.50	0.00	0.00	0.00
AVIJIT LAL Memorial Fund	0.00	25.30	0.00	0.00	0.00	0.00
1997 Class Fund	0.00	24.00	0.00	0.00	0.00	0.00
1997 Class Fund	0.00	24.00	0.00	0.00	0.00	0.00
Shujaat Ishaq Memorial Fund	0.00	23.00	0.00	0.00	0.00	0.00
Diamond Jubilee IITK	0.00	18.90	0.00	0.00	0.00	0.00
1979 Class Fund	0.00	18.40	0.00	0.00	0.00	0.00
Mr. & Mrs. Gian Singh Bindra Chair	0.00	16.20	0.00	0.00	0.00	0.00
Dr. Rajendra Rathore Seminar & Scholarship Fund	0.00	15.80	0.00	0.00	0.00	0.00
Dr. Rukmini Saraswat Gold Medal	0.00	12.50	0.00	0.00	0.00	0.00
Student With Disability Project	0.00	11.90	0.00	0.00	0.00	0.00
Kinra Scholarship	0.00	11.00	0.00	0.00	0.00	0.00
Prof. Samares Kar Memorial Gold Medal	0.00	6.50	0.00	0.00	0.00	0.00
Shrimati Tara Dube and Shri Raj Deva Dube Memorial Gold Medal	0.00	6.30	0.00	0.00	0.00	0.00

SURGE 2019, an outreach program for students from other institutions in the country which is supported by alumni contributions was conducted during summer 2019. The selection of participants is highly competitive as thousands of applications from various institutions are received, and this testifies to the increasing popularity of the program among students across the nation.

SURGE Office is also responsible for coordinating the logistics for students who have been selected by academies (such as SRFP, IAS, INAE etc).

No.	Particulars	SURGE 18	SURGE 19
01.	No. of Applications	2000	1400
02.	No. of Participants	123	145
03	No. of Academy Participants	25	25
04.	No. of Faculty members from IIT Kanpur mentoring (SURGE participants)	85	99

ALUMNI IMPACT

A. Selected Notable achievements in the field of science and technology by our alumni:

Our alumni have been proud recipients of various honours and awards in various categories during F.Y. 2019-20 as per the following details:

Category of Award	Number of Awards
Academic Awards	9
Industrial Awards	1
Government Awards	5

Some of the major achievements are as follows:

S. No.	Award	Name of Alumni	Award Endowed by
1.	Nano Innovation Award	Dr. Sandeep Patil (PhD/CHE/2013)	Bangalore Nano Innovation
2.	National E-Governance 2020	Dr. Abdul Qayum (BT/CE/2008)	Department of Administrative Reforms & Public Grievances, GoI.
3.	Member of National Academy of Engineering, USA.	Dr. Jayathi Y Murthy (BT/ME/1979)	National Academy of Engineering, USA.

4.	Member of National Academy of Engineering, USA.	Dr. Pawan K Goenka (BT/ME/1975)	National Academy of Engineering, USA.
5.	Member of National Academy of Engineering, USA.	Dr. Rajeev Gautam (BT/CHE/1974)	National Academy of Engineering, USA.
6.	Director's Fellowship	Dr. Mohit Bansal (BT/CSE/2004)	The Defence Advanced Research Projects Agency (DARPA).
7.	Presidential Fellowship	Mr. Mahesh Parustkar (MSc/CHM/2016)	Ohio State University.
8.	Jacobus Fellowship	Mr. Karan Singh (BT/CSE/2015)	Princeton University.
9.	Sloan Foundation Research Fellowship 2020.	Dr. Monika Raj (PhD/CHM/2009)	Sloan Foundation.
10.	Padma Shri	Dr. HC Verma (MSC2/PhD/PHY/1978/1980)	Republic of India.
11.	SERB-STAR	Dr. Jayant K Singh (BT/CHE/1997)	Science and Engineering Research Board, India.
12.	SERB-STAR	Dr. Animangsu Ghatak (MT/CHE/1998)	Science and Engineering Research Board, India.
13.	India's Noted Officer	Dr. Abdul Qayum (BT/CE/2008)	Govt. of India.
14.	Bronze Medal 2020	Dr.Srivatsan Seergazhi Gopalan (PhD/CHM/2003)	Chemical Research Society of India.
15.	Fellow	Dr. Kamesh Subbarao (BT/AE/1993)	The Royal Aeronautical Society (RAeS).
16.	Award of Excellence (Digital India Initiative)	Mr. Chanchal Kumar (BT/MT/CSE/1990/1993)	State Govt. of Bihar.
17.	Shanti Swarup Bhatnagar Award, 2020 in Chemical Sciences	Prof. Jyotirmayee Dash (PhD/CHM/2003)	Council of Scientific and Industrial Research (CSIR), Gov. of India

B. Notable entrepreneurial endeavours by some of our alumni:

S. No.	Name of the Alumni	Entrepreneur in the field of
1.	Mr. Hari Shankar (BT/CE/2018)	Founder of Agnys Waste Management - Vegetable and crop waste converted into organic fertilizer that gives more yield compared to chemical fertilizers. Compost is ready for use in liquid as well as solid form in 12-20 days, which helps in organic farming.
2.	Dr. Sandeep Patil (PhD/CHE/2013)	Founder of Indeema Fibers. The company develops a high performance UHMwPE (Ultra High Molecular Weight Polyethylene) fibres for bullet proof and anti-ballistic applications using gel-spinning technique.
3.	Mr. Saumya Shankar (BT/MME/1995)	Founder Jamura Robotics - Robotacharya- A robotic teaching assistant. An AI enabled Intelligent and interactive tutor that provides enhanced learning outcomes through deeper engagement, continuously upgraded web content. Through advanced AI/ML technology, the robot will take attendance, talk to students, display and read content and play extra content from the web related to the topic.
4.	Mr. Nishant Agarwal (MS/ME/2018)	Founder Life and Limb - Life and Limb are developing an Affordable Multi Fingered Prosthetic Hand for Trans-radial Amputee. The prosthetic hand shall have innovative features like Multi-fit arm with adjustable straps, single actuator for simple design, Compound finger mechanism to actuate the fingers, etc.
5.	Mr. Nandan Mishra (BT-MT (Dual)/CHE/2012)	Founder Pingala AI - Pingala AI builds artificial intelligence systems for industries in Supply, Process,, Assets, Compliance, and Energy area to leverage the transformational power of AI through their edge and centralized solutions turning data into value for the customers. Their AI/ML platform caters to build Tacit ML and Deep Learning for Process and Supply, Process, Assets, Compliance, and Energy industry.

6.	Mr. Rushikesh Chaudhari (BT-ME (Dual)/AE/2017)	Founder Tecrient Space - Developed a Hybrid VTOL Drone that would be used as Seeding Drones, Mapping Services, Quadcopter, Oil and Gas Pipeline inspection, UAVs, Payload Delivery and Logistics Delivery.
7.	Mr. Shobhit Singh (MT/Earth Sciences/2018)	Terraqua UAV Solutions is dedicated to provide research based most efficient scientific solutions to the both govt and non govt organizations. They are researchers specialized in solving real world problems using their expertise in contemporary UAV technology.
8.	Mr. Sharad Tripathi (BT/1969/AE)	Co-founder Nishkam Technology - Nishkam Technologies provide HVAC design optimization for large buildings such as hospitals, schools, official building, malls, etc. for energy efficiency, pollution removal, pathogen safety and fire safety. Their CFD simulations give credible testing of airflow, increased efficiency of all kinds of barriers. Nishkam's simulations are also used for buses, metro trains and other public transit solutions.

C. Some Notable Professional Achievements by our alumni:

S. No.	Name of Alumni	Position
1.	Dr. Rishikesha Khrishnan (MSc/PHY/1986)	Director of IIM, Bangalore.
2.	Dr. V. Palaniappan (PHD/CHM/1988)	CTO of Aruvant Science Inc.
3.	Mr. Alok Agarwal (BT/AE/1987)	Appointed as the new Board Member of Prasar Bharti, India.
4.	Dr. Mahesh Gupta (BT/ME/1975)	Appointed as the nominee of UP Govt. on IIT Kanpur Board of Governors.
5.	Dr. Subramanian Anantha Ramkrishna (MSc/Physics/1995)	Appointed as Director of CSIR-CSIO, Chandigarh.
6.	Dr. Ajay Bhushan Pandey (BT/EE/1983)	Appointed as the new finance secretary of India.
7.	Dr. Arvind Krishan (BT/EE/1985)	Appointed CEO of IBM.
8.	Mr. R. K. Mathur (BT/ME/1975)	1st Lt. Governor of Ladakh

D. IITK Diamond Jubilee Events

To mark sixty glorious years of excellence of IIT Kanpur, IITK Alumni Association had planned to organize several Diamond Jubilee celebration events in different cities across the country. Two such events were held in Bangalore and Delhi. The remaining events that were to be held in Delhi and other cities were cancelled due to Coronavirus pandemic.

The first Diamond Jubilee event was held on 29 Nov. 2019 in Bangalore. The event was graced by Dr. K. Radhakrishnan, Chairperson, BoG, IITK, who was also the Chief Guest. At the event, industry leaders, academicians and IITK faculty gave talks on the role of industry and academia in spearheading the technology innovation and on an impactful collaboration between industry and academia.

IITK Alumni Association, Mumbai held second such event on 22 Feb. 2020 in Mumbai. The event witnessed some insightful speeches by top industrialists and government officials like, Dr. Krishnamurthy Subramanian on ethical wealth creation; Dr. Pawan Goenka on Future of Mobility in India; Mr. Sanjeev Puri on Agrisector.

E. Other Alumni Events

To mark the Diamond Jubilee Year of IIT Kanpur, special events were organized in the United States by our alums. IIT Kanpur was represented by the Director, Prof. Abhay Karandikar, Dean of Resources and Alumni, Prof. Jayant K. Singh, then Dean of Research & Development, Prof. S. Ganesh, Dean of Faculty Affairs, Prof. Debasis Kundu and Dean of International Relations, Prof. Yogesh Joshi. The events marked the felicitation of Mr. Ajeet Singh and Dr. Arvind Krishna, who could not attend the ceremony on IITK Foundation Day, 2 Nov. 2019. Events were interspersed with brainstorming sessions on stronger collaboration between our alumni and the institute and the role of alums in being the ambassadors of IITK.

F. Campaigns:

Various campaigns were launched to collect funds for different initiatives.

S. No.	Campaign Name (Memorial fund)	Amount Received (Rs. In Lakhs)
1.	Anand Prasad Gupta Memorial Fund	43.40
2.	Ankit Rathore Memorial Fund	35.00
3.	Dharmendra Srivastava Memorial Fund	3.30
4.	Shujaat Ishaaq Memorial Fund	22.97
5.	Vishesh Punjabi Memorial Scholarship	4.95

S No.	Campaign Name (Student & Community welfare)	Amount Received (Rs. In Lakhs)
1.	#OneAlumnusOneStudent	223.10
2.	#helpthehelpers	5.20

#OneAlumnusOneStudent proved to be one of the most successful campaigns of IITK. It was launched to raise funds for 600 undergraduate students, who come from economically weaker sections of the society, help provide them with IT hardware. Since IITK had decided to go completely online for at least semester-1 of the Academic Year 2020-2021 due to the Coronavirus pandemic, there were 600 such students who needed IT help in order to continue their studies online.

The campaign was launched on 22nd July 2020, and funds had to be collected by the end of August, as the semester was to begin on 1st September 2020. Donations poured in under CSR initiative and from our alumni to this cause amounting to Rs. 223.10 lakhs. The amount was used to reimburse IT hardware (laptop/broadband) cost purchased by students.

CSR Support for #OneAlumnusOneStudent

S. No.	Company	Amount Donated (Rs. In Lakhs)
1.	Kent RO Systems Ltd.	20.00
2.	Sterlite Tech Ltd.	25.00
3.	VPhrase Analytic Solutions Ltd.	1.50
4.	Sheela Foam Ltd.	1.00
5.	Pradeep Metals Ltd.	1.00

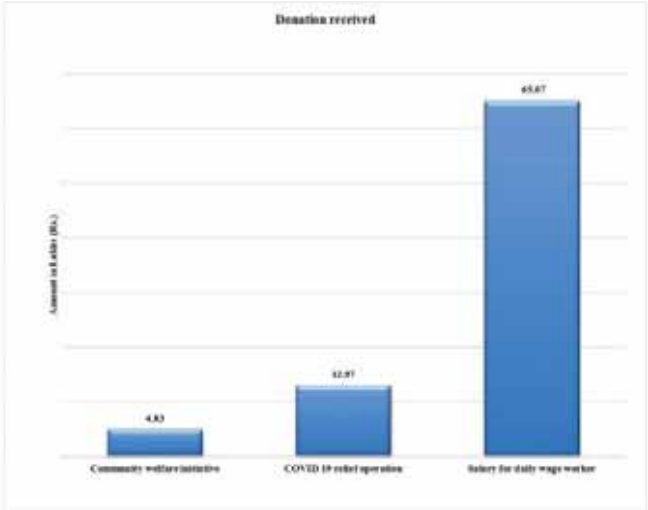
#OneAlumnusOneStudent	
Total Number of Donors (including CSR)	476
Maximum Number of IT Support Scholarships available.	442
Total Number of Students availed IT Support till date	291

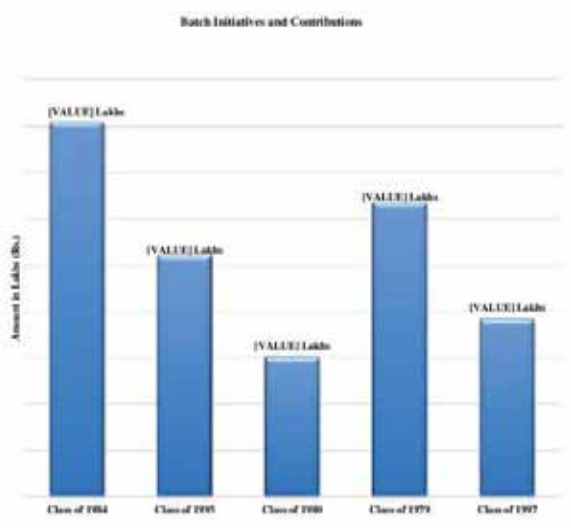
Campaigns During COVID-19 Lockdown

Many community welfare campaigns were launched during the Covid-19 lockdown. Community welfare campaigns were primarily targeted at migrant workers/daily wagers to help provide them with everyday food essentials. During Relief Operation that ran from 26 March till 18 April 2020, food packets to 13,700 families were delivered. The ration packet had sufficient food grains sufficient for a family for 10 to 12 days. For those without a kitchen, cooked lunch packs were supplied to Nagar Nigam for distribution. This amounted to freshly cooked and packed 11,000 food packets that mostly went to migrant workers like rickshaw walas.

Name of Donors	Batch/Degree/ Prog.	Amount In Lakhs (Rs.)
Dev Joneja	BT/ME/1984	220.8
Rahul Mehta		156.04
Ranodeb Roy	BT/CSE/1990	57.85
Alok Agarwal	BT/EE/1979	39.9
Atal Bansal	BT/EE/1995	28
Jagjeet Singh Bindra	BT/CHE/1969	23.42
Mahesh Gupta	BT/ME/1975	20
Vijay Anand Saraswat	BT/EE/1982	12.5
Alok Agrawal	BT/CSE/1994	11.38
Vikram Kinra	BT/ME/1967	10.96
Mahesh Nandurkar		10
Ravi Sethi	BT/ME/1968	7.11
Amitabh Misra	BT/CHE/1995	7.1
Sanjay Kasturia	BT/EE/1981	5.83
Gajendra Singh	BT/CHE/1981	5.28
Uday Mahagaonkar	BT/CHE/1970	5.2
Ajay Kumar Bagaria	BT/CHE/1984	5
Lokvir Kapoor	BT/ME/1987	5
Mukesh Bansal	BT/CSE/1997	5
Pankaj Keshri	BT/CE/1995	5

Major Donors (June 2019 – September 2020)





Major Donations received towards Endowment Activities (in lakhs) (Sept. 2019-Sept. 2020)

SCHOLARSHIP	AMOUNT IN LAKHS (Rs.)
Avijit Lal Memorial Scholarship	25.32
Dr. Rajendra Rathore Scholarship	10.96
Neela Namjoshi Scholarship	10.80
Pramodini Agarwal Scholarship	10.80
Vishesh Panjabi Memorial Scholarship	4.95
Kinra Scholarship	10.96
Sudarshan Kasturia Memorial Scholarship	10.96
Shri D. P. Shukla and Smt. Shiv Kumari Shukla Scholarship	10.50

AWARDS AND MEDALS	AMOUNT IN LAKHS (Rs.)
Dr. Rukmini Saraswat Gold Medal	12.05
Shrimati Tara Dube and Shri Raj Deva Dube Memorial Gold Medal	6.25
Prof. Samares Kar Memorial Gold Medal	6.50
Mahatma Choa Kok Sui Meritorious Award	5.00
Medal For Excellence in Education (2 Silver nos)	6.00
Bogineni Chenchu Rama Naidu Gold Medal	0.50
Jayesh Memorial Award	0.50

OTHER STUDENT INITIATIVES	AMOUNT IN LAKHS (Rs.)
Nath Travel Grant	2.00
Diamond Jubilee IITK	2.00
Student with Disability Project	11.85
Team Humanoid Fund	2.27
Team Motorsports Fund	0.96

FACULTY CHAIRS & FELLOWSHIPS	AMOUNT IN LAKHS (Rs.)
Arjun Dev Joneja Faculty Chair in Civil Engineering	150.00
Dr. Ranjit Singh Chair for Rozi Shiksha Kendra	75.00
Dr. Mahua Menon and Mr. Ranodeb Roy Young Faculty Research Fellowship	45.00
Class of 1984 Chair	81.01
Batch of 1993 Young Faculty Fellowship	38.39
Prof. G D Agarwal Chair	7.84
Class 1980 Young Faculty Fellowship	30.01
Mr. & Mrs. Gian Singh Bindra Chair	19.91

DISTINGUISHED LECTURE SERIES	AMOUNT IN LAKHS (Rs.)
Dr. Rajendra Rathore Seminar	10.00
U B Tewari Memorial Fund For Excellence in Research and Teaching	15.75
Prof. A. N. Bose Bio Entrepreneurship Distinguished Lecture Series	8.70

CSR INITIATIVES (June 2019–Sept 2020)	Amount in lakh (Rs.)
Vtol Aviation Instrument	355.80
AIA Engineering Ltd.	125.00
HDFC Bank	100.00
ICICI Securities Ltd.	50.00
Standard Chartered Bank	50.00
INFO Edge Indian Limited	50.00
TCS Foundation	76.93
Power Finance Corporate	35.85
IDEA Cellular Ltd	5.00
REC Foundation	32.38
Portescap India Pvt Ltd.	30.00
Sterlite Technologies Ltd.	25.00
Ericsson India Global Services Pvt Ltd.	20.00
Penam Laboratories Ltd.	20.00
Kent R O Systems Limited.	20.00
Suraj Logistic Pvt Ltd.	19.50
Goods and Services Tax Network.	16.74
Nutanix En Engagements	10.00
Raramuri Tech. Pvt Ltd.	10.00
Bigzette Systems Pvt Ltd.	2.00
Prescience Insilico	1.00
Total	**1055.20**

INSTITUTE FACULTY

Recruitment

In the past one year, the Institute has offered 55 faculty positions against a rigorous selection from 1027 applicants. Out of these, 38 new faculty members have joined the Institute. The appointments per department are mentioned below:

Department	Number of new faculty
Aerospace Engineering	2
Biological Sciences and Bioengineering	2
Chemical Engineering	2
Chemistry	7
Civil Engineering	5
Earth Sciences	1
Electrical Engineering	1
Humanities and Social	1
Industrial and Management Engineering	1
Materials Science and Engineering	2
Mathematics & Statistics	5
Mechanical Engineering	2
Physics	2

During this period, we have also made 67 offers of post-doctoral fellowships, 16 visiting faculty, 16 adjunct faculty, and 2 Distinguished Honorary Professors.

Awards and Honours

Our faculty has played a significant role in pushing the frontiers of knowledge. This has been duly recognized in the form of various awards and honors, including fellowships of professional societies and editorships of international journals.

I am extremely happy to share with you the wonderful news that Professors Sudhir Kumar Jain (CE) and Harish Chandra Verma (PHY) has been awarded Padma Shri this year. Dr. Bushra Ateeq (BSBE) has be selected for the Shanti Swarup Bhatnagar Prize in Medical Sciences for the year 2020.

Dr. Arun Kumar Shukla (BSBE) has received the Young Scientist Award by Prof. H. S. Srivastava Foundation given for outstanding contributions in the emerging areas of Science and Technology. Dr. Bushra Ateeq (BSBE) has be selected for the Sayeeda Begum Women Scientist Prize 2019. Dr. Arun Shukla (BSBE) has been selected for the Young Chemical Biologist award 2019 by the International Chemical Biology Society (USA). Dr. Jayandharan Rao (BSBE) has been awarded the prestigious 2019-Global Hemophilia ASPIRE [Advancing Science through Pfizer Investigator Research Exchange] research award instituted by Pfizer Inc. USA. Dr. Arun K. Shukla (BSBE) has been selected for the Sun Pharma Research Award, for the year 2019 by SunPharma Science Foundation. Dr. Bushra Ateeq (BSBE) has been selected for the CSIR-CDRI Award-2020 for the excellence in drug research under Life Sciences category. Dr. Bushra Ateeq (BSBE) has been selected for the Wellcome Trust/DBT India Alliance, Senior Fellowship Award by Wellcome Trust/DBT India Alliance. Dr. Bushra Ateeq (BSBE) has been selected for CNR Rao Faculty Award for the Excellence in Research 2019 by IIT Kanpur. Professor Jayant K. Singh (CHE) has been chosen for SERB - Science and Technology Award for Research (SERB STAR) for the year 2019. Professor Animangsu Ghatak (CHE) has been chosen for SERB - Science and Technology Award for Research (SERB STAR) for the year 2019. Professor Jitendra K Bera (CHM) has been selected for Silver Medal by Chemical Research Society of India (CRSI) in recognition of his excellent contributions to research in chemistry. Dr. Basker Sundararaju (CHM) has been chosen for Merck Young Scientist Award by Merck. Professor D. H. Dethe (CHM) has been selected for the Bronze Medal of Chemical Research Society of India (CRSI) in recognition of his excellent contributions to research in chemistry Dr. Dharmaraja Allimuthu (CHM) has been chosen for Har-Gobind Khorana Innovative Young Biotechnologist Award (IYBA) by Department of Biotechnology (DBT)-India for the year 2019. Professor Sandeep Verma (CHM) (currently on deputation as Secretary, SERB) has been selected for the Shri S.R. Thakore Memorial Lecture (2020)Professor J. N. Moorthy (CHM) (currently on deputation as Director of IISER Thiruvananthapuram) has been awarded the SASTRA-CNR Rao Award for excellence in Chemistry and Materials Science for the year 2020. Professor Sandeep Verma (CHM) (currently on deputation as Secretary, SERB) has been selected for the Distinguished Alumnus Award of Banaras Hindu University. Professor Vinod Singh (CHM) has been selected for Prof. Asima Chatterjee Life Time Achievement Award Lecture-2020 by Asima Chatterjee Foundation. Professor Tarun Gupta (CE) has been chosen for the V. N. M. M. Award-2017 of IIT Roorkee. Professor Tarun Gupta (CE) has been selected for N C Nigam Chair Professor by IIT Kanpur. Professor Tarun Gupta (CE) has been awarded Gold Medal for the innovation "Electro-Surgical Cautery" by International Innovation Fair (IIIF) 2019 in NSIC Hyderabad. Professor Sudhir Kumar Jain (CE) has been awarded Padma Shri. Dr. Gaurav Tiwari (CE) has been awarded IGS-Prof. Leonard's Annual Award for the year 2018. Dr. Sandeep Anand (EE) has been selected for "NASI-Young Scientist Platinum Jubilee Award - 2019". Dr. Ketan Rajawat (EE) has been selected for the INAE Young Engineer Award 2019. Professor Rajiv Sinha (ES) has been selected for Lalit Mohan Kapoor Chair by IIT Kanpur. Professor Indra Sen (ES) has received ATAL

New India Challenges by NITI Aayog. Professor Debajyoti Paul (ES) has received Excellence-in-Teaching award by IIT Kanpur. Professor Braj Bhushan (HSS) has been selected for Platinum Jubilee Lecture at 107th Indian Science Congress 2020. Dr. Pradip Swarnakar has been selected for Distinguished Visiting Scholar by University of Technology Sydney, Australia. Professor E C Subbarao, the First regular head of the department of Metallurgical Engineering (MSE), IIT Kanpur is conferred the LIFE TIME ACHIEVEMENT AWARD by the National Academy of Engineering, India. Professor Dipak Mazumdar (MSE) has been awarded National Metallurgist Award 2019 by Ministry of Steel, Govt. of India. Professor K. Balani (MSE) has been awarded Nanomaterials and Energy Prize for the year by Institution of Civil Engineers, London, UK. Professor K. Biswas (MSE) has been selected for Ranjit Singh chair - 2019 by IIT Kanpur. Professor Kallol Mandal (MSE) has been selected to receive "Excellence in Teaching Award" during Teacher's Day Function 2019 by IIT Kanpur. Professor Subhra Shankar Dhar (MTH&S) has received the prestigious C. R. Rao National Award given by the Ministry of Statistics and Programme Implementations, Government of India. Professor Shantanu Bhattacharya (ME) has been selected to receive the Er. M. P. Baya National Award-2019 by Institution of Engineering, India. Professor Shantanu Bhattacharya (ME) has been selected for the NASI Reliance Platinum Jubilee Award-2019. Dr. Manjesh Kumar Singh (ME) has been awarded the first prize for his contributed oral talk at recently held IndiaTrib 2019 at IISc Bangalore, jointly organized by the Tribological Society of India and IISc Bangalore. Professor P. Venkitanarayanan (ME) has been selected for F. Zandman Award by Society for Experimental Mechanics, USA. Professor P. Venkitanarayanan (ME) has been selected to receive Excellence in teaching award by IIT Kanpur. Dr. Saurabh Mani Tripathi (PHY) has been awarded the IPA S. N. Seshadri Memorial Instrumentation Award in Physical Sciences – 2018 conferred by the Indian Physics Association. Dr. Joydeep Chakrabortty (PHY) has been selected for Buti Foundation Award for Excellence in Theoretical Physics, Astro physics and Biophysics for 2018. Dr. Anjani Kumar Tiwari (PHY), INSPIRE faculty fellow, has been awarded the prestigious INSA Young Scientist Medal 2019. Professor Harish Chandra Verma (PHY) has been awarded Padma Shri.

STUDENTS' AWARDS

The many prestigious scholarships and awards received by our students have been a matter of pride and pleasure for us. Ishanh Misra, Yatin Dandi, Durgesh Rajendra Agrawal, Yugesh Ajit Kothari, Anish Saxena, Gargi Singh, Varun Goyal received the Aditya Birla Scholarship. Parameswar Pal received ACC Fellowship. Akansh Agarwal, Nandita Gupta, Akhilesh Kumar Gupta, Prateek Yadav, Varenya Srivastava received the O.P. Jems scholarship. Aman Saraf, Suyash Singh received Honda Yes scholarship. Shivani Agarwal received Pratibha Eaton Awards.

The full lists of awards received by the faculty and students are given at the end of the report.

STUDENTS' ACTIVITIES

Students' Gymkhana, IIT Kanpur has strived to provide a platform for the students to hone their skills in extracurricular activities, becoming one of the most robust student-driven body even in the nation. Believing in the importance of societal and humane engagements for the holistic development of an individual, it has always been supported by the Institute in pursuing cultural activities, sports or exploring technical opportunities and other possible avenues to help students explore their interests. Here are some of the highlights over the last year of the Students' Gymkhana:

Entrepreneurship Cell

Entrepreneurship Cell (E-Cell), IIT Kanpur is a non-profit student's organization dedicated to promoting the spirit of entrepreneurship amongst the campus community.

Throughout the academic year, E-Cell conducts a plethora of events, lectures and workshops with **eSummit** as the annual flagship entrepreneurial event of IIT Kanpur.

E-Cell also conducted **Startup 10**1 which is a lecture series on entrepreneurship and startup related topics. E-Cell also conducted a week-long event named **'Business Week'** where a number of strategic competitions and activities were conducted, and **'Campus Hangouts'** were organized to enhance entrepreneurial know-how of the campus students.

Cloth collection Drive was a social initiative carried out over a span of two months. The collected clothes were taken to Mandhana for distribution among the unprivileged. This social initiative received appreciation from **MHRD Ministry** and our institute.

Vox Populi

The true essence and sanctity of journalism was upheld by the campus' journalism body, Vox Populi; which brought itself a step closer to growth, and the campus community, nearer to the truth.

Vox also explored some new ideas to mark its presence amidst a larger audience by initiating a number of new series like:

Entrepreneurship series: to highlight the facilities/programs available for the community to achieve their entrepreneurial goals.

The unorthodox career choices series: to take us through the stories of those who took up the non-conventional career routes.

Voxatire: to highlight the campus' alarming issues.

A photographic series called the Nostalgia Sunday IITK: which gave us the stories and experiences of everyone who's been a part of IITK.

Vox Populi also brought back the Senate Samachar which bridged the gap between the Students' Senate and Students, and the Fresher's Print Edition which has stories majorly directed towards the freshers.

Outreach Cell

Outreach Cell conducted several activities throughout the year with the aim to strengthen alumni relations and improve student-alumni interaction through events like Alumni Chapter Meets and Alumni Buddy Program.

"Alumni Chapter Meets" was conducted in major metropolitan cities like Bangalore and Mumbai which witnessed great participation from students interning at these locations.

"Alumni Buddy Program" saw tremendous participation of around 150 alumni and 350 students. Along with this, 2000 alumni connections were made through LinkedIn.

In **"Tips from the Top"** series we not only increased the number of Alumni talks this year but also focussed on covering every niche domain of careers (Corporate (Consulting, Finance, etc.), UPSC, Research, etc.).

On the Institute publicity front, we conducted **"That's IITK"** and **"Ask IITK"** campaigns. "Ask IITK" campaign provides a platform to post any query with #AskIITK on Facebook regarding any aspect of IIT Kanpur and someone from IIT Kanpur gets back to them. While "That's IITK" focussed on releasing blogs on all platforms surrounding a student life on all aspects from gymkhana activities, branch-wise studies, to foriegn internships, sem-ex experiences etc.

Community Welfare Cell

The Community Welfare Cell is a student group that is committed to learning, understanding and helping the society within the institute as well as in its vicinity. CWC works in majorly five major domains - education, blood donation, spiritual well being, sustainable development, and awareness about gender and sexuality diversity.

Prayas worked to educate underprivileged sections of society. Apart from holding regular classes for children, we work towards the personality development of students by organising competitive events in dance, painting, poetry, and games and sports.

Prakriti worked in the field of environmental awareness,

social innovations, and impact assessment.

Raktarpan is dedicated to decrease the shortage of blood

and increase awareness about blood donation among the campus community. Last financial year, we helped Blood

Banks to collect about 671 blood units, handled more than

500 helpline requests and organised multiple awareness sessions throughout the year.

Unmukt is working to address the gender and sexual diversity in the community and to achieve equality against discrimination. And for this discussions, talks and meetings were held with the volunteers and the faculty advisor.

Vivekanand Samiti is working to spread the message of Swami Vivekananda among the campus residents, and helping the entire community tackle its problems through motivation and inspiration. They conducted regular meditation sessions, Geeta classes and various talks by eminent speakers. They also conducted various health camps and donation drives as part of run-up to convocation.

Students' Senate

The main policy drafting body of the Students' Gymkhana worked on and legislated various policies this year. Some of the major highlights are mentioned below:

- Various new entities like Design and Animation Club, Speedcubing Club, Brain & Cognitive Society, GameDev Society, Product Development Wing and Finance & Analytics Club were introduced in the Gymkhana catering to the varying interests of students.
- Provisions Provision of Reasonable Accommodations for **Differently-Abled Students in SPO exams** was considered to address the barriers faced by persons with disabilities during the whole process of Internship and placements
- Proposal for reformation of **Departmental Societies** was considered and accepted by the Senate to inculcate an academic environment in which students get all the support that they need in their departments at different points of time during their stay at IIT Kanpur.
- A review of the working of Gymkhana was conducted and various changes were made in the policies of Students' Senate and the structure of different bodies of the Gymkhana to improve their functioning. The concept of **Societie**s was introduced leading to a 3-tier system of Clubs, Societies and Hobby Groups in Councils.
- Various Constitutional reforms were introduced like increasing female representation in the Senate, making the Senate more transparent and open to the General Body Members, making the Gymkhana documents gender neutral and introducing the concept of NoTA in Senate elections

Media and Cultural Council

The Media and Cultural Council is the epitome of all the activities falling in media and cultural domain of the campus. Comprised of over 14 clubs and hobby groups, the highlights of this year were:

- **Montage:** The annual literary, film, media and art festival was conducted after a gap of 2 years.
- **Cultural Meet 4.0:** IIT Kanpur's contingent performance witnessed an exponential rise in rankings in Cultural Meet 4.0 held at IIT Bombay. IIT Kanpur achieved overall **5th position among all IITs participated** in this edition compared to 9th in 2019.

- Policy Conclave: The second edition of Policy Conclave, an intra-campus event designed for the IITK community, was successfully conducted from 29th February to 1st March. Students' opinion. Society organized various sessions on the theme "POLICY RESEARCH". This aimed at proposing more research on policies related to issues of international importance and policy research as an alternate career option. This was aimed to engage the students with the research aspect of Public policy and to provide them with exposure to have a look at this as a career option.

Science and Technology Council

The Science and Technology council has witnessed a

remarkable year setting many milestones along the way. With the support of the Institute, we've seen an increase in our participation as well as performance on the National and International platforms.

8th Inter IIT Tech Meet – IIT Roorkee
The 7th Inter IIT Tech Meet was held in IIT Roorkey during 20th to 22nd December, 2019. IIT Kanpur participated with a contingent of about 50 people in all the competitive and non-competitive events. We secured 2nd runners up position bagging medals in 7 **(3 Gold, 3 Silver and 1 Bronze)** out of 8 competitive events.

Team ERA IITK
Team ERA-IITK, participated in **DJI Robomasters Challenge** held in Montreal, Canada and won the 3rd prize for IIT Kanpur.

TEAM IGVC (now known as TEAM VISiON)

Team IGVC (now known as Team VISiON) participated in **Intelligent Ground Vehicle Competitio**n organised at Oakland University, Michigan and won the **Lescoe Trophy** for IIT Kanpur standing at an overall 2nd position among 37 participants in 3 challenges. Team IGVC stood 3rd in the AutoNav Challenge, 3rd in Interoperability Challenge and 4th in Cyber Security Challenge.

TEAM Humanoid
Team Humanoid participated in **FIRA HuroCup 2019** held in South Korea and stood **5th in Archery Challenge** while participating in all the challenges, viz. Spring, Archery, Marathon, Basketball, Weightlifting.

Collaboration with Technopark@IITK
Technopark was one of the major additions to the institute this year, providing immense opportunities to the whole campus, especially the Science and Technology

Research & Development
This year the council has also contributed to the research community, one of the major milestones being the acceptance of paper in the prestigious ICML workshop: Machine learning for global health.

Council Activities for Campus Students
The council has grown to 7 Clubs, 5 Societies, 6 Institute SNT Teams and 2 Wings. They organised a number of lectures and workshops on topics ranging from finance and consulting to Game development, thus covering every aspect of students' interest fields

ACADEMIC AND CAREER COUNCIL

UG Wing:
The Academics and Career Council has witnessed a glorious start to its first year, with a lot of collaborative and stand-alone activities organised by all the wings to promote awareness and opportunities for research and career among the campus community:

- **The International Relations Wing** joined the OIR office staff in organising and streamlining various activities along with assisting them in their works, eliminating the gap between administration and students.
- **The Career Development Wing** kicked off its first year with organising the first of its kind Placement Preparation Season and Internship Preparation season, along with spreading awareness about different opportunities and career paths using collaborations with various organisations.
- **The Research Wing** routinely conducted a number of events, talks, and sessions, covering various aspects of research and work (including career options, research opportunities (on & off campus), guidance sessions, departmental orientation sessions, and technical workshops).
- **The UG Academics Wing** acted as a primary division in helping the students to contact Institute bodies for academics and related purposes. It advocated for the need to incorporate new changes in the academic curriculum and catered to the needs of students.

PG Wing:
During the session 2019-20 PG wings conducted sessions to spread awareness and increase the involvement of students. The core team of the council with inter-wing collaboration has increased the reach of the council to the

general body. The classified wing wise report is described below:

- **PG Academics Wing:** Some initiatives are taken by this wing are
  - PG Academics Orientation.
  - Session on presentation skills.
  - Data collection of Duration of completion of the degree: PG Academics wing has initiated department -wise data collection for outgoing Ph.D. students to seek a suggestive agenda before administration to take corrective steps.
- **Research Wing:** The wing has conducted two sessions focused on research facilities, benefits of professional society, and paper writing skills in collaboration with Materials Advantage at IITK.

- **Research @IITK, Facilities & Scope:** First event of the wing (13/08/2019) was focused on research orientation and it was useful for new (Y19) as well other batch students. During the session, students were familiarized with major facilities and available research opportunities at institute. Further Mr. Vineeth Vijayan (Student Chair, IEEE PES IITK Chapter) delivered a talk on benefits of professional societies.
- **Research Paper Writing:** A session on "Research paper writing, writing skills and techniques for scientific journals" was conducted in collaboration with Materials Advantage @ IITK. Prof. Kantesh Balani (Materials Science and Engineering) delivered a talk on writing skills, approx. 400+ students attended the session.
- **International Relation Wing:** The IR decided the following to be its main objectives:
  - To create awareness about the existing foreign opportunities among the campus community.
  - To enhance and increase the opportunities for the campus students to go abroad (for collaborative work, exchange programs, conferences etc.) To achieve our objective, we are working in close contact with the Office of International Relations. The following are the events organized by the Wing:
  - **INSPIRE'19:** INSPIRE session was an initiative of IR wing to felicitate transfer of knowledge among the student body for those who are interested in pursuing higher education abroad.

Games and Sports Council

This year, some of the new initiatives were the change of the structure of Freshers Inferno and Main Inferno. It also offered a chance to show their talent, explore a new sport, and get a bite of action all the while playing and competing with their batchmates.

IIT Kanpur successfully hosted several workshops including archery, ultimate, boxing, kabaddi, Horse riding and a District Athletics Championship in the campus. Adventure Club successfully conducted the Kedarkantha Trek, Dodital Trek, Manali - Leh - Khardungla Cycling, Kanchenjunga Base Camp Trek (KBC), Goechala Trek-Sikkim, Sandaphu Trek- West Bengal, and Sarpass Trek-Himachal Pradesh. Shooting Club and Skating Club hosted several workshops throughout the year.

Our teams have once again proved their mettle yet again in this year's Udghosh. Almost all teams bagged medals with 4 teams bagging gold in spite of Udghosh seeing a rise in competition level due to participation of several colleges with sports quota.

Inter IIT Sports Meet

The Aquatics Men and Women teams participated in the 35th Inter IIT Aquatics Meet held at IIT Guwahati. The teams performed well and bagged Silver in the Water Polo (Men) and overall 3rd position in Women's Swimming.
Our performance in Inter IIT 2019 was better than last year. Overall, Girls contingent has improved significantly and did well this InterIIT, bagging GOLD medal in Table Tennis(W), SILVER medal in Badminton(W), BRONZE medal in Squash(W), 3rd position in Swimming(W) and 4th position in both Basketball(W) and Volleyball(W). We stood 3rd in the General Championship(Women).

On the other hand, Boys secured SILVER medal in Cricket, Squash(M) and Waterpolo(M), 3rd position in Athletics(M) and 4th position in Weightlifting. We stood 6th in the General Championship(Men). We had hard luck this time, but it only motivates us to improvise more and rise strong. Also, Mr. Soumarup Bhattacharyya had his record lift of 109kg(C&J) & bagging the title of 'Mr. InterIIT', and Mr. Gaurav Kumar for another record lift this year.

FESTIVALS

Antaragni

The cultural festival, Antaragni reached new heights in its 54th edition where the team successfully managed a festival, with footfall of over 1.25 lakh.

The theme of the festival was 'A Jester's Dominion', and lasted from 17th to 20th October 2019. These four days were flooded by magnificent performances by students from around 250 colleges of the country, accompanied by showcases by national and international artists of varied styles and artforms.

The festival started off with performance by the band, Gian Nobilee.This was followed by a performance from the Skrat, followed by When Chai Met Toast. The last

night led us to the final night, concluded by the performance of Shankar Ehsaan Loy.

Techkriti

The technical and entrepreneurship festival, Techkriti saw its 26th edition with Techkriti '20. With the theme of 'Cybernetic Utopia, representing the endless possibilities and plethora of opportunities for everyone to nurture their technical and entrepreneurial skills, the festival created a utopian worldview with its earnest efforts to showcase technical and entrepreneurial advancements around the globe.

This Techkriti was featured with a historic edition of Techkriti Open School Championship (TOSC) which was held in 2 phases with 1st phase being held on 13th October 2019 in 25 cities all over India and 2nd phase on 22nd December 2019.

Technocruise, which happens to be based on the vision, taking the festival to each city and conducting various workshops and zonal rounds of our flagship events, witnessed great participation and enthusiasm from students in 28 cities in the Indian Subcontinent.

Techkriti, for the very first time, conducted a Non-core weekend from 28th February to 1st March. The event consisted of various competitions, talks, and panel discussions focused on the finance industry, portfolio management, and technology in finance.

Techkriti'20 also did various social campaigns to fulfill its social responsibility including Health Campus for Institute students, workers, and mess workers on the campus. A new initiative known as NOSH (No One Sleeps Hungry), was introduced in this edition.

Udghosh

The UDGHOSH 2019 edition witnessed more than 40,000 footfall with nearly 1500 participants from more than 200 colleges all across India. With the introduction of new events like Swimming, Ultimate Frisbee, Women handball. Initiatives like Udaan (sports for specially abled), in which Mr. Muralikant Petkar(First Paralympic Gold medal & 1965 war hero) was invited as Chief Guest to motivate all the participants of Udaan and this was organised under supervision of CDAP. Performances of Mallkambh artists and India's Got Talent finalist caught attraction of freshers' in orientation. This year Udghosh welcomed Former Hockey India Captain Sardara Singh Apart from sports, Udghosh also witnessed Indian-Rock concert (Sitar Metal) and Comedy Night by Nishant Suri and Rahul Dua, Talks by Anisha Dixit (a Youtuber known as Rickshawali) and Satyarup Siddhanta(youngest mountaineer in the world and the first from India to climb both the Seven Summits as well as Seven Volcanic Summits) The festival also included Mr. Udghosh a body-building championship judged by Mr. Mahendra chavan (World Champion body-building 90kg category) and Rohit Khatri (Fitness Expert on YouTube).

Other Highlights

1. The long pending Chowpatty initiative is finally on roll within this CEMMC's tenure. Chowpatty offers five food outlets ranging from South Indian, Chinese, Snacks, shakes to a full fledge non veg shop.
2. Shiru Café was inaugurated this year on 10th November 2019, and it had its unique marketing strategy of offering 3 free drinks a day per student, faculty or staff of IIT Kanpur.
3. A comprehensive Health Camp was conducted at Health Centre,IIT Kanpur from 8th June to 3rd August which catered to more than 550 undergraduate, postgraduate and non-student campus residents. The camp included check-up of cholesterol and haemoglobin levels, TSH and urine test along with blood work and ECG.
4. The first day of the camp (8th June) was attended by around 250 people followed by ~ 50 people on a weekly basis.

COUNSELLING SERVICE

Overview and Team Strength

The Counselling Service (CS) primarily provides emotional, academic and financial assistance to students. The CS tries to bring the human touch in a highly competitive academic environment and lends a helping hand to those students who are in emotional, academic or financial distress, thereby trying to create a home away from home.

CS consists of a team of professional counselors, psychiatrists and a group of student volunteers dedicated towards the welfare of the student community. Currently, there are 3 professional counselors, 1 assistant counselors and 3 psychiatrists who regularly visit the Institute.
The student team comprises an undergraduate wing and a postgraduate wing. The UG wing has 5 core team members. They have 13 assistant coordinators and 6 guidance team members. Further there are approximately 140 student guides, 115 academic mentors and 3

volunteers, whereas the PG wing has 8 Core Team members and 75 volunteers.

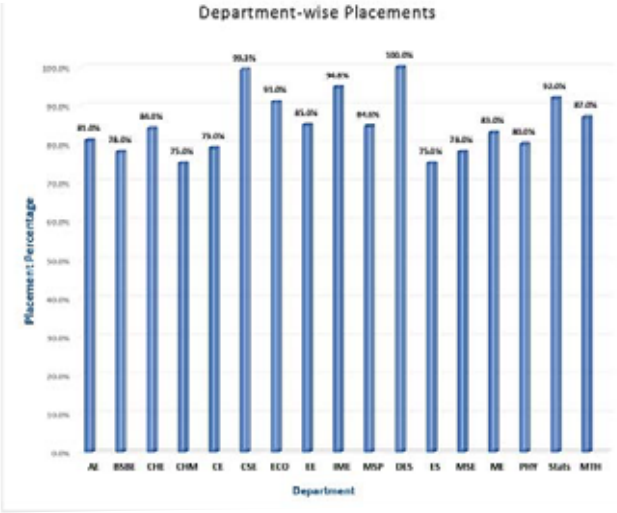
Counselor and Psychiatrists' Sessions
Students typically meet the counselors in two modes – they sometimes approach the counselors of their own volition or they are referred to the CS by their friends, faculty members, psychiatrists or the doctors at the Health Centre. Students with academic difficulty are also encouraged to meet the counselors for relief.

The psychiatrists typically visit the campus at least twice a month. If the need arises, then they visit more often. One of the psychiatrists, in fact visits the Health Center every Saturday and many of the students in need consult him there. In times of an emergency, the student is directly sent to the psychiatrist's clinic, along with an attendant. All the activities related to a psychiatrist's visit are coordinated by the Counselling Service.

The Counseling Service also has taken two initiatives in the previous session. The first was the deaddiction clinic, which addresses the problems of students facing any kind of addictions. The second was a mental health initiative titled "Samvad." Numerous programs were held over the calendar year under the banner of Samvad. The programs have had a lot of impact on the community.

Financial Assistance
Through the STUDENTS BENEVOLENCE FUND (SBF), the Counselling Service provides financial assistance to needy students in the form of scholarships. This is available for those financially needy students, who have been unable to acquire any other financial assistance from the institute. The SBF scholarship is Rs.1500 per month and given for a period of 9 months. Apart from this, SBF Loans are also available to those who are in dire need of money.

STUDENT PLACEMENT
1136 students had registered with Student Placement Office for Campus Recruitment Drive 2019-20. As with previous years, recruitment drive for the academic year 2019-20 was held in two phases. Phase 1 of recruitments officially started on 1st of December and extended till 13th December 2019. Approximately 297 recruiters visited campus during Phase 1 to hire students for full time employment. 41 top tier firms from various sectors visited campus for recruitment on December 1st where an unprecedented 277 job offers were extended to IITK students. Based on hiring numbers, the top recruiter for placement season was Bajaj Finance Limited, which hired 35 students. Other top recruiters of the season were Microsoft India Pvt Ltd, Qualcomm India Pvt Ltd, Samsung, Goldman Sachs, Intel Technology India Pvt Ltd, EXL services etc. Phase 2 of recruitments started in January and extended till June, 2020. More than 335 companies visited IITK campus for recruitment during the two phases of placements. A summary of department wise placement record for the current placement season is included in figure below.



Approximately 86% of the graduating batch (975 out of the 1136 registered students) were placed through Student Placement Office during the academic year 2019-20. This includes students in both UG and PG levels. 463 out of 532 registered students in B. Tech and B.S. degree programs (approx. 87.03%) were placed during the season. UG placement count also includes 116 accepted PPOs extended to them as part of academic internship provided through SPO.

Approximately 84.8% of registered PG students (512 out of 604) were also placed through SPO during campus recruitment drive. Amongst the various post graduate programs, Master of Design (M. Des.) recorded 100% placements followed by MBA where 94.3%, and dual degree program where 94.2% of the students got placed during the current placement season.

EPILOGUE
Amidst the global health crisis and disruption in all activities caused by Covid-19 pandemic, it is indeed an unprecedented situation in the history of IIT Kanpur as well. It is for the first time that we are forced to have a virtual convocation! I am indeed saddened that we cannot host all of you on our beautiful campus to celebrate this momentous occasion in your life.

The graduating students lost their precious moments of their final years on the campus when all the halls of residence had to be vacated in the interest of good health and well-being of all of you. While I am deeply saddened that those moments lost cannot be regained, 'life has to move forward'.

On this most momentous occasion, let me congratulate those who are being awarded their degree! Those who are beaming with great joy and a sense of accomplishment! Hearty Congratulations!! Further, I also extend my heartfelt congratulations to their parents and family, who have made a lot of sacrifices in educating their children in IIT Kanpur.

I also congratulate all awards and medal winners. At this Convocation, we are conferring Outstanding PhD Thesis Awards for the first time. Congratulations to all PhD

scholars. I feel immensely happy that you all have achieved this great feat and I can be a part of this special day of your life.

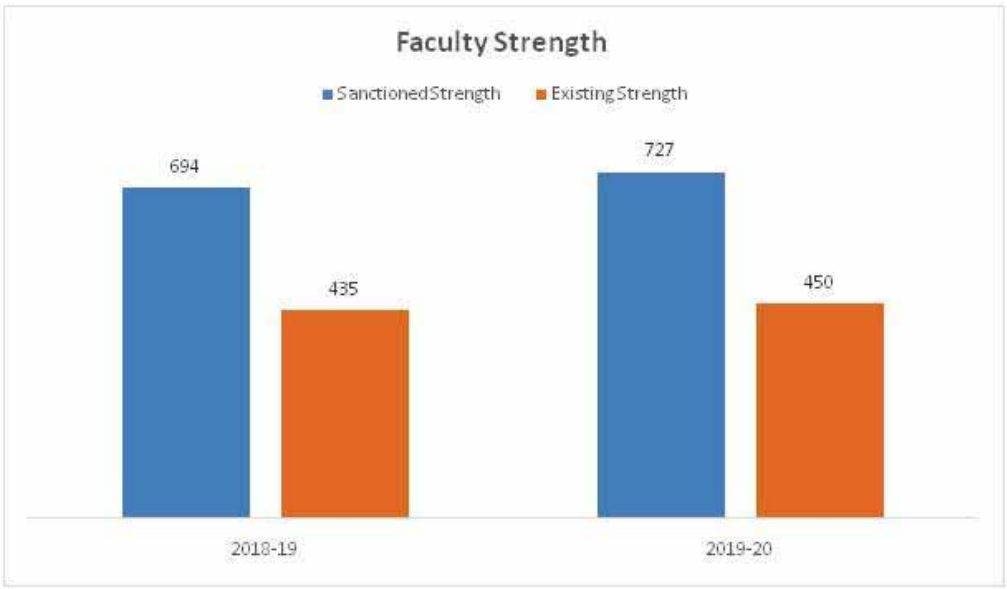
Considering the fact that you are graduating during these extraordinary times, there may be hurdles ahead, and there may be crisis in job opportunities and traditional employment options. I earnestly urge you not to get disheartened but be optimistic and be on the lookout for the opportunities. I am aware that some of you have lost their jobs, some others have deferred placements. Institute will make every effort to help you with our vast network of alumni and industry connects.

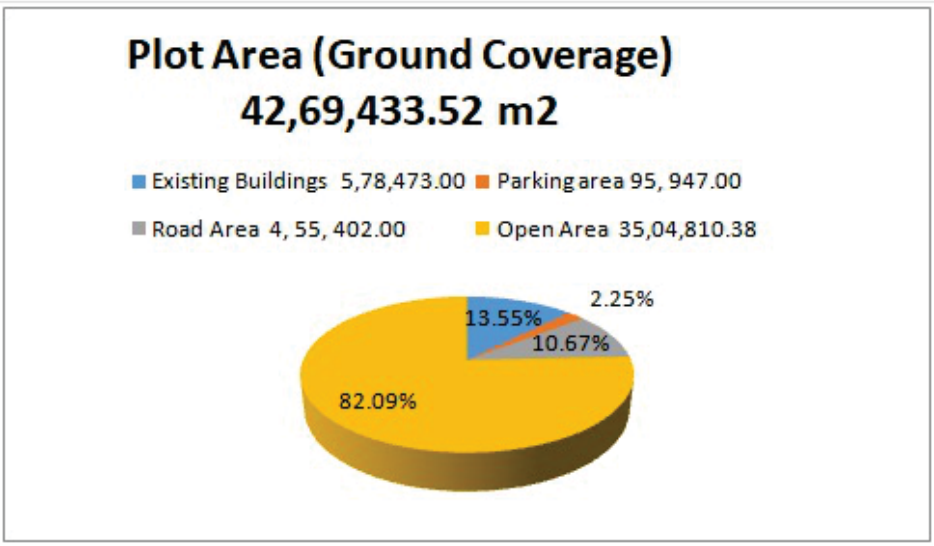
The role of youth in nation building is vital and tremendous. Admittedly, the responsibility on the youth in the present day situation is enormous. Our country is undergoing a significant economic and social transformation. There has been an increasing focus on reducing the dependence on other nations and developing an indigenous ecosystem. The Govt of India has launched several initiatives such as 'Vocal for Locals', 'Atmanirbhar Bharat', 'Make in India', 'Start-up India', etc. These initiatives and the associated enabling environment offer tremendous opportunities for the youth - especially talented IIT graduates such as you - to become 'job-givers' rather than 'job-seekers'. I am confident that the energy and enthusiasm of the young talent in an enabling environment can do wonders.

I wish you all the best in your future endeavours – in whatever you do, stay focussed, and work with passion. Remember that you are in a privileged class, who have been fortunate to have received the best education in the country. It is now your turn to give back to the society and the nation. I assure you that IIT Kanpur will always be there to support you. Stay in touch and enhance the glory of your alma mater wherever you go!
With the hope to meet you someday on our beloved campus when things return to normal! Stay healthy, and stay safe.

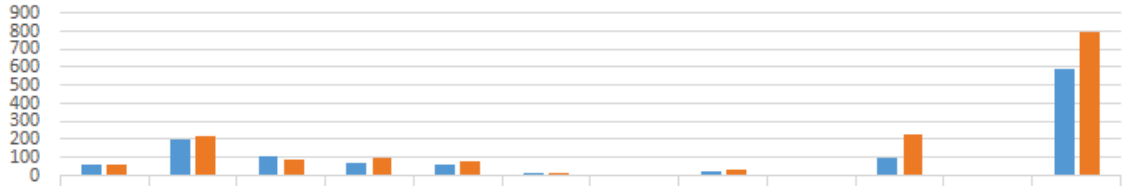
Link: https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/Books_published.pdf

INSTITUTE AT A GLANCE



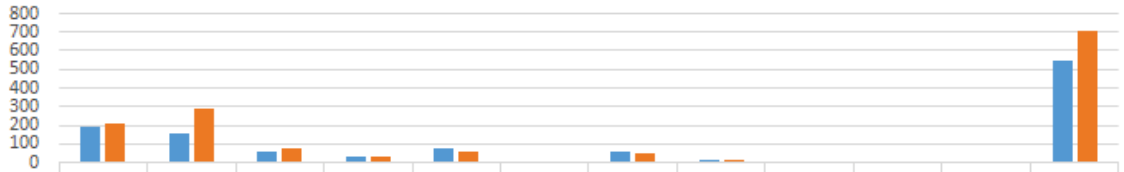


Details of Income (Rs in Crore)



	Academic receipt	Grants against salary	Grants against pension	Grants against others	Grants against Scholarship	Grants against HEFA interest	Grants against PM Research	Income from investment	Interest earned	other income	Prior period income	Total
2018-19	57.91	194.01	105.4	66.31	53.7	5.83	0.49	17.29	1.63	91.02	0.85	595
2019-20	59.51	217.58	87	97.71	71.8	7.72	1.31	24.8	2.8	229.36	0	800

Details of Expenditure (Rs. in Crore)



	MHRD Grant Salaries	MHRD Grant Retirement and terminal benefits	MHRD Scholarships	Other Academic Expenses	Administration and General Expenses	Transportation expenss	Repairs & Maintenance	Finance Costs	Depreciation	Other expenss	Prior Period expenses	Total
2018-19	189.37	149.59	53.7	24.83	70.12	0.07	52.14	7.03	0.2	3.72	0.33	552
2019-20	209.05	291.42	71.8	26.31	50.82	0	46.23	7.93	0.22	4.05	0.03	708

ORGANIZATION
(as on 31st March 2020)

List of Members of the Board of Governors
[From 1st April, 2019 to 31st March, 2020]

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Chairman, BOG, IIT Kanpur
Antariksh Bhavan
New B.E.L. Road
Bengaluru – 560 231

Members:
Prof. Abhay Karandikar
Director
Indian Institute of Technology, Kanpur
Kanpur – 208016

Council Nominees:
Dr. S. S. Sandhu (Ex-officio)
Additional Secretary (Technical Education)
Ministry of Human Resource & Development
Shastri Bhawan,
New Delhi – 110001

Prof. T. N. Singh
Vice-Chancellor
Mahatma Gandhi Kashi Vidyapith (MGKVP)
Varanasi – 221 002

Prof. Uday Shanker Dixit
Department of Mechanical Engineering
IIT Guwahati
Guwahati – 781039

Shri Deepak Ghaisas
Chairman & Chief Mentor
Gencoval Strategic Services Pvt Ltd.
501 Windfall, Sahar Plaza Complex,
Andheri- Kurla Road, Andheri (East),
Mumbai-400059

State Government Nominee:
Prof. S.N. Singh
Vice Chancellor
Madan Mohan Malaviya University of Technology
Deoria Road,
Gorakhpur – 273010

Senate Nominees:
Prof. Debopam Das [upto 31.12.2019]
Department of Aerospace Engineering
Indian Institute of Technology Kanpur
Kanpur – 208 016

Prof. M.L.N. Rao [upto 31.12.2019]
Department of Chemistry
Indian Institute of Technology Kanpur
Kanpur – 208016

Prof. Goutam Deo [w.e.f 01.01.2020]
Department of Chemical Engineering
Indian Institute of Technology, Kanpur
Kanpur - 208016

Prof. Shalabh [w.e.f 01.01.2020]
Department of Mathematics & Statistics
Indian Institute of Technology, Kanpur
Kanpur - 208016

Secretary:
Shri K.K. Tiwari
Registrar
Indian Institute of Technology Kanpur
Kanpur – 208016

List of Members of the Finance Committee
[From 1st April, 2019 to 31st March, 2020]

CHAIRMAN

Dr. K. Radhakrishnan
Chairman, BOG, IIT Kanpur
Antariksh Bhavan
New B.E.L. Road
Bengaluru – 560 231

MEMBERS
Prof. Abhay Karandikar
Director
Indian Institute of Technology, Kanpur
Kanpur – 208016

Dr. S.S. Sandhu (Ex-officio)
Additional Secretary (Technical Education)
Ministry of Human Resource & Development
Shastri Bhawan,
New Delhi – 110001

Smt. Darshna M. Dabral
Joint Secretary & Financial Adviser
GOI, Department of Higher Education
Ministry of Human Resource Development
Shastri Bhawan,
New Delhi – 110 001

Shri Deepak Ghaisas
Chairman & Chief Mentor
Gencoval Strategic Services Pvt Ltd.
501 Windfall, Sahar Plaza Complex,
Andheri- Kurla Road, Andheri (East)
Mumbai-400059

Prof. M.L.N. Rao [upto 31.12.2019]
Department of Chemistry
Indian Institute of Technology, Kanpur
Kanpur – 208016

Prof. Shalabh [w.e.f. 01.01.2020]
Department of Mathematics & Statistics
Indian Institute of Technology, Kanpur
Kanpur - 208016

Secretary:
Shri K. K. Tiwari
Registrar
Indian Institute of Technology Kanpur
Kanpur – 208016

List of Members of the Building & Works Committee
[From 1st April, 2019 to 31st March, 2020]

CHAIRMAN

Prof. Abhay Karandikar
Director
Indian Institute of Technology, Kanpur
Kanpur – 208016

MEMBERS
Prof. Manindra Agrawal
Deputy Director
Indian Institute of Technology, Kanpur
Kanpur – 208016

Prof. Debopam Das [upto 31.12.2019]
Department of Aerospace Engineering
Indian Institute of Technology, Kanpur
Kanpur – 208016

Prof. Goutam Deo [w.e.f. 01.01.2020]
Department of Chemical Engineering
Indian Institute of Technology, Kanpur
Kanpur - 208016

Prof. Manoj Mathur
Department of Architecture
School of Planning & Architecture
New Delhi – 110 002

Shri A.K. Jain
Retd. Special DG, CPWD (Electrical)
Flat 9-B, Tower-X, Meghdutam Apartments
Plot F-21-C, Sector-50, Noida (UP) – 201 301

Shri B. M. Agarwal
Retd. Engineer-in-Chief, UP Irrigation
102, Ravinder Garden
Sector-E, Aliganj, Lucknow – 208016

Prof. Y.N. Singh
Dean of Infrastructure & Planning
Indian Institute of Technology, Kanpur
Kanpur – 208016

Secretary:
Shri K.K. Tiwari
Registrar
Indian Institute of Technology Kanpur
Kanpur – 208016

External Senate members

Prof. N.B. Singh
Vice Chancellor
Harcourt Butler Technical University Kanpur

Dr. Rishi Seth
MD, DM FRCP (Edinburgh)
National Executive Member of Cardiological Society of India
Professor, Deptt. of Cardiology
King George's Medical University, Lucknow

Prof. Neeraj Dwivedi
Dean (Programs)
IIM Lucknow
Prabandh Nagar, IIM Road
Lucknow UP – 226013

INSTITUTE FACULTY

Recruitment
In the past one year, the Institute has offered 55 faculty positions against a rigorous selection from 1027 applicants. Out of these, 35 new faculty members have joined the Institute. The appointments per department are mentioned below:

Department	Number of new faculty
Aerospace Engineering	2
Biological Sciences and Bioengineering	2
Chemical Engineering	2
Chemistry	7
Civil Engineering	5
Earth Sciences	1
Electrical Engineering	1
Humanities and Social Sciences	1
Industrial and Management Engineering	1
Materials Science and Engineering	2
Mathematics & Statistics	5
Mechanical Engineering	2
Physics	2

During this period, we have also made 73 offers of post-doctoral fellowships, 12 visiting faculty, 19 adjunct faculty and 01 Distinguished Visiting Professor.

https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/List_of_Faculty.pdf
Please see the link below for Journals and Articles:
Link: https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/DOFA.pdf

ACADEMIC PROGRAMMES

EDUCATIONAL GOALS

Education in the Engineering Stream should produce trained manpower for maintaining and advancing technological growth. The scope of engineering education should evolve based on the evaluation of technological growth for its relevance to the prosperity of the country. The educational strategy in this context should help to develop a knowledge industry and the systems involved in this endeavor should strive for furtherance of knowledge.

The academic goals of the Indian Institute of Technology Kanpur from the viewpoint of its teaching programme are as follows:

- To prepare the students for the highest level of excellence in science and technology and to produce competent, creative and imaginative scientists and engineers.
- To promote a spirit of free and objective inquiry in different fields amongst the students and motivate them for higher studies and research.
- To foster an inter-disciplinary approach, and promote the concept of virtual research departments by bringing together faculty and students into activities of mutual interest.

TEACHING PROGRAMMES

The Institute offers instruction in various disciplines of science and engineering, both at undergraduate (UG) and postgraduate (PG) levels. These programmes are planned and implemented by the Academic Senate of the Institute. Micro-management of these programmes is carried out by the Senate Undergraduate Committee (SUGC) and the Senate Post-graduate Committee (SPGC), respectively. The development of these programmes is monitored by the recently introduced Senate Curriculum Development and Monitoring Committee (SCDMC). Apart from this, the programmes are subject to a comprehensive review once every 10 years by the Academic Review Committee (ARC) constituted for this purpose.

Undergraduate Programme

The Institute offers the following undergraduate programmes:

- Four-Year BTech Programmes in Aerospace Engineering, Biological Sciences & Bio-engineering, Chemical Engineering Civil Engineering, Computer Science and Engineering, Electrical Engineering, Materials Science and Engineering, and Mechanical Engineering.
- Four-Year BS Programmes in Chemistry, Earth Sciences, Economic Sciences, Mathematics & Scientific Computing, and Physics.

The four-year undergraduate programme consists of two parts having duration of about four semesters each. The first part is primarily the Core Programme common to all students, and is carefully planned to give the students a strong base of basic education in Mathematics, Physics, Chemistry, Technical Arts, and Humanities and Social Sciences. The second part of the undergraduate programme consists of the Professional courses and a project in the chosen branch of specialization.

Two-Year MSc Programme
The Institute also offers Two-Year MSc Programmes in Physics, Chemistry, Mathematics and Statistics, where students with B.Sc. (Hons.) background are admitted through an all-India entrance examination known as JAM (Joint Admission Test to Master of Science). These programmes have been largely responsible for the scientific manpower in Indian research institutes and universities.

Postgraduate Programme
The postgraduate programme is intended to prepare students to enter their professions with a perspective and breadth of knowledge related to the principal areas in their respective fields of specialization through courses as well as specialized research experience. A postgraduate student is typically enrolled for three or four courses each semester until he/she advances to a point where the principal requirements of the programme left to be fulfilled are research and thesis.

MTech Programme
We have MTech Programmes in all the core Engineering Branches of Aerospace Engineering, Biological Sciences & Bio-engineering, Chemical Engineering Civil Engineering, Computer Science and Engineering, Electrical Engineering, Materials Science and Engineering, and Mechanical Engineering. In addition, there are MTech Programmes in interdisciplinary areas such as Photonics Science and Engineering, Materials Science, Nuclear Engineering and Technology, and Ennvironmental Engineering and Management. The MTech students are chosen through an all-India examination known as GATE and further written test/interview in some cases.

MBA Programme
The MBA Programme is offered by the Department of Industrial Management and Engineering (IME). The students admitted to this programme are selected through an all-India examination known as CAT followed by the interview and group discussions.

MDes Programme
The MDes Programme is offered by the Interdisciplinary Programme in Design. The students are selected through the all-India examinations, CEED and/or GATE, followed by the written test/interview.

Doctor of Philosophy (PhD)
The academic programmes leading to the degree of Doctor of Philosophy (PhD) exists in all the Engineering Departments and the Interdisciplinary Programmes (IDPs) of Cognitive Science, Design, Environmental Engineering and Management, Nuclear Engineering and Technology, and Photonics Science and Engineering, The PhD Programmes are also offered in the Departments of Chemistry, Earth Sciences, Economic Sciences, Mathematics & Statistics, Physics, and Humanities and Social Sciences (English, including Literature, Linguistics, and Language Teaching, Fine Arts, Philosophy, Psychology and Sociology).

The PhD programme culminates in research on a selected topic leading to a thesis submitted in partial fulfilment of the requirements for the degree.

MS By Research
The Institute also offers a Postgraduate Programme known as MS (By Research) in the following disciplines: Aerospace Engineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Environmental Engineering and Management, Mechanical Engineering, and Photonics Science and Engineering. The objective of this programme is to promote research at the Masters level, including industry sponsored research.

MS-PhD Dual Degree
The Department of Physics offers a MSc-PhD Dual Degree Programme. The admission is through JAM (Joint Admission Test to Master of Science), and the MSc students migrate to the PhD Programme after the completion of their MSc Programme.

MTech and PhD Joint Degree
The Institute has initiated the award of additional Masters with PhD, whereby an additional MTech/MDes degree is awarded to students with the PhD degree subject to the fulfillment of certain specified academic requirements. This provision has been introduced for candidates who join the PhD programme directly after BTech/BS and other bachelors programmes.

The MTech, MDes, MS ®, and PhD students receive financial support through research/teaching assistantships.

RESEARCH ENVIRONMENT
IIT Kanpur has demonstrated its excellence in research in many areas. To cite a few areas: Finite Element Methods Using Domain Decomposition, Flow Induced Vibrations, Wind Tunnel Testing of Large Scale Prototypes, Computational Chemistry, Nano-materials and Nano-technology, Geometric Optimization of Large Organic Systems, Genomics and Bio-Informatics, Electronic Structure Calculations, Aggregation and Etching, Molecular Dynamics, Thin Film Dynamics, Optical / EM Field Calculations, Computational Fluid Dynamics and Heat Transfer, Computer Aided Design and Rapid Prototyping, Tomography, Robotics, Multi-Body

Dynamics, Geo-seismic Prospecting, Stress Analysis and Composite Materials, Vibration and Control, Semiconductor Physics, Photonics, Neural Networks and Genetic Algorithms, Earthquake Engineering, Spin Fluctuations in Quantum Magnets, Quantum Computation and so on.

Some of the more recent research initiatives include Alternative Energy, 5G Telecom Technology, Real Time Data Transmission, Air Quality Monitoring Systems, Development of Indigenous Blockchain Platform, Unmanned Aerial systems, Aerospace Materials, Biodegradable Materials, Aircraft Engine Combustion Design, Wind Turbine Design, Waste Water Treatment, Supramolecular Chemistry, Catalysis, Two Dimensional Materials, High Performance Computing, Corrosion, Himalayan Glaciers, Biomaterials, New Drug Delivery Systems and so on.

CONTINUING EDUCATION AND OUTREACH ACTIVITIES

National Programme on Technology Enhanced Learning (NPTEL), a joint initiative of the MHRD, IITs and IISc Bangalore, has 121 of its 600 courses developed by the faculty members at IIT Kanpur. NPTEL Phase IV has proposed several new activities that are in tune with the Central Sector Scheme (CSS) of MHRD and are compliant with the Massive Open Online Courses (MOOC) initiative. It is expected that the CSS and MOOC compliant e-content under NPTEL IV will play an important role towards an affordable and high-quality online and open access education drive of MHRD. The mooKIT, which has been developed from ground up, is a lightweight MOOC management system with several innovations. It comes in multiple versions including an offline version where the MOOC can be distributed over SD cards. More than 20 MOOCs have been delivered on it and more than 2,00,000 students from around 100 countries have learnt from it. It is likely to be released in open source by December 2018. The broad aim of the project CSS-MOOCs is to facilitate the competitiveness of Indian Industry in the global markets by improving the quality and reach of education. The operational objective of CSS-MOOCs is to make high quality learning material available to students of different institutions across the country. The target group for this project consists of students and faculty members of institutions offering Undergraduate/Postgraduate education in India.

In 2017, NPTEL Chapter of IIT Kanpur supported Abdul Kalam Technical University (AKTU) by conducting a whitelisted course, Non-conventional Energy Resources, for more than 45,000 BTech Final Year students from 273 affiliated colleges.

Under MHRD's Swayam Prabha initiative of taking education Directly to Home (DTH), thirty-two DTH channels have been started out of which IIT Kanpur is currently managing two. These channels broadcast the NPTEL course content in Mechanical Engineering, Humanities and Social Sciences, and Management 24x7.

Link: https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/DOAA.pdf

RESEARCH AND DEVELOPMENT

IIT Kanpur has registered steady growth in its research and development activities this year. The number of externally funded ongoing projects has reached 788 with a total sanctioned amount of Rs. 1065.99 crore. During 2019 - 2020, the Institute received sanctions for 200 sponsored projects worth Rs. 179.90 crore and 131 consultancy projects of value Rs. 28.09 crore.

Some of the major grants sanctioned by various agencies during the year include Department of Science & Technology (DST, Rs. 56.65 crore), Science & Engineering Research Board (SERB, Rs. 26.33 crore), Government of Delhi (Delhi) (Rs. 20.40 crore), Biotechnology Industry Research Assistance Council (BIRAC, Rs. 19.69 crore), Bill and Melinda Gates Foundation (Rs. 12 Crore).

Some of the major industries which have funded projects this year include Himachal Pradesh Pollution Control Board, Vikram Sarabhai Space Centre, Larsen & Toubro, UP Pollution Control Board, and UP State Industrial Development Authority.

During the year, 84 IPR's were filed by the Institute including 65 Patents, 13 Design Registration, 3 Trademarks and 3 Copyrights. 46 previously filed IPRs were granted and 2 technologies were licensed to industries.

Till date, 655 IPRs have been filed, out of which 208 have been granted so far along with 110 technologies licensed for commercialization.

A total of 61 companies are currently incubated at Startup Innovation and Incubation Centre (SIIC), IIT Kanpur and 62 have graduated so far.

Link: https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/DORD.pdf

Professor A.R. Harish
Dean, Research & Development

The Scheme for Promotion of Academic and Research Collaboration (SPARC) aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and/or international relevance.

The expected outcomes of this program include tangible results in terms of large quantity of high quality research publications, solution to key national and international problems, development of niche courses, high quality textbooks and research monographs, imbibing of best practices from top international academicians and researchers, strong bilateral cooperation, and improved world reputation and ranking of Indian Institutions. Fifteen SPARC projects, with the amount of Rs.866 lakhs have been sanctioned to IIT Kanpur from the first call in the year 2018 to 2019. The details of respective projects are appended below:

Name of PIs	Project Titles
Ashok Kumar	Sparc: Development Of 3d Printable Bone And Nerve Guiding Drug Eluting Composite Implants For Vertebral/Spine Trauma In Infection/Tuberculosis And Cancer
Arijit Kundu	Sparc: Topology, Interaction And Environmental Control Of Quantum Information Processing
B Bhattacharya	Sparc: Vibration Absorption Using Metamaterial Based Composites
Balaji Devaraju	Sparc: Development Of Precise Gravimetric Geoid Model For India Using Terrestrial, Airborne And Satellite Gravity Data
Laxmidhar Behera	Sparc:Deployment Of Low-Cost Multi-Rotor Mini-Uavs For Early Detection Of Crop Diseases And Development Of An Optimal System For Management Of Farming Activities
Pankj Jain	Sparc:Observation And Phenomenology Of Ultra High Energy Cosmic Ray Neutrinos At Anita, Ara And Arianna And Other Detectors
Salil Goel	Sparc:Park-It: Advanced Parking Information And Management For Indian Traffic
Santanu De	Sparc:Lean Premixed Prevaporized Combustion Of Diesel And Biofuels In A Laboratory-Scale Gas Turbine Combustor
Vipul Arora	Sparc: Machine Learning For Lattice Quantum Chromodynamics
S Ganesh	Sparc: Stabilizing Neurodegenerative Polyglutamine Repeat Fibrils By Sufex Chemistry: A Combined Synthetic And Biophysical Investigation
B V R Kumar	Sparc: Development And Neurological Application Of High Definition Fibre Tracking (Hdft)
Rakesh Kumar	Sparc: Development Of Computational Model For Multi-Physics
	Simulation Of Flows During Planetary Landing Of Spacecrafts
Indranil Saha	Sparc:Developing Safe And Secure Autonomous Cyber-Physical Systems
Nilesh P Gurao	Sparc: Adding Value To Additive Manufacturing-Advanced Characterization **Of The Structure-Properties-Performance Of Ti6a14v**
P. Murali Prasad	The Socio-Economic Costs Of Road Crashes In India - Evaluation of The Role of Ex-ante and Ex-post Policies

Project Number: IMPRINT-5223 (IITK Project No. - MHRD /EE /2016408X)
Project Title: GaN HEMT based circuit design solutions and product demonstration for defense and space applications
Project Investigator: Prof. Yogesh Singh Chauhan
Co-Investigator(s)/Collaborators (if any): Prof. K. V. Srivastava and Sandeep Anand
Project Initiated on: 21-03-2017

Project objectives
We aim to enhance, test and distribute our ASM-HEMT model (Advanced SPICE Model for GaN HEMT) implemented in the industry standard PDK for RF and high-power product development. Our compact model has been accepted for the industry standardization at Compact Model Coalition (CMC). Further validation of

our model with measured data and demonstration of PDK will be carried out on both RF circuits such as power amplifiers and power circuits such as DC-to-DC converters etc. The technology will be transferred to DRDO and ISRO and also implemented on industrial software tools from Keysight technologies. This project is of prime importance to industry and organizations with immediate applications in RF circuit design for defense, satellite or base station applications.

Progress report
The research goals which have already been achieved, are highlighted below:

- Current dependent nonlinear source/drain access resistance model is implemented in the surface potential-based model ASM-HEMT for GaN HEMTs.
- Temperature dependence of carrier mobility, velocity saturation, threshold-voltage.
- Surface-potential based compact model is developed for the capacitance of an AlGaN/GaN HEMT dual field-plate (FP) structure, including the Cross-Coupling and Substrate Capacitance effects.
- A first order trapping model based on R-C sub-circuit network is developed and verified for both power and high-power RF GaN HEMT technology.
- The kink-effect normally observed in S22 and gain-frequency plot for AlGaN/GaN HEMTs is captured in the model. The presence of this kink in the Smith-plot of S22 severely affects the design of the output matching network for amplifiers based on these devices.
- The gate current model is enhanced by including Fowler-Nordheim tunneling component which is becoming important for the precise modeling of gate current at low temperature and at high reverse biases for the AlGaN/GaN HEMTs with higher Al mole fraction in the barrier layer. This will in turn help to predict accurate noise figures.

Highlights

- Our ASM-HEMT for GaN transistors is now industry standard model.
- Indian agencies – ISRO and DRDO as well as global semiconductor companies are using the model and design kits.
- Our model is available in commercial Electronic Design Automation (EDA) softwares from Keysight, AMCAD, Silvaco etc.

Prof. Phiala Shanahan (MIT, USA) Project Number: MHRD-EE-2018558
Project Title: Sparc: Machine Learning for Lattice Quantum Chromodynamics
Project Investigator: Dr. Vipul Arora, IIT Kanpur
Co-Investigator(s)/Collaborators (if any):
Prof. William Detmold (MIT, USA)
Prof. Laxmidhar Behera (IIT Kanpur)
Prof. Dipankar Chakrabarti (IIT Kanpur)
Project Initiated on: 15.03.2019

Project objectives
To develop machine learning (ML) algorithms for problems already identified in LQCD (e.g., generating lattices with desired statistical properties or observables at given parameters). To identify further avenues in LQCD that can benefit from ML, and develop ML techniques for them. To develop courses and open source tools.

Progress report
We had Prof. Detmold and his PhD student visit IIT Kanpur in January 2020 for research discussions. Our students worked with them. They gave institute and departmental talks too. Our students learnt tools to generate LQCD data, developed by them. We are developing techniques to model Monte Carlo simulations using generative deep learning. We have developed techniques using generative adversarial networks, variational auto-encoders and flow-based generators. Currently, we are working on conditioning the generator models on the given parameters for simple statistical models. Next, we will be employing these methods for LQCD models, starting from scalar phi-4 theory.

Highlights

- Set up tools for LQCD data generation and evaluation of lattices
- Developed generative machine learning methods for faster sampling of lattices
- Developing conditioned generative machine learning methods for dealing with critical zones.

Project Number: MHRD/CS/2015251
Project Title: PMMMNMTT Teaching and Learning Centre IIT Kanpur
Project Investigator: Dr. T.V. Prabhakar,
Co-Investigator(s)/Collaborators (if any): Dr. C.S..Upadhyay
Project Initiated on : November 2015
Approval letter and date: F.No.3-13/2015-PN. II, Dated September 30, 2015

Project objectives
The Teaching and Learning Centre will work at multiple levels to enable stakeholders to improve, adopt, and evolve with expectations, needs and challenges of contemporary education.

- At the Individual faculty member level we create, demonstrate and facilitate mechanisms for Teacher enablement and quality improvement
- At the Institutional level we work on Curriculum audit, Curriculum design, Curriculum adoption strategy, Faculty Up-gradation to enable the overall capabilities of the Institute
- At Technology level we will design and develop powerful electronic platforms to enable the above the two modes of interaction.
- Envisaged budget is Rs.4.3 crores for setting up the Centre and a recurring expense of 1.004 crores per year

Essentially we cover the two aspects of an Institute that

are tightly linked to teaching and learning: the Curriculum, the Faculty who deliver the Curriculum.

Progress report

Activity Report: April 2019 to March 2020

To meet the project objective Massive Open Online Courses (MOOCs), face-to-face workshops and flipped classes were offered on the mooKIT platform. The mooKIT platform has also evolved in this period. The details of activities performed during the period from April 2019 to March 2020 are:

1. Innovation and implementation of features in mooKIT
2. Offered MOOCs, Workshops and Flipped Classes

MOOCs: 48
Face-to-face Workshops: 03
Flipped Classes: 03
Participants Trained: 1,16,001

Details of the courses/workshops and software development are given below:

- Table 1: MOOCs from IITK
- Table 2: agMOOCs - MOOCs in Agriculture
- Table 3: Other MOOCs Using mooKIT Technology Support from IITK
- Table 4: Face to Face Workshops
- Flipped Courses Offered at IIT Kanpur Technology support is provided by mooKIT
- Detailed list of Platform/Software Development

Table 1: MOOCs from IITK

S. No.	Title	Date	Number of Participants
1	Quantum Mechanics *Dr. H C Verma (IIT Kanpur)*	15 Aug - 24 Oct 2019	28,138
2	Advanced Course on Special Theory of Relativity Dr. H C Verma (IIT Kanpur)	26 Jan - 26 Apr 2020	21,605
3	MOOC with mooKIT Dr. T. V. Prabhakar, IIT Kanpur	15 Jan - 15 Feb 2020	550
4	Criminal Justice Data Analysis Dr. Arvind Verma (IIT Kanpur)	15 Mar - 22 May 2020	105
		Total	50,398

Table 2: agMOOCs - MOOCs in Agriculture

S. No	Title	Date	Number of Participants
1	Fundamentals of Agricultural Extension Dr. B. Jirli (BHU, Varanasi)	25 Mar - 24 May 2019	3,288
2	Resource Management in Rainfed Drylands *Dr. G M Sujith, (UAS, Bangalore)*	25 Mar - 05 May 2019	3,759
3	Employment Generation among Rural Youth through Agripreneurship *Dr. Ram Datt (BAU, Sabour)*	11 Jun - 30 Jul 2019	5,750
4	e-Extension *Dr. B. Jirli (BHU, Varanasi)*	15 Oct - 301 Nov 2019	4,343
5	Detection, Diagnosis and Management of Plant Diseases *Dr. B. K. Sarma (BHU, Varanasi)*	15 Oct - 30 Nov 2019	4,641
6	Design Thinking for Agricultural Implements *Dr. Janakarajan Ramkumar, Dr. Amandeep Singh Oberoi (IIT Kanpur)*	15 Oct - 15 Dec 2019	3,378
7	Conservation Agriculture based sustainable intensification, *Dr. Ram Datt (BAU, Sabour)*	12 Feb - 27 Mar 2020	5,460
8	Diagnosis of Crop & Stored grain pests & their Management, Dr. Prabhuraj A. (UAS Raichur)	12 Feb - 27 Mar 2020	4,693
		Total	**35,312**

Table 3: Other MOOCs Using mooKIT Technology Support from IITK

S. No.	Title	Date	Number of Participants
1	Basics of C Programming *Dr. Kushal Shah, IISER Bhopal*	17 Jun - 18 Jul 2019	259
2	Evolving as Facilitative Teacher for Sustainable Development *(UNESCO Open Education for Better World Program)* *Sandeep Patil, Azad College of Education, Satara (M.S.)*	20 May - 09 Jun 2019	129
3	Designing Collaborative Instructional Design using OERs *(UNESCO Open Education for Better World Program)* *Dr. Rekha Chavhan, S.N.D.T Women's University, Mumbai*	14 May - 09 Jun 2019	50
4	Integrating OERs for Science Education *(UNESCO Open Education for Better World Program)* *Dr. Deepa Verma, Head, Department of Botany, VIVA College of Arts, Commerce & Science, Virar (W), Maharashtra*	20 May - 09 Jun 2019	66
5	Development of research based pedagogical tools (RBPTS) for science education *(UNESCO Open Education for Better World Program)* *Dr. Rohan Vilas, Mamta Gavankar, VIVA College*	20 May - 09 Jun 2019	63
6	Counseling Skills for Teachers *(UNESCO Open Education for Better World Program)* *Dr. Poonam Sharma, Amity University, Mumbai*	20 May - 09 Jun 2019	63
7	Emotional Intelligence *(UNESCO Open Education for Better World Program)* *Dr. Seema Sharma, Dr. Manav Rachna University, Faridabad, Haryana*	20 May - 09 Jun 2019	70
8	Being Inclusive by Action *(UNESCO Open Education for Better World Program)* *Dr. Babita Parashar, Manav Rachna University, Faridabad*	23 May - 12 Jun 2019	61
	(PGDAEM MANAGE MOOCs)		
9	101: Introduction to Agriculture Extension Management (PGDAEM MANAGE MOOCs)	2016 - 2020	663
10	102: Communication of Agricultural Innovations (PGDAEM MANAGE MOOCs)	2016 - 2020	663
11	103: Grading and Assaying (PGDAEM MANAGE MOOCs)	2016 - 2020	663
12	104: Storage Pest and their Management (PGDAEM MANAGE MOOCs)	2016 - 2020	663
13	201: Warehousing Receipt Management (PGDAEM MANAGE MOOCs)	2016 - 2020	663
14	202: Agri-Business and Entrepreneurship Development (PGDAEM MANAGE MOOCs)	2016 - 2020	663
15	203: Project Management in Agriculture Extension (PGDAEM MANAGE MOOCs)	2016 - 2020	663
16	204: Information and Communication Technologies for Agriculture Development (PGDAEM MANAGE MOOCs)	2016 - 2020	663
17	205: Sustainable Livelihood in Agriculture (PGDAEM MANAGE MOOCs)	2016 - 2020	663
18	AEM 206 Project work (PGDAEM MANAGE MOOCs)	2016 - 2020	663

19	101: Conceptual and Regulatory Framework (PGDAWM MANAGE MOOCs)	2019 - 2020	142
20	102: Warehouse Business and Operations (PGDAWM MANAGE MOOCs)	2019 - 2020	142
21	103: Grading and Assaying (PGDAWM MANAGE MOOCs)	2019 - 2020	142
22	104: Storage Pest and their Management (PGDAWM MANAGE MOOCs)	2019 - 2020	142
23	201: Warehousing Receipt Management (PGDAWM MANAGE MOOCs)	2019 - 2020	142
24	202: Risk Management (PGDAWM MANAGE MOOCs)	2019 - 2020	142
25	203: Warehousing Cost Management (PGDAWM MANAGE MOOCs)	2019 - 2020	142
26	204: Record Management and Technology (PGDAWM MANAGE MOOCs)	2019 - 2020	142
27	205: Relationship Management (PGDAWM MANAGE MOOCs)	2019 - 2020	142
28	206: Supplementary Material (PGDAWM MANAGE MOOCs)	2019 - 2020	142
29	Blockchains For Managers - Introduction and Applications *Dr. T. V. Prabhakar, IIT Kanpur*	05 May - 16 Jun 2019	932
30	Introduction to Sustainable Development in Business *Open University of Mauritius*	01 - 28 Jun 2019	1141
31	Introduction to Sustainable Development in Business *Open University of Mauritius*	15 Nov - 20 Dec 2019	4323
32	Media and Information Literacy *Dr. Abdalla Uba Adamu, Nigerian Open University*	03 Jun - 15 Jul 2019	4,302
33	Mobi MOOC *NABARD, Tamil Nadu*	01 Oct - 15 Nov 2019	2,500
34	Life Skill Level - 1 CEMCA, University of Hyderabad and Osmania University	15 Jan - 13 Feb 2020	3,479
35	Mobi MOOC - Round 2 NABARD, Tamil Nadu	01 Mar - 15 Apr, 2020	2,500
36	Life Skill Level - 2 CEMCA, University of Hyderabad and Osmania University	25 Feb - 31 Mar 2020	2253
		Total	30241

Table 4: Face to Face Workshops

S. No.	Name of Workshop	Date	Number of Participants	Number of Teachers
1	TEQIP Summer Training Workshop on Advanced Pedagogy & Digital Tools, TEQIP, IITK *Dr. T. V. Prabhakar & Team*	13 May 2019 03 Jun 2019 10 Jun 2019	50 Teachers	50

Table 5: Flipped Courses Offered at IIT Kanpur Technology support is provided by mooKIT

S. No.	Title	Offered On
1	PHY672A: Physics of Turbulence	2019-2020: Semester 1
2	EE301A: Digital Signal Processing	2019-2020: Semester 2
3	PHY473A: Computational Physics	2019-2020: Semester 2

Detailed list of Platform/Software Development

1. Released mooKIT in Open Source. Any one can now download an install mooKIT on their premises (http://mookit.in/)
2. Integrated Mobi mooKIT with cloud telephony services and tested it with 3 courses. In Mobi MOOCs, we are using voice calls to deliver audio

content to users. Users can navigate through the course using an IVR based navigation. The software used for this is called Mobi mooKIT, which is an architectural variation of mooKIT.

3. Developed the mooKIT Wallet, which can be used to issue blockchain-based digital certificates. They are tamper-proof and independently verifiable. This removes the dependency on the issuer for verification, giving complete ownership of their credentials to the students.
4. Updated mooKIT App as a progressive messaging-based app which helps to reduce bandwidth requirements substantially. Videos and other resources can be cached locally and analytics can be synced whenever there is an internet connection.
5. The Outreach (https://outreach.iitk.ac.in) portal developed by us provides a single access point to the resources of IIT for non-IITians who are interested in continued and distance learning.
6. Developed https://epp.iitk.ac.in/ for English Proficiency Programme (EPP) of IIT Kanpur

Courseware Development

Courseware for the following courses has been developed and tested with IIT Kanpur students.

1. ESO201A: Thermodynamics - 30 Videos
2. ME359: Internal Combustion Engines - 42 Videos
3. MSO201A: Probability and Statistics - 64 Videos
4. MSO202A: Introduction to Complex Variables - 23 Videos
5. MSO203B: Partial Differential Equations - 18 Videos
6. CS628: Computer Systems Security - 57 Videos
7. CS315: Principles of Database Management - 39 Videos
8. MTH421A: Ordinary Differential Equations - 46 Videos
9. EE301A: Digital Signal Processing - 26 Videos

Project Number: MHRD /CE /2016142X
Project Title: Designing of a Novel, Off-Centric Nozzle Impaction Based Automatic PM2.5 Air Sampler
Project Investigator: Tarun Gupta
Co-Investigator(s)/Collaborators (if any): NONE
Project Initiated on: 05/05/2017

Project objectives

In the present scenario, any air sampler seeks attention after 6-8 h. The proposed sampler will be capable of running up to 15 days without any operator involvement. The pictorial and intuitive user manual will be scripted on the sampler body itself and thus will be useful to use. The sampler will have many user centric design features including ergonomic working place and rain sensor.

Progress report

This present study depicts the development of an off-centric impaction based PM2.5 air sampler. This provides a qualitative solution to reduce particle bounce off problem which was well recognized but unsolved so far. This study identifies the root cause of the problem and uses anintuitive approach to finding its solution. It finds inspiration from 'Wheel' which symbolizes changes by rotation. The product maintains the assumptions of impaction theory. With engineering feasibility and user-centric design approach, the final product has been developed equipped with four sampling cylinders and capable of carrying out unattended PM2.5 sampling for 15 days.

One process Indian patent application (201611022179, June 28, 2016) has been filed and 3 design Indian patents (291998, 291999, 292000, March 23, 2017) have been granted so far on this sampler.

Highlights

- Developed ampler is capable of running up to 15 days without any operator involvement.
- The pictorial and intuitive user manual is scripted on the sampler body itself and thus it is very easy to use.
- This sampler is equipped with ergonomic working bench and seat, wheels to move it around and it comes with a rain sensor.

Project Number: IITK_012 (UAY)
Project Title: Development of Nanocatalysts for hydrodesulfurization reactions
Project Investigator: Prof. Sri Sivakumar
Co-Investigator(s)/Collaborators (if any): Prof. Raj Pala
Project Initiated on: 14-02-2017

Project objectives

1. Synthesis of ultrasmall nanocatalysts by colloidal synthesis (e.g. microemulsion and ligand-based colloidal synthesis) followed by supporting into commercially available alumina.
2. The activity of the nanocatalysts will be evaluated for the hydrodesulfurization of model compounds (dibenzothiophene, (DBT) and 4,6-dimethyl dibenzothiophene (DMDBT)) and petroleum fraction in a packed bed reactor.
3. Scale-up studies of ultrasmall nanocatalysts and their pilot plant catalytic activity in HPCL R&D.
4. Density Functional Studies (DFT) will be performed to understand their catalytic activity which will help to optimize the structure and composition of catalysts.

Progress report

NiMo and CoMo nanocatalysts were successfully synthesized by colloidal synthesis method and tested for HDS reaction using DBT and 4,6 DMDBT reactant molecules. A new approach to prepare nanocatalysts was developed called "Insitu supported collioidal method" in

which metal species dispersed uniformly on amorphous alumina support. Insitu supported nanocatalysts perform better as compared to conventional and our earlier colloidal synthesis method catalysts for HDS reaction. DFT studies for reaction mechanism of above-mentioned process is under process.

Highlights

- Insitu supported colloidal synthesis nanocatalysts approach developed.
- Current catalysts are highly active for HDS reaction as compared to wet impregnated and earlier colloidal synthesis catalysts.
- The support synthesized in this insitu method is more amorphous in nature as compared commercially available alumina and having superior properties which makes it very useful even for other synthesis methods.
- The developed method is scalable.

Project Number: IMPRINT - 7535
Project Title: Continuous discharge measurement in small open channels by using ultrasonic tomography
Project Investigator: Shivam Tripathi
Co-Investigator(s)/Collaborators (if any):
Co-Investigators: Naren Naik and Prabhat Munshi
Industry Partner: Kritsnam Technologies Pvt. Ltd.
Project Initiated on: February 06, 2017

Project objectives

To develop a continuous real-time discharge monitoring system for small open channels by tomographic reconstruction of ultrasonic transit-time measurements. The system will be designed to be accurate, cost-effective, field deploy-able, easy to calibrate and capable of unattended real-time data transmission.

Progress report

A prototype for pipe-flow measurements has been developed and deployed in the field. A scaled down version of the open channel flowmeter has been tested in the laboratory. A full-scale prototype for the open channel flowmeters has been completed, but yet to be tested in the field. Preliminary 3D tomographic algorithms have been developed with respect to synthetic phantoms, which are being refined and integrated with the time-of-flight measurements from open channel flowmeter. .

Highlights

- A facility for automated calibration of flowmeters (gravity mass method) for high (up to 40 LPS) and low (up to 0.55 LPS) flows have been designed and successfully fabricated.
- Ultrasonic transit time pipe flowmeters are developed. They have received ISO 4185 certification from Fluid Control Research Institute and are being deployed in the field by our industry partner.
- A prototype for multi-path open channel flowmeter has been successfully tested on a laboratory flume.

Project Number: MHRD /CE /2018542
Project Title: Park-IT: Advanced Parking Information and Management for Indian Traffic
Project Investigator: Dr. Salil Goel
Co-Investigator(s)/Collaborators (if any): Maj. Gen. (Dr.) B. Nagarajan, Dr. Partha Chakroborty
Project Initiated on: March 15, 2019

Project objectives

1. Development of cheap technologies and solutions for reliable detection of the occupancy status of parking spots in Indian traffic conditions.
2. Development of data structures and algorithms to enrich navigation systems by parking spot data as an integral part of the navigation process.

Progress report

1. Successfully developed and tested parking occupancy detection using camera and deep learning algorithms.
2. Exploring ways to improve the detection accuracy in unmarked areas.
3. Exploring data structures to enrich navigation systems.

Highlights

1. Development and extensive testing of a cheap occupancy detection system using camera is complete.
2. Developed deep learning algorithms to detect occupancy from camera images in near-real time.
3. Attempt is being made to improve the performance of these algorithms in Indian conditions.

Project Number: MHRD/AE/2019136 (SPARC Project)
Project Title: Development of Computational Model for Multi-Physics Simulation of Flows During Planetary Landing of Spacecrafts
Project Investigator: Dr. Rakesh Kumar (Department of Aerospace Engineering)
Co-Investigator(s)/Collaborators (if any): None
Project Initiated on: 31/05/2019

Project objectives

In this work, we propose development of a new computational model for simulation of dusty gas flows during planetary landing of spacecrafts and other related applications including flying under extreme conditions of rain/snow/dust. It is planned to develop a novel 3D computational framework for studying dilute multi-phase, multi-species, multi-physics dusty-gas flows. With the new computational approach in hand, we would be able to compute dusty gas flows to bring out the effects of granular media on pure gas flow structures, such as shocks, and flow/surface properties.

Progress report

Currently, the work is under progress as the SPARC

project, which involves the host Faculty (and students) working closely with the International Faculty (and students). The host and International Faculty are working on the development of computational model for simulation of dusty gas flows. New models of interaction of gas with granular media will be developed and implemented into an in-house particle based gas flow solver. In the future, they are planning to conduct a common workshop in the future, with a focus on the ongoing work. The International Faculty plans to visit IIT Kanpur in November-December 2020, however, due to the ongoing pandemic, the visit could be delayed.

Highlights

- Currently, the work is under progress. The host and International Faculty are working on the development of computational model for simulation of dusty gas flows.
- They are planning to conduct a common workshop in the future, with a focus on the ongoing work.
- The International Faculty plans to visit IIT Kanpur in November-December 2020, however, due to the ongoing pandemic, the visit could be delayed.

Project Number: MHRD /AE /2016350 (Term GIAN Short Course)
Project Title: Rarefied & Microscale Gases and **Viscoelastic Fluids:** A Unified Framework
Project Investigator: Dr. Rakesh Kumar (Department of Aerospace Engineering)
Co-Investigator(s)/Collaborators (if any): None
Project Initiated on: January 05, 2017

Project objectives

The project was actually a short term GIAN course, with Prof. R.S. Myong from Gyeongsang National University, Korea as the International Faculty. The course focused on developing an understanding/appreciation for the use of higher order continuum equations (extended hydrodynamics) for studying flows of rarefied microscale gases and viscoelastic fluids. Through examples and discussions, an attempt was made to explain the procedures of the advanced subject of extended hydrodynamics in a simplistic manner.

Progress report

The course was very well received by the participants of the week-long course. There were 23 participants. The lectures were delivered along with the lab sessions. The students tried to understand and also explained their research problems to the Faculty members, and discussed the doubts and difficulties. In total, it was a very useful interactive session for all the participants.
The interaction of host faculty with the International Faculty was very good. The host faculty not only attended all the lectures delivered by the International Faculty, but also interacted with him during the rest of the time. The problems of mutual interest were discussed in entirety. Both of them agreed upon the idea of working together for a few problems of common interest. They have worked on the problem of lunar landing, and currently they have one publication in the Physics of Fluids.

Highlights

- GIAN course on "Rarefied & Microscale Gases and Viscoelastic Fluids: A Unified Framework" was very well received by the participants.
- Five Faculty members (one from GNU, Korea, three IIT Bombay and the host Faculty) took the lectures along with the lab sessions.

Host and International Faculty currently are collaborating on a couple of research problems. They have one common publication in Physics of Fluid.

Project Number: IITK number: MHRD/CELT/16408AC (IMPRINT no. 4194)
Project Title: Optical coatings for high-reflection and anti-reflection applications
Project Investigator: Prof. R.Vijaya, IIT Kanpur
Co-Investigator(s)/Collaborators (if any): Nil
Project Initiated on: 9th May 2017

Project objectives

1. To design, fabricate and prototype infra-red (IR) protection optics for users of IR lasers in combat and non-combat operations.
2. To fabricate and prototype (i) high-reflection coatings for research applications, (ii) anti-reflection coatings for night-time imaging applications in Defense, and (iii) coatings for IR lenses at user-specified wavelength range.

Progress report

- Fully in-house design, fabrication and characterization of all coatings.
- Research-quality work on laser damage threshold, cavity ring-down measurement, excitation of Tamm plasmon and flexible substrate coating.
- All work carried out using the existing RF Magnetron sputtering system.
- Two refereed journal papers published; four refereed international conference papers.
- Coatings for high-reflection, anti-reflection, selective-reflection, ultra-broadband, UV, Vis and NIR wavelengths and special-purpose applications.
- Planar, curved, flexi and structured substrates for coating.
- Nanostructured surfaces as top layer for improving the efficiency of solar cells
- Few layer designs, different types of substrates, coatings for silicon devices.

Highlights

- Reflection lowered to 1.9% at 750 nm and 0.9% at 850 nm (IR) on NBK-7 lens for night-time imaging applications.
- Highest reflection of 99.9% at 600 nm on quartz and silicon substrates.
- Few layer designs; flexible/hard substrate coatings;

excitation of Tamm plasmons useful in sensing, and structured substrates for special-purpose applications.

Project Number: 1442 (MHRD/ES/2019225)
Project Title: The Socio-economic Costs of Road Crashes in India - Evaluation of the Role of Ex-ante and Ex-post Policies
Project Investigator: Murali Prasad Panta
Co-Investigator(s)/Collaborators (if any): Praveen Kulshreshtha/ Aniruddha A Desai
Project Initiated on: 23rd July, 2019 (Funds received on 7th November, 2019)

Project objectives
To study the socio-economic costs of injured across smart cities in order to evaluate the role of ex- ante and ex-post policies on road crashes in India; To obtain measurable metrics using visual surveillance to evaluate the intensity of road crashes; and, To analyse Experiences on road crashes in Australia.

Progress report
We have organised a panel discussion on "CAUSES AND SOLUTION OF ROAD CRASHES IN INDIA: THE ROLE OF INDUSTRY AND INSTITUTIONS" at the 5th International Conference on Law and Economics (ICLE), 2019, IIM Bangalore, during 28th & 29th December, 2019.

We have a little progress on collection of secondary data. During March 20th- May 20th, 2020 not much progress on our project (Coronavirus India lockdown).

We will organize a symposium on "Mahatma Gandhi's Principles: In the Perspective of Alcoholism and the Road Crashes", on the eve of 150th Birth Anniversary of Mahatma Gandhi at IIT Kanpur.

Highlights
- Our study examines the role of ex-ante and ex-post policies to reduce the true costs of accidents and to improve the quality and longevity of life; and,
- Visual surveillance aid oriented information generation and dissemination on road crashes.

Project Number: IMPRINT 5509
Project Title: Structure integrated sensors and actuators to monitor and renew machine tool performance
Project Investigator: Mohit Law, IIT Kanpur
Co-Investigator(s): Bishakh Bhattacharya, IIT Kanpur; Suparno Mukhopadhyay, IIT Kanpur, Abhijit Ganguli, IIT Tirupati
Project Initiated on: March 2017

Project objectives
Main objectives are to monitor and improve machine tool operational performance by 100% using structure integrated sensors and actuators. Specifically, we will:
- Carry out in-process system identification to parameterize machine's dynamics
- Characterize machine performance with actuators and dampers
- Indigenously develop new high-performance actuators and dampers
- Develop a hardware-in-the-loop simulator

Progress report
- New methods to carry out system identification based on output-only modal analysis methods have been developed and deployed successfully.
- Three new actuators, an electro-hydraulic exciter (EHE), a contact type electro-magnetic actuator (EMA), and a non-contact type EMA have been prototyped. Two of these have also been converted into active dampers.
- A novel hardware-in-the-loop (HiL) mechatronic simulator that offers a new paradigm for investigations on chatter has been developed.
- All pending experimental and developmental work has been delayed since March 2020 due to the COVID19 situation and can be completed only when we resume work in full capacity.

Highlights
- The new electro-hydraulic actuator developed through this project has specifications better than any of those available commercially.
- The novel hardware-in-the-loop (HiL) mechatronic simulator has aided the testing of chatter in a non-destructive manner. The test bench has also aided characterization of active damping strategies to demonstrate a ~70% improvement in chatter-free cutting capability.
- New scientific results have been communicated and disseminated. Four journal papers have been published. One more is under review, and at least four more are in the preparation and planning stage. Three papers have also been presented in International conferences.

Project Number: MHRD/CHM/2016408T (IMPRINT Proj No.-6966)
Project Title: A Smartphone-Based Dark-Field Microscope for Point of Care(POC) Diagnosis of Blood-Cell Disorders in Lethal Diseases
Project Investigator: Dr. Manabendra Chandra
Co-Investigator(s)/Collaborators (if any):
Dr. Anindita Gayen, Dept of Chemistry, IIT Kanpur, agayen@iitk.ac.in
Dr. Manish Kulkarni, Nanoscience Center, IITKanpur manishm@iitk.ac.in
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Dr. S. Matheshwaran, BSBE, IIT Kanpur saran@iitk.ac.in
Dr. Sutapa Mondal, Health Center, IIT Kanpur sutapa@iitk.ac.in

Project objectives
Our objective is to develop an optical microscopy-based smartphone attachment for accurate, quantitative and rapid diagnosis of human-blood samples. The proposed device will have resolution comparable to high-end laboratory microscopes and can detect abnormalities in number, size, shape, color-intensity of blood cells, and presence of target cells, fungi & parasites.

Progress report
We have already built the prototypes of the hardware part of the proposed optical attachment. To be specific, one bright-field based microscope attachment and one dark-field based microscope attachment for smartphone camera have been developed. Using a smartphone camera coupled to these develop microscope attachment we can now image even small objects like platelets with clarity nearly as good as a table top optical microscope. We have recently applied this dark-field microscope to study pathogen (E. coli)- RBC interaction and pathogen(E. coli)- yeast interaction (paper is under review in ACS Infectious Diseases).

As the last step, now, we need to study a large number of human blood samples using our device. However, this step is a bit challenging due to the current covid19 pandemic situation.

Highlights
- Dark-field based microscope attachment has been developed
- Bright-field based microscope attachment has been developed
- We have achieved the targeted image magnification and resolution;

Project Number: MHRD/MET/2016408J (Imprint number 6777)
Project Title: High Strength, Wear and Corrosion Resistant Steel for High Speed Rail and Elastic Clip
Project Investigator: K. Mondal (PI, IITK)
Co-Investigator(s)/Collaborators (if any): S. Sangal, S. Shekhar, C. S. Upadhyaya (IITK) S. Suwas, C. Srivastava (IISc) S. Sankaran, S. Bhattacharya (IITM)
Project Initiated on: 2017 (Feb)

Project objectives
Here, we envisage integrated development of cost-effective steels with better mechanical properties, and improved corrosion and wear resistance by modifying composition, processing routes, and microstructures of rails and elastic rail clips for Indian Railways. It also intends to develop better load bearing characteristics of elastic rail clips with existing design.

Progress report
- Three new steels (two for elastic rail clips (ERC) and one for Rail) and optimized processing conditions have been designed.
- The microstructurally modified ERC employing single step austempering of the existing as well as newly designed composition showed 16-29% increase in hardness, 11-31% enhanced yield strength and 18-54% increase in tensile strength and better corrosion and wear resistance with respect to the existing hardened and tempered ERC without compromising ductility, leading to higher fracture toughness.
- The steel rods as per the specs of Indian Railways have been made and making final improved ERC (3000 number) with existing specs is under preparation.

Highlights
- Cost effective composition and processing to develop novel microstructure for rail and elastic rail clip (patented)
- Better mechanical properties with improved corrosion and wear resistance with improved metallurgical characteristics of elastic rail clip. The final preparation is underway.
- Patent
  High strength steel composition and method thereof, A. Bhattacharya, P.K. Rai, Neetu, S. Garg and all 8 members of Imprint proposal, K. Mondal, (Patent filed in 2019 with reference 201911030090

Project Number: MHRD /ME /2016408I
Project Title: 'Hierarchically Structured Micro-Nano Pore Nanocomposite Membrane made of Ferric-Oxide Decorated-Titania-Activated-Carbon-Flyash in Carbonized Epoxy Resin as Versatile Filters for Water Purifications: Removal of Organic-Dyes-Heavy-Metals-Microbial-Pathogens'
Project Investigator: Kamal K. Kar
Project Initiated on:15-02-2017

Project objectives
Pollutant content in the purified water should be less than the critical limit suggested by the WHO standards or Indian standards. -For example: pH-6.5-8.5, hardness- 0-75, mercury: 1.0μg/L, iron: 0.3 mg/L, arsenic: 10.0 μg/L, lead: 10.0μg/L, fluoride: 1.5 mg/L, pesticide (total): 0.50μg/L, pathogen: (not mentioned), etc.

Progress report
Titania having different morphology of tube, rod, and powders,3d transitional metal-based ternary metal oxide like Ni-Al-Fe, Co-Al-Fe, Mn-Al-Fe, and Cu-Al-Fe,graphene, activated carbon from feather fiber (bio-waste) and epoxy resins, and their composites have been synthesized andsystematic studies have been performed in studying the removal of organic-dyes and heavy-metals using various characterization methods. The degradation efficiency of organic dyes, methylene blue is ~ 80%, which is equivalent to the reported value. Visible light degradation efficiency is ~75%, which is much higher than reported values. Composites show synergistic effects for metal remediation, and mitigation. Arsenic treated Mn-RGO (i.e., sludge) has shown capacitance of 125 F g-

1, ultra-stable cycle stability (77 % at 100,000 cycles), and can be used as energy storage material.

Highlights

- the membrane is made from titania, 3dtransitional metal-based ternary metal oxide, and activated carbon.
- the degradation efficiency of organic dyes, methylene blue is ~ 80%
- it shows remediation and mitigation of heavy metals.
- arsenic treated Mn-RGO (i.e., sludge) shows capacitance of 125 F g-1 and ultra-stable cycle stability (77 % at 100,000 cycles)

Project Number: MHRD/MET/2016142E
Project Title: Layered steel for structural application
Project Investigator: Kallol Mondal
Co-Investigator(s)/Collaborators (if any): Prof. S. Sangal, Prof. S. Shekhar
Project Initiated on: 06/07/2017

Project objectives

1. Making high toughness layered steels similar to Wootz steel with high wear and blunting resistant for making cutting and machine tools
2. Designing the stacking of different layers and processing to make seamless steel plates
3. Designing suitable combination of materials to impart optimum combination of strength, wear resistance and corrosion resistance

Progress report

1. We have successfully made strong and tough layered steel with 128 layers with varying composition in each layer.
2. We could successfully incorporate Cr powder layer in between two steel layers.
3. Knives are made from these layered steels.
4. Now wear and corrosion behavior as well as anti-blunting effect of the knife edges are being studied.

Highlights

1. The successful making of layered steels with alternate stack of high carbon-medium carbon-high carbon steel and Cr powders in between is patented technology by us.
2. The successful demonstration of extremely sharp knives of different sizes has made this product to go to market.
3. Output:
   Patent:
   Method of producing multi-layered steel with variable compositions (Patent Application number: 201711017031)

Publication

Rama Satya Sandilya V., S. Shekhar, S. Sangal and K. Mondal (2018), A novel method for fabricating multi-layered steels, J. Mater. Process. Tech., vol 254, 38-51.

Project Number: MHRD/MET/2014258
Project Title: Virtual Lab – Phase II
Project Investigator: Prof. Kantesh Balani
Co-Investigator(s)/Collaborators (if any): N/A
Project Initiated on: 07/11/2014

Project objectives

In the Phase-II of Virtual Lab, idea is to make all the developed labs into an open source repository that is available to community/academic institutes, whether in India or abroad, for use and development. The idea is now to convert all the licensed content into a platform that is independent of any licensed software. Further, a target of creating nodal centers and achieve a target participation of 54,000 users in the current year.

Progress report

A user count of 2.4 lakhs is obtained only via page views, and over 1.85 lakhs is obtained via workshops and webinars till June 2020. This is almost double of the targeted user count of view committed in two years. The release of the funds for the second year is awaited. A total of over 85 workshops have been conducted. A total of 88 nodal centers (Annexure 2) have been created with affiliation to IIT Kanpur till May 31, 2020.

Target of achieving required users is achieved, but we are lagging in front of creating nodal centers.
Overall summary:

- Phase II of Virtual Lab has started (since Oct. 2014).
- The target of taking 3 labs to level six was decided. The list of current stats of virtual labs is provided in Annexure 2 (targets achieved).
- One regular project engineer, one project associate with few student interns were hired for the project development.
- The undertaking for integration of all labs (worked upon by IIIT Hyderabad) at common platform is being supported by IIT Kanpur.

Highlights

1. Four labs have been hosted and six labs have achieved FOSS level 6, and two others have achieved FOSS level of 5 (The commitment was for only three labs to reach FOSS level 6). The undertaking for integration of all labs (worked upon by IIIT Hyderabad) at common platform is being supported by IIT Kanpur.
2. One project engineer, one project associate and regular project technician are available for the project development.
3. Currently, the number of nodal centers is 88, which exceeds the committee number of 24 nodal centers. The user count (of 2.4 lakhs) has substantially exceeded the annual targeted count of 54,000.

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Annexure 1: List of Nodal Centers:

Sr. No.	College	Date	Contact Person
1	Dr. Ambedkar Institute of Technology for Handicapped, Kanpur	Apr. 16, 2014	cpverma.2007@rediffmail.com
2	Swami Vivekanand College of Engineering, Indore	Feb. 16, 2015	ranaychauhan@svceindore.ac.in
3	Global Group of Institutions, Lucknow	Feb. 19, 2015	dean@ggi.org.in
4	Hindustan Institute of Technology and Management, Agra	Apr. 17, 2015	directorhitm@sgei.org, manishgupta.hitm@sgei.org
5	Pranveer Singh Institute of Technology, Kanpur	Apr. 21, 2015	aparna.dixit@psit.ac.in
6	Saraswati Gyan Mandir Inter College, Indira Nagar, Kanpur	Apr. 21, 2015	sopanbajpai@gmail.com
7	Kendriya Vidyalaya, IIT Kanpur	Apr. 27, 2015	kviit@iitk.ac.in
8	Babu Banarasi Das University, Lucknow	May 06, 2015	seethalk07@gmail.com
9	Krishna Engineering College, Ghaziabad	July 16, 2015	director@krishnacollege.ac.in
10	Bharat Institute of Technology, Meerut	July 17, 2015	dg@bitmeerut.edu.in
11	JSSATE, Noida	July 24, 2015	hodcse@jssaten.ac.in, principal@jssaten.ac.in
12	KV Cant, Kanpur	Aug. 17, 2015	kvkcantt@gmail.com
13	Seth Anandram Jaipuria, Kanpur	Aug. 24, 2015	sajsknp@rediffmail.com,
14	Vidya College of Engineering, Meerut	Oct. 13, 2015	vce@vidya.edu.in, info@vidya.edu.in
15	Puran Chandra Vidya Niketan, Kanpur	Oct. 31, 2015	principalpcvn@gmail.com
16	Kanpur Institute of Technology, Kanpur	Oct. 31, 2015	vd@kit.ac.in
17	Disha School, Raipur	Dec. 24, 2015	principal.dishaschool@dishamail.com
18	Maharana Pratap Group of Institutions, Kanpur	Feb. 16, 2016	Mohit1003@yahoo.co.in
19	Government Industrial Training Institute Girls College	Feb. 20, 2016	ru.gitinlr@gmail.com
20	CSJMU (UIET), Kanpur	Aug. 01, 2016	jainrenu@gmail.com
21	Saraswati Vidya Mandir Inter College , Fatehpur	Aug. 08, 2016	(8381882722) ramvidyamandirc@gmail.com
22	Rama University, Kanpur	Aug. 16,2016	info@ramauniversity.ac.in
23	College Of Engg. Science & Tech., Lucknow	Aug. 20,2016	Jprasad3859@yahoo.in
24	Creative Convent Inter College, Lucknow	Aug. 24, 2016	sachanyogendra@gmail.com
25	Lucknow Convent Public Inter College, Lucknow	Sep. 06, 2016	Kumaravinash10july@gmail.com
26	Amal Jyothi College of Engineering, Kerala	Oct. 10, 2016	principal@amaljyothi.ac.in
27	Rohini College of Engineering and Technology, Tamil Nadu	May. 13, 2017	principal@rcet.org.in
28	CIPET, Lucknow	Oct. 30, 2017	Cipetlko2@gmail.com
29	Shambhunath Institute of Engineering and Technology, Allahabad	Nov. 27, 2017	director@siet.in

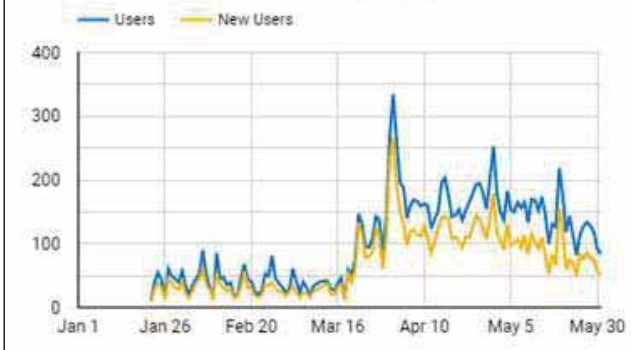
30	Ajay Kumar Garg Engg. College, Ghaziabad	Mar. 03, 2018	akgecor@akgec.org
31	Raj Kumar Goel Institute of Technology, Ghaziabad	Mar. 03, 2018	akagrfpo@rkgit.edu.in, dr.puneet@rkgit.edu.in
32	Integral University, Lucknow	Mar. 14, 2018	info@iul.ac.in, rhfatima@iul.ac.in, dpr@iul.ac.in
33	Atma Ram Sanatan Dharma College, New Delhi	Mar. 20, 2018	principal.arsdcollege@gmail.com
34	Allenhouse Institute of Technology, Kanpur	Mar. 26, 2018	director@allenhouse.ac.in, me.avinash@allenhouse.ac.in
35	Rajkiya Engg College, Kannauj	Mar. 27, 2018	viveksrivastavakash@gmail.com, rajeev@reck.ac.in
36	Christ Church College, Kanpur	Jun. 07, 2018	rkdwivedi1963@gmail.com
37	Galgotias Educational Institutions, Greater Noida	Jul. 05, 2018	director@galgotiacollege.edu
38	Rajkiya Engineering College, Banda	Oct. 30, 2018	ashutosh.tiwari0885@gmail.com
39	Axis Colleges, Kanpur	Nov. 23, 2018	directoradmin@axiscolleges.in, abhayshukla@axiscolleges.in, aitmvlab@axiscolleges.in
40	Teerthanker Mahaveer University, Moradabad	Nov, 27, 2018	jayshree2004@gmail.com, umesh.engineering@tmu.ac.in, sunil.engineering@tmu.ac.in
41	Rajshree Institute of Management & Technology, Bareilly	Nov. 28, 2018	rajshree.institute@gmail.com
42	Swami Vivekanand Subharti University, Meerut	Nov. 29, 2018	registrar@subharti.org , supratim.saha2000@gmail.com
43	Invertis University, Bareilly	Nov, 29, 2018	info@invertis.org
44	Madan Mohan Malaviya University of Technology, Gorakhpur	Nov. 30, 2018	registrar@mmmut.ac.in, smme@mmmut.ac.in,
45	The Millennium School, Lucknow	Dec. 05, 2018	headmaster.lucknow@themillenniumschools.com,dubeydhatri@gmail.com, manjula.goswami@themillenniumschools.com
46	Vishveshwarya Group of Institutions, Greater Noida	Dec. 05, 2018	deanresearch@vgi.ac.in
47	Aligarh College of Engineering & Technology, Aligarh	Dec. 06, 2018	thenuamahesh76@gmail.com
48	ITS Ghaziabad	Dec. 10, 2018	itsmn@its.edu.in
49	Shri Krishna college of Engineering and Technology, Tamilnadu	Dec. 13, 2018	info@skcet.ac.in
50	CIPET Bhopal	Dec. 10, 2018	Cipet.bhopal@gmail.com
51	Anand Engineering College Technical Campus, Agra	Jan. 03, 2019	director.aec@sgei.org
52	Saraswati Dental College, Faizabad Road, Lucknow	Jan. 07, 2019	smdc@saraswaticolleges.com
53	Green Valley Sr. Sec. School, Bhopal	Jan. 22, 2019	greenvalley5529@gmail.com
54	Army Public School, Bareilly	Feb. 23, 2019	apsbareillycantt@gmail.com, armyschool_2007@rediffmail.com
55	Delhi Public School, Agra	Mar. 05, 2019	office@dps.ac.in, qc@dps.ac.in
56	KL International, Meerut	Mar. 13,2019	info@klischool.com,principal@klischool.com
57	Kamla Nehru Institute of Technology, Sultanpur	Apr. 24, 2019	arvind@knit.ac.in, Director@knit.ac.in

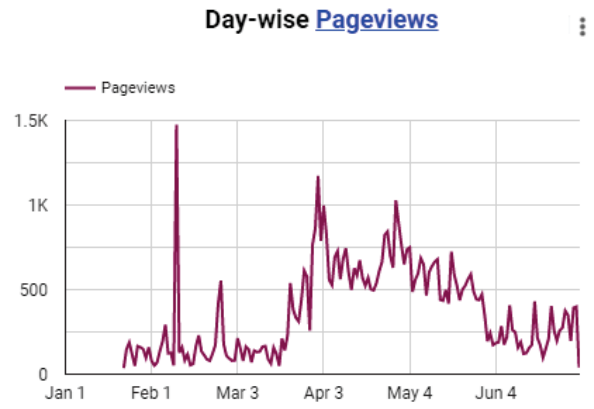
58	Katihar Engineering College, Katihar	May. 22, 2019	arbind.geit@gmail.com
59	RustamJi Institute of Technology, Gwalior	Jun. 01, 2019	ussharma001@gmail.com
60	Buddha Institute of Technology, Gorakhpur	Jun. 21, 2019	bodhgayabitengg@gmail.com
61	Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra	Jul. 03, 2019	tu04@rediffmail.com
62	IPS Academy, Indore, Madhya Pradesh	Jul. 04, 2019	director.ies@ipsacademy.org
63	BD College, Patna	Jul. 11,2019	Principalbdcpatna@gmail.com
64	Rajdhani Engineering Collage, Bhubaneshwar, Orissa	Jul. 18, 2019	rec_bbsr@yahoo.co.in
65	Gandhi Institute for Technology, Orissa	Jul. 19, 2019	principal@gift.edu.in
66	AKS University, Satna	Jul. 20, 2019	psiitd@yahoo.com
67	Swami Vivekanand University, Sagar	Jul. 26, 2019	rajesh.dubey118@gmail.com
68	Shobhit University, Meerut	Jul. 22, 2019	mail@shobhituniversity.ac.in
69	RD Engineering College, Meerut	Aug. 02, 2019	info@rdec.in
70	National Institute of Science and Technology, Odisha	Aug. 24, 2019	
71	Motihari College of Engineering, Bihar	Aug. 31, 2019	
72	Hindustan Institute of Management & Computer Studies, Mathura	Sep. 05, 2019	director.himcs@sgei.org
73	SATI Engineering College, Vidisha, Madhya Pradesh	Sep. 26, 2019	director@satiengg.org, jsccivil@rediffmail.com
74	Vananchal College of Science, Garhwa, Jharkhand	Oct. 03, 2019	vcs_garhwa@rediffmail.com
75	IET, Dr. Ram Manohar Lohia Avadh University, Faizabad	Apr. 17, 2020	directorietfzd@gmail.com, srivastava_anoop@rediffmail.com
76	Kali Charan Nigam Institute of Technology, Banda	Apr. 22, 2020	kcnit2002@rediffmail.com
77	Bundelkhand Institute of Engineering & Technology, Jhansi	Apr. 23, 2020	sayub@bietjhs.ac.in
78	BN College of Engineering and Technology, Lucknow	Apr. 25, 2020	director@bncet.ac.in
79	RR Institute of Modern Technology, Sitapur Road, Lucknow	Apr. 28, 2020	ersaurabhdixit1987@gmail.com, dir.rrimt@gmail.com
80	Madan Mohan Malaviya University of Technology, Gorakhpur	Apr. 28, 2020	rkvme@mmmut.ac.in
81	Rajkiya Engineering College, Bijnor	Apr. 28, 2020	suneelkm17@gmail.com
82	Goel Institute of Technology and Management, Lucknow	Apr. 28, 2020	dr.devendra@goel.edu.in
83	Rajkiya Engineering College, Mainpuri	May. 03, 2020	pks.cse13@gmail.com
84	Buddha Institute of Technology, Gorakhpur	May. 04, 2020	abhinav514@bit.ac.in
85	IIMT College of Engineering, Greater Noida	May. 11, 2020	Hodme_gn@iimtindia.net
86	Pandit Prithi Nath (PG) College, Kanpur	May. 18, 2020	satish0402@gmail.com
87	Institute of Technology and Management, Gorakhpur	May. 27, 2020	hodme@itmgkp.edu.in
88	Meerut Institute of Engineering & Technology, Meerut	May. 31, 2020	arvind.pandey@miet.ac.in

Annexure 2: List of Labs at IIT Kanpur and Analytics (Available only since Jan. 01, 2020)

Sr. No.	Lab Name	PI Name	FOSS Level
1	Virtual Astrophysics Lab	Dr. P.K.Jain	6
2	Ultrafast Laser Spectroscopy	Dr. D.Goswami	6
3	Material Response to Micro-structural, Mechanical, Thermal & Biological Stimuli	Prof. Kantesh Balani	6
4	Aerospace Virtual Lab	Prof. S.Kamle	6
5	Virtual Combustion and Automization Lab	Prof. D.P.Mishra	6
6	RF and Microwave Characterization Lab	Dr. V. Srivastava, Dr. J. Akhtar	5
7	Transducers and Instrumentation Virtual Lab	Dr. N.K.Verma	5
8	General Purpose Production Simulation Lab	Prof. D. Philip	6

	Lab URL	Users ▾	Pageviews	Avg. Page Load Time (sec)	Avg. Session Duration (hh:mm:ss)
1.	Material Response to Micro Structural & Mechanical & Thermal and Biological Stimuli	5.8K	26.4K	6.66	00:02:45
2.	Virtual Astrophysics Lab	4K	19K	2.2	00:02:54
3.	Ultra fast Laser Spectroscopy Lab	2K	6.3K	2.72	00:01:29
4.	Virtual Combustion and Automization Lab	246	1.1K	1.12	00:04:21





Project Number: MHRD/MET/2018064
Project Title: Virtual Lab – Phase III
Project Investigator: Prof. Kantesh Balani
Co-Investigator(s)/Collaborators (if any): N/A
Project Initiated on: 24/04/2018

Project objectives

The main objectives of the Third Phase of the Virtual Labs project are: to develop a methodology for the development of new lab experiments by identifying gap areas with the involvement of all stake holders and to host the newly-developed experiments on a Central Server.

Progress report

Total of 23 experiments were to be developed by IIT Kanpur for Phase III, wherein IIT Kanpur has proposed 29 experiments (Annexture 1). Two have been completely developed, and 10 have reached round 2, and remaining 17 are awaiting response on the revised content communicated to the reviewer. It is expected that all the 29 experiments will be completely developed by September 2020. In addition, multiple webinars are being held to popularize Virtual Labs, and A.P.J. Abdul Kalam Technical University (AKTU) has formed a Nodal Center Coordination committee, which has incorporated mapping of these las to the curriculum of the colleges affiliated to AKTU.

Overall summary

After affiliation with AKTU, we are doing very good in recruiting the nodal centers. Herein, REC Banda and PSIT Kanpur have been promoted to regional nodal centers which have thrusted forward the pace of popularizing Virtual Labs. Development of an MoU is in order. A total of 2 experiments developed, 10 in second round and 17 experiments in the first round of development. These virtual lab experiments should complete the experiments by Sept. 2020.

Highlights

1. Multiple webinars are being organized with overwhelming participation of various colleges, where REC Banda and PSIT Kanpur are promoted as regional nodal centers
2. 23 Virtual Lab experiments are required, but already 29 experiments are being developed and shall be deployed by September 2020.
3. Over 29 lakh views (nation-wide) are marked by google analytics (since Jan. 2020) as labs are getting included to provide the demographic summary of virtual labs.

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Annexure 1: List of Labs and experiments being developed

S. No.	Lab Name	Expt. ID	Name of Experiment	Status
1.	Python for Basic Arithmetic Operations	1403	Arithmetic Operations	Round 1
		1404	Built-in Functions	Round 1
		1405	Loops	Round 1
		1406	Data Types	Round 1
		1407	Strings	Round 1
		1408	Classes and Objects	Round 1
		1409	Built-in Modules	Round 1
		1410	Constructors and Inheritance	Round 1
		1411	File Operators	Round 1
		1412	GUI Application	Round 1
2.	Electron Microscopy For Beginners	1439	Feature Size measurement: Porosity, Grain, and Reinforcement	Round 1
		1440	Effect of Beam voltage on conducting and insulating samples	Round 1
		1442	Basic operations of Transmission Electron Microscope (Imaging and Diffraction Pattern)	Round 1
		1443	Bright Field Imaging and Dark Field Imaging	Round 1
		1444	Electron Diffraction for various materials	Round 1
		1445	Indexing of Diffraction Patterns (Ring Pattern & Spot Pattern)	Round 1
		1446	Sample Preparation for TEM analysis (Bulk metal, Powder sample, Brittle material)	Round 1
		1447	Cross-sectional Sample Preparation	Round 1
		1439	Feature Size measurement: Porosity, Grain, and Reinforcement	Round 1
		1438	Basics of Scanning Electron Microscopy: Secondary Electron and BSE imaging mode	Round 2
		1441	Elemental mapping: Spot, Line and Area Analysis	Round 2
3.	Basics of Physics	1400	Energy Band Gap of Semiconductor	Round 2
		1401	Radiation with Temperature Change Using Stefan's Law	Round 2
		1402	Finding Viscosity of Liquid by Rotating Cylinder Method	Round 2
		1432	Measurement of the wavelength of monochromatic source of light with the help of Fresnel's Bi prism	Round 2
		1433	Measurement of focal length of the combination of the two lenses separated by a distance	Round 2
		1434	To measure specific rotation of cane sugar using Polarimeter	Round 2
		1435	Measurement of high resistance by the method of leakage of condenser	Round 2
		1436	To study polarization of light using He-Ne Laser	Round 2

Project Title: Global Initiative of Academic Networks (GIAN)
Project Investigator: Professor Debasis Kundu
Co-Investigator(s)/Collaborators (if any):
Project Initiated on:
Approval letter and date:
Project objectives:

The Union Cabinet has approved a new program titled Global Initiative of AcademicNetworks (GIAN) in Higher Education aimed at tapping the talent pool of scientists andentrepreneurs, internationally to encourage their engagement with the institutes of HigherEducation in India so as to augment the country's existing academic resources, acceleratethe pace of quality reform, and elevate India's scientific and technological capacity to globalexcellence.

Main Objective: To arrange Guest Lectures by international renowned experts.

Progress report:

- Sheet attached

Highlights

- We have submitted 28 Courses in Phase III. So far 5 Courses have been approved by Apex body.
- 2 courses have been completed during April 2019 to March 2020.

GIAN Course Details (Order by: Status, Tentative Date)

S/No	Title	Foreign Faculty	Host Faculty	Duration (Tentative)	Status Report
1.	Interfacial Transport Phenomena and Solution Techniques	Prof H. S. Uday kumar, The University of Iowa	Dr. Ashoke De, Associate Professor, Aerospace Engineering	13 Jan, 2020 to 17 Jan, 2020	Sent for Review
2.	Platform Society and Prosumption: How Digitalization Process Is Reshaping Production, Consumption and Social Behaviours	Prof Piergiorgio Degli Esposti, University of Bologna	Dr. Jillet Sarah Sam Assistant Professor, Humanities and Social Sciences	24 Feb, 2020 to 1 Mar, 2020	Sent for Review
3.	Bio-Nanobiomems And Convergence of Nano-Bi- - Info Technologies: Current Status and Future Prospects	Prof Samir Iqbal, The University of Texas	Dr. Shantanu Bhattacharya, Professor, Mechanical Engineering	17 Jun, 2020 to 30 Jun, 2020	Sent for Review
4.	Energy: Sources, Utilization and World Perspective	Prof Vishwanath Prasad, University of North Texas, Texas	Dr. K. Muralidhar Professor, Mechanical Engineering	27 Jul, 2020 to 31 Jul, 2020	Sent for Review
5.	Fuel/ Engine Interactions in Practical Internal Combustion Engines for Future Emission Compliances and Efficiency Improvements	Prof Gautam Kalghatgi, Imperial College, London	Dr. Avinash Kumar Agarwal, Professor, Mechanical Engineering	1 Feb, 2020 to 7 Feb, 2020	Approved by APEX Body
6.	Micro-Mechanical Models for Dense Granular Flows	Prof James T Jenkins, Cornell University	Dr. Ishan Sharma, Professor, Mechanical Engineering	10 Feb, 2020 to 22 Feb, 2020	Approved by APEX Body
7.	Multiple Criteria Decision Analysis and Applications	Prof Matthias Ehrgott, Lancaster University, Lancaster	Dr. Raghu Nandan Sengupta, Professor, Industrial & Management Engineering	1 Sep, 2020 to 5 Sep, 2020	Approved by APEX Body
8.	Multiphase Combustion: Theory and Modelling	Prof Amsini Sadiki, TU Darmstadt	Dr. Ashoke De, Associate Professor, Aerospace Engineering	20 Jul, 2020 to 24 Jul, 2020	Brochure Uploaded for Public Display
9.	Mechanism Of River Bank Erosion and Its Protection – Geotechnical Aspect	Dr Kazunori Fujisawa, Kyoto University	Dr. Priyanka Ghosh, Professor, Civil Engineering	9 Nov, 2020 to 13 Nov, 2020	Brochure Uploaded for Public Display

Knowledge Incubation for TEQIP
Project Number: MHRD/AE/20130082
Project Title: Knowledge Incubation Centre for TEQIP
Project Investigator: Prof. C.S Upadhyaya, Aerospace Engineering Department
Co-Investigator(s)/Collaborators (if any): Prof. Ishan Sharma, Mechanical Engineering Department
Project Initiated on: 03-06-2013
Approval letter and date: 16-30/2012-TS VII 28-03-2013

Project objectives
Primary goal of TEQIP is dissemination of knowledge and know-how to teachers, researchers and students through short-courses, workshops, internship programs, seminars and thematic conferences to help them achieve a certain level of excellence in their profession. The main objectives of TEQIP program in its phase III are:

- Improving the quality of engineering education in existing TEQIP institutions with a special consideration for low income states and Special Category States (SCS).
- Support to strengthen few affiliated technical universities to improve their policy, academic and management practices
- Twinning arrangements to build capacity and improve performance of institutions and Affiliated Technical Universities (ATU) participating in focus states.

Progress report

- KIT IIT Kanpur has provided a platform for the teachers from TEQIP institutions to interact with the best researchers and teachers from across the country and the world. Towards this, we hosted about 80 workshops/schools/conferences for the teachers and faculty of TEQIP colleges. Some 4800 participants from these institutions and about 750 experts from India and abroad were brought on the same platform with the help of TEQIP IIT Kanpur since 2013.
- Areas of concern were identified through interaction with teachers – and comprehensive reports with the problem and possible solutions have been prepared.
- Model curriculum was discussed and developed for several disciplines – Chemical Science, Material Science, Mechanical Science, Computer Science and Electrical Engineering. These are available on the KIT IT Kanpur webpage as an e-resource.
- Workshops addressing areas of weakness in mechanics, mathematics, physics and material science were organised – to educate, brain-storm and to strategize.
- MOOKIT an Indigenous MOOCs platform was developed. This is a locally manageable, interactive e-learning platform. The first course on 'Architecting Software for the Cloud' was offered through this platform which was attended by 1648 candidates.
- Close interaction with faculty and sharing of library and laboratory resources at IIT Kanpur was enabled via the visiting researcher and internship programs. These have been extremely successful, and we have hosted about 71 teachers and 161 students till now. Interestingly, some of the visiting faculty and students have written joint research articles with their hosts. Several young faculties could initiate new research activities with this support.
- KIT has provided a unique opportunity to PhD students from the TEQIP institutions to spend time at IIT Kanpur, to carry out their research experiments or literature review (using our library) with a locally identified mentor.
- KIT IIT Kanpur started a unique internship program which was in association with SIDBI Innovation and Incubation Centre, IIT Kanpur. This is a step towards motivating students to get acquainted with the process of converting a viable innovative idea/research into a valuable product and the final outcome being generating entrepreneurs.
- Collaborations during Summer and Winter internships are leading to research collaborations and publications.

Highlights

- In Academic year of KIT IITK from March 2019-March 2020, KIT hosted 14 events in which around 1000 participants from TEQIP institutions and about 150 experts were brought on the same platform to interact with teachers and researchers of TEQIP affiliated institutes. Through these schools and workshops, the participants got a good idea of the desired modern content of courses in specific areas and the expertise desired in allied topics. Also teachers and graduate students got updated on the current issues in their research domain, so that they can plan their own research in a much more efficient way.
- Through the internship and visiting researcher programs KIT, IIT Kanpur has provided a platform to the participants to closely work with the faculty of IIT Kanpur, using the facilities available at IIT Kanpur. Several PhD students from TEQIP institutions have benefitted immensely from this initiative. In fact, some students could publish good journal articles based on the work done at IIT Kanpur. Since the program is extremely flexible, continued collaboration is also encouraged – through which several faculty and students have initiated joint research activity.
- All lectures videos of workshops organized by KIT are uploaded on KIT webpage so that interested students and teachers can view them according to their convenience. This is an excellent resource for research and learning and is available freely to any interested user. 4000 lectures across various fields, with more 19500 subscribers and 12-15K accesses per week.

Project Number: MHRD /DESP/2018201
Project Title: Design and Development of Rehabilitation of Rehabilitation and Monitoring Tool for Neurological Movement Disorder
Project Investigator: Prof. Braj Bhushan
Co-Investigator(s)/Collaborators (if any): NA
Project Initiated on: 01/08.2018

Project objectives
As a one-year pilot project, the objective of this study was to design an assistive tool for the neurological disorder patient that keeps check on their health condition by coordinating them with the clinicians and caretakers for early diagnosis and assistance in performing daily activity.

Progress report
Some neurological disorders involve either excessive movement or presence of involuntary and voluntary movement of body parts. It results into hyperkinetic and hypo-kinetic movement. Patient with tremor face enormous trouble in performing their daily activity. Thus, this study involved close interaction with treating neurologists to understand the issues with classification of tremor patients. After several sessions with the patients and neurologists it was clear that there are issues with the classification of dyskinesia, Parkinsonian tremor, Dystonia, etc. Accordingly based on clinical data of patients with tremor, machine learning algorithm was developed to quantify tremor. The project was closed in 2019.

Highlights
- Development of machine learning algorithm for feature extraction, classification and quantification of tremor movement.
- Ranjan, R., Palaniswami, M, & Bhushan, B. (2019). A machine learning approach for classification of tremor: A neurological movement disorder. In Bi, Y., Bhatia, R., & Kapoor, S. (Eds.) Intelligent Systems and Applications. IntelliSys 2019. Advances in Intelligent Systems and Computing, Vol 1038, pp. 1289-1307. Springer, Cham. https://doi.org/10.1007/978-3-030-29513-4_95
- A paper titled A Convolutional Neural Network Approach for Quantification of Tremor Severity in Neurological Movement Disorders by Rajesh Ranjan, Braj Bhushan, Marimuthu Palaniswami, & Alok Verma was presented at the Intelligent Systems Conference (IntelliSys) 2020 and it is going to be published in the Proceedings in the series "Advances in Intelligent Systems and Computing" by Springer.

Project Number: MHRD /HSS /2016142S
Project Title: Development of assistive touch screen-based interface for children with dyslexia and dysgraphia
Project Investigator: Prof. Braj Bhushan
Co-Investigator(s)/Collaborators (if any): Dr. Alok Bajpai & Prof. Shatarupa Thakurta Roy
Project Initiated on: 05/05/2017

Project objectives
We intend to create a touch screen-based interface to assist children with dyslexia and dysgraphia in self-training as well as under supervision. The assistive device was planned for Hindi speaking children. The device should enable them to read on screen assisted through auditory feedback and manipulate finger movement to learn formation of words. Integrating auditory inputs with finger manipulation and visual outcome should help the child retrain their brain networks in identifying the geometric patterns called 'words'

Progress report
The primary objective if this project was to develop assistive touch screen-based interface for dyslexic children. At the first step, we contacted several schools in Kanpur and finally began working with 64 children from these three schools. Our focus was only on children studying in classes Ist to Vth. For the initial identification, we asked Hindi and English teachers to identify supposedly academically poor students compared to others in these classes. For the purpose of psychological assessment, we administered WISC-IV to measure verbal comprehension index and perceptual reasoning index in these 64 children. Thereafter, Dyslexia Screening Test-Junior was administered to screen them for dyslexia. Meanwhile, the assistive device was also developed and tested on this sample. The project is closed now.

Highlights
- Training module involving visual and auditory feedback
- Putting haptic sensation and motor movement in loop to facilitate understanding of basic geometric shapes of Hindi letters
- The assistive device is ready for testing on a large sample of dyslexic children for validation

Project Number: IITK-006 (Uchhatar Avishkar Yojana (UAY))
Project Title: Fabrication of new generation self-resorbing implants and devices from bioactive and biodegradable materials for orthopedic applications
Project Investigator: Prof. Ashok Kumar Department of Biological Sciences & Bioengineering, IIT Kanpur
Co-Investigator(s) (if any): Prof. VivekVerma Department of Material Science and Engineering, IIT Kanpur
Industry Collaborators: Dr. Gopal Pande & Dr. K. Sudhir Reddy Ortho Regenics Private Limited (ORPL), Hyderabad
Project Initiated on: 01-05-2018

Project objectives
- Developing and characterizing bulk and functionalized alloys using magnesium (Mg)
- Performing precision machining and moulding processes for shaping selected materials into implants such as pins, screws, scaffolds etc. for use in human orthopedic applications

- In-vitro and in-vivo characterization of these materials for the bio-efficacy and safety

Progress report
Series of magnesium based biodegradable alloys have been fabricated employing melting and squeeze casting method to achieve defect free casting. Bio-elements with superior biological activities including osteoinductive and osteoconductive properties have been incorporated as an alloying element into the magnesium melt to accomplish osteogenesis. Fabricated Mg alloys have been characterized by using physical and mechanical properties. Further, to check for biocompatibility, cytotoxicity test has been performed for pure Mg and as fabricated alloys to evaluate cell-material interaction. In conclusion, it has been clearly seen that alloying process and compositions (Zn addition) lead to grain size refinement subsequently enhancing corrosion resistance and mechanical properties.

In addition, a biphasic nanohydroxyapatite based ceramic material was established as a potent carrier of antituberculosis drugs (Rifampicin and Isoniazid) showing long term controlled release. Further, the drug loaden nanocement was also checked for antibacterial activity in Mycobacterium smegmatis and biocompatibility in mice preosteobalst cells.

Highlights
- Fabrication of biodegradable magnesium based alloys and their characterizations
- Development of prototypes such as pins, plates, and screws from casted alloys
- In-vitro biocompatibility assessment of fabricated magnesium alloys

Project Number: 6714 (IMPRINT)
Project Title: Haemostatic Bandage for Trauma Care
Project Investigator: Prof. Ashok Kumar Department of Biological Sciences and Bioengineering, IIT Kanpur
Co-Investigator(s)/Collaborators (if any): Prof. (Dr.) Deepak Agrawal Department of Neurosurgery, JPN Apex Trauma Centre, All India Institute of Medical Sciences, New Delhi
Project Initiated on: 01/04/2017

Project objectives
- Development of a ready to use and easy to handle polymeric haemostatic bandage by cryogelation technology
- Incorporation of various haemostatic agents to the developed bandage to enhance its efficiency
- In-vitro and in-vivo characterization of the bandage for haemostatic efficacy

Progress report
We have completed the study of in-vitro and in-vivo (rat models) for the developed product and the experimental study proved that the combination of polymeric matrix incorporated with haemostatic agents had integrated the advantages of both materials and provided efficient hemorrhage control by multiple hemostasis performance. However, before the developed product may be processed into a commercially viable product, the clinical evaluation must be completed. So, accordingly the product was synthesized from pharma/USP grade materials and evaluated to examine any difference in the efficiency of blood clotting and other properties. Next, the bandage for clinical testing is being produced from pharma grade materials in GLP facility present at IIT Kanpur and will be soon tested by the collaborator at AIIMS, New Delhi for clinical trials.

Highlights
- The developed bandage will be ready-to-use, inexpensive and have high blood absorption capacity and optimal mechanical properties
- This will not only stop bleeding rapidly but will also relieve from the frequent change of bandage due to low absorption of fluid
- The product has the potential to reduce the death toll in trauma cases occurring due to blood loss

Project Number: MHRD /PHY /2018560
Project Title: "Sparc: Topology, Interaction And Environmental Control Of Quantum Information Processing"
Project Investigator: Arijit Kundu (PHY)
Co-Investigator(s)/Collaborators (if any): Anatoli Polkovnikov (foreign PI), Amit Dutta (PHY, IITK Co-PI), H. A. Fertig (foreign Co-PI), Alessandro De Martino (foreign Co-PI).
Project Initiated on: 15-03-2019

Project objectives
The research to focus on questions of signatures and survival of topological states in presence of environment, impurities and interaction, especially in periodically driven quantum systems, study of which requires new methodical development. Two workshops and a course will also be developed for the students.

Progress report
Two of the foreign PI and Co-PI, Prof. A. Polkovnikov and Prof. H. Fertig visited IITK between December to February this year. As a part of the proposed course, Prof. H. Fertig delivered set of lectures in his visit and Prof. Polkovnikov delivered an institute lecture. The interaction during their visits were extremely helpful in progressing the proposed research. Several publications related to the project-objectives have been made with such research, among which Prof. Fertig is co-authored in one. Few other works are in progress.

Several activities, including students' visits and workshops are not postponed due to current health situation.

Highlights
- Part of the SPARC course, titled "Topology, Dynamics and Information in Closed and Open

Quantum System" has been conducted by Prof. H. Fertig, where about 40 students of the department attended.

- Prof. A. Polkovnikov delivered a institute lecture, titled, "Chaos and Determinisms: a two-way road between Newton's laws and thermodynamics"
- Several research publications have been made with such support, of which three are published and another four are under review. In one of the publications, Prof. H. Fertig is a co-author where the work was resulted directly from such collaboration.

1. Project Number: 2016408E
2. Project Title: Low Cost Indoor Occupancy and Climate Monitoring System for Energy Conservation (8073)
3. Project Investigator: Dr. Anoop Singh, Department of Industrial Management and Engineering, IIT Kanpur
4. Co-Investigator(s)/Collaborators (if any):Dr. Y. N. Singh, Department of Electrical Engineering, IIT Kanpur
5. Project Initiated on:9th February, 2017

6. Project objectives
To develop a cost-effective Energy Management System (EMS) using programmable hardware for remote monitoring of indoor climate and occupancy to provide real-time periodic actionable information for operating Heating Ventilation and Air Conditioning (HVAC) plants for energy conservation. The modularity of the developed EMS would allow for scalability and replicability for relevant applications for individual consumers as well as for organisations having substantial air conditioning load.

7. Progress report
The energy consumed by HVAC systems in any institution or organisation can be reduced by monitoring indoor climate and occupancy of air conditioned spaces with the help of the developed EMS.

- Cost effective solution as the existing imported solutions are expensive
- Local solutions needed to cater operational practices in India so as to harness energy saving potential
- Modular, Replicable and Scalable system
- Multiple communication channel Wi-Fi/LAN GSM

It comprises of hardware as well as software components.

7.1 Hardware System
To collect indoor climate data from various locations, microcontrollers along with different types of temperature humidity sensors are used. This scalable and replicable system enables us to read sensor data and transmit it to a central server, using the RESTful API which is developed in-house.

To monitor and store the data of a remote location for a short period of time it is not necessary to setup a permanent device as it requires a power socket and Lan connectivity. To address this issue we have developed a Raspberry Pi based data logger. It enables us to capture the climate data of desired remote location in its inbuilt memory and transmit this data to remote server using internet connectivity. It is also useful in locations where no Wi-Fi and LAN connectivity is available as it can transmit the collected data to the server using the GSM module internet connectivity.

Figure 1: Data-logger Prototype-1 Figure 2: Data-logger Prototype-2

7.2 Software System
Developed EMS software system incorporates a web and a database server for the EMS portal to facilitate data collection, analysis, visualisation, notification and operational control. Also developed the native android App for its target audience

Figure : Dashboard of Energy Management System (EMS)

Figure 4: Operator &User Dashboard display unit

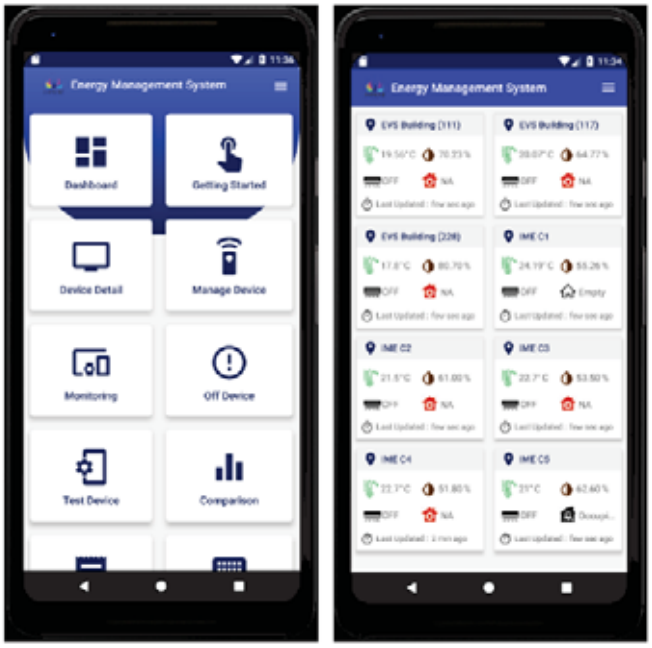


Figure 5:EMS Android App

Application of analytical tools can help make optimal operational decisions based on the size of room, usage, orientation of the room, and outdoor climatic conditions.

Over-cooling degree hours, estimated from the experimental data sets for one of the classroom, reveals significant potential for energy saving - approx. 39.57 degree-hour for a specific week and 77.51 degree-hour for the month of April 2019, equivalent to a cost saving of Rs. 967 and Rs. 1895 respectively.

Figure 6: Comparison of temperature data from different sensors

Analysis of errors in measurement over the identified temperature and humidity rangehelped us to identify a relatively more reliable set of sensors for deployment

8. Highlights

- The developed EMS Portal will be very helpful where the old HVAC Systems are installed
- The developed data logger is more cost effective as compare to expensive data loggers commercially available in the market
- HVAC systems can't be cost effectively replaced with variable frequency drive (VFD) and continue to be monitored, controlled manually or with limited automation

Table 1: Monthly energy saving potential based on different baseline temperatures*

Baseline Temperature	Excess Energy Consumed	Potential Saving	
°C	kWh	Rs.	%
24.0	4033	32,500	2.8%
24.5	6103	50,000	4.2%
25.0	8904	72,000	6.1%
25.5	12597	1,02,000	8.8%
26.0	17246	1,38,000	12.2%

With the deployment of the device in 18 different locations across IIT Kanpur premises, for various setting of base temperature, energy saving up to 12% of the overall energy consumption can be achieved which will result in saving of nearly Rs. 1.37 lakh on monthly basis can be made.

Project Number: IMPRINT 8014
Project Title: Model Based Optimization Tool for enhancing Energy Efficiency, Productivity and Yield of Electric Arc Furnaces (EAF_OPT)
Project Investigator: Professor Amarendra K Singh, IIT Kanpur
Co-PI: Professor Dipak Mazumdar, IIT Kanpur
Project Initiated on: Feb 2017

Project objectives

- Develop a dynamic thermo-chemical model for optimization EAF operation
- Perform laboratory experiments on melting and refining
- Collect experimental data on 5-ton furnace for model testing
- Collect plant data from different units to calibrate and test the model
- Develop a user-friendly software tool for Indian Steel Mills for determining optimum charge-mix for improved efficiency, productivity and yield

Progress report

A comprehensive process simulator based prototype has been developed for charge-mix optimization n Electric Arc Furnace. The process simulator is based on static and dynamic models. The simulator requires large amount of data and parameters for calibration and testing. These have been obtained from literature, laboratory scale experiments, plant data, and comprehensive models developed as a part of this project. Comprehensive models, based on computational fluid dynamics and

associated tols, act as Digital Twins and are particularly helpful in providing data which are difficult to obtain from plant. In the next phase, rigorous testing of the prototype is planned.

Highlights

- Development of EAF_OPT simulator
- Plant Campaign at MIDHANI and Model Calibration and Testing
- Development of CFD based Digital Twins to supplement plant data

Project Number: MHRD/BSBE/2018082
Project Title: IITK KGMU Chemical Biodesign Immersion Programme
Project Investigator: Amitabha Bandyopadhyay
Co-Investigator(s)/Collaborators (if any):
Project Initiated on: 13.05.2018

Project objectives

Progress report

The project is an initiative to bridge the gap between the engineers and medical world and to promote med tech prototypes in IIT Kanpur. The purpose of this initiative is to familiarize faculty, staff, and students of IIT Kanpur with real-world problems of doctors may have engineering/design solutions and eventually to attempt to solve some of these problems.

Highlights

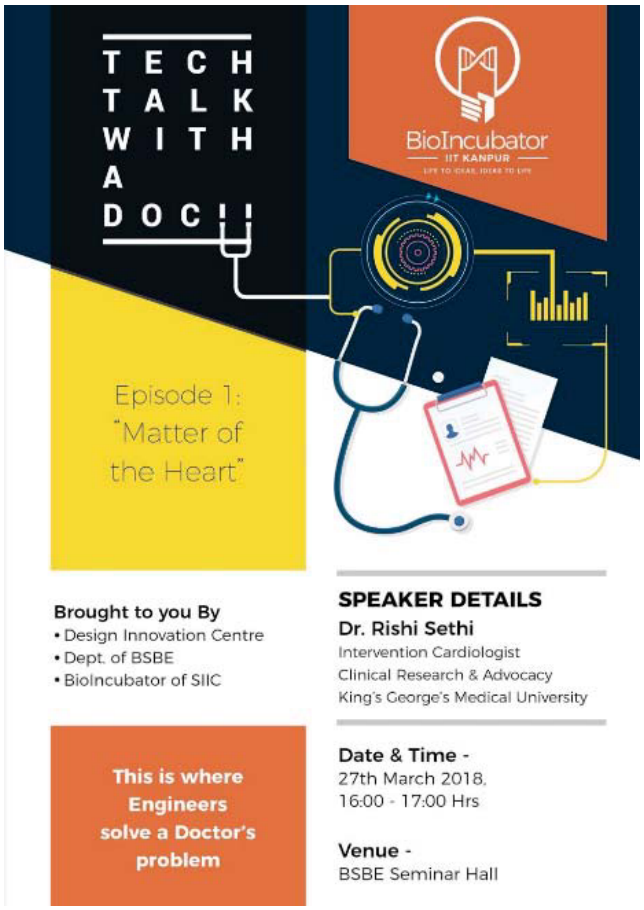
- Series of talks by the doctors from different specialized area, highlighting their problems faced during their treatment, operations and procedures to familiarize the faculty, staff and students of IIT Kanpur with real-world problems of doctors
- IITK faculties involved in various innovations related to MedTech in collaboration with the team of doctors and discuss the feasibility of their innovations.
- Two batches of almost 20 students visited KGMU to observe surgeries and identifying critical problems being faced by the surgeons of different department.

DIC project activities

The project is an initiative to bridge the gap between the engineers and medical world and to promote med tech prototypes in IIT Kanpur. The purpose of this initiative is to familiarize faculty, staff and students of IIT Kanpur with real-world problems of doctors which may have engineering/design solutions and eventually to attempt to solve some of these problems. The initiatives undertaken to promote this alliance are as follows:

1. Tech Talk with a doc (Lecture series)

These are series of talks by the doctors from different specialized area, highlighting their problems faced during their treatment, during operations and procedures. Till date five such talks were conducted and almost all of them were recorded. The initiation of the series of Tech Talk was started by Dr. Rishi Sethi on cardiovascular operational problems.



The second talk was delivered by Dr. Shally Awasthi on pediatric problems and the issues the paediatricians face during their operational procedures.

The third talk was imparted by Dr. Rajan Bhargava of Regency hospital. He described needs and pain points of the ENT and how simple devices can be designed and thought for overcoming the problems of ear, nose and throat.

The fourth talk was given by Dr. Sanjay Behari, an eminent neurosurgeon of Sanjay Gandhi Post Graduate Institute (SGPGI). He and his team of doctors discussed about the problems they face during handling Neuro patients and how a simple change in the inclination or attachments of certain instruments or objects can be beneficial for performing operations and treatments.

The talk on September 28th was given by a pediatric endocrinologist Dr. Anurag Bajpai of Regency hospital. Dr. Bajpai discussed the need for various care for possible interventions of type I diabetes through mobile apps and the need of telemedicine. He also discussed the need for other devices which could be easily made with the help of engineering mind.

1. Hackathon

In order to make the series of tech talk more productive and successful, the SIIC team decided to conduct hackathon after the end of each lecture. The problems discussed or mentioned in the talk will be shared during the talk and the students (individual or in group) can find solution for the same. The most feasible solution will be awarded cash prize of Rs. 2000 (Rupees two thousand only) and a certificate or motivated to work on that solution, while the runner up will be provided with a certificate. Further, if a student/team so desires and based on feasibility of the concept, SIIC Incubator will be happy to support the development of the product/idea to proof of concept stage. In that case, in lieu of the prize money, up to Rs. 20000 will be provided to procure goods/services for the development of the product/idea.

2. Fruitful discussion with IITK faculties

IITK faculties involved in various innovations related to MedTech interact with the team of doctors and discuss the feasibility of their innovations. Some successful innovative talk between the doctors and IITK faculties also happened in SIIC.

1. IITK KGMU Clinical Bio design Immersion Program

The MoU for the program between both the parties was signed on 4th May 2018.

The first batch of six students visited different departments at KGMU. They are being taken to Operation Theatres to observe surgeries and identify critical problems being faced by the surgeons of different department.

The second batch of four PhD and M Tech students also visited the hospital and till now we received 5 proposals from the IITK students. The students are working on the proposals and are in the process of developing prototypes.

Activities in pipeline

2. Engineer – Doctor (5 day, 4 night) hackathon on medical devices

This will be a residential camp of 20 doctors from outside and 60 IITK students (mechanical, electrical, computer sciences, design). We will form 20 teams working on 20 different problems given by professional doctors. In this duration, these teams will validate the problem, design a solution, develop prototypes and present the project on final day. IITK will provide all the necessary material and resources for prototyping. This is where we need funds at least Rs 10,000/- per team. All funds will be used for the prototype development.

Project Number: IMPRINT 7464

Project Title: Development of an Open Source Solidification/Melting Platform-OpenSol

Project Investigator: Arun K Saha

Co-Investigator(s)/Collaborators (if any):

Arun K Saha, Department of Mechanical Engineering, IIT Kanpur, Kanpur (PI)

Arvind Kumar, Department of Mechanical Engineering, IIT Kanpur, Kanpur

Malay K Das, Department of Mechanical Engineering, IIT Kanpur, Kanpur

Amarendra K Singh, Department of Material Science and Engineering, IIT Kanpur, Kanpur

Shyamprasad Karagadde, Department of Mechanical Engineering, IIT Bombay, Mumbai

Pradip Dutta, Department of Mechanical Engineering, IISc Bangalore

Anirban Bhattacharya, School of Mechanical Sciences, IIT Bhubaneswar, Bhubaneswar

Project Initiated on: February 15, 2017

Project objectives

- Development of a comprehensive three dimensional computational platform, OpenSol, for simulating solidification based processes with a capability to predict macroscopic segregation, bulk flow, and shrinkage in various casting processes and multi component alloy systems.
- Ability of OpenSol to link with thermodynamic models and lower length scale models, if needed.
- Validation of the OpenSol platform with existing numerical and experimental data as well as with proposed in house experiments.
- Customization of OpenSol for various solidification processes such as shape casting, continuous casting, arc welding, and crystal growth processes.
- Organization of training and demonstration of software to all stakeholders.

Progress report

The developed software uses an open source Computational Fluid Dynamics (CFD) platform. The front end of this software, called Graphic User Interface (GUI), connects different modules developed in the software for scientific predictions of solidification of metallic alloys and will allow the users to simulate a specific problem without going for the details of the code. So far, the following modules are completed. Some of the in-house experiments are being carried out, (i) Forced convection, (ii) Free convection, (iii) Turbulent flow, (iv) Multi-component species transport, (v) Marangoni convection, (vi) Macro-segregation, (vii) Porous media, (viii) Conjugate heat transfer, (ix) Free surface flow and heat transfer, (x) Macro-shrinkage.

Highlights

- Indigenously developed open source solidification software to be accessible to strategic sectors of the country.
- Capability to handle solidification for different materials, such as aluminum, steel and

multicomponent metallic alloys.
- Interactive graphics users interface (GUI) so that the software can be used without going details into the code.

Project Number: IMPRINT-1 project no. 6840 (MHRD-CE-2016408C)
Project Title: Development of a Smartphone Camera-based Sensor for Detection and Remediation of Chromium Pollution in Water
Project Investigator: Dr. Abhas Singh, Department of Civil Engineering, Indian Institute of Technology Kanpur
Co-Investigator(s)/Collaborators (if any):
Samuel Rajkumar, Foundation for Environmental Monitoring
Late Rakesh Jaiswal, Eco Friends (NGO), Kanpur
Dr. Harald Weigand, THM University of Applied Sciences, Germany
Dr. Tim Mansfeldt, University of Cologne, Germany
Project Initiated on: Feb 8, 2017

Project objectives
1. To develop a simple, low-cost, robust, field deployable smartphone enabled colorimetric analyzer to reliably detect chromium contamination in water.
2. To develop a low-cost, robust, chromate removal process for mitigation of hexavalent chromium from polluted groundwater at the individual household scale.
3. To enable people participation in monitoring and treatment through the use of above technologies.

Progress report
Objective 1 was completed by 2018. We have developed 100 prototypes that have been field-tested under diverse conditions and matrices.

Objective 2 is ~90% complete. A prototype for a household-scale low-cost filter for Cr(VI) removal from contaminated groundwater has been developed. Two different treatment methods, chemical- and electro-coagulation were used in the filter unit. Final development issues are remaining that needs to be resolved to deploy it in field for smooth operation with minimal replacement of filter media.

Objective 3 is ~60% complete. We ensured community participation to achieve objective 1. With objective 2 reaching its final stage we target to do a pilot deployment of filter at volunteers' household at the contaminated site to evaluate the relative efficacies of the two methods at site and to see the response of the community to the filter. The lockdown due to COVID-19 disrupted our plans of deployment, which would be resumed once students return to IIT campus.

Highlights
- Successfully developed and field-tested 100 prototypes of smartphone-enabled Cr(VI) measurement tool for detection of more than 10 ugL-1 contamination in groundwater and surface water.
- Developed prototype of a household-scale filter for Cr(VI) removal from groundwater using two methods: (a) ferrous sulfate based chemical coagulation and (b) electrocoagulation. Final modifications are underway to ensure that it is field-deployable.

A publication titled-**Smartphone enabled field monitoring tool for rapid hexavalent chromium detection in water**-on highlight 1 is under review in a reputed journal. A conference presentation on highlight 2 received the second-best award in an Environmental Engineering conference (February 2019) at IIT Bombay. Another manuscript titled **Development of household-scale treatment unit for removal of hexavalent chromium from groundwater using two comparable techniques: chemical- and electro-coagulation** based on highlight 2 will be submitted for publication by July.

Project Number: SPARC/2018-2019/P1256/SL
Project Title: Development of a precise gravimetric geoid for mainland India using terrestrial, airborne and satellite gravity data
Project Investigator: Dr. Balaji Devaraju
Co-Investigator(s)/Collaborators (if any): Prof. B. Nagarajan (IITK), Prof. Onkar Dikshit (IITK), Prof. Will Featherstone (Curtin University, Australia), Dr. Sten Claessens (Curtin University, Australia)
Project Initiated on: March 15, 2019

Project objectives
i. Develop a gravimetric geoid model for India.
ii. Develop an optimal combination strategy for the heterogeneous gravity data.
iii. Develop the first high resolution (1") terrain correction map of India.
iv. Update CartoDEM using the developed geoid from this project to provide orthometric heights.

Progress report
Gravity and GNSS-Levelling data has been procured from GETECH and Survey of India (SoI), respectively. It is important to note here that GNSS/levelling data, as procured from SoI, is limited in nature and do not cover the whole India. 1"x1" Terrain Correction (TC) map for India and adjacent regions has been developed using SRTM 1" Digital Elevation Model (DEM). However, due to a few error sources, another 3"x3" TC map is developed using MERIT 3" DEM. Initial computation for Indian geoid using Curtin University of Technology's approach has been carried out. The computations will be re-run for several parameter-sweeps.

Highlights
1. All the data sets (gravity (terrestrial and marine), GNSS/levelling, DEM and Global Geopotential Model) are now available.
2. First high-resolution TC map for India has been generated.
3. Initial geoid computation is done using one approach.

Project Number: MHRD/DESP/2015437
Project Title: Central Sector Scheme For MOOCs-Complaint e-content creation **(NPTEL Phase IV)**
Project Investigator: Prof. Satyaki Roy
Co-Investigator(s)/Collaborators (if any): Prof. Vimal Kumar
Project Initiated on: 31st August,2016 (Approval letter dated 31st March 2009 already submitted at R&D)

Project objectives
The broad aim of the project CSS-MOOCs is to facilitate the competitiveness of Indian Industry in the global markets by improving the quality and reach of education. The operational objective of CSS-MOOCs is to make high quality learning material available to students of different institutions across the country. The target group for this project consists of students and faculty members of institutions offering Undergraduate/Postgraduate education in India.

Progress report
Since 2014, IIT Kanpur has completed 313 courses. We offered 37 courses in January-April 2020 and due to COVID-19 the examination was postponed. We issued an attested assignment score sheet letter for all exam registered candidates of January-April 2020 and made a special request to all Institutes/Universities to accept it for transferring credit to the student as a special case for the Covid-curtailed January 2020 semester. We are offering 48 courses which will start from 14th of September 2020. As part of the NPTEL Phase IV initiative we have developed the concept of NPTEL Local Chapters across the country in the different universities and engineering colleges. There are close to 890 local chapters today with identified expert faculty members of these institutions serving as local mentors for the students enrolled in NPTEL courses. Last year, we have conducted workshops in the institutes in Mizoram, Nagpur, Varanasi, Mathura, Gwalior, Amarkantak, Bhilwara and Bhopal. We plan to conduct workshops exclusively in Hindi from August 2020 onwards based on requests made by our partnering institutes. These workshops aim at generating awareness about the NPTEL platforms, explaining difficult concepts from the course content by the subject matter experts and inviting more and more institutions with a dearth of good teaching staff to become local chapters and meaningfully utilize this platform initiated jointly by the IITs and supported by MHRD. AICTE and NPTEL have signed an MOU whereby advanced NPTEL online certification courses are approved for Faculty Development Programme by AICTE. A large number of Advance Level Courses are being offered by NPTEL which are 1 credit, 2 credit and 3 credit courses.

Highlights
Special Lecture Series: NPTEL launched a Special Lecture Series online for the benefit of students affected by the nation-wide lockdown to prevent the spread of COVID-19. The one-hour interactive lectures deal with topics ranging from career guidance to the latest updates on technology to topics of general interest to all.
Internship: NPTEL started offering internships to exam toppers with the respective course instructors. We provide a stipend of Rs. 10,000 for a 8 weeks duration.

Translation: NPTEL has initiated the process of translating the English transcripts of NPTEL video content. For now, we are planning to translate NPTEL content into 8 regional languages - Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Tamil, Telugu.

Industry Associate: NPTEL is working towards bringing in an industry perspective to its technically rich courses which led to the inception of NPTEL INDUSTRY ASSOCIATE (NIA). NPTEL aims to partner with organisations in a mutually beneficial manner by offering courses to train the fresher's and to cross-skill and up-skill the existing workforce.

Project Number: SERB-EE-2019400
Project Title: Smart Music Tutor for Indian Classical Music (Vocal and Instrumental)
Project Investigator: Dr. Vipul Arora, IIT Kanpur
Co-Investigator(s)/Collaborators (if any):
Prof. Laxmidhar Behera (IIT Kanpur)
iSmriti Tek Pvt. Ltd. (industry partner)
Project Initiated on: 24.12.2019

Project objectives
To develop a service for remote music learning via a mobile/web application. Machine learning algorithms find mistakes, suggest feedback for improvement of the student, recommend next lessons and perform various other useful tasks. Especially in the times of social distancing, it is a great asset for music teachers and students.

Progress report
We have built a basic mobile (android) app and server backend for teachers to upload their lessons, and for students to fetch those lessons and submit their practice assignments (as audio). This app is for violin teaching and will collect data for further research. First version of automatic analysis of students' audio is also prepared. A music teacher and his students are using this app and are helping us in its development. We have developed baseline algorithms for music audio analysis for multi-pitch streaming, melody extraction and music retrieval, and are working on improving them machine learning algorithms.

Highlights
- We have submitted a research paper on song search by humming
- We have developed a mobile app, connected to cloud server, for learning violin and is being used by our alpha users
- We have developed algorithms on real time automatic pitch extraction for violin tuning

Project Number: MHRD/MDES/2016-261
Project Title: Swayam Prabha, DTH, IIT Kanpur
Project Investigator: Dr. Satyaki Roy
Co-Investigator(s)/Collaborators (if any): Dr. Munmun Jha & Dr. Shantanu Bhattacharya
Collaborators: IIT Madras, IIT Delhi, IIT Gandhinagar,

IIT Kharagpur and ISC Bangalore
Project Initiated on: August 2016

Project objectives
Swayam Prabha, DTH is a group of 32 DTH channels devoted to telecasting of high-quality educational programs on 24X7 basis using the GSAT-15 satellite. Swayam Prabha Channels (11 &16) of IIT Kanpur has been stared with an aim to initiate new ways of learning by educating students with better and improved methods of curriculum. It offers education through virtual class room and students can access digital repositories from Swayam Prabha portal.

Progress report
Swayam Prabha-Team at IIT Kanpur is dedicated to carry education direct to home of the learners through the Swayam Prabha DTH channels. Hitherto it has aired around 6564 hours of course content on both the channels since its inception. During this financial year around 42 new courses (790) hrs. of content are being developed.

Exclusively channels 11 and 16 are being used to broadcast all the courses pertaining to the following mentioned department.

The channel 16 of Swayam Prabha telecasts courses in Humanities, Social Sciences i.e Economics, Literature, Linguistics, Philosophy, Political Science, History, Sociology, Visual Arts, Design, Psychology and different topics relevant to the Management studies.

The Channel 11 presents courses related to Mechanical Engineering with a wide range of topics such as Engineering Thermodynamics, Fluid Mechanics, Engineering Mechanics, Heat Transfer, Manufacturing System Technology, Finite Element Analysis, Kinematics and Dynamics of Machines etc. The scope is wide, and the channel continues to introduce new courses every month.

Highlights
- Several new courses in Hindi Vernacular are being aired to help students learn and enhance their knowledge base and skills.
- As desired by MHRD, IIT Kanpur is currently in the process of developing several new courses catering to the 2nd year of engineering education (B.Tech).
- Both of the Swayam Prabha channels has transmitted around 10 new "Tutorial Based Courses" amounting to 140 hrs. of content on Portal. Lectures recorded at other institutes are also being sourced from here (Channel 11 and 16) on Swayam Prabha Portal.

FINANCE

The Institute has a decentralized financial management structure, organized largely by the primary source(s) of funds.

Unaudited FY 2019-20 accounts are prepared as per the guidelines of Ministry of Human Resource Development (MHRD), the administrative ministry of the Institute, conveyed vide their letter no. 29-4/2012-IFD dated April 17, 2015. The unaudited accounts were duly adopted by Chairman, Board of Governors (BOG) on September 03, 2020.

The accounts are available with the title 'Un-audited Annual Accounts (2019-20)' at the following link:

https://www.iitk.ac.in/new/annual-accounts

Following are the highlights of Institute's FY 2019-20 unaudited financials:
- Balance sheet size of over Rs.3,892 crore, without any valuation added for the IIT brand.
- Operating income is of Rs. 799 crore of which operating expenditure of about Rs. 707 crore and Rs. 57 crore has been spent to repay HEFA Loan.
- MHRD released revenue and capital funds of Rs. 465 crore and Rs. 138 crore respectively under different schemes like Support to IITs, Prime Minister Research Fellowship and National Initiative for Technology Transfer.
- Funds receivable from MHRD at Rs. 22 crore as on March 31, 2020, was received on April 02, 2020.

Table below presents the summary financials:

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 MARCH 2020

(Amount in Rs)

PARTICULARS	SCHEDULE	CURRENT YEAR 2019-20	PREVIOUS YEAR 2018-19
INCOME			
Academic Receipts	9	59,50,72,443	57,90,61,483
Grants/Subsidies			
Grants against Salary	10	2,17,57,77,341	1,94,00,31,548
Grants against Pension	10	86,99,68,958	1,05,39,96,681
Grants against Others	10	97,70,81,034	66,30,40,556
Grants against Scholarships	10	71,79,03,761	53,69,70,324
Grants against HEFA Interest	10	7,71,33,195	5,82,86,356
Grants against P M Research	10	1,30,49,304	48,61,174
Income from Investments	11	24,79,61,134	17,28,27,884
Interest earned	12	2,80,36,001	1,62,35,589
Other Income	13	2,29,35,22,874	91,01,44,911
Prior Period Income	14	-	84,22,675
TOTAL (A)		**7,99,55,06,035**	**5,94,38,79,181**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)			
MHRD Grant Salaries	15	2,09,04,01,195	1,89,36,45,574
MHRD Grant Retirement and Terminal Benefits	15	2,91,41,37,524	1,49,58,10,050
Academic Expenses			
MHRD Scholarships	16	71,79,03,761	53,69,70,324
Other Academic Expenses	16	26,30,75,983	24,82,18,831
Administration and General Expenses	17	50,81,58,426	70,11,80,867
Transportation Expenses	18	-	6,53,097
Repairs & Maintenance	19	46,22,77,721	52,13,50,676
Finance Costs	20	7,92,69,510	7,02,03,927
Depreciation	4B	21,64,845	19,33,578
Other Expenses	21	4,04,24,689	3,71,94,225
Prior Period Expenses	22	2,48,161	32,49,827
TOTAL (B)		**70,70,61,815**	**5,51,04,10,976**
BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE (A-B)		**91,74,44,220**	**43,34,68,205**
Utilization Against HEFA Loan		**57,13,00,000**	**39,10,00,000**
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CAPITAL FUND		**34,61,44,220**	**4,24,68,205**

Our library provides access to the resources in all formats to meet the research and teaching needs of the Institute. The library uses open source software KOHA for its automation, Joomla for website design, and DSpace for Institutional Repository. Our web catalogue enhances the way of searching and retrieval of resources; it gives a link to Google® cover images & contents, enables print options, support rating, comments, making of list and exports search results in different formats. The library has CCTV for better surveillance & security and high-speed Wi-Fi internet access. P. K. Kelkar library subscribed to only online digital subscriptions of all periodicals. The library vision document approved by the academic senate is also in its peak stages of implementation to make the P.K. Kelkar library an efficient and modern knowledge Center. A total of Rs. 17.91 crores spent on the purchase of various print and online resources. The library had successfully implemented radio frequency identification (RFID) for better inventory control in 2019-2020.

Implementation of an RFID system

The RFID enabled library books self-check-in and check-out system at the P. K. Kelkar Library was inaugurated by Prof. Abhay Karandikar, our Director, on March 06, 2020,

in the presence of Prof. Manindra Agrawal, Deputy Director. The RFID tagged resources enables the library self-service facility and, automated material handling. It will facilitate our library users to borrow and renew library books by themselves on the kiosk using biometric authentication and return the books through the 24x7 book drop facility. Total 1,91,084 books have been tagged in the first phase of the RFID implementation, costing to Rs. 1.35 Crores.

The work done by various units are summarized below:

A. Library Automation

The library has its website (http://pkklib.iitk.ac.in) that is maintained by our personnel. The site provides information and navigation to the resources subscribed by the library. These contents are updated regularly. The library also develops and maintains various web-based services. The online request of untraceable books, library resource usage statistics, resource manuals, budget details, new arrival of books, highlighting research outputs of faculty, etc. are other services provided through our website.

Curation of MTech and PhD theses is nearly over. A Md5/sha12 checksum is now created and posted for additional data security for each file.

B. Circulation and Maintenance Unit

The functions include resolving references and referral queries, binding of library holdings, inter library loan, document delivery services (ILL), electronic thesis submissions (ETD), and other activities like issuing membership clearance. It also put all its efforts to repair and maintain the library building premises, equipment, furniture, and fittings. The circulation policy was amended this year to modify some membership categories and borrowing privileges; the overdue charges per book/day is now increased from 20 paise/day to Re. 1.00/day from the new academic session 2020-21.

B1. Circulation statistics

During the above period, a total number of 59429 books were checked out/renewed, and 35081 were checked in. A total number of 94510 transactions were carried out. Twenty (20nos) books were reported as lost and a sum of Rs. 77981.67.00 was recovered as book cost with handling charges. A total of 42 faculty members, 29 PDFs and 39 staff members were issued no dues excluding students.

B2. Inter-library loan (ILL)

The library facilitates its users and other institutes for delivering the documents and books through resource sharing with other institutions. ILL unit also provides a reference and Inter-Library Loan facility. During the period 164 documents requests were fulfilled to IITK users and other libraries.

B3. Visitors

More than 769 outside visitors/ students also visited the library during the last academic year. Apart from this, more than 1000 school students visited the premises on the occasion of the institute "Open House" conducted as a part of the Diamond Jubilee celebration on January 25, 2020.

B4. Archival of theses

During the period, 694 new theses were archived in the Electronic Thesis Submission (ETD) repository taking the total number to 17622.

B5. Binding section statistics

The library has sent 1251 damaged/ mutilated books to the bindery (Rs. 3,43,290.00) and 525 journals (Rs. 1,61,077.00). The total amount of Rs. 5,04,367.00 was spent on binding related activities during the financial year.

B6. Maintenance Unit

Unserviceable and obsolete non-consumables were written off. During this period, window curtain blinds were fixed in the library.

C. Acquisition Unit

C1: books

The library procured 1845 books by spending an amount of Rs.54.04 lakhs which includes 944 printed books, 901 e-books.

A total of 169 books were donations. The donors of these gifted books were duly acknowledged.

The departmental breakup of the purchased books is in table I.

Table I

Department/ Centers	No. of books purchased
• Aerospace Engineering	33
• Biological Science & Biological Engineering	20
• Civil Engineering	109
• Center for Lasers and Photonics	19
• Cognitive Science	09
• Chemical Engineering	33
• Chemistry	30
• Computer Science Engineering	10
• Library/Discretionary	00
• Design Programme	18
• Economics Science	40
• Electrical Engineering	46
• Earth Sciences	22
• Generalia	33
• Humanities and Social Sciences	130
• Industrial & Management Engineering	36
• Mathematics and Statistics	15
• Mechanical Engineering	153
• Materials Science and Engineering	11
• Materials Science	03
• Nuclear Engineering and Technology	01
• Physics	173

New arrivals of the accessioned books is sent out weekly via an e-mail link to students and faculty.

C2: Online Resources

The library has subscribed and provided campus-wide access to more than 13200 peer-reviewed journals and 22 bibliographic, citation and factual databases, for the year 2020.

The expenditure for subscribing to various resources was Rs.17.36 crores; the amount includes GST.

The major subscribed e-resources from various publishers are given in Table II.

Table II

Library Subscribed	eSS supported
1. American Chemical Society	1. ACM Digital Library
2. Cambridge University Press	2. American Institute of Physics
3. CMIE database (selected datasets)	3. American Physical Society
4. EBSCO (selected datasets)	4. Annual Reviews
5. Elsevier (ScienceDirect)	5. ASCE Journals Online
6. Grammarly	6. ASME Journals Online
7. IEEE/IET	7. Economic & Political Weekly
8. Indiastat	8. ISID Database
9. Institute of Physics	9. J Gate Plus (JCCC)
10. Optical Society of America	10. JSTOR
11. Royal Society of Chemistry	11. MathSciNet
12. SAGE Publications	12. Nature
13. SciFinder	13. Oxford University Press
14. Scopus	14. Project Muse
15. SIAM	15. Springer
16. Springer-Nature	16. Web of Science
17. Taylor and Francis	**
18. Thomas Telford / ICE	**
19. Wiley	**

D. Archives Unit

The unit digitizes and preserves documents of the Institute. During the period, 639 personal files were digitized and archived. Archives provided photographs for display on all-important occasion to the Institute. Archived data are made searchable and retrievable using a web-based form.

E. Skill enhancement

Library personnel (Mr Prashanta Kumar Behera, Mr Brij Mohan Singh, Mr Ramakant, and Mr Uma Shanker) had attended week-long advanced training on "Bibliometrics and research output analysis" at INFLIBNET Centre,

Gandhinagar, in July 2019.

The library offered an apprenticeship to twelve trainees, of which 11 are continuing in the program. The library conducts weekly lectures for the apprentice trainees and staff. An institute lecture, titled "Story of Kashmir: Civilization, History and Politics was delivered by Mr. Sushil Pandit, in August 2019.

I finally would like to place on record my thanks to all SLC members, library staff, institute administration, students and security, for their help in the smooth functioning of the library. Special mention must be made of here of the continued support from the Director and Deputy Director without which modernization activity would have lost its rigours and enthusiasm.

COMPUTER CENTRE

(a) Computer Centre

Computer Centre (CC) caters to the computational and IT related needs of the academic as well as residential community at IIT Kanpur. The main facilities provided by CC are: High Performance Computing, Institute Local Area Network covering academic area, residential area and students' hostels, E-mail facility to over 13000 users, Computer Labs, Website development and maintenance, various software for specialized research and general use by the campus.

The Centre functions round the clock on a state of art Data Centre divided into various zones that host compute and other servers, parallel clusters for different projects, office automation services and soft switch-based telephony services. All the CC facilities are backed up by a UPS system and diesel generator for 24 hours uninterrupted supply.

The Institute Computer Centre has two High Computing setups, which have ranked 369 and 130 in top 500 lists (www.top500.org) , in the November 2010 and June 2013 lists respectively. The second cluster became ranked 118 in the top 500 lists in June 2014 with the addition of extra nodes. Together these setups have 1373 nodes.

The Institute is deploying a third HPC setup comprising of bull sequena racks in the new NSM HPC Data Centre which will host 1.3 Peta flop machine with 312 compute nodes out of which 20 are GPU nodes & 292 are CPU modes. These clusters, will have internal storage of approximately 100 TB managed via parallel file system.

The Institute has a fully managed Local Area Network of more than 25000 nodes, connecting all the hostel rooms, offices and residences over wired as well as wireless network. It has 10 + 2 Gbps connectivity to the Internet via different Internet service providers including NKN. CC provides single sign-on facility for seamless wi-fi connectivity within the campus and eduroam for seamless wi-fi connectivity for members travelling to participating institutes worldwide.

CC maintain labs with over 400 computers. The labs and the computational infrastructure hosts a wide variety of general as well as specialized application software in areas like simulation, modeling, data management & processing, CAD/CAM, computer graphics, word processing. Several softwares are also hosted on central servers for use by students and faculty on their own computers.

(b) NEW OFFICE AUTOMATION – 'PINGALA'

The new office automation (NOA) is an institute project that functions under the department of digital infrastructure and planning (DDIA). It is an online automation portal for accessing various departments of the institute through an ERP system named "Pingala." The stakeholders of Pingala include the students, faculty, and campus residents. IIT Kanpur's new office automation project is named after the influential ancient scholar Pingala (c. 3rd/2nd century BCE), the author of Chandahsastra, who presented the binary numeral system to the world for the first time.

This online automation aims to provide ease in automation, easy report generation, and cross-platform portability through a secure information portal that provides data security. The most adaptable and preferred features include the mobile portability and scalability of the system. Through Pingala, the users can access the functionaries of prominent departments like DOAA, DOFA, DOSA, and other facilities like IWD and library with ease and security.

The project was kick-started in 2015, maneuvering to regulate the routine monotonous task to computers and enhance creativity for its users. Pingala is designed with the viewpoint of keeping the automation system user-friendly, aesthetic, secure yet simple and appealing.

The institute service covered under Pingala include administrative modules, academic modules, research project management systems, external connect systems, and E-payment gateways. Pingala not only caters to the students and faculty network but also all the campus residents through modules like complaint management system (CMS). As of now, Pingala is running 37 modules having sophisticated functionalities like faculty recruitment in DoFA, pre-registration in DoAA, and many more. Other essential services available on the online platform include employee leave system, address book, online survey, and faculty information system (FIS). Pingala is available 24*7 for its users from every nook and corner of the world to access its elaborate functionalities and modules and aims to become more prevalent eventually with the pace of time.

CENTRE FOR CONTINUING EDUCATION

The Centre for Continuing Education was established for the purposes of coordinating the various activities connected with development of curricula, preparation of resources, administering the continuing education programme and providing in-service training to the teachers of engineering colleges. This Office is located in the Outreach Building, First Floor, Room No. 207.

The activities are organized under two different cells, namely

1. Quality Improvement Programme (QIP)
2. Continuing Education Cell (CEC)

This write-up describes the various activities of the above two cells:

1. QUALITY IMPROVEMENT PROGRAMME

Since its inception, in 1971, the Quality Improvement Programme of the Ministry of Human Resource Development, Department of Education, Government of India, has strived for development of technical education in the country, primarily by upgrading the teaching curricula and enhancing qualifications of teachers of engineering colleges/institutions recognized by All India Council for Technical Education (AICTE). The main facets of QIP include.

(A) Degree awarding programme

Master's Degree Programme (M.Tech.)

Under M.Tech. programme (4 semester) the teachers are sponsored by the engineering colleges/institutions recognized by the AICTE. After the selection of the teachers by the Central Committee of the QIP Coordinator, the admission letters to the selected candidates are issued by the respective Head of the Department of the Institute. The State Governments/Institutions sponsoring the teacher are required to treat them as on deputation and bear their normal salaries and other allowances during the period of their sponsorship. In addition to the above the Government of India provides each candidate a scholarship and a contingency grant. The present rates of scholarship and contingency grant are as follows:

Scholarship	:	Rs.4,000 per month (24 months)
Contingency grant	:	Rs.3,000 per annum

Doctoral Programme (Ph.D.)

Under this programme the serving teachers who already possess Master's degree and are sponsored by the State Government/Engineering Institutions recognized by AICTE are eligible for selection. The Doctoral Programme under QIP is for three years duration.

The present rates of fellowship and contingency grants are as follows:

Fellowship	: Rs.15,000/- per month for three years
Contingency Grant	: Rs.15,000/- per annum

(B) Short Term in-Service Training Courses (AICTE Sponsored)

The short-term in-service training courses sanctioned under Quality Improvement Programme are specifically designed for improving the competence of serving teachers of engineering colleges in specific areas according to their requirements. The different short term courses which will be conducted during the year are announced once in a year. Short term courses for various durations are as follows:

One-week Course
Two-week Course

The faculty members of various disciplines are requested to submit proposals for the conduct of short term courses under QIP in the month of December every year. These proposals are put up to QIP Coordinator for approval. About 20 course proposals are approved under this scheme every year.

2. CONTINUING EDUCATION CELL (CEC)

(A) Self-Financed Short-Term Courses

Faculty members are also encouraged to run short-term continuing education courses for industry on a self-financing basis. An overhead of 20% of the gross receipts of the course is chargeable by CCE on all such courses whether run at IIT Kanpur or elsewhere, and also on industry-sponsored courses whether run at IIT Kanpur campus or elsewhere. Proposals for all such course must be submitted to CCE for approval by the Deputy Director.

Besides these programmes CCE will also approved the activities of Courses/ Workshop /Seminar /Conferences/Symposium/Training programme throughout the year.

Summary of various activities during the year 2019-2020

1. QIP Students
   (a) M. Tech. Candidates admitted - Nil
   (b) Ph.D. Candidates admitted - 01
2. Short term courses conducted under QIP – 20

3. Short term self-financed courses conducted - 57

4. Workshops/ Conferences/ Seminars conducted – 32

CENTRE FOR CREATIVE WRITING AND PUBLICATION

The CCWP hosted two talks by eminent Indian writers before the ending of the financial year in March 2020.

The first writer to be invited was Ms. Easterine Kire, the Indian English writer from Nagaland. The talk was on January 23, 2020 on the topic "Writing Ourselves" at 6:30 pm in L8. Ms. Kire gave an insight into the culture of the north-east and especially Nagaland through her talk.

The second writer was Ms. K R Meera the leading writer in Malayalam. Her talk was on February 14th at 6"30 pm in L 11. The topic of the talk "Why I Write" gave listeners a glimpse of how a creative mind function.

Both talks were well attended by the campus community including faculty and students. There was a lively interaction session after both talks.

The CCWP had invited Kalam, a theatre troupe from Kerala to perform Bhasa's Urubhangam, a Sanskrit play on the 20th of March in the Outreach Auditorium. All the plans had been made for the performance, but it had to be cancelled because of the COVID outbreak and subsequent lockdown.

MEDIA TECHNOLOGY CENTRE

The Media Technology Centre, IIT Kanpur is engaged with development of high-quality educational content and its dissemination through Internet, Television and Radio media. The center is currently involved with two major MHRD Projects (NPTEL IV and Swayam Prabha) along with various other academic and research activities.

Facilities/Activities

We have two state of art recording studios equipped with High Definition multi-camera set-up with 16 channel switcher, chroma, graphic tablets etc. for seamlessly recording the content. Also, we have cutting edge video editing platforms to produce high quality digital content.

- ✧ Engaged in creating video based course content for outreach education.
- ✧ Creative platform for the students, where they can explore their hidden talent and attain greater heights. Student of the Communication Design in the Design Program have an academic relevance to the resources of the centre. While PhD and M.Des students are engaged in media and design research, UG students continue to exhibit their ample creative talents by producing social campaigns, documentary films, radio programs and various web based applications exploiting the varied domains of media arts.
- ✧ Besides, there are undergraduate students of who utilize the resources to work on video assignments in HSS Level 1 and 2 courses.
- ✧ Audio Video recording facility of seminars, workshops, conferences, major institute events are available at a very nominal charge.
- ✧ A trained team of more than 50 project employees engaged in recording, editing and management of the generated e-content for the NPTEL Swayam Portal.

Central Sector Scheme for MOOCs-Complaint e-content creation (NPTEL Phase IV)

The broad aim of the project CSS-MOOCs is to facilitate the competitiveness of Indian Industry in the global markets by improving the quality and reach of education. The operational objective of CSS-MOOCs is to make high quality learning material available to students of different institutions across the country. The target group for this project consists of students and faculty members of institutions offering Undergraduate/Postgraduate education in India.

Since 2014, IIT Kanpur has completed 313 courses. We offered 37 courses in January-April 2020 and due to COVID-19 the examination was postponed. We issued an attested assignment score sheet letter for all exam registered candidates of January-April 2020 and made a special request to all Institutes/Universities to accept it for transferring credit to the student as a special case for the Covid-curtailed January 2020 semester. We are offering 48 courses which will start from 14th of September 2020. As part of the NPTEL Phase IV initiative we have developed the concept of NPTEL Local Chapters across the country in the different universities and engineering colleges. There are close to 890 local chapters today with identified expert faculty members of these institutions serving as local mentors for the students enrolled in NPTEL courses. Last year, we have conducted workshops in the institutes in Mizoram, Nagpur, Varanasi, Mathura, Gwalior, Amarkantak, Bhilwara and Bhopal. We plan to conduct workshops exclusively in Hindi from August 2020 onwards based on requests made by our partnering institutes. These workshops aim at generating awareness about the NPTEL platforms, explaining difficult concepts from the course content by the subject matter experts and inviting more and more institutions with a dearth of good teaching staff to become local chapters and meaningfully utilize this platform initiated jointly by the IITs and supported by MHRD. AICTE and NPTEL have signed an MOU whereby advanced NPTEL online certification courses are approved for Faculty Development Programme by AICTE. A large number of Advance Level Courses are being offered by NPTEL which are 1 credit, 2 credit and 3 credit courses.

In the upcoming September 2020 course run, IIT Kanpur is offering 48 courses of which 7 are new and 41 are reruns.

Highlights

Special Lecture Series: NPTEL launched a Special Lecture Series online for the benefit of students affected by the nation-wide lockdown to prevent the spread of COVID-19. The one-hour interactive lectures deal with topics ranging from career guidance to the latest updates on technology to topics of general interest to all.

Internship: NPTEL started offering internships to exam toppers with the respective course instructors. We provide a stipend of Rs. 10,000 for a 8 weeks duration.

Translation: NPTEL has initiated the process of translating the English transcripts of NPTEL video content. For now, we are planning to translate NPTEL content into 8 regional languages - Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Tamil, Telugu.

Industry Associate: NPTEL is working towards bringing in an industry perspective to its technically rich courses which led to the inception of NPTEL INDUSTRY ASSOCIATE (NIA). NPTEL aims to partner with organisations in a mutually beneficial manner by offering courses to train the fresher's and to cross-skill and up-skill the existing workforce.

DTH (SwayamPrabha)Project

Swayam Prabha, DTH is a group of 32 DTH channels devoted to telecasting of high-quality educational programs on 24X7 basis using the GSAT-15 satellite. Swayam Prabha Channels (16 & 17) of IIT Kanpur has been started with an aim to initiate new ways of learning by educating students with better and improved methods of curriculum. It offers education through virtual class room and students can access digital repositories from Swayam Prabha portal. Channel 16 is an exclusive channel for Humanities, Social Sciences and Management and Channel 17 presents courses related to Mechanical Engineering and related Subjects.

Swayam Prabha-Team at IIT Kanpur is dedicated to carry education direct to home of the learners through the Swayam Prabha DTH channels. Hitherto it has aired around 6564 hours of course content on both the channels since its inception. During this financial year around 42 new courses (790) hrs. of content are being developed. Several new courses in Hindi Vernacular are also being aired to help students learn and enhance their knowledge base and skills. Both of the Swayam Prabha channels has also developed and transmitted around 10 new "Tutorial Based Courses" amounting to 140 hrs. of content on Portal. Lectures recorded at other institutes are also being sourced from here (Channel 16 and 17) on Swayam Prabha Portal.

Exclusively channels 16 and 17 are being used to broadcast all the courses pertaining to the above mentioned department. The channel 16 of Swayam Prabha telecasts courses in Humanities, Social Sciences i.e Economics, Literature, Linguistics, Philosophy, Political Science, History, Sociology, Visual Arts, Design, Psychology and different topics relevant to the Management studies.

The Channel 17 presents courses related to Mechanical Engineering with a wide range of topics such as Engineering Thermodynamics, Fluid Mechanics, Engineering Mechanics, Heat Transfer, Manufacturing System Technology, Finite Element Analysis, Kinematics and Dynamics of Machines etc. The scope is wide, and the channel continues to introduce new courses every month.

Departments across the institute, on request from MHRD,has offered, several courses taught for the students of 2nd semester at IIT Kanpur, to be aired on Swayam Prabha Channels for the larger benefit of engineering and science students suffering due to closure of educational institute during the current pandemic.

FM 90.4 Community Radio Station

IITK Community Radio serves the local community in and around the campus; our main objective is to broadcast content which is popular, relevant and useful to our listeners. We encourage people through our programs on local culture and art, health awareness and hygiene, education, agriculture and several other motivational content.

In the year 2019-2020 IITK community radio station aired programs like Jani Anjani Battein (basic knowledge of science for middle school children), Wonders of India (informative program on Indian monuments) Torch Bearer (Motivational Program) etc. Currently we have joined hands with UNICEF to create awareness programs on COVID19. In June 2019 our radio team had broadcasted a series on the Importance of Voting in collaboration with the Election Commission of India.

Interviews and coverage of events in and around the campus (Faculty, students, community members and locals) are aired to provide inspiration to our listeners; this in turn has increased community participation and listenership.

A team of 10 young, active and dedicated members aim at generating interest in the minds and hearts of our listeners and raise awareness on issues of local and global importance to meet the real objective of community radio.

External Funding

The table below shows the external funding for the financial year 2019-2020:

S. No.	Project Title & Agency	Category	Amount
1.	CSS MOOCs NPTEL IV, MHRD	Sponsored	8,83,42,412
2.	Swayam Prabha, MHRD	Sponsored	1,52,80,000
3.	Radio + UPPCL, GoUP etc	Consultancy	+1,83,20,079
Total			**12,19,42,491**

Patents & Technology Transfer

During the Financial Year 2019-20, 84 IPR's were filed at the Institute including 65 Patents, 13 Design Registration, 3 Trademarks and 3 Copyrights, 46 previously filed IPRs were granted and 2 technologies were licensed to Industry Partners.

- Till date, 655 IPRs have been filed, out of which 208 have been granted so far along with 110 technologies licensed for commercialization.
- Total number of IPR's filed during 2019-20: 84
- Total Patents filed during 2019-20: 65
- Total number of Design Registration filed during 2019-20: 13
- Total number of Trademark filed during 2019-20: 03
- Total number of Copyright (Software/Algorithm) filed during 2019-20: 03
- Total IPRs granted during 2019-20: 46
- Total technologies licensed for commercialization during 2019-20: 02
- Total number of Design Registration filed till date: 51
- Total Design Registration granted till date: 33
- Total Indian IPRs filed till date: 598
- Total Indian IPRs granted till date: 174
- Total number of technologies licensed for commercialization till date: 110
- Total number of IPRs filed till date: 655
- Total number of IPRs granted till date: 208

Achievements

IIT Kanpur has been awarded the STEM Impact Award 2019, for engaging in Impactful Technology Transfer activities. The award ceremony took place at Hotel Radisson, Hyderabad on 6th Dec during the Annual summit of STEM (Society for Technology Management).

The STEM Impact Award was handed over by Dr. Marc Stedam, President AUTM (AUTM is a leading association of Technology Transfer Professionals of USA)

One of the Impactful technologies transferred by IIT Kanpur, is "DesKit - Convertible School Bag" (https://twitter.com/tiitkanpur/status/1180066767021854721) which was featured in the Compendium of Impactful technologies by STEM.

STEM Impact Award is a first-of-its-kind initiative in India celebrating the impact of technology transfer activities at Indian academic and research institutions. All submissions received via an open call were subjected to a thorough review and IIT Kanpur scored the highest in creating a socio-economic impact.

IIT Kanpur participated in the IIA International Innovation Fair from 1st to 3rd Dec at NSIC, Hyderabad. Representatives from 40 different countries attended the event.

IIT Kanpur displayed 10 Patented technologies in different categories and has won 5 Gold medals & 2 Silver medal in different categories. The details of awarded Patented technologies with inventors name is mentioned below.

Gold Medals with Certificates

1. Antibacterial Nanotechnology Based Nasal Air Filter for Breathing

Mr. Ravi Pandey, REO, SIIC & Mr. Santosh Pramanik, Imagineering Lab

2. A Bionic Prosthetic Hand Device for Trans-Radial Amputee

Mr. Nishant Agarwal (Student, ME), Prof. Niraj Sinha (ME), Prof. Pankaj Wahi (ME)

3. Electrosurgical Cautery with Suction Inbuilt

Prof. Tarun Gupta, Mr. Roshan Kumar (Student, Chem), Mr. Ankur Bajaj (Student, ME)

4.A Phototherapy Unit for Treatment of Hyperbilirubinemea or Neo-natal Jaundice of Multiple Babies

Mr. Rajesh Ranjan (ME), Mr. Basava Kumar (ME), Prof. J. Ramkumar (ME), Prof. S. A. Ramakrishna (Phy)

5. A Novel Integrated System for Gynecological Examination (DeeScope)

Mr. Abhishek Kumar (Student, ME), Dr. Deeksha Pandey (KGMC), Dr. Rishi Sethi (KGMC), Prof. J. Ramkumar (ME)

Silver Medals with Certificates

1. An Integrated Hybrid Bio-Artificial Liver Bioreactor Design

Prof. Ashok Kumar (BSBE) & Ms. Apeksha Damania (PhD Student, BSBE)

2. School Bag Convertible into Study Table

Mr. Eshan Sadasivan (Student, DP), Prof. Shantanu Bhattacharya (ME), Prof. Mainak Das (BSBE), Mr. Toshib Bagde (Student, DP), Mr. Abhinav Basak (Student, DP)

Link: https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/SIDBI.pdf

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INTERNAL COMPLAINT COMMITTEE

The Internal Complaints Committee (ICC), IIT Kanpur, first constituted under the Office Order No. DIR/IITK/2016/OO-04, dated March 9, 2016, has been undertaking its investigations under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and IIT Kanpur (Prevention, Prohibition and Redressal of Sexual Harassment of Students) Rules, 2017.

During the period April 1, 2019 to March 31, 2020, the ICC received 10 complaints of varied nature, from different categories of complainants, against an eclectic mix of respondents – fellow UG and PG students, faculty member, member of extended campus community and one person from Kanpur city.

The following are the details of the cases:
In the first case, which is a spillover from last year, a group of students from different academic institutions of another city, submitted a complaint of molestation against a group of students of IIT Kanpur, during a festival of the Institute. For various reasons, the case has been deferred and is still under investigation at this time.
In the second case, the person who committed the wrongdoing, is a member of the extended campus community and has been debarred from entering IIT Kanpur for three years.

In the third case of harassment and stalking, the respondent has been issued a semester drop and debarred from the campus for 6 months. Further, his academic programme in IIT Kanpur would resume after a certification from a medical board.

In the fourth case, the respondent was found to be not guilty. However, the ICC recommended community service for 6 hours per week for three months, for one of the witnesses, who was found guilty and these recommendations were implemented by the Institute.

In the fifth case, the respondent, a member of the faculty, was found guilty and the ICC recommended punitive measures in accordance with CCS rules.

The respondent in the sixth case was a person from outside the campus. He was found to be guilty and the ICC recommended that he be debarred from entering the campus.

In the seventh case, the complainant withdrew the complaint.

In the eighth case, the ICC recommended termination of the academic programme of the respondent. The charges against him were of severe mental and physical harassment.

A Ph.D. student has complained of sexual harassment by her thesis supervisor. This is the ninth case, which is still under investigation.

The tenth case is of cyber sexual harassment of a student from another academic institution, by a PhD student of IIT Kanpur. The case is still under investigation.

WOMEN CELL

Following is the report of activities of the committee during this period:

a) *Policy on Romantic or Sexual Relationship between individuals in Positions of Authority and Student/Employee of the Institute 2020 ("Relationship Policy", in brief):*

The Cell formulated the Relationship Policy jointly with the ICC. Implemented by the Institute in January, 2020, the Policy is the first of its kind in the country. It addresses romantic/sexual relationships that involve a power asymmetry, regardless of whether the relationship is consensual or not because consent in such cases is questionable. The document is available at

http://www.iitk.ac.in/wc/data/combined-24-01-20.pdf

b) *Gender-neutrality in forms* of Institute offices of DoFA, DoRD, DoA: Problems in this respect in several forms of these offices have been brought to the notice of and corrections suggested by the Cell to the respective Deans. General corrections have been suggested.

c) *Security-related* recommendations were made by the Cell to follow the spirit of the amendment to Section 154 of the CrPC made by the Criminal Law (Amendment) Act, 2013, with respect to handling cases related to Sexual Harassment, Voyeurism, Stalking, Exhibitionism and other serious offences against women occurring on campus. To deal with the increasing number of women on campus, and potential increase in the number of complaints related to women, we should increase the total number of women personnel in the Security, and get all women personnel specially trained to handle emergencies.

d) Recommendations were made on a few *gender-discriminatory practices with respect to students' activities/movements*. The Cell strongly urged that a way out be devised at the earliest by the authorities concerned, that enables participation of girl students in these activities in equal measure as the boy students, irrespective of the hour of day/night. The Cell also recommended that Institute policies concerning safety of student should be gender-neutral.

e) Posters in Hindi and English listing, in brief, unwelcome acts that legally constitute sexual harassment and giving helplines have been maintained – worn out and missing posters have been replaced with new ones. These are displayed at conspicuous places across the Institute, as mandated by the Act, under "Duties of Employer".

f) Orientation sessions on the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act 2013 were held as usual for different sections of the campus community. The sessions for new UG and PG students took place in August, 2019. A special awareness session was held with new girl students on the issues of sexual harassment and gender discrimination in January 2020.

g) A special sensitization program on sexual harassment and gender discrimination was held for the IITK Kendriya Vidyalaya boy students of classes 9 and 11 in April, 2019.

h) Two orientation session on the Sexual Harassment at Workplace (Prevention, Prohibition, and Redressal) Act 2013 were held for the entre Institute Security team in May, 2019.

i) A special sensitization session on the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act 2013 and student-related issues in particular, was held for students holding Positions of Responsibility in the Students' Gymkhana in September, 2019.

j) Talks by scientists Archana Bhattacharya and Rohini M. Godbole were co-organized by the Cell with the Students' Research Convention IITK, under the programme *"Women in Research"* (WiRE) in 2019.

k) As an awareness and sensitization program open to all IITK community, the annual 5 km Run and 5 km Walk with them "*Don't be a Bystander, Stand against Sexual Harassment"* was held in March 2020.

SC/ST/OBC/PWD CELL

The Institute is committed to maintain a work environment wherein faculty, staff and student members from different community can work in a coherent environment. It is the Institutes endeavor to ensure that no discrimination takes place at workplace. The Institute has appointed a Liaison Officer who can be contacted in the event of any incident of caste based discrimination. Particulars of Liaison Officer are as under:

Name: Dr. R K Sachan
Designation: Joint Registrar
Department: Dean, Research and Development
Email ld: sachan@iitk.ac.in
Contact No.: 0512 259 7385

An online complaint register portal is being created for the SC/ST/OBC/PwD community to register their complaint officially. The url of the portal is given below:
http://www.iitk.ac.in/new/complains-of-caste-discrimination

Implementation of reservation orders
The effective date of implementation of reservation for SCs and STs in the direct recruitment is 5th September1974 in this Institute and the implementation of reservation for OBCs and PwDs are w.e.f. the year 1995and 1996, respectively.

Maintenance of rosters/ Percentage of reservation
The Board of Governors had approved, in its meeting held on July 27, 1995, maintenance of 120 points vacancy-based roster for Group A [other than exempted posts (Points reserved in favour of SCs-20, STs-9, OBCs-31)] & B posts; and 100 points roster for Group C & D posts (Points reserved in favour of SCs-21, STs-1, OBCs-27)for direct recruitment at the Institute. On the basis of Judgment passed by the Constitution bench of Supreme Court, the Government of India, Deptt. Of Per. & Trg., issued O.M. 36012/2/96- Estt. (Res.) dated July 02,1997vide which the above vacancy- based rosters have been revised into post- based rosters for the different category of employees in direct recruitment. The Board after du e consideration accorded its approval, in its 1997/5th meeting held on December 05, 1997 for maintenance of post-based rosters. Further, the Board of Governors of the Institute (in its meeting held in May 2004, vide item no. 2004.2.13) has considered and approved the proposal for grouping of staff for the purpose of reservation and separate grouping of technical and non-technical posts. The proposal was as follows – the posts under Group-A, B, C & D would be grouped separately for technical and nontechnical posts. However, there would be a single group under Group-D. Under this dispensation, there would be seven groups in all and as for as possible efforts would be made to provide adequate representation of SCs/STs/OBCs/PwDs to each post under the group.

The proposal was approved in the context that grouping of posts would provide greater leverage for purpose of securing adequate representation for SCs/STs/ OBCs/PwDs in the Institute

The Modified Assured Career Progression Scheme (MACPS) is in operation at present.

Infrastructural facilities provided to PwD candidates:

Ramps are been constructed in lecture hall complex, tutorial block, P K Kelkar Library, Faculty Building, IME building, CSE Building from ground level to floor level. Barrier free accessible toilets are constructed in lecture hall complex, DOAA, IME, new lecture hall complex, towards DOSA office.

Concessions/ Relaxations

a) Regular employees of IIT Kanpur who are educationally qualified and otherwise eligible can be considered for the recruitment upto a maximum of 50 years of age for Group-B & C posts, 55 years of age (upto Level-12) and 57 years of age (Level-13& above) for Group-A posts. The due relaxation in upper age is made available for SC/ST/OBC/ PwD and Ex-servicemen candidates as per Central Govt. Rules;
b) Age relaxation for Project Employees working in IIT Kanpur will be as per the Office Order No. DIR/IITK/2019/OO-73 dated July 04, 2019.
c) SC/ST/PwD and Female candidates are fully exempted from payment of application and registration fees;
d) To and fro TA is being paid to the candidates of all categories out of Kanpur to attend the interview [for Group-A- AC-II rail fare (Rajdhani Exp. also) / Chair car in Shatabdi Exp., or actual fare incurred whichever is less by shortest route on submission of tickets in original.

Existing Strength of Non-Academic Staff as on 01.04.2020

Recruited through Recruitment Section

Group	SC	%age	ST	%age	OBC	%age	GEN	Total	Mode of Selection		
									Contract	Regular	Deputation
A	09	19.56	02	4.34	08	17.39	27	46	7	39	-
B	52	20.15	13	5.03	55	21.31	138	258	28	230	-
C	50	20.08	01	0.40	62	24.89	136	249	47	202	-
D	21	40.38	00	0.00	08	15.38	23	52	02	50	-
TOTAL	132	21.81	16	2.64	133	21.98	324	605	84	521	-

STUDENTS PLACEMENT

The Indian Institute of Technology Kanpur (IITK) is known for its academic excellence and is often the 'first stop' for top ranked industries and research organizations to meet their hiring requirements. Students' Placement Office (SPO) functions as a facilitator for placement activities and provides assistance to recruiters and students in all placement related processes. The services rendered by SPO include recruiter selection, student training, résumé short-listing, conducting screening-tests, infrastructure arrangements, scheduling and conducting job-interviews, hospitality, etc. for both internship and recruitment processes. Our hiring partners range from consulting firms to Fast-Moving Consumer Goods (FMCGs) to core industries, software giants, e-commerce and engineering companies. SPO is actively engaged in building and maintaining long term relationships with corporate sector and constantly working towards building illustrious and rewarding careers options for IIT Kanpur students.

Activities of Students' Placement Office is coordinated by "Student Placement Committee (SPC)" which is an advisory body headed by the Chairman SPO. SPC committee is constituted with faculty representatives from individual departments and inter disciplinary programs. SPC is assisted by SPO office staff and a student team comprising of Overall Placement Coordinators (OPCs), Internship/department coordinators (IDCs) and student volunteers who coordinates all placement activities organized by Placement office and Career Development Cell (CDC). Representatives from student body also participate in SPC meetings as invited guests and contribute to the decision making process. In addition to taking care of UG and PG placements, SPO also assists job pursuits of PhD scholars in reputed academic institutions, research and development centres and in consultancy firms across the globe. SPO/IIT Kanpur also encourages innovations and entrepreneurships ventures.

Placement Office Activities

SPO activities in 2019-20 can broadly be divided into three sectors: (1) facilitate hiring of current students for internships (academic and industry), (2) organize professional training towards interview preparations, and (3) coordinate recruitment process for graduating students through Campus Recruitment Drive. In the first quarter of 2019-20, the focus of SPO team was on attracting potential employers for participation in placement and internship processes. Potential recruiters were identified based on input from SPO team, departmental recommendations and student feedback from previous placement seasons. Short listing of potential employers were carried out based on pre-defined screening criteria (in accordance with SPO guidelines) and the recruiters were invited to campus for student–employer interactions through Pre-placement Talks (PPTs). Efforts of SPO team was instrumental in bringing in a total of 84 new recruiters for internship and full time hiring during the year 2019-20.

Internships for Current Students

SPO strongly encourages pre-final year students to participate in summer internship programs. IIT Kanpur boasts of a well-structured internship programme that carries the reputation of earning post internship/pre-

placement offers (PPOs) for a large percentage of students. A total of 345 students were offered industry internships in year 2019-20.Out of all students who secured internships through SPO, a total of 129 students received pre-placement offers after their internship program. Some of the prominent recruiters who participated in 2019-20 internship program include Adobe Systems, Amazon India, Deskers System India Pvt Ltd, ITC Limited, Microsoft India Pvt Ltd, Mitsubishi Heavy Industries Ltd, Oracle India Pvt ltd, OYO, Zest Money, Google, Credit Suisse, Goldman Sachs, KPIT Technologies, Reliance Industries Limited, Samsung, Texas Instruments, JP Morgan Chase, EXL Services, etc.

Apart from industry oriented internships, SPO also facilitated academic internship for students interested in pursuing a career in academia and R&D sectors through programs run by IIT Kanpur. Approximately 90 students were offered academic internships during the year 2019-20 (but could not join due to COVID 19 situation).This includes academic internships facilitated by SPO office, institute body like Office of International Relations and through individual departments. Selected few examples of these internships are Texas A&M University (TAMU)-IITK intern program, Mitac Global link research internships, IIT-DAAD (Deutscher Akademischer Austauschdienst - German Academic Exchange Service) internships etc. Selected institutions where IITK students have received academic internships include University of Texas at Austin, TAMU, Max-Planck institute, University of California Berkeley, U-T Arlington, Imperial College London, Cornell, University of Illinois etc.

Placement Preparations

SPO has revamped its placement preparation programs which now provides 360 degree career solution for students, which are organized in coordination with Career Development Cell (CDC) along with support from IITK Student Gymkhana. Through these training sessions, SPO provides guidance and support to students in their job pursuits through career counselling sessions, résumé preparation workshops, soft skill development programs, providing learning materials for placement preparations, organizing professional training services, providing assistance in offer finalization, documentation etc. Training and career orientation programs were intended towards developing professional ethics among students and guiding them in making educated career decisions. Students were also encouraged to pursue their careers in respective sectors of interest which often vary from core engineering sector to IT, Financial, Banking, Analytics, Consulting jobs, Research and Development, Academia etc.

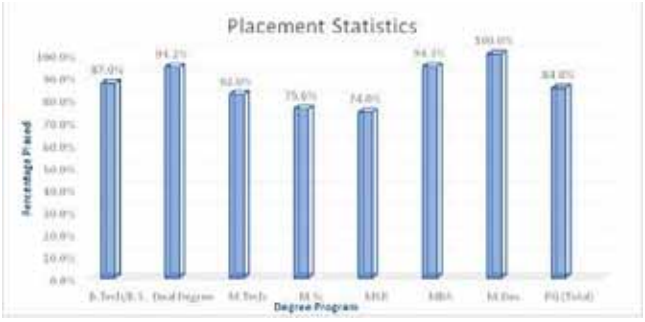
SPO in association with CDC have organized three professional training sessions during academic year 2019-20 for students participating in placement and internship processes. Training sessions were conducted my M/s. Prep leaf Private Limited and two sessions by M/s FACE (Focus academy for career enhancement) at different time periods during the academic year. SPO team also organized training sessions intended towards improving résumé writing skills, conducted multiple practice/guidance sessions for aptitude tests, group discussions and personal interviews at the beginning of placement season. SPO team along with volunteers from Student Gymkhana also conducted personal guidance and soft skill enhancement sessions for selected student groups in improving personality and interpersonal skills required for job interviews. Discussions/ career awareness workshops/talks by invited alumni members working in various sectors were also organized as part of placement preparations. The following preparation activities were conducted for placement season (2019-20).

- Career counselling by professional agencies/experts towards soft-skills development, professional-communication, and personality-development.
- Résumé writing workshops for assistance on preparation of professional résumés.
- Collecting corporate feedback on employee expectations for different job sectors.
- Feedback on companies and interview experiences from students who participated in last year placement for use as orientation/information material for current students.
- Résumé preparation/verification of applicants.
- Student sessions on internship experiences at various industry sectors.
- Sessions on group discussions and personal interviews as part of placement preparations by invited alumni members (last 4 years). Relevant study materials (video, links, PPT etc.) were uploaded on preparation portal for future references.
- Career awareness talks by invited Alumni and sharing their corporate working experience.
- Aptitude tests for students through professional organization like Pariksha.
- Development of further interaction pattern.

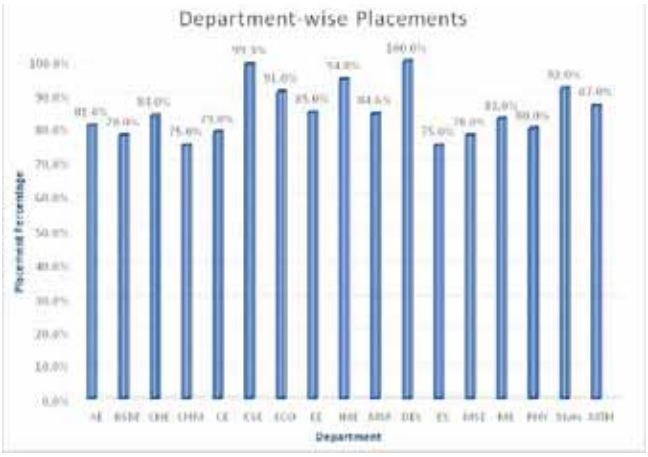
Campus Recruitment Drive

1136 students had registered with SPO for the Campus Recruitment Drive 2019-20. Like previous years, recruitment drive for the academic year 2019-20 was held in two phases. Phase-1 of recruitments officially beganon December 1st and continued till December 13th, 2019. Approximately 297 recruiters visited campus during Phase-1 to hire students for full time employment. Total of 41 top tier firms from various sectors visited campus for interviews on day-1 where an unprecedented 277 job offers were extended to IITK students. Based on hiring numbers, the top recruiter for this placement season is Bajaj Finance Limited, which hired 35 students. Other top recruiters of the season were Microsoft India Pvt Ltd, Qualcomm India Pvt Ltd, Samsung, Goldman Sachs, Intel Technology India Pvt Ltd, EXL services etc. As with previous years, "one student one job" policy (single offer acceptance policy) was continued to ensure equal opportunity to all students registered with SPO. Phase-2 of the recruitments started in January and was continued till June, 2020. More than 335 companies visited IITK campus for student hiring during the two phases of placements.

Approximately 86 % of the graduating batch (975 out of the 1136 registered students) were placed through SPO during the academic year 2019-20. This includes students in both under graduate and post graduate levels. 463 out of 532 registered students in B. Tech and B.S. degree programs (approx. 87.03%) were placed during the season. UG placement count also includes 116accepted PPOs extended to them as part of academic internship provided through SPO. A summary of program wise placement record for the current season is included in figure below:



Approximately 84.8% of registered PG students (512 out of 604) were also placed through SPO during campus recruitment drive. Amongst the various post graduate programs, Master of Design (M. Des.) recorded 100% placements followed by MBA where 94.3%, and dual degree program where 94.2% of the students got placed during the current placement season. A summary of department level placement record for the current season is included in figure below:



Among the various departments, Computer Science and Engineering, Economics, IME recorded student placement percentage of above 90%. Percentage students placed in other departments are provided in the figure above. The percentage calculations presented above are derived based on the number of graduating students who have registered with the placement office. A good number of graduating students do not register for placements as they are interested in pursuing higher studies or entrepreneurships options. In addition, an appreciable number of IIT Kanpur students pursue Civil Services jobs or take-up career options in public sector companies and, therefore, abstain from participating in the recruitment process

Students of IIT Kanpur continued to demonstrate a strong commitment to their core educational background in their choice of employment. Placement season 2019-20 also witnessed an increase in the number of recruiters in "core" engineering sectors, where close to 21 percent of students received job offers. Some of the top recruiting firms that visited IIT Kanpur for hiring students in core engineering sector include Intel, Cisco System, Schlumberger, Eaton, L&T Constructions, Tata Steel, Tata Motors, Jindal Stainless Limited, Indian Oil Corporation Limited etc. As with previous years, IIT Kanpur continued to draw recruiters in the field of data analytics, where close to 100 companies visited campus for student recruitment. More than 300 offers extended to our students were accepted making it one of the biggest recruiters after engineering and information technology. This trend observed in the last few years seems to have taken strong roots at IIT Kanpur. More than 12 firms in the consulting sector, including several global leaders, visited IIT Kanpur for recruitment this year. More than 50 offers extended in consulting sector including management consulting were accepted by students. Finance sector also witnessed a rush of top and mid-level companies visiting campus with a variety of profiles that are open for students in diverse disciplines. More than 60 offers in the financial service firms were accepted by our students this year.

Some of the prominent recruiters who participated in Campus Recruitment Drive 2019-20 include Accenture Japan Ltd, Adobe Systems, Amazon Development Center India, American Express, ATCS Pvt Ltd, Axis Bank Ltd., Bajaj Finance Limited, Eaton, EXL Services, Goldman Sachs, HSBC Analyst, Jaguar Land Rover Limited, JP Morgan Chase & Co.,Mastercard, Microsoft, Oracle India Private Limited, Quantiphi Analytics Solutions Pvt. Ltd, Samsung, Taiwan Semiconductor Manufacturing Company, Walmart Labs etc.

Acknowledgements
SPO expresses its sincere gratitude to the institute administration for providing financial and infrastructural support for the successful execution of various placement activities. SPO also sincerely thanks the members of various institute bodies, viz Lecture Hall Complex, DOAA, DOSA, Visitors Hostel and allied facilities and various sections of Institute Works Department for their help and support in organizing these events. SPO takes the opportunity to thank Career Development Centre and Student Gymkhana for the technical inputs and unparalleled support in coordinating and managing various SPO events.

Students' Activities
Students' Gymkhana, IIT Kanpur has strived to provide a platform for the students to hone their skills in extracurricular activities, becoming one of the most robust student-driven body even in the nation. Believing in the importance of societal and humane engagements for the holistic development of an individual, it has always been supported by the Institute inpursuing cultural activities, sports or exploring technical opportunities and other possible avenues to help students explore their interests. Here are some of the highlights over the last year of the Students' Gymkhana:

Cultural Meet 4.0: IIT Kanpur's contingent performance witnessed an exponential rise in rankings in Cultural Meet 4.0 held at IIT Bombay. IIT Kanpur achieved overall **5th position among all IITs participated** in this edition compared to 9th in 2019.

RANKING LIST

4th Cultural Meet

Position	IIT Name	Position	IIT Name
1	IIT Kharagpur	12	IIT Jodhpur
2	IIT Bombay	13	IIT Delhi
3	IIT Roorkee	14	IIT Mandi
4	IIT BHU	15	IIT Jammu
5	IIT Kanpur	16	IIT Tirupati
6	IIT Madras	17	IIT Hyderabad
7	IIT Guwahati	18	IIT Dharwad
8	IIT Indore	19	IIT Bhilai
9	IIT (ISM) Dhanbad	20	IIT Palakkad
10	IIT Gandhinagar	21	IIT Ropar
11	IIT Patna	22	IIT Goa

CCA: Compulsory Cultural Activities witness an increased no. of students as compared to the previous year. Also, there were positive reviews both by tutors and students.

Achievements:

- Anime society organized Japanese cultural workshops with the help of FLP IIT-K.
- Dance club successfully conducted various workshops and events around the year. They also scored Overall Champions trophy in Dance genre during Cultural Meet 4.0 held at IIT Bombay. They also stood 1st in group dance event in Antaragni'19.
- Debating Society participated in more than 5 national level tournaments which also had international participants and had performed extremely well.
- Many workshops were organised for literary society this year. A successful talk was organized with two eminent Youth icons of Hindi literature, Mr Nilotpal Mrinal and Mr Divya Prakash Dubey on the context of the modern form of usage of Hindi. They also launched a blog for the campus community to showcase their works. English Literary Society achieved 1st Position in English Literary Events during Cultural Meet 4.0. Hindi Literary Society achieved 3rd position in Hindi Poetry event. English poets from poetry Darbaar were invited for an Open Mic.
- Fine arts club organized three-speed arts during the Republic day. A total of 12 CCA students participated in the performance.
- Design and Animation club successfully launched its first animation video. They also conducted professional workshops for learning design and animation techniques.
- Dramatics club invited Mr Devasheesh Misra for a professional workshop. They scored 1st position in Street Play event and 2nd Position in Mime event during Cultural Meet 4.0 and 1st position in Street Play during Antaragni'19.
- Photography club organized a Photowalk to Varanasi. They also collaborated with Unnat Bharat Abhiyaan, IIT K for the coverage of its events. Students scored 1st position in Street Photography event during Cultural Meet 4.0
- Members from Quiz Club achieved 1st and 2nd Position in the Lucknow regional round of the SBI Numero Yono Quiz. They also went on to play the Lucknow Finals of the Tata Crucible Quiz. A team also stood 1st in the national finals of the CL Inquisitive India Quiz 2020.
- Music Club organized various concerts for the campus community. They also entered the semi-final round in Mood Indigo, IIT Bombay.
- Students' opinion Society organized various sessions on imporant global topics such as Brexit, Pollution levels, Economic slowdown etc.

Industrial Collaborations

This year has witnessed a new culture of Industrial collaborations.

The SNT Clubs and Hobby Groups have collaborated with many industry leading organizations like EndureAir, BARC (Broadcast Audience Research Council, India), Abaqus, FICTING, Muskan Solid Waste management, Agnys Waste Management, FINSHOTS, Quantify etc.

Collaboration with Technopark@IITK

Technopark was one of the major additions to the institute this year, providing immense opportunities to the whole campus, especially the Science and Technology Council. The council witnessed an increase in it's outreach through the SIG meets conducted by Technopark, setting exhibitions in meets, and interacting with the Industry leading invitees in those meets.

Research & Development

This year the council has also contributed to the research community, one of the major milestones being the acceptance of paper in the prestigious ICML workshop: Machine learning for global health.

Council Activities for Campus Students

The council has grown to 7 Clubs, 5 Societies, 6 Institute SNT Teams and 2 Wings. They organised a number of lectures and workshops on topics ranging from finance and consulting to Game development, thus covering every aspect of students' interest fields

Joining hands with the Institute

All of these achievements were made possible with collaboration among the student body and the institute administration in terms of the financial and logistic aid provided.

Academics and Career Council UG Wing

The Academics and Career Council has witnessed a glorious start to its first year, with a lot of collaborative and stand alone activities organised by all the wings to promote awareness and opportunities for research and career among the campus community:

- **The International Relations Wing** joined the OIR office staff in organising and streamlining various activities along with assisting them in their works, eliminating the gap between administration and students.

  For the first time, an orientation was conducted this year for all the incoming internship and exchange students which included several activities like campus tour, networking dinner and awareness brochures and video logs for OIR website.
  A newsletter was introduced this year in collaboration with the Office of International Relations summarising all the works and international opportunities for the campus community to increase the connection between OIR and students.

  A revamp for OIR website and selection policy for selecting students for semester exchange was put into motion this year and is expected to be completed by the end of the year.
  A number of sessions, blogs for spreading awareness about international internship and post graduation opportunities were conducted by foreign delegates and students with prior experience to spread awareness along these lines.

  A focussed team for expanding our MOUs with foreign universities was set in place and has been yielding results with increase in exchange and internship MOUs.

- **The Career Development Wing** kicked off its first year with organising the first of its kind Placement Preparation Season and Internship Preparation season, along with spreading awareness about different opportunities and career paths using collaborations with various organisations.

Some of the activities undertaken by the wing throughout the year are as follows:

Resume Making Session (20 June 2019) Machine learning Hackathon (4 July 2019 - 31 July 2019)Resume Making Workshop (4 August 2019)

Session on Consulting and Investment Banking (11 August 2019)

Workshop on Data Analytics (17 August 2019)

Workshop on Quantitative Aptitude (18 August 2019)

Career Awareness Session - Investment Banking (24 August 2019)

Workshop on Probability and Statistics (31 August 2019) Workshop on Analytics and Product Management (1 September 2019)

Placement Preparatory Session on Advanced Excel (7 September 2019)

Placement Preparatory Session on Core Finance Terminologies (8 September 2019)

Reach the Peak - Career Development Goals - session and test on CAT preparation (30 September 2019)

TIME CAT preparation session (1 October 2019)

Research internship session for sophomores (1 October 2019)

Corporate internship session for sophomores (2 October 2019)

Startup internship session for sophomores (3 October 2019) UPSC Orientation Session (25 October 2019)

Placement Fundae blogs Data Structures and Algorithms -Placement Series (17-18 August, 24-25 August, 7-8 September, 28-29 September, 5-6 October 2019, 2-3 November 2019)

Intern Preparation Mentorship Program Management Consulting Session (27 January 2020)

Internship Orientation Session (30th January 2020)

Data Science for Internship Preparation (6th February 2020) Session on Young India Fellowship (29th February 2020)

The Research Wing routinely conducted a number of events, talks, and sessions, covering various aspects of research and work (including career options, research opportunities (on & off campus), guidance sessions, departmental orientation sessions, and technical workshops).

Some of the major activities taken up by the wing this year were:

Departmental Orientation Sessions for different departments with professors as invitees to elaborate on their idea of research.

Planning for the annual flagship event Students' Research Convention was done which eventually got suspended due to Covid19 pandemic.

A number of pre event activities were organised including collaboration with Policy Research events and 3 minute thesis, with talks from experienced professionals.

A collaboration with the SURGE office to assist them in their activities and help spread awareness among students about our esteemed program.

Research in different sectors including space, entrepreneurship, defence, industry etc. was promoted through talks, competitions and sessions.

A research portal was developed to bring all the research/project opportunities available on campus at one place and is currently pending for the institute's approval to be launched for campus wide use by both students' and faculty.

The UG Academics Wing acted as a primary division in helping the students to contact Institute bodies for academics and related purposes. It advocated for the need to incorporate new changes in the academic curriculum and catered to the needs of students.

Some of the initiatives taken by the wing this year are:
Academic Orientation was conducted to increase awareness among the general population, especially the incoming students.

One-to-One discussion session with students in Warning/AP. Students were involved with the sub-committee of SUGC to revamp the UG Manual.

Academic systems of other notable institutions were looked through to incorporate the changes we can bring in.

Mapping of courses regarding Double Major/Dual Degree by going through the departmental course contents having similarity with the course contents of other IC/DC and non-departmental courses, based on which student may be allowed to substitute the appropriate course(s) by mapping the courses and was submitted to the authorities.

A proposal regarding minors in the Economics Sciences department was submitted to the SUGC. A proposal to allow students to credit an additional UGP during the Summer term along with a credit limit of 25 was also submitted.

Initiatives were taken to establish an introductory Economics course as an Institute Compulsory (IC) course in the new UGARC.

PG Wing
During the session 2019-20 PG wings conducted sessions to spread awareness and increase the involvement of students. The core team of the council with inter-wing collaboration has increased the reach of the council to the general body. The classified wing wise report is described below:

PG Academics Wing
PG Academics Orientation: At the start of both the odd and even semester, the council conducted an academic orientation for new students (Y19) to familiarize them with academic policies, CPI requirement, fellowship information, leave rules, DPGC and SPGC structure, etc.

Session on presentation skills: The session was focused on slides design using PowerPoint and skills. Mr. Ankit Gupta, (MBA student, IITK) delivered a talk related to transitions and animations and different extensions/add-ons used in PowerPoint. The merits and demerits of LATEX over PowerPoint has been also highlighted in the discussion.

Data collection of Duration of completion of the degree: PG Academics wing has initiated department - wise data collection for outgoing Ph.D. students to seek a suggestive agenda before administration to take corrective steps.

Other initiatives: For the benefit of the campus junta, we negotiated a deal with IMS Pro-school to provide a certification course at a nominal price in Business Analytics which would give students a boost in their placement preparations

Research Wing
The wing has conducted two sessions focussed on research facilities, benefits of professional society, and paper writing skills in collaboration with Materials Advantage at IITK.

Research @IITK, Facilities & Scope: First event of the wing (13/08/2019) was focused on research orientation and it was useful for new (Y19) as well other batch students. During the session, students were familiarized with major facilities and available research opportunities at institute. Further Mr. Vineeth Vijayan (Student Chair, IEEE PES IITK Chapter) delivered a talk on benefits of professional societies.

Research Paper Writing: A session on "Research paper writing, writing skills and techniques for scientific journals" was conducted in collaboration with Materials Advantage @ IITK. Prof. Kantesh Balani (Materials Science and Engineering) delivered a talk on writing skills, approx. 400+ students attended the session.

Career Development Wing
CV Making session:
The wing organized a session on career guidance and resume/CV making on 10/07/2019.

The wing organised a career talk by Prof. Pradip Deshpande in collaboration with Chemical Engineering Department, IIT Kanpur. Prof. Deshpande is among the first educators in the world to introduce six sigma training in engineering and Business School MBA program.

International Relations Wing
The IR decided the following to be its main objectives:

To create awareness about the existing foreign opportunities among the campus community

To enhance and increase the opportunities for the campus students to go abroad (for collaborative work, exchange programs, conferences etc.) To achieve our objective, we are working in close contact with the Office of

International Relations. The following are the events organized by the Wing:

INSPIRE'19: INSPIRE session was an initiative of IR wing to felicitate transfer of knowledge among the student body for those who are interested in pursuing higher education abroad. the houseful session started with the introduction of the AnC council and featured 7 speakers from diverse backgrounds, UG and PG students who had applied for different programmes (Semester Exchange/MS/PhD) all around the globe.

Session on Advance Planning for Graduate Studies: We invited Ms Heather Wallick, the former Assistant Director of Admissions and Financial Aid at Harvard Law School, and co-founder of Wallick Global Consulting, to give a talk titled Advance Planning for Graduate Studies (MS/PHD) on Nov 4, 2019.

ACADEMIC ASSISTANCE

Academic assistance is provided to students facing difficulty in coping with the academic load. The support exists both at an individual level as well as at a group level and is free of cost.

1. Remedial Classes: Remedial classes are organized by academic mentors (senior students) to help academically deficient students.
2. Study Hours: For underperforming students, study hours are organized by academic mentors during the week before the examinations.
3. Technical Terminology Classes: To help the students facing difficulty in understanding technical terms in english, Technical Terminology Classes were organized at the beginning of the semester where these technical terms are explained to them in their native language. These are mostly attended by students not proficient in English.

SUPPORT TO PROBATION STUDENTS

The Counselling Service provides emotional as well as academic support to the students on academic probation/warning. This year, the students in AP/WR were allotted a guide from the operations or guidance team, whose responsibility was to look after his/her allotted counselee and also to act as a link between the student and the counselor. Individual counseling sessions were offered by the counselors to improve the academic performance as well as to resolve emotional issues. A session for the first year students in probation/warning was conducted by the counselors in which they motivated them to perform better. This had a positive impact on the students.

ORIENTATION PROGRAMME

Each year, the Orientation Program is organized for the freshmen before the beginning of the new academic session in July, to acquaint them with the facilities, services, personnel, rules and regulations of the institute and to facilitate a smooth transition into life at the institute. A similar session is again organized the PG team in December.

The core team members, student guides, student volunteers attached to the Counselling Service help the newcomers in this process. The students are also introduced to the Institute Counselors, whom they are encouraged to approach whenever they are confronted with any issues. The orientation program in the academic year 2019-2020 was held from the 21st to the 27th July, 2019 for the undergraduate students and from the 21st to the 28th July, 2019 for the postgraduate students. The UG students reported on 20th July, 2019 and the PG students on the 19th and 20th July, 2019.

Gymkhana Presentations, sessions with the counselors, group activities and wing competitions were organized as part of the Orientation Program. A series of talks by some alumni of the institute were also organized during the orientation program and they were very inspiring to the incoming batch of students and were well received. There were talks by the doctors at the Health Center as well during the orientation program.

OTHER ACTVITIES

Throughout the year, several programs were conducted by the CS to bring the community together. Two well attended programs were the food fest and the lantern lighting program.

SKILL ENHANCEMENT WORKSHOPS/ CLASSES

English Conversation Classes: English Conversation Classes are organized during the semesters for the students who face difficulty in understanding and communicating in English. These classes are free of cost and are open to all the students.

SESSIONS ON OTHER BROAD ISSUES

1. Explore your department: This session was organized for the second and third year undergraduate students with the aim to help them explore and get a better understanding of their respective departments.
2. Session on Study Techniques: A session designed to help students learn better study techniques.
3. Intern Gyan: Senior students share their experiences and knowledge about the various possible opportunities available to their immediate junior batches through this platform.
4. ESO/SO awareness Session: ESO/SO session was organized primarily to guide the first year students who were going to take ESOs and SOs for the first time before the pre-registration of the odd semester.

SERVICES AND AMENITIES

For full details visit following URL:
https://www.iitk.ac.in/dord/data/Annual-Report-2019-20/Services_&_Amenities.pdf

भारतीय प्रौद्योगिकी संस्थान कानपुर

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

वार्षिक लेखा
वित्तीय वर्ष 2019-2020

ANNUAL ACCOUNTS
FOR THE FINANCIAL YEAR 2019-2020

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNUAL ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2020

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNUAL ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2020

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

SOURCES OF FUNDS	SCHEDULE	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Corpus/Capital Fund	1	17,29,57,34,973	15,77,43,07,065
Designated/Earmarked/Endowment Funds	2	3,42,36,44,019	3,19,22,15,092
Current Liabilities & Provisions	3	18,20,09,86,578	15,84,17,71,141
	TOTAL	38,92,03,65,571	34,80,82,93,298

APPLICATION OF FUNDS	SCHEDULE	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
FIXED ASSETS			
Tangible Assets	4	12,74,84,35,093	12,17,33,94,959
Intangible Assets	4	16,07,11,663	8,24,53,139
Capital Works-In-Progress	4	1,28,18,26,310	1,02,37,36,425
INVESTMENT FROM EARMARKED/ENDOWMENT FUNDS			
Long Term	5	3,36,32,44,922	3,06,98,20,804
Short Term	5	2,08,40,00,000	1,99,70,00,000
Investment - Others	6	10,000	10,000
Current Assets	7	16,40,91,92,625	14,17,30,74,359
Loans, Advances & Deposits	8	2,87,29,44,958	2,28,88,03,612
	TOTAL	38,92,03,65,571	34,80,82,93,298
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

ASST. REGISTRAR (F&A) JT. REGISTRAR (F&A) DY. DIRECTOR DIRECTOR

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

DATED : 28-08-2020

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 31st MARCH 2020

(Amount-Rs)

PARTICULARS	SCHEDULE	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
INCOME			
Academic Receipts	9	59,50,72,443	57,90,61,483
Grants/Subsidies			
Grants against Salary	10	2,17,57,77,341	1,94,00,31,548
Grants against Pension	10	86,99,68,958	1,05,39,96,681
Grants against Others	10	97,70,81,034	66,30,40,556
Grants against Scholarships	10	71,79,03,761	53,69,70,324
Grants against HEFA Interest	10	7,71,33,195	5,82,86,356
Grants against P M Research	10	1,30,49,304	48,61,174
Income from Investments	11	24,79,61,124	17,28,27,884
Interest earned	12	2,80,36,001	1,62,35,589
Other Income	13	2,29,35,22,874	91,01,44,911
Prior Period Income	14	-	84,22,675
	TOTAL (A)	**7,99,55,06,035**	**5,94,38,79,181**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)			
MHRD Grant Salaries	15	2,09,04,01,195	1,89,36,45,574
MHRD Grant Retirement and Terminal Benefits	15	2,91,41,37,524	1,49,58,10,050
Academic Expenses			
MHRD Scholarship	16	71,79,03,761	53,69,70,324
Other Academic Expenses	16	26,30,75,983	24,82,18,831
Administration and General Expenses	17	50,81,58,426	70,11,80,867
Transportation Expenses	18	-	6,53,097
Repairs & Maintenance	19	46,22,77,721	52,13,50,676
Finance Costs	20	7,92,69,510	7,02,03,927
Depreciation	48	21,64,845	19,33,578
Other Expenses	21	4,04,24,689	3,71,94,225
Prior Period Expenses	22	2,48,161	32,49,827
	TOTAL (B)	**7,07,80,61,815**	**5,51,04,10,976**
BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE (A-B)		**91,74,44,220**	**43,34,68,205**
Utilization Against HEFA Loan		**57,13,00,000**	**39,10,00,000**
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CAPITAL FUND		**34,61,44,220**	**4,24,68,205**
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

ASST. REGISTRAR (F&A) JT. REGISTRAR (F&A) DY. DIRECTOR DIRECTOR

DATED : 28-08-2020

Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2020

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
BANK BALANCES			EXPENSES		
Current accounts	63,23,32,647	87,11,78,247	Establishment Expnese	3,22,30,03,784	2,48,97,79,207
Savings accounts	1,02,03,66,884	64,91,17,492	Academic Expeses	47,25,11,325	78,39,07,190
			Administrative Expenses	52,60,71,854	66,62,46,883
GRANTS RECEIVED			Transportation Expenses	-	6,53,097
From Government of India -Capital	1,38,27,80,000	1,34,60,00,000	Repairs & Maintenance	46,52,97,293	46,09,12,417
From Government of India- Revenue	4,66,98,50,000	4,61,03,60,000	Finance Cost	8,04,69,813	5,08,71,368
			Other Expenses	4,07,12,442	3,64,86,149
RECEIPTS EARMARKED / ENDOWNMENT FUNDS	5,62,81,29,270	56,51,20,419			
			PAYMENTS EARMARKED / ENDOWNMENT FUNDS	5,33,54,36,609	16,46,03,748
SPONSORED PROJECTS SCHEMES	1,84,42,72,325	1,82,27,26,078			
			PAYMENTS SPONSORED PROJECTS	1,49,03,48,426	1,12,64,04,003
SPONSORED FELLOWSHIPS / SCHOLARSHIPS	14,91,83,633	18,54,57,178			
			PAYMENTS SPONSORED FELLOWSHIPS / SCHOLARSHIPS	13,17,12,073	18,43,81,335
OTHER PROJECT RECEIPTS	1,54,13,01,394	1,14,48,57,471			
			PAYMENTS OTHER PROJECTS	1,03,21,05,563	64,31,51,595
ACADEMIC RECEIPTS	87,63,03,125	64,61,07,539			
			INVESTMENTS AND DEPOSITS MADE	13,61,85,40,932	11,87,30,67,625
INTEREST RECEIVED ON					
Bank Deposits	24,18,94,766	17,95,12,623	EXPENDITURE ON FIXED ASSETS	2,56,46,10,400	2,75,43,33,849
Loans and Advances	28,46,710	3,66,036			
Savings Bank Accounts	2,45,74,614	1,56,44,876	LOAN PAID TO HEFA	57,13,00,000	13,16,00,000
INVESTMENT DEPOSITS ENCASHED	12,77,57,71,279	10,44,55,81,745	DEPOSIT AND ADVANCES	17,00,27,267	12,18,01,280
OTHER INCOME	34,34,16,017	33,62,90,841	TRF TO OTHER UNITS	5,74,61,81,351	4,50,46,12,500
PRIOR PERIOD INCOME	-	84,22,675	PAYMENT AGAINST SCHLORSHIP	99,44,403	1,23,90,384
DEPSOITS AND ADVANCES	16,72,66,485	5,04,18,884	PAYMENT AGAINST STATUTORY LIABILITIES	51,76,08,588	46,76,80,659
TRF FROM OTHER UNITS	5,61,10,20,705	4,29,57,58,900	LOAN PAID TO BANK	-	19,66,20,800
RECEIPTS AGAINST RETIREMENT BENEFITS	78,71,090	3,03,83,091			
RECEIPTS AGAINST SCHLORSHIP	1,11,12,793	2,05,51,663	BANK BALANCES		
			Current accounts	65,97,56,995	63,23,32,647
LOAN FROM HEFA	58,00,00,000	1,09,84,00,000	Savings accounts	85,46,54,619	1,02,03,66,884
			Bank Account trf to other Institution	-	52,138
TOTAL	37,51,02,93,737	28,32,22,55,758	TOTAL	37,51,02,93,737	28,32,22,55,758

ASST. REGISTRAR (F&A) JT. REGISTRAR (F&A) DY. DIRECTOR DIRECTOR

Private Director
Indian Institute of Technology Kanpur

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

CASH FLOW FOR THE YEAR ENDED 31st MARCH 2020

CASH FLOW FROM OPERATING ACTIVITIES		
Grants Received Revenue	4,66,98,50,000	
Academic Incomes	87,63,03,125	
Earmarked/ Endowment Fund Received	5,62,81,29,270	
Receipts for Sponsored Projects/ Schemes	3,53,47,57,352	
Interest on Bank Deposits	24,18,94,766	
Interest on Loans & Advances to Employees	28,46,710	
Interest on Savings Bank Account	2,45,74,614	
Other Income	34,34,16,017	
Receipts against Deposits & Advances	16,72,66,485	
Receipts against Retirement Benefits	78,71,090	
Receipts against Scholarship	1,11,12,793	15,50,80,22,222
Establishment Expenses	3,22,30,03,784	
Academic Expenses	47,25,11,325	
Administrative Expenses	52,60,71,854	
Repairs & Maintenance Expenses	46,52,97,293	
Finance Expenses	8,04,69,813	
Other Expenses	4,07,12,442	
Payments against Scholarship	99,44,403	
Payments from Earmarked / Endowment Fund	5,33,54,36,609	
Payments for Sponsored Projects/ Schemes/	2,65,41,66,062	
Payments against Deposits & Advances	17,00,27,267	
Other Payments	13,51,60,646	
Statutory Payments	51,76,08,588	13,63,04,10,086
Net Cash Flow from Operating Activities		**1,87,76,12,136**
CASH FLOW FROM INVESTING ACTIVITIES		
Grants Received Capital	1,38,27,80,000	
Investment Enchashed	12,77,57,71,279	**14,15,85,51,279**
Investment in Term Deposits	13,61,85,40,932	
Creation / Purchase of Fixed Assets	2,56,46,10,400	**16,18,31,51,332**
Net Cash Flow from Investing Activities		**-2,02,46,00,053**
CASH FLOW FROM FINANCING ACTIVITIES		
Cash Receipts	58,00,00,000	
Repayment of Loan	57,13,00,000	
Net Cash Flow From Financing Activities		**87,00,000**
NET INCREASE IN CASH		**-13,82,87,917**
Closing Cash Flow Balance as on 31.03.2020		1,51,44,11,614
Opening Cash Flow Balance as on 01.04.2019		1,65,26,99,531
NET INCREASE IN CASH		**-13,82,87,917**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 1 CORPUS/CAPITAL FUND

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
BALANCE AT THE BEGINNING OF THE YEAR	15,77,43,07,065	11,21,18,44,656
Add : Grants from Government of India and to the extent utilized for capital expenditure	1,95,80,73,839	1,46,31,35,171
Add: Donation Received Against Assets	2,16,040	1,85,518
Less : Provision Against Value of Written off Fixed Assets	63,03,326	83,11,355
Add : Adjustment during the year	59,76,81,246	4,45,15,00,464
Add: Excess of Income over Expenditure transferred from the Income & Expenditure A/c	34,61,44,220	4,24,68,205
Less : Transfer to Deferred Revenue Income (Depreciation)	1,37,43,84,111	1,38,65,15,594
TOTAL	**17,29,57,34,973**	**15,77,43,07,065**
(DEDUCT) DEFICIT TRANSFERRED FROM THE INCOME & EXPENDITURE ACCOUNT	-	-
BALANCE AT THE YEAR END	**17,29,57,34,973**	**15,77,43,07,065**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
ENDOWMENT FUNDS ACCOUNT

SCHEDULE-2 DESIGNATED / EARMARKED / ENDOWNMENT FUND

(AMOUNT IN RUPEES)

PARTICULARS	FUND WISE BREAKUP											TOTAL	
	GENERAL FUND	DORA PROMOTION A/C FUND	DONATION FUND	RISK RESERVE FUND	SIDBI FUND	SBERTC	MEDICAL EMERGENCY FUND	CAUTION MONEY FUND	RR FUND	R&D PENSION FUND	DORA/DORD POOL FUND	CURRENT YEAR	PREVIOUS YEAR
a) Opening Balance	89,67,23,291	6,57,05,657	1,65,51,91,592	33,49,02,227	13,09,01,632	3,55,96,834	87,36,901	3,11,17,889	1,68,90,732	1,34,88,994	29,59,342	3,19,22,15,091	3,16,31,11,690
b) Advance / Interest Outstanding from Institute Main Account (related to previous F.Y.)	-	-	-	-	-	-	-	-	-	-	-	-	-
c) Additions during the year	-		10,07,02,909	-	-	-	-	47,24,000	5,20,19,89,857	-	-	5,30,74,16,766	1,67,33,50,834
d) Income from Investment made of the fund / Savings Bank Account / Incentives	7,75,91,061	3,27,49,020	13,80,90,332	2,72,77,602	1,02,65,220	24,43,484	7,11,616	25,34,535	-	10,98,671	17,30,358	29,44,91,898	21,84,71,423
e) Other Income	8,93,885	-	2,79,650	-	-	-	-	-		-	-	11,73,535	-
f) Adjustment Relating to PFY (Reversal of Liab)	-	-		-		10,06,580	-	-		-	-	10,06,580	2,93,54,569
g) Transfer To Risk Reserve	-	-	-	1,82,59,405	-	-	-	-	-	-	-	1,82,59,405	1,46,43,180
h) Corporate Social Responsibility	-	-	8,67,88,569	-	-	-	-	-	-	-	-	8,67,88,569	4,86,98,875
i) Advance received from Account-I against Advances		-	-	-	-	-	-	-	-	-	-	-	10,85,213
j) Advance received from Account-I against Advances (related to previous F.Y.)	-	-	-	-	-	-	-	-	-	-	-	-	1,00,00,000
k) Interest against Advances received from Account-I		-	-	-	-	-	-	-		-	-	-	1,13,67,244
TOTAL (A)	97,52,08,237	9,84,54,677	1,98,10,53,052	38,04,39,234	14,11,66,852	3,90,46,898	94,48,517	3,83,76,424	5,21,88,80,589	1,45,87,665	46,89,700	8,90,13,51,844	5,17,00,83,008
B.													
Utilisation/Exp. towards objectives of funds													
a) Advances repaid to SBI/UBI			-	-	-	-	-	-		-	-	-	19,66,20,800
b) Interest on advances repaid by Institute Main Account (related to previous F.Y.)		-	-	-	-	-	-	-	-			-	1,13,67,244
c) Interest on Advances repaid to SBI/UBI		-	-	-	-	-	-	-	-	-	-	-	-
d) Capital Expenditure / Loan to FIRST		-	-	-	-	-	-		-	-	-	-	-
e) Advances to Institute Main Account	-	-	-	-	-	-	-	-	-	-	-	-	-
f) Expenditure during the year	5,63,83,158	1,10,78,509	9,32,77,530	-	1,50,00,000	30,00,000	-	28,97,519	5,20,35,14,735	-	59,600	5,38,52,11,051	1,72,04,69,831
g) Bank Charges	7,77,082	-	-	-	-	-	-	-	-	-	-	7,77,082	74,473
h) Adjustment relating to PFY (Payment of PY Liab.)	12,76,539		16,66,750	-		10,06,580	-	27,52,000	1,89,131	-	-	68,91,000	7,44,242
i) Corporate Social Responsibility / Conf. Assistance	-	-	6,65,69,287	-	-	-	-	-	-	-	-	6,65,69,287	3,41,73,056
j) Transfer To Risk Reserve	1,87,59,405	-	-	-	-	-	-	-	-	-	-	1,82,59,405	1,44,18,320
TOTAL (B)	7,66,96,184	1,10,78,509	16,15,13,567	-	1,50,00,000	40,06,580	-	56,49,519	5,20,37,03,866	-	59,600	5,47,77,07,825	1,97,78,67,916
CLOSING BALANCE AT THE YEAR END (A-B)	89,85,12,053	8,73,76,168	1,81,95,39,485	38,04,39,234	12,61,66,852	3,50,40,318	94,48,517	3,27,26,905	1,51,76,723	1,45,87,665	46,30,100	3,42,36,44,019	3,19,22,15,093
Represented by													
Assets:													
Cash And Bank Balances												6,28,45,921	10,93,27,652
Investments												3,36,18,83,000	3,02,17,33,000
Investments on MODs												8,61,922	4,75,87,804
Donations Represented by way of Shares												5,00,000	5,00,000
D N Wadia Grant Receivable												-	31,50,000
Loan to PROSOC from 83 & 87												1,50,000	26,40,000
Idea Cellular Pvt. Ltd.- II Receivable												5,00,000	-
Caution Money Receivable												47,24,000	-
Interest accrued but not due												2,68,03,585	1,04,20,644
TDS Receiveable from Institute Main Account												34,15,338	29,27,966
Total Assets												3,46,16,83,766	3,19,82,87,067
Less: Current Liabilities	62,75,763	3,38,966	2,90,44,887	-	-	-	-	20,38,000	3,42,131	-		3,80,39,747	60,71,974
												3,42,36,44,019	3,19,22,15,093

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ENDOWMENT FUNDS ACCOUNT

SCHEDULE-2 DESIGNATED / EARMARKED / ENDOWNMENT FUND

(AMOUNT IN RUPEES)

S.No.	NAME OF ENDOWMENT FUND	OPENING BALANCE 01.04.2019		ADDITIONS DURING THE YEAR		TOTAL		EXPENDITURE ON THE OBJECT OF FUND DURING		CLOSING BALANCE 31.03.2020		TOTAL
1	2	3. Endowment	4. Accumulated Interest	5. Endowment	6. Interest	7. Endowment (3+5)	8. Accumulated Interest (4+6)	9 Expenditure From Endowment	9 Expenditure From Interest.	10. Endowment	11. Accumulated Interest	12=10+11
1	General Corpus Fund	84,01,81,823	5,65,41,469	-	7,84,84,946	84,01,81,823	13,50,26,415	-	7,66,96,184	84,01,81,823	5,83,30,231	89,85,12,054
2	DORA Promotion Fund	-	6,57,05,657	-	3,27,49,020	-	9,84,54,677	-	1,10,78,509	-	8,73,76,168	8,73,76,168
3	Donations Fund	1,38,83,53,957	26,68,37,634	18,74,91,478	13,83,69,982	1,57,58,45,435	40,52,07,616	11,22,00,408	4,93,13,159	1,46,36,45,027	35,58,94,457	1,81,95,39,484
4	Risk Reserve Fund	-	33,49,02,227	-	4,55,37,007	-	38,04,39,234	-	-	-	38,04,39,234	38,04,39,234
5	SIDBI Fund	11,48,00,000	1,61,01,632	-	1,02,65,220	11,48,00,000	2,63,66,852	79,92,000	70,08,000	10,68,08,000	1,93,58,852	12,61,66,852
6	SBERTC	3,00,00,000	55,96,833	-	34,50,064	3,00,00,000	90,46,897	-	40,06,580	3,00,00,000	50,40,317	3,50,40,317
7	Medical Emergency Fund	73,80,867	13,56,034	-	7,11,616	73,80,867	20,67,650	-	-	73,80,867	20,67,650	94,48,517
8	Caution Money Fund	2,99,77,886	11,40,003	47,24,000.00	25,34,535	3,47,01,886	36,74,538	47,90,000	8,59,519	2,99,11,886	28,15,019	3,27,26,905
9	RR Fund	1,67,98,409	1,52,323	5,20,19,89,857.28	-	5,21,87,28,266	1,52,323	5,20,37,03,866	-	1,50,24,400	1,52,323	1,51,76,723
10	R&D Pension Fund	86,90,287	47,98,708	-	10,98,671	86,90,287	58,97,379	-	-	86,90,287	58,97,379	1,45,87,666
11	DRPG Pool Fund	-	29,59,342	-	17,30,358	-	46,89,700	-	59,600	-	46,30,100	46,30,100
	TOTAL	2,43,61,23,229	75,60,91,862	5,39,42,05,335.01	31,49,31,418	7,83,03,28,564	1,07,10,23,280	5,32,86,86,274	14,90,21,551	2,50,16,42,290	92,20,01,729	3,42,36,44,019

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 3 CURRENT LIABILITIES & PROVISIONS

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
A. CURRENT LIABILITIES		
Deposit from students (Caution Money & Hostel Security)	5,60,69,511	5,11,12,251
Sundry Creditors		
For Goods & Services	12,42,62,185	22,87,83,003
Others	-	-
Deposit-Others (Including EMD, Security Deposit)	3,42,63,716	3,82,98,468
Statutory Liabilities (GFP, TDS, WC TAX, CPF, GIS, NPS):		
Overdue	-	-
Others	3,54,05,603	5,79,29,684
Secured Loans		
Secured Loans from HEFA	71,61,00,000	70,74,00,000
Others Payables		
Grants Receivable against Salary from MHRD	-	2,95,14,808
Grants Receivable against HEFA Loan Interest	2,57,80,449	1,77,13,644
Grants Receivable against P M Research	77,99,522	27,98,826
Grants Receivable against PLAN	13,80,98,632	5,47,12,020
Grants Receivable against Science & Technology Park	-	8,08,52,809
Other Current Liabilities		
Salaries & Wages Payable	20,03,31,747	15,57,67,138
Interest Payable on Borrowing from HEFA	1,87,28,241	1,99,28,544
Principal Payable on Borrowing from HEFA	51,53,80,000	25,94,00,000
Receipt against sponsored projects	3,42,16,99,333	2,94,48,12,780
Receipt against sponsored fellowships & scholarships	49,60,408	37,92,018
Electricity Charges	1,74,10,556	3,57,20,627
Audit Fee Payable	25,00,000	25,00,000
Donation Payable to Endownment	14,57,227	-
Unutilised Grants	5,59,38,749	4,48,66,870
Amount Payable to Other Units (RR)	80,80,877	64,15,636
New Pension Scheme	-	1,13,06,132
Retirement Benefits Payable	7,19,03,390	24,41,67,426
Fees Received in Advance	10,81,81,596	7,23,09,328
Other liabilities	3,09,05,258	6,62,11,371
TOTAL (A)	**5,59,52,57,000**	**5,13,63,13,383**
B. PROVISIONS		
Gratuity	52,26,48,189	46,07,63,224
Superannuation Pension	11,27,29,31,328	9,57,52,61,392
Accumulated Leave Encashment	81,01,50,061	66,94,33,142
TOTAL (B)	**12,60,57,29,578**	**10,70,54,57,758**
TOTAL (A+B)	**18,20,09,86,578**	**15,84,17,71,141**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 3A SPONSORED PROJECTS

S.NO.	NAME OF THE PROJECT	OPENING BALANCE 01.04.19		RECEIPTS / RECOVERIES DURING THE YEAR	TOTAL	EXPENDITURE DURING THE YEAR	CLOSING BALANCE 31.03.20	
		CR	DR				CR	DR
	TOTAL							

AS PER ANNEXURE 'A' ATTACHED

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 3B SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

S.NO.	NAME OF SPONSOR	OPENING BALANCE 01.04.19		TRANSACTION DURING THE YEAR		CLOSING BALANCE 31.03.20	
		CR	DR	CR	DR	CR	DR
	TOTAL						

AS PER ANNEXURE 'B' ATTACHED

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 3A UNUTILISED GRANTS FROM GOVERNMENT OF INDIA

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
CAPITAL GRANTS: GOVERNMENT OF INDIA		
Balance B/F	13,55,64,829	5,00,00,000
Add: Internal Receipts	60,59,06,286	40,27,00,000
Add: Sanctioned during the year	1,38,27,80,000	1,34,60,00,000
TOTAL (A)	**2,12,42,51,115**	**1,79,87,00,000**
Less: Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital Expenditure	1,99,26,80,125	1,66,31,35,171
Less: Closing Plan Non Recurring W/o		-
TOTAL (B)	**1,99,26,80,125**	**1,66,31,35,171**
UNUTILIZED CARRIED FORWARD (A-B)	**13,15,70,990**	**13,55,64,829**
REVENUE GRANTS: GOVERNMENT OF INDIA		
Balance B/F	-25,69,89,787	-61,01,63,148
Add: Internal Receipts	24,90,78,075	80,61,53,593
Add: Sanctioned during the year	4,66,98,50,000	4,61,03,60,000
TOTAL (C)	**4,66,19,38,288**	**4,80,63,50,445**
Less: Redunds		-
Less: Utilized for Revenue Expenditure	5,07,99,91,668	5,06,33,40,232
Less: Utilized for Capital Expenditure		-
TOTAL (D)	**5,07,99,91,668**	**5,06,33,40,232**
UNUTILIZED CARRIED FORWARD (C-D)	**(41,80,53,380)**	**-25,69,89,787**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 4 CONSOLIDATED PLAN- FIXED ASSETS

(Amount-Rs)

SR. NO.	ASSETS HEADS TANGIBLE ASSETS	GROSS BLOCK					DEPRECIATION					NET BLOCK	
		OPENING BALANCE 01.04.2019	ADJUSTMENT	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	ADJUSTMENT	FOR THE YEAR	DEDUCTIONS	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
1	Land												
	Freehold	9,00,000				9,00,000	-				-	9,00,000	9,00,000
	Lease Hold (IET - Noida)	11,72,27,164				11,72,27,164	-				-	11,72,27,164	11,72,27,164
2	Buildings (On free hold Land)	8,68,32,72,876		88,51,18,971		9,56,83,91,847	1,52,04,39,721		18,08,95,133		1,70,13,34,854	7,86,70,56,993	7,16,28,33,155
3	Buildings (Project)	22,46,31,989				22,46,31,989	6,73,26,977		42,68,008		7,15,94,985	15,30,37,004	15,73,05,012
4	Plant Machinery (Central AC)	24,78,33,694		5,23,55,576		30,01,89,270	11,29,12,109		1,42,58,990		12,71,71,099	17,30,18,171	13,49,21,585
5	Sewerage Treatment Plant	1,06,76,194		5,02,740		1,11,78,934	2,62,140		2,04,809		4,66,949	1,07,11,985	1,04,14,054
6	Computer/Peripherals Equipment	1,27,23,04,318	-3,61,400	13,28,89,797	2,78,93,254	1,37,69,39,461	1,14,93,02,798	23,704	6,69,03,117	2,62,19,755	1,18,99,62,456	18,69,77,005	12,30,01,520
7	Lab & Science Equipments	9,34,56,73,631	4,40,49,990	61,70,91,866	4,52,95,767	9,96,15,19,720	5,78,64,01,275	-6,83,412	74,20,83,036	4,16,82,476	6,48,74,85,247	3,47,40,34,473	3,55,92,72,356
8	General (Office) Equipment	1,32,78,99,756		7,63,59,603	27,85,904	1,40,14,63,455	76,63,90,970	-15,65,695	8,99,15,977	22,01,364	85,56,71,278	54,57,92,177	56,15,08,786
9	Furniture & Fixtures	29,23,05,499		1,08,81,837	13,23,476	30,18,63,860	15,45,03,302		2,12,05,519	10,21,631	17,46,87,190	12,71,76,670	13,78,02,197
10	Vehicles	69,05,860		21,31,408	24,03,014	66,34,254	65,60,567		1,42,181	22,82,863	44,19,885	22,14,369	3,45,293
11	Donated Books	3,38,572		1,55,377		4,93,949	62,006		36,340		98,346	3,95,603	2,76,566
12	Donated Equipment	83,46,175				83,46,175	79,28,866				79,28,866	4,17,309	4,17,309
13	Periodical & Journal (Project)	1,31,74,48,989				1,31,74,48,989	1,13,40,52,998		11,75,23,542		1,25,15,76,540	6,58,72,449	18,33,95,991
14	Library Books	27,91,57,884		59,71,703		28,51,29,587	25,62,16,921		60,99,506		26,23,16,427	2,28,13,160	2,29,40,963
15	Plant & Machinery	8,93,617				8,93,617	60,609		42,447		1,03,056	7,90,561	8,33,008
16	Other Assets Full Consumed	-		4,00,98,514		4,00,98,514	-		4,00,98,514		4,00,98,514	-	-
	TOTAL (A)	23,13,58,16,218	4,36,88,590	1,82,35,57,392	7,97,11,415	24,92,33,50,785	10,96,24,21,259	-22,25,403	1,28,36,77,119	7,34,08,089	12,17,49,15,692	12,74,84,35,093	12,17,33,94,959
17	Capital Work in Progress	1,02,37,36,425	-	1,28,18,26,310	1,02,37,36,425	1,28,18,26,310	-	-	-	-	-	1,28,18,26,310	1,02,37,36,425
	TOTAL (B)	1,02,37,36,425	-	1,28,18,26,310	1,02,37,36,425	1,28,18,26,310	-	-	-	-	-	1,28,18,26,310	1,02,37,36,425

SR. NO.	ASSETS HEADS INTANGIBLE ASSETS	GROSS BLOCK					DEPRECIATION/AMORTIZATION					NET BLOCK	
		OPENING BALANCE 01.04.2019	ADJUSTMENT	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	ADJUSTMENT	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
18	e-Journals	57,54,02,937	-3,82,165	16,64,63,043		74,14,83,815	49,64,30,992	796	9,14,19,134		58,78,49,330	15,36,34,485	7,89,71,945
19	Old Patents	48,02,775				48,02,775	18,03,156		4,33,450		22,36,606	25,66,169	29,99,619
20	New Patents	3,62,380				3,62,380	76,502		38,251		1,14,753	2,47,627	2,85,878
21	Computer Software	2,39,873		50,48,687		52,88,560	44,176		9,81,002		10,25,178	42,63,382	1,95,697
	TOTAL (C)	58,08,07,965	-3,82,165	17,15,11,730	-	75,19,37,530	49,83,54,826	796	9,28,71,837	-	59,12,25,867	16,07,11,663	8,24,53,139
	GRAND TOTAL (A+B+C)	24,74,03,60,608	4,33,06,425	3,27,68,95,432	1,10,34,47,840	26,95,71,14,625	11,46,07,76,085	-22,24,607	1,37,65,48,956	7,34,08,089	12,76,61,41,559	14,19,09,73,066	13,27,95,84,523

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

MAIN ACCOUNT (INCLUDING IWD, CDTE, PENSION, CAMPUS, VISITORS HOSTEL & PETROL PUMP)

SCHEDULE - 4A FIXED ASSETS (Acc I, IWD & Visitor Hostel)

(Amount-Rs)

SR. NO.	ASSETS HEADS	GROSS BLOCK					DEPRECIATION					NET BLOCK	
	TANGIBLE ASSETS	OPENING BALANCE 01.04.2019	ADJUSTMENT	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	ADJUSTMENT	FOR THE YEAR	DEDUCTIONS	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
1	Land												
	Freehold	9,00,000				9,00,000	-				-	9,00,000	9,00,000
	Lease Hold (IET - Noida)	11,72,27,164				11,72,27,164	-				-	11,72,27,164	11,72,27,164
2	Buildings (On free hold Land)	8,68,30,42,946		88,51,18,971		9,56,81,61,917	1,52,03,93,448		18,08,90,764		1,70,12,84,212	7,86,68,77,705	7,16,26,49,498
3	Buildings (Project)	22,46,31,989				22,46,31,989	6,73,26,977		42,68,008		7,15,94,985	15,30,37,004	15,73,05,012
4	Plant Machinery (Central AC)	24,78,33,694		5,23,55,576		30,01,89,270	11,29,12,109		1,42,58,990		12,71,71,099	17,30,18,171	13,49,21,585
5	Sewerage Treatment Plant	1,06,76,194		5,02,740		1,11,78,934	2,62,140		2,04,809		4,66,949	1,07,11,985	1,04,14,054
6	Computer/Peripherals Equipment	73,52,86,365	-3,61,400	6,29,01,544	2,20,96,757	77,57,29,752	64,57,05,103	-23,704	5,78,97,869	2,07,19,848	68,28,59,421	9,28,70,331	8,95,81,262
7	Lab & Science Equipments	4,85,27,64,485	4,40,49,990	19,28,95,234	4,18,25,508	5,04,78,84,201	3,00,78,26,304	6,77,911	37,98,58,107	3,87,79,223	3,34,95,83,098	1,69,83,01,103	1,84,49,38,181
8	General (Office) Equipment	49,48,96,604		6,74,83,266	23,18,467	56,00,61,403	34,53,17,386	15,65,695	3,79,43,538	19,24,336	38,29,02,282	17,71,59,120	14,95,79,218
9	Furniture & Fixtures	20,82,87,945		96,59,254	12,02,806	21,67,44,393	10,05,24,677		1,51,96,229	9,47,551	11,47,73,355	10,19,71,038	10,77,63,268
10	Donated Books	3,38,572		1,55,377		4,93,949	62,006		36,340		98,346	3,95,603	2,76,566
11	Vehicles	69,05,860		21,31,408	24,03,014	66,34,254	65,60,567		1,42,181	22,82,863	44,19,885	22,14,369	3,45,293
12	Donated Equipment	83,46,175				83,46,175	79,28,866		-		79,28,866	4,17,309	4,17,309
13	Periodical & Journal (Project)	1,31,74,48,989				1,31,74,48,989	1,13,40,52,998		11,75,23,542		1,25,15,76,540	6,58,72,449	18,33,95,991
14	Library Books	26,09,77,087		53,96,516		26,63,73,603	24,37,91,760		43,51,882		24,81,43,642	1,82,29,961	1,71,85,327
15	Other Assets Full Consumed	-		1,85,36,687		1,85,36,687	-		1,85,36,687		1,85,36,687	-	-
	TOTAL (A)	17,16,95,64,069	4,36,88,590	1,29,71,36,573	6,98,46,552	18,44,05,42,679	7,19,26,64,342	22,19,902	83,11,08,945	6,46,53,822	7,96,13,39,367	10,47,92,03,313	9,97,68,99,727
16	Capital Work in Progress	1,02,37,36,425		1,28,18,26,310	1,02,37,36,425	1,28,18,26,310	-		-	-	-	1,28,18,26,310	1,02,37,36,425
	TOTAL (B)	1,02,37,36,425	-	1,28,18,26,310	1,02,37,36,425	1,28,18,26,310	-		-	-	-	1,28,18,26,310	1,02,37,36,425

SR. NO.	ASSETS HEADS	GROSS BLOCK					DEPRECIATION/AMORTIZATION					NET BLOCK	
	INTANGIBLE ASSETS	OPENING BALANCE 01.04.2019	ADJUSTMENT	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	ADJUSTMENT	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
17	e-Journals	57,02,08,306	-3,82,165	16,64,63,043	-	73,62,89,185	49,14,96,093	-796	9,14,19,134	-	58,29,14,432	15,33,74,753	7,87,12,213
	TOTAL (C)	57,02,08,306	-3,82,165	16,64,63,043	-	73,62,89,185	49,14,96,093	-796	9,14,19,134	-	58,29,14,432	15,33,74,753	7,87,12,213
	GRAND TOTAL (A+B+C)	18,76,35,08,800	4,33,06,426	2,74,54,25,926	1,09,35,82,977	20,45,86,58,174	7,68,41,60,435	22,19,106	92,25,28,079	6,46,53,822	8,54,47,53,798	11,91,44,04,376	11,07,93,48,365

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 4B NON PLAN- FIXED ASSETS

(Amount-Rs)

SR. NO.	ASSETS HEADS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
	TANGIBLE ASSETS	OPENING BALANCE 01.04.2019	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
1	Computer/Peripherals Equipment	1,35,58,239	6,78,361		1,42,36,600	1,21,15,252	3,35,431		1,24,50,683	17,85,917	14,42,987
2	General (Office) Equipment	12,29,04,361	31,70,064		12,60,74,425	10,70,39,610	11,74,679		10,82,14,289	1,78,60,136	1,58,64,751
3	Furniture & Fixtures	92,91,249	3,51,830		96,43,079	55,07,878	6,54,735		61,62,613	34,80,466	37,83,371
	TOTAL (A)	14,57,53,849	42,00,255	-	14,99,54,104	12,46,62,740	21,64,845	-	12,68,27,585	2,31,26,519	2,10,91,109
4	Capital Work in Progress										
	TOTAL (B)	-	-	-	-	-	-	-	-	-	-

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 4C INTANGIBLE ASSETS

(Amount-Rs)

SR. NO.	ASSETS HEADS	GROSS BLOCK				DEPRECIATION/AMORTIZATION				NET BLOCK	
	INTANGIBLE ASSETS	OPENING BALANCE 01.04.2019	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
1	e-Journals	57,54,02,937	16,64,63,043	3,82,165	74,14,83,815	49,64,30,992	9,14,19,134	-796	58,78,49,330	15,36,34,485	7,89,71,945
2	Old Patents	48,02,775			48,02,775	18,03,156	4,33,450		22,36,606	25,66,169	29,99,619
3	New Patents	3,62,380			3,62,380	76,502	38,251		1,14,753	2,47,627	2,85,878
4	Computer Software	2,39,873	50,48,687		52,88,560	44,176	9,81,002		10,25,178	42,63,382	1,95,697
	TOTAL	58,08,07,965	17,15,11,730	3,82,165	75,19,37,530	49,83,54,826	9,28,71,837	-796	59,12,25,867	16,07,11,663	8,24,53,139

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 4C (I) PATENTS AND COPYRIGHTS

(Amount-Rs)

PARTICULARS	OPENING BALANCE 01.04.2019	ADDITIONS	GROSS	AMORTIZATION	NET BLOCK 31.03.2020	NET BLOCK 31.03.2019
PATENTS GRANTED						
Balance as on 01.04.2018	32,85,497	-	32,85,497	4,71,701	28,13,796	32,85,497
TOTAL (A)	32,85,497	-	32,85,497	4,71,701	28,13,796	32,85,497

PARTICULARS	OPENING BALANCE 01.04.2019	ADDITIONS	GROSS	AMORTIZATION	NET BLOCK 31.03.2020	NET BLOCK 31.03.2019
Patents Pending in respect of patents applied for						
TOTAL (B)	-	-	-	-	-	-
TOTAL (A+B)	32,85,497	-	32,85,497	4,71,701	28,13,796	32,85,497

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 4D EARMARKED FIXED ASSETS (PROJECTS' ACCOUNT)

(Amount-Rs)

SR. NO.	ASSETS HEADS TANGIBLE ASSETS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		OPENING BALANCE 01.04.2019	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
1	Buildings (On free hold Land)	2,29,930			2,29,930	46,273	4,369		50,642	1,79,288	1,83,657
2	Computer/Peripherals Equipment	52,34,59,714	6,93,09,892	57,96,497	58,69,73,109	49,14,82,443	86,69,817	54,99,907	49,46,52,353	9,23,20,756	3,19,77,271
3	Lab & Science Equipments	4,49,29,09,146	42,41,96,632	34,70,259	4,91,36,35,519	2,77,85,74,971	36,22,24,929	28,97,752	3,13,79,02,148	1,77,57,33,371	1,71,43,34,175
4	General (Office) Equipment	71,00,98,791	57,06,273	4,77,437	71,53,27,627	31,40,33,974	5,07,97,760	2,77,028	36,45,54,706	35,07,72,921	39,60,64,817
5	Furniture & Fixtures	7,47,26,305	8,70,753	1,20,670	7,54,76,388	4,84,70,747	53,54,555	74,080	5,37,51,222	2,17,25,166	2,62,55,558
6	Library Books	1,81,80,797	5,75,187		1,87,55,984	1,24,25,161	17,47,624		1,41,72,785	45,83,199	57,55,636
7	Plant & Machinery	8,93,617			8,93,617	60,609	42,447		1,03,056	7,90,561	8,33,008
8	Other Assets Full Consumed	-	2,15,61,827		2,15,61,827		2,15,61,827				
	TOTAL (A)	5,82,04,98,300	52,22,20,564	98,64,863	6,33,28,54,001	3,64,50,94,178	45,04,03,328	87,48,767	4,06,51,86,912	2,24,61,05,262	2,17,54,04,122
8	Capital Work in Progress	-	-	-	-	-	-	-	-	-	-
	TOTAL (B)	-	-	-	-	-	-	-	-	-	-

SR. NO.	ASSETS HEADS INTANGIBLE ASSETS	GROSS BLOCK				DEPRECIATION/AMORTIZATION				NET BLOCK	
		OPENING BALANCE 01.04.2019	ADDITIONS	DEDUCTIONS	CLOSING BALANCE 31.03.2020	OPENING BALANCE 01.04.2019	FOR THE YEAR	DEDUCTIONS/ ADJUSTMENT	TOTAL DEPRECIATION 31.03.2020	AS AT 31.03.2020	AS AT 31.03.2019
9	e-Journals	51,94,631			51,94,631	49,34,899			49,34,899	2,59,732	2,59,732
10	Old Patents	48,02,775			48,02,775	18,03,156	4,33,450		22,36,606	25,66,169	29,99,619
11	New Patents	3,62,380			3,62,380	76,502	38,251		1,14,753	2,47,627	2,85,878
12	Computer Software	2,39,873	50,48,687		52,88,560	44,176	9,81,002		10,25,178	42,63,382	1,95,697
	TOTAL (C)	1,05,99,659	50,48,687	-	1,56,48,346	68,58,733	14,52,704	-	83,11,437	73,36,909	37,40,926
	GRAND TOTAL (A+B+C)	5,83,10,97,959	52,72,69,251	98,64,863	6,34,85,02,347	3,65,19,52,911	45,18,56,032	87,48,767	4,07,34,98,349	2,25,34,42,171	2,17,91,45,048

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 5 INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
In Central Government Securities	-	-
In State Government Securities	-	-
Other Approved Securities	-	-
Shares	5,00,000	5,00,000
Debentures and Bonds	1,01,40,00,000	1,02,27,50,000
Term Deposits with Banks	2,98,94,44,922	3,44,10,70,804
Non Banking Financial Companies	1,44,33,00,000	60,25,00,000
TOTAL	**5,44,72,44,922**	**5,06,68,20,804**

SCHEDULE - 5A INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS (FUND WISE)

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Endowment Fund Investments	3,36,32,44,922	3,06,98,20,804
Investment of Projects' Account	2,08,40,00,000	1,99,70,00,000
TOTAL	**5,44,72,44,922**	**5,06,68,20,804**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 6 INVESTMENTS - OTHERS

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
In Central Government Securities	-	-
In State Government Securities	-	-
Other Approved Securities	-	-
Shares	10,000	10,000
Debentures and Bonds	-	-
Others (Bank Fixed Deposits)	-	-
TOTAL	**10,000**	**10,000**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 7 - CURRENT ASSETS

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
1. STOCK:		
Building Material	12,47,213	35,66,787
Petrol, and Oil	9,96,875	12,00,572
Stationery	31,82,324	15,85,118
Medicines	18,32,183	10,60,406
2. SUNDRY DEBTORS:		
Debts Outstanding for a period exceeding six months		
Others	98,09,544	1,02,65,575
3. CASH AND BANK BALANCES:		
Cash in Hand	-	-
WITH SCHEDULED BANKS:		
- In Current Accounts	65,97,56,995	63,23,32,647
- In term deposit Accounts	2,22,34,52,387	1,74,51,27,783
- In Savings Accounts	85,46,54,619	1,02,03,66,884
WITH NON SCHEDULED BANKS:		
- In term deposit Accounts	-	-
- In Savings Accounts	-	-
4. NON CURRENT ASSETS:		
Grants Receivable (Against Retirement Benefits)	12,60,57,29,578	10,70,54,57,758
5. OTHER CURRENT ASSETS:		
Donation Receivable Against Rajeev Motwani Building	4,74,71,250	4,74,71,250
Other Receivable	10,52,707	46,32,629
Wrongly Debited in Bank	6,950	6,950
TOTAL	**16,40,91,92,625**	**14,17,30,74,359**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE - 'A'

PARTICULARS	ACCOUNT NO.	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
BALANCE IN SAVINGS BANK ACCOUNTS			
AXIS BANK -IIT KANPUR (PAYMENT GATEWAY)	913010053856434	55,81,888	8,69,63,566
AXIS BANK -ENDOWMENT	133010100170012	84,31,826	1,24,37,932
CANARA BANK - IIT KANPUR	2178101020016	1,97,73,142	8,95,457
CANARA BANK - PRINCIPAL ESCROW	2178101029892	3,27,73,653	26,46,60,347
CANARA BANK - INTEREST ESCROW	2178101029893	37,957	14,162
HDFC BANK - ENDOWMENT	1271450001017	48,81,908	23,99,113
ICICI BANK - ENDOWMENT	628801033775	15,05,964	7,78,293
ICICI BANK - IIT KANPUR (PAYMENT GATEWAY)	104601000838	67,06,595	1,13,03,309
STATE BANK OF INDIA - IWD	30632766814	2,63,78,750	8,68,87,358
STATE BANK OF INDIA - PENSION	10426004576	24,02,283	11,00,00,000
STATE BANK OF INDIA - IIT KANPUR TRANSCRIPT	35973361835	83,141	13,73,983
STATE BANK OF INDIA - DCF	10426004791	76,76,622	2,52,33,487
STATE BANK OF INDIA - GATE	33252014909	7,00,194	1,55,540
STATE BANK OF INDIA - JAM	33252021428	26,86,157	7,22,230
STATE BANK OF INDIA - JEE	10426004666	51,33,086	3,550
STATE BANK OF INDIA - R&D	10426004611	31,28,173	8,97,99,625
STATE BANK OF INDIA - STUDENT GYMKHANA	10426002240	16,48,137	27,60,205
STATE BANK OF INDIA - ENDOWMENT	10426004735	1,73,97,823	4,68,46,004
STATE BANK OF INDIA - ENDOWMENT	30530707580	2,85,83,269	4,58,36,863
STATE BANK OF INDIA - VH	10426004893	7,91,569	7,69,282
STATE BANK OF INDIA - PROJECTS' ACCOUNT	36880589812	44,50,40,152	16,33,05,568
STATE BANK OF INDIA - PROJECTS' ACCOUNT	37174348003	8,450	6,546
STATE BANK OF INDIA - PROJECTS' ACCOUNT	37201255346	3,74,89,735	92,58,031
STATE BANK OF INDIA - PROJECTS' ACCOUNT	38252644968	6,47,688	10,032
STATE BANK OF INDIA - PROJECTS' ACCOUNT	38156203354	13,65,109	-
STATE BANK OF INDIA - PROJECTS' ACCOUNT	38368990543	2,83,92,370	-
STATE BANK OF INDIA - ACCOUNT III	38609871079	1,36,95,201	-
STATE BANK OF INDIA - JAM	38707327230	3,96,47,146	-
UNION BANK OF INDIA- IIT KANPUR	537202010000050	4,09,10,342	3,70,06,970
UNION BANK OF INDIA- GATE	537202010000058	3,15,96,993	83,55,198
UNION BANK OF INDIA- HALL MANAGEMENT	537202010000199	3,57,95,337	84,35,204
UNION BANK OF INDIA- PENSION HALL MANAGEMENT	537202010000037	37,53,892	41,45,590
UNION BANK OF INDIA- JEE	537202010000102	10,067	3,439
BALANCE IN CURRENT ACCOUNTS			
STATE BANK OF INDIA	35061669618	92,017	92,017
STATE BANK OF INDIA - VH	38118997624	37,84,162	-
SBI NET BANKING - INTERNET BANKING	31250582809	14,807	3,14,056
STATE BANK OF INDIA - IIT KANPUR	10426002137	37,20,54,268	30,19,33,548
STATE BANK OF INDIA - IIT KANPUR	34848723343	67,546	17,68,195
STATE BANK OF INDIA - CDTE	37926189366	6,68,552	6,97,240
ICICI BANK - ENDOWMENT	628805002180	20,45,131	10,29,447
ICICI BANK - IIT KANPUR	104605001619	1,00,000	-
UNION BANK OF INDIA- PROJECTS' ACCOUNT	537201010035329	1,00,000	-
STATE BANK OF INDIA - PROJECTS' ACCOUNT	10426002126	24,97,68,791	31,26,77,825
AXIS BANK -IIT KANPUR PG ADMISSION	916020013424428	15,825	1,15,575
STATE BANK OF INDIA - IIT KANPUR OUTN COLLECTION	35379059192	1,86,030	10,60,018
UNION BANK OF INDIA- PROJECTS' ACCOUNT	537201010019001	3,08,59,866	1,26,44,726
TOTAL		**1,51,44,11,614**	**1,65,26,99,531**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 8 - LOANS, ADVANCES & DEPOSITS

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
ADVANCES TO EMPLOYEES: (NON-INTEREST BEARING)		
Miscellaneous Advances to Staff	2,71,976	10,69,283
Festival	1,43,200	5,18,950
Medical	-	39,141
Insurance	12,166	-
TA/LTC	59,39,060	22,21,535
Departmental Expenses	2,29,28,496	2,11,82,245
Contingency	72,79,774	18,22,001
Counselling Services / Training	12,01,800	28,46,000
LONG TERM ADVANCES TO EMPLOYEES (INTEREST BEARING)		
Vehicle	16,73,686	23,95,495
Home	58,92,667	83,51,992
PC	8,39,711	6,35,115
ADVANCES AND OTHER AMOUNTS RECOVERABLE IN CASH OR IN KIND OR FOR VALUE TO BE RECEIVED		
On Capital Account	1,80,15,95,560	1,44,51,64,482
Others	1,98,59,053	28,39,527
Loan to SIDBI Incubatees/Others	96,55,941	96,55,941
Loan to IDEA Cellular Pvt Ltd	5,00,000	-
Loan to PROSOC	1,50,000	26,40,000
to Suppliers	8,76,161	55,767
PREPAID EXPENSES		
Pre Paid Expenses	1,49,581	1,44,187
Lease Rent Advance to IET NOIDA	2,20,03,472	2,22,89,232

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 8 - LOANS, ADVANCES & DEPOSITS (Contd...)

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2019	PREVIOUS YEAR 31.03.2018
DEPOSITS		
Electricity	1,37,74,275	1,37,74,275
Bank Guarantee/ TDR Kept as Security	23,00,000	23,00,000
Indian Oil Limited	20,72,000	20,72,000
Others	18,000	18,000
Pension Corpus	86,90,287	86,90,287
INCOME ACCRUED		
On Investments from Earmarked/Endowment Funds	2,68,03,585	1,04,20,644
On Investments Others	1,66,41,770	1,72,21,219
On Loans and Advances (Staff)	1,50,17,533	1,57,82,505
OTHERS RECEIVABLE		
Grants Receivable against Salary from MHRD	2,28,62,533	-
Grants Receivable against Pension from MHRD	13,77,38,452	11,07,69,494
Grants Receivable against Scholarship from MHRD	19,35,51,332	19,62,47,571
Grants Receivable against Non Salary	9,74,81,034	-
Grants Receivable against Science & Technology Park	65,27,642	-
Debit balances in Sponsored projects	41,96,92,285	38,23,72,137
Claims Receivable	88,01,926	52,64,587
TOTAL	**2,87,29,44,958**	**2,28,88,03,612**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 9 - ACADEMIC RECEIPTS

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
FEES FROM STUDENTS		
ACADEMIC		
Tuition fee	44,55,95,033	39,94,14,139
Admission fee	3,54,750	3,16,200
Laboratory fee	43,89,300	40,84,800
Registration fee	43,89,300	40,84,800
TOTAL (A)	**45,47,28,383**	**40,78,99,939**
EXAMINATIONS		
Admission test fee	1,07,74,800	1,30,71,472
Annual Examination fee	2,36,500	2,10,800
Mark sheet, certificate fee	5,91,250	5,27,000
Entrance Examination fee	8,59,97,654	8,43,28,177
TOTAL (B)	**9,76,00,204**	**9,81,37,449**
OTHER FEES		
Identity card fee	42,850	44,400
Miscellaneous fee	57,88,841	2,08,54,644
Medical fee	7,31,550	6,80,800
Hostel fee	1,88,74,325	1,73,60,400
TOTAL (C)	**2,54,37,566**	**3,89,40,244**
SALE OF PUBLICATIONS		
Sale of Admission forms	1,73,06,290	3,40,70,851
Sale of syllabus and Question Paper etc	-	13,000
Sale of prospectus including admission forms		-
TOTAL (D)	**1,73,06,290**	**3,40,83,851**
OTHER ACADEMIC RECEIPTS		
Registration fee for workshops, programmes	-	-
Registration Fees (Academic Staff College)	-	-
TOTAL (E)	-	-
GRAND TOTAL (A+B+C+D+E)	**59,50,72,443**	**57,90,61,483**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 9 - ACADEMIC RECEIPTS

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	GATE	JAM	JEE
FEES FROM STUDENTS					
ACADEMIC					
Tuition fee	44,55,95,033	44,55,95,033			
Admission fee	3,54,750	3,54,750			
Laboratory fee	43,89,300	43,89,300			
Registration fee	43,89,300	43,89,300			
EXAMINATIONS					
Admission test fee	1,07,74,800	1,07,74,800			
Annual Examination fee	2,36,500	2,36,500			
Mark sheet, certificate fee	5,91,250	5,91,250			
Entrance Examination fee	8,59,97,654	-	8,08,41,775	51,55,879	
OTHER FEES					
Identity card fee	42,850	42,850			
Miscellaneous fee	57,88,841	46,75,417			11,13,424
Medical fee	7,31,550	7,31,550			
Hostel fee	1,88,74,325	1,88,74,325			
SALE OF PUBLICATIONS					
Sale of Admission forms	1,73,06,290	26,91,546			1,46,14,744
TOTAL	**59,50,72,443**	**49,33,46,621**	**8,08,41,775**	**51,55,879**	**1,57,28,168**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 10 - GRANTS/SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)

(Amount-Rs)

PARTICULARS	PLAN			TOTAL PLAN	NON PLAN MHRD	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
	GOVT. OF INDIA	UGC					
		PLAN	SPECIFIC SCHEMES				
BALANCE BROUGHT FORWARD	13,55,64,829	-	-	13,55,64,829	(25,69,89,787)	(12,14,24,958)	(56,01,63,148)
Add: Opening Receivable	-			-	-	-	-
Add: Internal Receipts	60,59,06,286	-	-	60,59,06,286	24,90,78,075	85,49,84,361	1,20,88,53,593
Add : Receipt during the year	1,38,27,80,000	-	-	1,38,27,80,000	4,66,98,50,000	6,05,26,30,000	5,95,63,60,000
TOTAL	2,12,42,51,115	-	-	2,12,42,51,115	4,66,19,38,288	6,78,61,89,403	6,60,50,50,445
Less: Refund to UGC	-	-	-	-	-	-	-
Balance	2,12,42,51,115	-	-	2,12,42,51,115	4,66,19,38,288	6,78,61,89,403	6,60,50,50,445
Less : Utilised for Capital expenditure (A)	1,99,26,80,125	-	-	1,99,26,80,125	-	1,99,26,80,125	1,66,31,35,171
Balance	13,15,70,990	-	-	13,15,70,990	4,66,19,38,288	4,79,35,09,278	4,94,19,15,274
Less : Utilised for Revenue Expenditure (B)	-	-	-	-	5,07,99,91,668	5,07,99,91,668	5,06,33,40,232
Add: Closing Plan Non Recurring W/o	-			-	-	-	-
Balance C/F (C)	13,15,70,990	-	-	13,15,70,990	(41,80,53,380)	(28,64,82,390)	(12,14,24,958)

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 11 - INCOME FROM INVESTMENTS

(Amount-Rs)

PARTICULARS	EARMARKED/ENDOWMENT FUNDS		OTHER INVESTMENTS	
	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
INTEREST				
On Government Securities	-	-	-	-
Other Bonds/Debentures	6,67,72,269	6,29,02,832	-	-
Interest on Term Deposits	19,77,38,915	14,34,16,566	24,79,61,124	17,28,27,884
Income accrued but not due on Term Deposits/Interest bearing advances to employees	2,68,03,585	1,04,20,644	-	-
Interest on Savings Bank Accounts	31,77,129	17,31,381	-	-
Others (Specify)	-	-	-	-
TOTAL	**29,44,91,898**	**21,84,71,423**	**24,79,61,124**	**17,28,27,884**
TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS	29,44,91,898	21,84,71,423		
BALANCE	-	-		

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 11 - INCOME FROM INVESTMENTS

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	DCF	GATE	STU GYM	HALL MANAGEMENT	JAM	R & D	JEE
INTEREST									
On Government Securities	-								
Other Bonds/Debentures	-								
Interest on Term Deposits	24,79,61,124	2,81,37,973	71,96,411	1,55,08,122	8,45,087	2,93,557	7,28,474	18,66,45,767	86,05,733
Income accrued but not due on Term Deposits/In advances to employees	-								
Interest on Savings Bank Accounts	-								
TOTAL	24,79,61,124	2,81,37,973	71,96,411	1,55,08,122	8,45,087	2,93,557	7,28,474	18,66,45,767	86,05,733

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 12 - INTEREST EARNED

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
On Savings Accounts with scheduled banks	2,45,75,962	1,56,44,876
ON LOANS		
Employees/Staff	7,56,563	5,90,713
On Debtors and Other Receivables	27,03,476	-
TOTAL	**2,80,36,001**	**1,62,35,589**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 12 - INTEREST EARNED

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	DCF	GATE	PENSION HALL MANAGEMENT	HALL MANAGEMENT	JAM	R & D	JEE
On Savings Accounts with scheduled banks	2,45,75,962	2,17,26,556	756940	853709	102587	373167	60957	595724	106322
ON LOANS									
Employees/Staff/Others	7,56,563	7,56,563							
On Debtors and Other Receivables	27,03,476	27,03,476							
TOTAL	2,80,36,001	2,51,86,595	7,56,940	8,53,709	1,02,587	3,73,167	60,957	5,95,724	1,06,322

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 13 - OTHER INCOME

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
INCOME FROM LAND & BUILDINGS		
Hostel Room Rent	5,28,97,942	3,11,22,898
License fee	1,24,50,182	1,13,86,475
Electricity Charges Recovered	9,94,36,490	9,45,07,133
Telephone Charges Recovered	4,44,286	5,82,428
House Rent & Water chargres recovered	1,42,49,067	1,48,06,027
TOTAL	**17,94,77,967**	**15,24,04,961**
SALE OF INSTITUTE'S PUBLICATIONS	-	-
TOTAL	-	-
OTHERS		
RTI fee	1,012	2,322
Misc. receipts (Sale of tender form, waste paper, MOU receipts etc.)	6,68,129	7,63,935
PROFIT ON SALE/DISPOSAL OF ASSETS		
a) Owned assets	61,76,065	45,24,488
Consultancy Overheads	10,09,43,941	15,13,15,119
Sale of Petrol & Oil	4,13,18,875	3,78,39,259
Retirement Benefit Receivable from GOI	1,90,02,71,820	32,74,39,643
Other Miscellaneous Income	6,46,65,065	23,58,55,184
TOTAL	**2,11,40,44,907**	**75,77,39,950**
GRAND TOTAL	**2,29,35,22,874**	**91,01,44,911**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 13 - OTHER INCOME

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	DCF	STY GYM	PENSION HALL MANAGEMENT	HALL MANAGEMENT	R & D
INCOME FROM LAND & BUILDINGS							
Hostel Room Rent	5,28,97,942	4,96,17,897	32,80,045				
License fee	1,24,50,182	1,24,50,182					
Electricity Charges Recovered	9,94,36,490	9,94,36,490					
Telephone Charges Recovered	4,44,286	4,44,286					
House Rent & Water chargres recovered	1,42,49,067	1,42,49,067					
OTHERS							
RTI fee	1,012	1,012					
Misc. receipts (Sale of tender form, waste paper, MOU receipts etc.)	6,68,129	6,68,129					
PROFIT ON SALE/DISPOSAL OF ASSETS							
a) Owned assets	61,76,065	61,76,065					
Consultancy Overheads	10,09,43,941						10,09,43,941
Sale of Petrol & Oil	4,13,18,875	4,13,18,875					
Retirement Benefit Receivable from GOI	1,90,02,71,820	1,90,02,71,820					
Other Miscellaneous Income	6,46,65,065	4,93,44,883	73,43,177	77,61,685	61,900	1,53,420	
TOTAL	**2,29,35,22,874**	**2,17,39,78,706**	**1,06,23,222**	**77,61,685**	**61,900**	**1,53,420**	**10,09,43,941**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 14 - PRIOR PERIOD INCOME

(Amount-Rs)

PARTICULARS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Other Income	-	84,22,675
Academic Receipts	-	-
Excess Provision Written Back	-	-
TOTAL	-	84,22,675

ASSTT. REGISTRAR (F&A)

JOINT REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 15 - STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

(Amount-Rs)

PARTICULARS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
Salaries and Wages	-	18978,96,866	18978,96,866	-	16213,78,550	16213,78,550
Allowances and Bonus	-	156,05,062	156,05,062	-	847,29,355	847,29,355
Retirement and Terminal Benefits	-	29141,37,524	29141,37,524	-	14958,10,050	14958,10,050
LTC facility	-	135,88,950	135,88,950	-	152,19,150	152,19,150
Medical Facility	-	798,52,300	798,52,300	-	646,84,613	646,84,613
Children Education Allowance	-	101,25,061	101,25,061	-	78,20,129	78,20,129
Honorarium & Fellowships	-	554,10,066	554,10,066	-	806,40,335	806,40,335
TA for National & International Conferences	-	179,22,890	179,22,890	-	191,73,442	191,73,442
TOTAL	**-**	**50045,38,719**	**50045,38,719**	**-**	**33894,55,624**	**33894,55,624**

ASSTT. REGISTRAR (F&A)

JOINT REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 15 - STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	GATE	JEE	HALL MANAGEMENT	R & D	JAM
Salaries and Wages	18978,96,866	18755,60,305	3196004	601936	-132449	18671070	
Allowances and Bonus	156,05,062	156,05,062					
Retirement and Terminal Benefits	29141,37,524	29141,37,524					
LTC facility	135,88,950	135,88,950					
Medical Facility	798,52,300	797,96,429			55871		
Children Education Allowance	101,25,061	101,25,061					
Honorarium & Fellowships	554,10,066	192,81,898	25656068	10447900			24200
TA for National & International Conferences	179,22,890	179,22,890					
TOTAL	**50045,38,719**	**49460,18,119**	**288,52,072**	**110,49,836**	**-76,578**	**186,71,070**	**24,200**

ASSTT. REGISTRAR (F&A)

JOINT REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 15 A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

(Amount-Rs)

PARTICULARS	PENSION	GRATUITY	LEAVE ENCASHMENT	TOTAL
Opening Balance as on 01.04.2019	9,57,52,61,392	46,07,63,224	66,94,33,142	10,70,54,57,758
Addition : Capitalized value of Contributions Received from other Organizations	78,71,090	-	-	78,71,090
TOTAL (A)	**9,58,31,32,482**	**46,07,63,224**	**66,94,33,142**	**10,71,33,28,848**
Less : Actual Expenditure during the year (b)	87,78,40,048	74,51,112	2,81,51,215	91,34,42,375
BALANCE AVAILABLE ON 31.03.2018 (A-B)	**8,70,52,92,434**	**45,33,12,112**	**64,12,81,927**	**9,79,98,86,473**
Provision required on 31.03.20 as per Actuarial Valuation (d)	11,27,29,31,328	52,26,48,189	81,01,50,061	12,60,57,29,578
A. Provision to be made in the Current Year (d-c)	**2,56,76,38,894**	**6,93,36,077**	**16,88,68,134**	**2,80,58,43,105**
B. Contribution to New Pention Scheme	10,82,94,419	-	-	10,82,94,419
C. Medical Reimbusement to Retired Employees	-	-	-	-
D. Travel to Hometown on Retirement	-	-	-	-
E. Deposit Linked Insurance Payment	-	-	-	-
TOTAL (A+B+C+D+E)	**2,67,59,33,313**	**6,93,36,077**	**16,88,68,134**	**2,91,41,37,524**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 16 - ACADEMIC EXPENSES

(Amount-Rs)

PARTICULARS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
Laboratory expenses	-	13,41,39,562	13,41,39,562	-	12,34,71,350	12,34,71,350
Field work/Participation in Conferences	-	6,21,89,757	6,21,89,757	-	3,77,53,466	3,77,53,466
Expenses on Seminars/Workships	-	25,32,245	25,32,245	-	29,04,866	29,04,866
Payment to visiting faculty (Thesis)	-	1,45,37,492	1,45,37,492	-	2,22,05,365	2,22,05,365
Examination	-	2,06,14,816	2,06,14,816	-	3,20,86,833	3,20,86,833
Student Welfare expenses	-	1,12,46,920	1,12,46,920	-	1,36,56,226	1,36,56,226
Convocation expenses	-	47,65,887	47,65,887	-	18,83,158	18,83,158
Course Charges	-	-	-	-	90,69,504	90,69,504
Expenses against P M Research	-	1,30,49,304	1,30,49,304	-	48,61,174	48,61,174
Stipend/means-cum-merit scholarship	-	71,79,03,761	71,79,03,761	-	53,69,70,324	53,69,70,324
Compulsory Physical Activity (CPA)	-	-	-	-	3,26,889	3,26,889
TOTAL	**-**	**98,09,79,744**	**98,09,79,744**	**-**	**78,51,89,155**	**78,51,89,155**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 16 - ACADEMIC EXPENSES

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	GATE	JEE	DCF	STU GYM	JAM
Laboratory expenses	1341,39,562	1341,39,562					
Field work/Participation in Conferences	621,89,757	621,89,757					
Expenses on Seminars/Workships	25,32,245	25,32,245					
Payment to visiting faculty (Thesis)	145,37,492	145,37,492					
Examination	206,14,816		144,77,588	32,46,353			28,90,875
Student Welfare expenses	112,46,920	3,57,000			48,65,309	60,24,611	
Convocation expenses	47,65,887	47,65,887					
Course Charges	-						
Expenses against P M Research	130,49,304	130,49,304					
Stipend/means-cum-merit scholarship	7179,03,761	7179,03,761					
Compulsory Physical Activity (CPA)	-	-					
TOTAL	9809,79,744	9494,75,008	144,77,588	32,46,353	48,65,309	60,24,611	28,90,875

ASSTT. REGISTRAR (F&A)

JOINT REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 17 - ADMINISTRATIVE AND GENERAL EXPENSES

(Amount-Rs)

PARTICULARS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
INFRASTRUCTURE						
Electricity and power	-	47,24,81,223	47,24,81,223	-	49,47,01,116	49,47,01,116
Insurance	-	24,04,400	24,04,400	-	5,56,929	5,56,929
Rent, Rates and Taxes (including property tax)	-	2,14,18,396	2,14,18,396	-	19,35,32,840	19,35,32,840
COMMUNICATION						
Postage and Stationery	-	49,299	49,299	-	1,94,539	1,94,539
Telephone, Fax and Internet Charges	-	6,77,345	6,77,345	-	5,81,177	5,81,177
OTHERS						
Printing and Stationery (consumption)	-	47,35,543	47,35,543	-	60,21,499	60,21,499
Travelling and Conveyance Expenses	-	-	-	-	97,125	97,125
Auditors Remuneration	-	35,26,015	35,26,015	-		-
Legal & Professional Charges	-	15,76,083	15,76,083	-	37,43,407	37,43,407
Advertisement and Publicity	-	12,90,122	12,90,122	-	2,32,290	2,32,290
Miscellaneous Expenses	-	-	-	-	5,16,342	5,16,342
Meeting Expenses	-	-	-	-	10,03,603	10,03,603
TOTAL	**-**	**50,81,58,426**	**50,81,58,426**	**-**	**70,11,80,867**	**70,11,80,867**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 17 - ADMINISTRATIVE AND GENERAL EXPENSES

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	GATE	JEE	DCF	JAM	HALL MANAGEMENT
INFRASTRUCTURE							
Electricity and power	47,24,81,223	47,24,81,223					
Insurance	24,04,400	4,88,850	19,02,271				13,279
Rent, Rates and Taxes (including property tax)	2,14,18,396	2,14,18,396					
COMMUNICATION							
Postage and Stationery	49,299	-		41,058		8,241	
Telephone, Fax and Internet Charges	6,77,345	6,70,493	3,956	2,896			
OTHERS							
Printing and Stationery (consumption)	47,35,543	33,45,166	3,23,424	2,48,187	6,89,150	1,19,961	9,655
Travelling and Conveyance Expenses	-	-					
Auditors Remuneration	35,26,015	35,26,015					
Legal & Professional Charges	15,76,083	5,30,483		9,50,000	70,000		25,600
Advertisement and Publicity	12,90,122	12,90,122					
Miscellaneous Expenses	-	-					
Meeting Expenses	-	-					
TOTAL	**50,81,58,426**	**50,37,50,748**	**22,29,651**	**12,42,141**	**7,59,150**	**1,28,202**	**48,534**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 18 - TRANSPORTATION EXPENSES

(Amount-Rs)

PARTICULATRS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
VEHICLES (OWNED BY INSTITUTION)						
Running / Maintenance Expenses	-	-	-	-	6,53,097	6,53,097
VEHICLES TAKEN ON RENT/LEASE						
VEHICLE (TAXI) HIRING EXPENSES	-	-	-	-	-	-
TOTAL	-	-	-	-	6,53,097	6,53,097

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 19 - REPAIRS & MAINTENANCE

(Amount-Rs)

PARTICULATRS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
Building	-	10,63,73,414	10,63,73,414	-	12,28,51,402	12,28,51,402
Plant & Machinery	-	5,31,63,286	5,31,63,286	-	5,81,50,564	5,81,50,564
Computers	-	4,54,85,223	4,54,85,223	-	5,72,66,934	5,72,66,934
Laboratory & Scientific equipment	-	4,04,32,237	4,04,32,237	-	3,04,02,451	3,04,02,451
Others Maintenance	-	7,58,509	7,58,509	-	8,55,246	8,55,246
Estate Maintenance	-	6,19,64,534	6,19,64,534	-	7,48,97,376	7,48,97,376
House Keeping	-	15,41,00,518	15,41,00,518	-	17,69,26,703	17,69,26,703
TOTAL	**-**	**46,22,77,721**	**46,22,77,721**	**-**	**52,13,50,676**	**52,13,50,676**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 19 - REPAIRS & MAINTENANCE

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	JEE	DCF	HALL MANAGEMENT
Building	10,63,73,414	10,63,73,414			
Plant & Machinery	5,31,63,286	5,31,63,286			
Computers	4,54,85,223	4,54,62,718	18,861		3,644
Laboratory & Scientific equipment	4,04,32,237	4,04,32,237			
Others Maintenance	7,58,509	-	5,500	7,53,009	
Estate Maintenance	6,19,64,534	6,15,95,936	3,68,598		
House Keeping	15,41,00,518	15,41,00,518			
TOTAL	**46,22,77,721**	**46,11,28,109**	**3,92,959**	**7,53,009**	**3,644**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 20 - FINANCE COSTS

(Amount-Rs)

PARTICULATRS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
Bank Charges	-	1,33,055	1,33,055	-	1,44,712	1,44,712
Stamp Duty Charges	-	20,03,260	20,03,260	-	10,01,600	10,01,600
Interest to Bank on Loan	-	7,71,33,195	7,71,33,195	-	6,90,57,615	6,90,57,615
TOTAL	**-**	**7,92,69,510**	**7,92,69,510**	**-**	**7,02,03,927**	**7,02,03,927**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 20 - FINANCE COSTS

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	GATE	JEE	STU GYM	HALL MANAGEMENT
Bank Charges	1,33,055	1,27,918	421	2,661	1,226	829
Stamp Duty Charges	20,03,260	20,03,260				
Interest to Bank on Loan	7,71,33,195	7,71,33,195				
TOTAL	**7,92,69,510**	**7,92,64,373**	**421**	**2,661**	**1,226**	**829**

ASST. ~~REGISTRAR~~ (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 21 - OTHER EXPENSES

(Amount-Rs)

PARTICULATRS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
Cost of Petrol & Oil Sold	-	3,97,06,985	3,97,06,985	-	3,64,25,148	3,64,25,148
Penalty, Demand / Interest on Late Payment of Tax	-	3,79,771	3,79,771	-	4,83,317	4,83,317
Other Expenses	-	52,173	52,173	-	-	-
Lease Rent to IET NOIDA Amortized	-	2,85,760	2,85,760	-	2,85,760	2,85,760
TOTAL	**-**	**4,04,24,689**	**4,04,24,689**	**-**	**3,71,94,225**	**3,71,94,225**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

ANNEXURE TO SCHEDULE - 21 - OTHER EXPENSES

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)	HALL MANAGEMENT
Cost of Petrol & Oil Sold	3,97,06,985	3,97,06,985	
Penalty, Demand / Interest on Late Payment of Tax	3,79,771	3,79,771	
Other Expenses	52,173	6,454	45,719
Lease Rent to IET NOIDA Amortized	2,85,760	2,85,760	
TOTAL	**4,04,24,689**	**4,03,78,970**	**45,719**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 22 - PRIOR PERIOD EXPENSES

(Amount-Rs)

PARTICULATRS	CURRENT YEAR - 31.03.2020			PREVIOUS YEAR - 31.03.2019		
	CAPITAL	REVENUE	TOTAL	CAPITAL	REVENUE	TOTAL
Establishment expenses	-	2,48,161	2,48,161	-	32,49,827	32,49,827
Administrative expenses	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-
TOTAL	**-**	**2,48,161**	**2,48,161**	**-**	**32,49,827**	**32,49,827**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

SCHEDULE - 22 - PRIOR PERIOD EXPENSES

PARTICULARS	CURRENT YEAR 31.03.2020	IWD CDTE PENSION CAMPUS VH PP ACC III (As per UC)
Establishment expenses	2,48,161	2,48,161
Administrative expenses	-	-
Repairs & Maintenance	-	
TOTAL	**2,48,161**	**2,48,161**

ASSTT. REGISTRAR (F&A)

JOINT REGISTRAR (F&A)

SIGNIFICANT ACCOUNTING POLICIES

AND

NOTES ON ACCOUNTS

SCHEDULE: 23

SIGNIFICANT ACCOUNTING POLICIES

1. BASIS FOR PREPARATION OF ACCOUNTS

The accounts are prepared under the Historical Cost Convention and ongoing concern concept, unless otherwise stated. The Institute follows accrual method of accounting.

2. REVENUE RECOGNITION

The Institute is significantly funded by the Ministry of Human Resource Development (MHRD), Government of India. The government releases the Grant-in-Aid under two major heads i.e. Capital and Revenue. Grant-in-aid from Government of India is accounted for in the same financial year for which it is sanctioned by the MHRD, Government of India.

Fees from Students (except Tuition Fees), Sale of Admission Forms, Common Share of Entrance Examination (in case the event is carried out by other IIT), Consultancy Charges and Interest on Savings Bank accounts are accounted on cash basis. Tuition Fees collected separately for each semester is accounted on accrual basis.

Income from Land, Building and Other Property and Interest on Investments are accounted on accrual basis.

Interest on interest bearing advances to employees for House Building, Purchase of Vehicle and Computers is accounted on accrual basis every year, even though in case of House Building Advance (HBA), the actual recovery of interest starts after the full repayment of principal.

3. FIXED ASSETS AND DEPRECIATION

Fixed assets are stated at cost of acquisition including inward freight, duties and taxes, and incidental and other direct expenses related to their acquisition, installation and commissioning. However Fixed Assets capitalized in the Project Accounts are stated at cost of acquisition including inward freight, duties and taxes (except GST on account of input tax credit charged), and incidental and other direct expenses related to their acquisition, installation and commissioning

Gifted / Donated assets are valued at the declared value where available; if not available, the value is estimated based on the present market value adjusted with reference to the physical condition of the asset. They are set-up by credit to Capital Fund and merged with the Fixed Assets of the Institution. Depreciation is charged at the rates applicable to the respective asset.

Books received as gifts are valued at selling price printed on the books. Where this are not printed, the value is based on assessment.

Fixed assets are valued at cost less accumulated depreciation. Depreciation on fixed assets is provided on Straight Line method (SLM), on pro-rata basis, at rates as prescribed by MHRD and approved by the Board of Governors in the meeting held on 27.05.2017: The rates of depreciation are as follows:

TANGIBLE ASSET	RATE OF ANNUAL DEPRECIATION
Land	0%
Site Development	0%
Buildings	2.0%
Roads & Bridges	2.0%
Tube wells & Water Supply	2.0%
Sewerage & Drainage	2.0%
Electrical Installation and Equipment	5.0%
Plant & Machinery	5.0%
Scientific & Laboratory Equipment	8.0%
Office Equipment	7.5%
Audio Visual Equipment	7.5%

Computers & Peripherals	20%
Furniture, Fixtures & Fittings	7.5%
Vehicles	10%
Library Books& Scientific Journals	10%
INTANGIBLE ASSET	**RATE OF ANNUAL DEPRECIATION**
E-Journals	40%
Computer Software	40%
Patents and Copyrights	9 years

All Fixed Assets excluding fixed assets the individual value of each of which is Rs. 2000 or less are depreciated up to 95% of their book value and thereafter continue to be shown at 5% of their book value.

Assets created out of Earmarked Funds and Funds of Sponsored Projects are setup by credit to Capital Fund and disclosed separately as fixed assets of the Institute even though these normally remain the property of the Project Sponsoring Agencies. Depreciation is charged at the rates applicable to the respective assets as above.

Assets which are un-serviceable, condemned or out of use are written-off as per the provisions given in the General Financial Rules (GFR). Such write-off is given effect in the Balance Sheet only after the issue of final order by the competent authority of the Institute. However, provision is made in the year the recommendation is made by the committee.

Additions to leased lines during a year are fully expensed in the immediate subsequent year.

Addition to Fixed Assets up to Rs. 2000.00 have been written off by debit to Consumables.

Patents as prescribed in new MHRD guidelines are to be amortized over 9 years. Previously they were depreciated @9.5%. Due to change in method Patents are categorized as Patent (New) from current FY 2019-20 to be amortized over 9 years and Patent (Old) which will be depreciated @9.5%. The expenditure incurred from time-to-time (applicable fees, legal expenses etc.) for obtaining Patents is temporarily capitalized and shown as part of Intangible Assets in the Balance Sheet. The expenditure on Patents granted is written off @9.5% on SLM.

If application for patents are rejected, the cumulative expenditure incurred on the particular patent is written off to the Income & Expenditure Account in the year the application is rejected

Electronic Journals (E-Journals) are separated from Library Books in view of the limited benefit that could be derived from the online access provided. E-journals are not in tangible form, but temporarily capitalized and in view of the magnitude of expenditure and the benefit derived in terms of perpetual knowledge acquired by the academic and research staff; depreciation is provided in respect of E-journals at a higher annual rate of 40% on SLM.

4. CAPITAL WORK-IN-PROGRESS

Deposit works are accounted for as Capital Work-in-Progress on the basis of statements received from the Institute Works Department (IWD)/other departments. These are valued at cost on First-in-First-Out (FIFO) method. Running bills of contractors are also accounted for as Capital Work-in-Progress till completion. No depreciation is charged on capital work in progress. Secured advances and mobilization advances being in the nature of advances are disclosed separately under the head Loans & Advances.

5. INVENTORIES

Expenditure on purchase of chemicals, glassware, publications, stationery, civil and electrical stores and other stores, is accounted as revenue expenditure, except that the value of closing stocks held at year-end is set up as inventories by reducing the corresponding Revenue Expenditure on the basis of information obtained from the departments. These are valued at cost on FIFO Method.

6. RETIREMENT BENEFITS

Retirement benefits i.e. Pension, Gratuity and Leave Encashment are provided on the basis of actuarial valuation. Capitalized value of Pension and Gratuity received from previous employers of the Institute's employees, who have been absorbed in the Institution, is credited to the respective Provision Accounts. Pension Contribution received in respect of employees on deputation is also credited to the Provision for Pension Account. The actual payments of Pension, Gratuity and Leave Encashment are debited in the accounts to the respective provisions. Other retirement benefits viz. Deposit Linked Insurance, Contribution to New Pension Scheme, Fixed Medical Allowance to Retired Employees and Travel to Home Town on retirement are accounted on accrual basis.

7. INVESTMENTS

Long term investments are carried at their cost or face value whichever is lower. However, any permanent diminution in their value as on date of the Balance Sheet is provided for.

Short Term investments are carried at their cost or market value (if quoted), whichever is lower.

8. EARMARKED / ENDOWMENT FUNDS

With the approval of Board of Governors, the Institute has created the following long-term funds as earmarked for specific purpose:

a. Designated Donations;
b. General Corpus;
c. Funds for Promotional Activities;
d. Medical Emergency Funds;
e. Other Funds.

These funds are utilized as per the recommendations of Management Committee of Endowment Fund from time to time duly approved by BOG. The balance is invested separately in fixed deposits with banks and other financial institutions. Income from interest on such investments is recognized on accrual basis and is ploughed back and credited to Earmarked Funds.

9. CORPUS FUND

Corpus/Capital Fund is created to the extent of fixed assets capitalized during the year out of Plan/Earmarked Grants. Accumulated depreciation is deducted from this fund. Adjustments on account of observations relating to previous year are routed through Corpus/Capital Fund Account.

10. INTEREST BEARING ADVANCES TO EMPLOYEES

Advances for purchase of Computer, House or Vehicle are provided to employees as per the policy of the Institute. Interest accrued on such advances till the repayment period is fully accounted for as income in the year the loan is given.

11. GOVERNMENT GRANTS

Government Grants are accounted on realization basis. However, where a sanction for release of grants pertaining to the financial year is received before the end of financial year and the grant is actually received in the next financial year and Revenue

Expenditure incurred on Salaries, Pension and Scholarships within the guidelines set by Government of India, the grant is accounted on accrual basis and an equal amount is shown as recoverable from the Government.

Government Grants utilized towards Capital Expenditure (on accrual basis) are transferred to the Capital Fund.

Government Grants to the extent utilized for meeting Revenue Expenditure (on accrual basis) are treated as income of the year in which they are utilized.

Unutilized grants (after excluding advances paid out of such grants) are carried forward and exhibited as a liability in the Balance Sheet.

12. SPONSORED PROJECTS

Grants received from Sponsors is accounted for in the year it is received and is disclosed as "Current Liability" Expenditure incurred out of grant received are debited to the respective project account and unspent balance, if any, is also disclosed under "Current Liabilities."

Some Fellowships and Scholarships are also sponsored by various organizations. These are accounted in the same way as Sponsored Projects except that the expenditure is generally only on disbursement of Fellowships and Scholarships, which may include allowances for contingent expenditure by the Fellows and Scholars.

The Institution itself also awards Fellowships and Scholarships, which are recognized as Academic expenses.

13. FOREIGN CURRENCY TRANSACTIONS

Foreign Currency Transactions are accounted for at the rate of exchange prevailing on the dates of such transactions. However, donated imported assets are recognized at exchange rate prevailing at the end of the financial year.

14. INCOME TAX

The income of the Institute is exempt from Income Tax under Section 10(23C)(iii ab) of the Income Tax Act,1961. No provision for tax is therefore made in the accounts.

15. PURCHASE PROCEDURE THROUGH INSTITUTE'S STORES & PURCHASE UNIT:

Payments made/cheques issued for purchase of consumable and non-consumable stocks against confirmed Purchase Orders released by Institute's Stores and Purchase Unit are treated as final expenditure; however, advances outstanding as at the close of the financial year are disclosed separately in the Balance Sheet. When the purchases have not materialized due to any reason, the cheques issued against such Purchase Orders are treated as cancelled and reversed in the Accounts.

Assistant Registrar (F&A) Joint Registrar (F&A) DY. DIRECTOR DIRECTOR

SCHEDULE: 24

NOTES ON THE ACCOUNTS
(FORMING PART OF THE FINANCIAL STATEMENT FOR THE YEAR ENDED 31 MARCH 2019)

1. PREPARATION OF FINANCIAL STATEMENTS

Financial Statements of the Institute have been prepared after incorporating financial statements of all subsidiaries: Endowment Fund, Projects Account, IWD, R&D, JEE, GATE, JAM, Dean's Capital Fund, Students' Gymkhana, Visitors' Hostel, Campus School, Petrol Pump, Hall Management, Pension Hall Management, CCE and Account III

The accounts of the Provident Fund, Fund Hall Management, Hall Affairs, Student Benefit, Student Benefit Fund and New Pension Scheme have been shown separately as these do not form part of consolidated accounts of the Institute.

2. The Financial Statements of the Institute are represented in shape of Balance Sheet, Income & Expenditure Account, Receipt & Payment Account and Cash Flow Statement. These have been drawn from Trial Balance prepared on accrual system of accounting incorporating all known Assets and Liabilities as on the date of the close of the Financial Year. The Cash Flow Statements have been prepared from trial balance, incorporating gross receipts and gross payments during the year.

3. There is no decline in the present value of future services to be rendered by the fixed assets.

4. There is no fall in the serviceability of the fixed assets shown in the books.

5. INCOME / RECEIPTS

The Grant-in-Aid received from the MHRD, Govt. of India during the Financial Year 2019-2020 under Revenue is Rs. 46,698.50 lakh (Previous Year Rs. 46103.60 lakh).

The Grant-in-Aid received from the MHRD, Govt. of India during the Financial Year 2019- 20 under Capital is Rs. 13,827.80 lakh (Previous Year Rs. 13460.00 lakh).

Excess of expenditure on Pension and Scholarships over grants received has been shown as receivable under the head Grant Receivable.

The Internal income during the year is divided into three parts : (i) Student Fee (ii) Interest earned on Bank Balances and (iii) Other Income which includes auction money, other administrative receipts etc.

The total receipts of the Institute under Revenue during the Financial Year 2019-20 are Rs. 49,189.28 lakh (Revenue Grant from MHRD in the Current Year: 46,698.50 lakh, Internal Income in the Current Year: Rs. 2,490.78 lakh).

The total receipts of the Institute under Capital during the Financial Year 2019-20 are Rs. 19,886.86 lakh (Capital Grant from MHRD in the Current Year: Rs. 13,827.80 lakh, Internal Income in the Current Year: Rs. 6,059.06 lakh).

6. PAYMENTS/EXPENDITURE

Total Revenue expenditure during the Financial Year 2019-2020 amounting to Rs. 50,799.92 lakh.

Total Capital expenditure during the financial year 2019-2020 is Rs.19,926.80 lakh.

7. There are no significant losses on account of flood, fire or other casualty.

8. Previous years' figures have been regrouped / re-arranged wherever required to make them comparable with the current financial year's figures.

9. Provision in respect of retirement benefits (gratuity, leave encashment and pension) has been made on the basis of actuarial valuation. Since these retirement benefits are reimbursed by The Government of India, (GOI) on the basis of actual payment, equivalent amount has been shown as amount receivable from GOI

10. During the year, provision has been made for writing off Fixed Assets amounting to Rs. 63,03,326.00 (Original purchase value of Rs. 7,97,11,415.00) on the recommendation of the committee.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

11. **AUDIT PARA(S) ON PREVIOUS YEAR FINANCIAL ACCOUNTS:**

These have been taken care of while preparing current year financial statements, where required.

12. In the opinion of the management, the current assets, loans, advances and deposits have a value on realization in the ordinary course, equal at least to the aggregate amount shown in the Balance Sheet.

13. Figures in the final accounts have been rounded off to the nearest rupee.

14. Schedule 1 to 24 are annexed to and form an integral part of the Balance Sheet at 31st March 2020 and the Income & Expenditure account and Funds Flow Statement for the year ended on that date.

Assistant Registrar (F&A)	Joint Registrar (F&A)	DY. DIRECTOR	DIRECTOR

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

PROVIDENT FUND

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

CORPUS/ CAPITAL FUND AND LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
Reserves towards CPF/GPF			
Opening Balance as on 01.04.2019	33,16,17,502		
Less: Adjustments	9,19,14,232		
Add : Surplus	1,92,45,903	25,89,49,173	33,16,17,502
Liability towards CPF/GPF (As per Individual Ledgers)		1,54,25,72,065	1,34,93,04,892
TOTAL		**1,80,15,21,238**	**1,68,09,22,394**
ASSETS			
Investments			
Investment as as on 01.04.2019	1,65,61,78,099		
Add: Investment During the Year	1,17,78,65,824		
Less: Encashed During the Current Year	1,05,58,41,990	1,77,82,01,933	1,65,61,78,099
Amount Receivable			
Interest Accrued on FDRs	1,05,97,971		
TDS on Interest on Investment	92,48,086		
Amount Receivable Against Stale Cheques	9,000	1,98,55,057	2,47,20,360
Bank Balance			
Balance With State Bank of India		34,64,248	23,935
TOTAL		**1,80,15,21,238**	**1,68,09,22,394**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

PROVIDENT FUND

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD ENDED 31st MARCH 2020

INCOME	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
INTEREST EARNED		
On Investment/Bonds/MOD	13,24,63,944	10,70,25,301
On Saving Account	42,240	6,90,125
TOTAL (A)	**13,25,06,184**	**10,77,15,426**
EXPENDITURE	**CURRENT YEAR 31.03.2020**	**PREVIOUS YEAR 31.03.2019**
INTEREST CREDITED TO		
GPF Account	11,05,30,889	10,10,37,895
CPF Account	27,29,392	5,15,889
TOTAL (B)	**11,32,60,281**	**10,15,53,784**
BALANCE SURPLUS/ (DEFICIT) TO BE CARRIED FORWARD TO RESERVE & SURPLUS ACCOUNT	1,92,45,903.00	61,61,642.00

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

PROVIDENT FUND

RECEIPTS AND PAYMENTS FOR THE PERIOD ENDED 31st MARCH 2020

(Amount-Rs)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Opening Balance			**Liability Towards CPF/GPF**		
Bank Balances	23,935	1,18,19,446	Withdrawals	5,33,88,700	4,54,71,000
			Advances	57,43,490	40,57,620
Liability Towards CPF/GPF			Final Payments	10,85,46,919	7,59,50,759
Contribution Account - II	45,43,500	50,63,850			
Contribution Institute Account (A/c-I)	13,76,95,208	13,04,44,067	**Investments**		
Contribution Deputationist/others	96,34,067	74,92,120	Investments Made	1,17,73,70,000	99,80,70,000
Advance	13,49,600	27,77,492			
			Current Asset		
Investments			Tax Deducted at Source	14,73,073	
Investments Encashed	1,05,58,41,990	80,17,93,834			
Current Asset					
Institute Contribution to CPF Account	4,16,716	3,27,144			
Interest on Institute Contribution Acc-1	3,05,031	-			
Interest on Institute Contri Acc-2	48,612		**Closing Balance**		
Liability for Institute Contribution to CPF		4,94,42,593	Bank Balance	34,64,248	23,935
PF Contribution Receivable Account-1 (2018-19)	1,21,10,500				
PF Contribution Received Account -1 (2018-19)	65,73,912				
PF Contribution Receivable Account-2	4,52,250				
PF Contribution Received Account-2	72,000				
Other Income					
Interest on Savings A/c	42,240	6,90,125			
Interest on Investments	11,61,02,299	11,37,22,643			
Interest on Investments rec from Acc-1	47,74,570				
TOTAL	**1,34,99,86,430**	**1,12,35,73,314**	TOTAL	**1,34,99,86,430**	**1,12,35,73,314**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

PROVIDENT FUND

CASH FLOW FOR THE PERIOD ENDED 31st MARCH 2020

CASH FLOW FROM OPERATING ACTIVITIES

	Receipts from Account-I	13,76,95,208
	Receipts from Deputationist/ Others	96,34,067
	Receipts from Account-II	45,43,500
	Advances	13,49,600
	Institute Contribution to CPF Account	4,16,716
	Interest on Institute Contribution Acc-1	3,05,031
	Interest on Institute Contri Acc-2	48,612
	PF Contribution Receivable Account-1 (2018-19)	1,21,10,500
	PF Contribution Received Account -1 (2018-19)	65,73,912
	PF Contribution Receivable Account-2	4,52,250
	PF Contribution Received Account-2	72,000
	Interest on Investments rec from Acc-1	47,74,570
	Interest on Saving Bank A/c	42,240
	Interest on FDRs	11,61,02,299
		29,41,20,505
Less:	Withdrawals	5,33,88,700
	Advances	57,43,490
	Final Payments	10,85,46,919
	Tax Deducted at Source	14,73,073
	Net Cash Flow from Operating Activities	**12,49,68,323**

CASH FLOW FROM INVESTING ACTIVITIES

	Cash Receipts	1,05,58,41,990
Less:	Cash Payments	1,17,73,70,000
	Net Cash Flow from Investing Activities	**(12,15,28,010)**

CASH FLOW FROM FINANCING ACTIVITIES

	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Financing Activities	-
	NET INCREASE IN CASH	**34,40,313**
	Closing Cash Balance as on 31.03.2019	34,64,248
Less:	Opening Cash Balance as on 01.04.2018	23,935
	NET INCREASE IN CASH	**34,40,313**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

NEW PENSION SCHEME

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

CORPUS/ CAPITAL FUND AND LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
RESERVES & SURPLUS			
Opening Balance as on 01.04.2019	-637		
Add : Excess of Income over Expenditure	892	256	-637
LIABILITIES TOWARDS NEW PENSION SCHEME			
Opening Balance as on 01.04.2019	1,76,10,182		
Add : Contribution Received During the year	18,66,34,570		
	20,42,44,752		
Less : Paid during the year	18,38,24,378	2,04,20,374	1,76,10,182
TOTAL		**2,04,20,630**	**1,76,09,546**
INVESTMENTS		25,00,000	-
Accrued Interest		1,541	-
Bank Balance		15,75,894	62,93,355
Institute Contribution Receivable		94,64,387	56,53,066
Employees Contribution Receivable		68,65,835	56,53,066
Subscription Receivable from Deputationist		12,973	10,058
TOTAL		**2,04,20,630**	**1,76,09,546**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

NEW PENSION SCHEME

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD ENDED 31st MARCH 2020

(Amount-Rs)

PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Bank Charges	649	649	Interest on Investment	1,541	
Excess of Income over Expenditure	892		Excess of Expenditure over Income		649
TOTAL	1,541	649	TOTAL	1,541	649

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

NEW PENSION SCHEME

RECEIPTS AND PAYMENTS FOR THE PERIOD ENDED 31st MARCH 2020

(Amount-Rs)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
OPENING BALANCE			**ESTABLISHMENT/ADM. EXP.**		
Bank Balances	62,93,356	45,32,101			
			Bank Charges	649	649
Institute Contribution	9,88,77,651	7,08,73,242	Withdrawals /Final Payment		94,834
Employee Contribution	7,04,05,592	7,08,73,242	Amount Transferred to NPS Trust Bank	18,31,87,354	15,01,93,686
Deputed Employees' Contribution	4,31,192	6,88,322	Refund of Institute Contribution	60,084	-
Institute Contribution Receivable	56,53,066	47,90,820			
Employees Contribution Receivable	56,53,066	47,90,820	**INVESTMENT**	25,00,000	
Amount Receivable from Deputationist	10,058	33,978			
			CLOSING BALANCE		
			Bank Balance	15,75,894	62,93,356
TOTAL	**18,73,23,981**	**15,65,82,525**	**TOTAL**	**18,73,23,981**	**15,65,82,525**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

NEW PENSION SCHEME

CASH FLOW FOR THE YEAR ENDED 31st MARCH 2020

	CASH FLOW FROM OPERATING ACTIVITIES	
	Employees Contribution	7,04,05,592
	Institute Contribution	9,88,77,651
	Deputed Employees' Contribution	4,31,192
	Institute Contribution Receivable	56,53,066
	Employees Contribution Receivable	56,53,066
	Amount Receivable from Deputationist	10,058
		18,10,30,625
Less:	Transferred to NPS Trust Bank	18,31,87,354
	Refund of Contribution	60,084
		(22,16,813)
Less:	Bank Charges	649
	Net Cash Flow from Operating Activities	**(22,17,462)**
	CASH FLOW FROM INVESTING ACTIVITIES	
	Cash Receipts	-
Less:	Cash Payments	25,00,000
	Net Cash Flow from Investing Activities	-25,00,000
	CASH FLOW FROM FINANCING ACTIVITIES	
	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Financing Activities	-
	NET INCREASE IN CASH	**(47,17,462)**
	Closing Cash Balance as on 31.03.2020	15,75,894
Less:	Opening Cash Balance as on 01.04.2019	62,93,356
	NET INCREASE IN CASH	**(47,17,462)**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

NEW PENSION SCHEME

ANNEXURE

Sl. No.	Name of Agency	Bonds	Rate	Investment as on 1.04.19	Investment encashed	Investment made	Closing Balance as on 31.03.20	Date of Investment	Date of Maturity	Accrued Days	Accrued Interest
1	UBI (TDR)	537203230001120	4.50%	0	0	15,00,000	15,00,000	26-Mar-20	3-Apr-20	5	925
2	UBI (TDR)	537203230001121	4.50%	0	0	10,00,000	10,00,000	26-Mar-20	1-May-20	5	616
				Total		**25,00,000**					**1541**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

HALL AFFAIRS ACCOUNT

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

CORPUS/CAPITAL FUND & LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
RESERVES & SURPLUS			
Opening Balance as at 01.04.2019	6,68,30,596		
Add : C/F from Income & Expenditure Account	3,03,36,416	9,71,67,012	6,68,30,596
Current Liabilities			
Earnest Money from Contractor		6,50,000	6,50,000
Advance from Account I		1,60,00,000	-
Payable to Hall 13		33,650	33,650
Duties & Taxes		3,97,907	3,32,104
TOTAL		**11,42,48,569**	**6,78,46,350**
ASSETS			
Current Assets			
Bank Balances		8,57,48,569	18,53,350
Fees Receivable from Institute		-	4,44,93,000
Advances			
Receivable from Pension Hall Management		1,20,00,000	50,00,000
Receivable from Fund Hall Management		20,00,000	20,00,000
Receivable from Hall Management		1,45,00,000	1,45,00,000
TOTAL		**11,42,48,569**	**6,78,46,350**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

HALL AFFAIRS ACCOUNT

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

INCOME	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Interest on Saving Bank A/c	4,73,445	5,85,342
Convocation / PG Admission Fee / Other Fee	20,15,810	18,58,930
Grant Received from Institute	20,31,13,784	16,73,48,970
TOTAL (A)	**20,56,03,039**	**16,97,93,242**
EXPENDITURE		
Service Charges to Contractors	17,32,18,596	13,93,69,387
Honararium	58,000	82,000
Bank Charges	1,273	1,250
Convocation / PG Admission Expenses	19,88,601	18,58,930
Misc Charges	153	-
Advertisement	-	-
TOTAL (B)	**17,52,66,623**	**14,13,11,567**
BALANCE BEING SURPLUS/ (DEFICIT) CARRIED TO RESERVE AND SURPLUS	**3,03,36,416**	**2,84,81,675**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

HALL AFFAIRS ACCOUNT

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
OPENING BALANCES			**ESTABLISHMENT /ADMIN.EXP.**		
Balance with SBI Bank	18,53,350	21,83,750	Bank Charges	1,273	1,250
			Service Charges to Contractors	17,31,52,793	15,19,05,262
GRANTS			Honararium	58,000	82,000
Grant from Institute	24,76,06,784	15,56,22,770	Misc Charges	153	-
			Convocation / PG Admission Expenses	19,88,601	18,58,930
OTHER INCOME					
Interest on Saving Bank A/c's	4,73,445	5,85,342	**TRANSFERS**		
Convocation / PG Admission Fee	20,15,810	18,58,930	Pension Hall Management Account	70,00,000	-
Advance from Account I	1,60,00,000	-	Security Money Paid	-	45,50,000
					-
			CLOSING BALANCE		
			Balance with State Bank of India	8,57,48,569	18,53,350
TOTAL	**26,79,49,389**	**16,02,50,792**	**TOTAL**	**26,79,49,389**	**16,02,50,792**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

HALL AFFAIRS

CASH FLOWS FOR THE YEAR ENDED 31st MARCH 2020

	CASH FLOWS FROM OPERATING ACTIVITIES	Amount (Rs.)	Amount (Rs.)
	MEC Transferred by Main Account	24,76,06,784	
	Interest on Savings Bank A/c	4,73,445	
	Convocation / PG Admission Fee	20,15,810	
	Received from Account I	1,60,00,000	**26,60,96,039**
Less:	Bank Charges	1,273	
	Service Charges to Contractors	17,31,52,793	
	Honorarium	58,000	
	Misc Charges	153	
	Convocation / PG Admission Expenses	19,88,601	
	Paid to Pension Hall Management	70,00,000	18,22,00,820
	Net Cash Flows from Operating Activities		**8,38,95,219**
	CASH FLOWS FROM INVESTING ACTIVITIES		
	Cash Receipts	-	
Less:	Cash Payments	-	-
	Net Cash Flows from Investing Activities		-
	CASH FLOWS FROM FINANCING ACTIVITIES		
	Cash Receipts		-
Less:	Cash Payments		-
	Net Cash Flows from Financing Activities		-
	NET INCREASE IN CASH		**8,38,95,219**
	Closing Cash Balance as on 31.03.2020		8,57,48,569
Less:	Opening Cash Balance as on 01.04.2019		18,53,350
	NET INCREASE IN CASH		**8,38,95,219**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT ACCOUNT

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs.)

CORPUS/CAPITAL FUND & LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
RESERVES & SURPLUS			
Opening Balance as at 01.04.2019	75,88,099		
Add : C/F from Income & Expenditure Account	6,91,815	82,79,914	75,88,099
Current Liabilities (Fund Balance Payable to Employees)			
Opening Balance as at 01.04.2019	80,28,022		
Add : Contribution for the Period	25,64,550		
Add : Interest for the Period	6,50,500		
	1,12,43,072		
Less : Final Withdrawals	11,05,000	1,01,38,072	80,28,022
Payable to Hall Affairs		20,00,000	20,00,000
Payable to Hall Management		28,00,000	28,00,000
TOTAL		**2,32,17,986**	**2,04,16,121**
ASSETS			
Investments			
Opening Balance as at 01.04.2019	1,79,91,492		
Add : FDR Matured and Renewed along with Interest	1,96,06,412		
Less : Encashed during the year	1,79,91,492	1,96,06,412	1,79,91,492
Current Assets			
Balance with Union Bank of India		25,54,941	9,16,816
Interest Accrued on FDRs		4,78,933	8,01,663
Receivables Subscription receivable from Hall Management		2,37,700	2,14,550
Loan Against Fund		3,40,000	4,91,600
TOTAL		**2,32,17,986**	**2,04,16,121**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs.)

INCOME	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Interest Earned on FDRs	12,92,190	11,88,549
Interest on SB A/c's	50,125	25,434
TOTAL (A)	**13,42,315**	**12,13,983**
EXPENDITURE		
Interest on Fund Deposit	6,50,500	5,38,011
TOTAL (B)	**6,50,500**	**5,38,011**
BALANCE BEING SURPLUS/ (DEFICIT) CARRIED TO RESERVE AND SURPLUS	**6,91,815**	**6,75,972**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs.)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
OPENING BALANCES			**ADMINISTRATIVE EXPENSES**		
Balance with UBI	9,16,816	4,61,143	Final Payment to Retired Mess Employees	11,05,000	9,33,296
			Non Refundable Withdrawal		19,13,000
FUND RECEIVED			Loan against PF (Refundable)	-	2,00,000
Contribution Received	25,41,400	23,46,760			
Loan Refund	1,51,600	3,29,775			
TRANSFER					
Hall Management	-	8,00,000			
OTHER INCOME			**CLOSING BALANCE**		
Interest on SB A/c's	50,125	25,434	Balance with Union Bank of India	25,54,941	9,16,816
TOTAL	**36,59,941**	**39,63,112**	**TOTAL**	**36,59,941**	**39,63,112**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

CASH FLOW FOR THE YEAR ENDED 31st MARCH 2020

CASH FLOW FROM OPERATING ACTIVITIES

	Contribution Received	25,41,400	
	Refund from Advances	1,51,600	
	Interest on Savings Bank	50,125	**27,43,125**
Less:	Final Payment	11,05,000	
	Advances against PF	-	**11,05,000**
	Net Cash Flow from Operating Activities		**16,38,125**

CASH FLOW FROM INVESTING ACTIVITIES

	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Investing Activities	-

CASH FLOW FROM FINANCING ACTIVITIES

	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Financing Activities	-

	NET DECREASE IN CASH	**16,38,125**
	Closing Cash Balance as on 31.03.2020	25,54,941
Less:	Opening Cash Balance as on 01.04.2019	9,16,816
	NET DECREASE IN CASH	**16,38,125**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

EMPLOYEE WISE DETAILS OF OUTSTANDING BALANCE AS ON 31.03.2020

ANNEXURE - A

SR. NO.	P.F. NO.	NAME OF EMPLOYEES	OPENING BALANCE 01.04.19	SUBS-CRIPTION RECEIVED	INTEREST UP TO 31.03.20	LOAN REFUND	TOTAL	LOAN PAID	FINAL WITH-DRAWAL	CLOSING BALANCE 31.03.20
1	2	3	4	5	6	7	8=4+5+6+7	9	10	11=8-9-10
1	38	Pathan Singh	11,000				11,000			11,000
2	227	Lal Chand	2,31,199	1,80,000	22,082		4,33,281		3,00,000	1,33,281
3	232	Harnam Singh	2,06,820	2,40,000	27,748		4,74,568			4,74,568
4	233	Rakesh Babu Shukla	49,884	1,63,000	5,876		2,18,760		1,70,000	48,760
5	234	Shree Kishan Balmiki	1,57,902	1,32,000	9,929		2,99,831		1,25,000	1,74,831
6	235	Ram Shanker	88,573	62,000	9,213		1,59,786			1,59,786
7	236	Chhunna Lal	1,91,738	1,80,000	22,906		3,94,644			3,94,644
8	238	Ram Prasad	17,56,904	1,80,000	1,46,981		20,83,885			20,83,885
9	239	Jagdish Prasad	17,51,632	1,22,400	1,44,060		20,18,092			20,18,092
10	240	Kamlesh	1,27,067	1,32,000	10,787		2,69,854		1,50,000	1,19,854
11	241	Bhagwan Din	57,101	1,20,000	6,506		1,83,607		60,000	1,23,607
12	242	Kanhaiya Lal	2,39,976	60,000	24,801	75,000	3,99,777			3,99,777
13	243	Suresh Lal	1,79,085	66,000	10,702	60,000	3,15,787		1,50,000	1,65,787
14	244	Babaji Das	11,31,961	1,56,000	96,389		13,84,350			13,84,350
15	245	Temu	1,36,621	1,85,000	18,570		3,40,191			3,40,191
16	246	Amar Pal Singh	3,95,065	1,71,000	38,306		6,04,371			6,04,371
17	247	Hari Ram Yadav	3,68,798	1,20,000	24,480		5,13,278		1,50,000	3,63,278
18	250	Ranvir Singh	1,91,563	72,000	19,374	16,600	2,99,537			2,99,537
19	251	Ram Prasad	48,983	2,00,000	11,790		2,60,773			2,60,773
		TOTAL	**73,21,872**	**25,41,400**	**6,50,500**	**1,51,600**	**1,06,65,372**	-	**11,05,000**	**95,60,372**
									Add : Contribution Receivable	**2,37,700**
									Add : Refundable Loan Paid Against Fund	**3,40,000**
									AS PER BALANCE SHEET	**1,01,38,072**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

BALANCE SHEET AS AT 31.03.2020

ANNEXURE - B

DATE OF INVESTMENT	FDR NO.	OPENING BALANCE 01.04.19	MADE DURING THE YEAR		ENCASHED DURING THE YEAR	CLOSING BALANCE 31.03.20	DATE OF MATURITY	INTEREST RATE	DAYS	INTEREST ACCRUED TILL 31.03.20
			BY PAYMENT	BY RENEWAL					31.03.20	
21.02.2020	537203030135926	22,81,134	-	1,92,519	-	24,73,653	09.05.2021	6.10%	39	16,123
21.02.2020	537203030135927	22,81,133	-	1,92,519	-	24,73,652	09.05.2021	6.10%	39	16,123
21.02.2020	537203030135928	22,84,118	-	1,92,771	-	24,76,889	09.05.2021	6.10%	39	16,144
21.02.2020	537203030135929	22,84,115	-	1,92,770	-	24,76,885	09.05.2021	6.10%	39	16,144
17.10.2019	537203030137459	16,85,122	-	2,31,939	-	19,17,061	17.10.2021	6.40%	166	55,800
17.10.2019	537203030137460	16,90,250	-	2,32,644	-	19,22,894	17.10.2021	6.40%	166	55,969
26.06.2019	537203030139102	27,42,810	-	1,89,879	-	29,32,689	26.06.2020	6.75%	279	1,51,315
26.06.2019	537203030139103	27,42,810	-	1,89,879	-	29,32,689	26.06.2020	6.75%	279	1,51,315
TOTAL		**1,79,91,492**	**-**	**16,14,920**	**-**	**1,96,06,412**				**4,78,933**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

FUND HALL MANAGEMENT

ANNEXURE - 'C'

EMPLOYEE WISE DETAILS OF LOANS OUTSTANDING AS ON 31.03.2020

SR. NO.	P.F. NO.	NAME OF EMPLOYEES	OPENING BALANCE 01.04.19	GIVEN DURING THE PERIOD	RECOVERED DURING THE PERIOD	CLOSING BALANCE 31.03.20
1	242	Kanhaiya Lal	3,00,000		75,000	2,25,000
2	243	Suresh Lal	1,75,000		60,000	1,15,000
3	250	Ranvir Singh	16,600		16,600	-
		TOTAL	**4,91,600**	**-**	**1,51,600**	**3,40,000**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' ACTIVITIES FUND

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

CORPUS/CAPITAL FUND & LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
RESERVES & SURPLUS			
Opening Balance as at 01.04.2019	22,00,176		
Add : C/F from Income & Expenditure Account	1,32,900	23,33,076	22,00,176
Current Liabilities			
Expenses Payable		-	10,42,000
TOTAL		**23,33,076**	**32,42,176**
ASSETS			
Investment		15,00,000	15,00,000
Current Assets			
Bank Balances		5,83,110	16,04,710
Accrued Interest on FDR		2,49,966	1,37,466
TOTAL		**23,33,076**	**32,42,176**

- -

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' ACTIVITIES FUND

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

INCOME	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
Interest on FDR	1,12,500	1,12,500
Student Contribution	14,99,400	10,40,850
TOTAL (A)	**16,11,900**	**11,53,350**
EXPENDITURE		
Antragini	5,13,750	3,73,000
Udghosh / IIT Sports Meet	4,72,050	3,73,000
Techkriti	4,93,200	2,96,000
TOTAL (B)	**14,79,000**	**10,42,000**
BALANCE BEING SURPLUS/ (DEFICIT) CARRIED TO RESERVE AND SURPLUS	**1,32,900**	**1,11,350**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' ACTIVITIES FUND

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
OPENING BALANCES			**EXPENSES**		
Balance with UBI	16,04,710	5,63,860	Antragini	8,86,750	-
			Udghosh / IIT Sports Meet	8,45,050	-
INCOME			Techkriti	7,89,200	-
Student Contribution	14,99,400	10,40,850			
			CLOSING BALANCE		
			Balance with UBI	5,83,110	16,04,710
TOTAL	**31,04,110**	**16,04,710**	**TOTAL**	**31,04,110**	**16,04,710**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
STUDENT ACTIVITIES FUND

CASH FLOW FOR THE YEAR ENDED 31st MARCH 2020

CASH FLOW FROM OPERATING ACTIVITIES

	Students Contribution		14,99,400
Less:	Antragini	8,86,750	
	Udghosh / IIT Sports Meet	8,45,050	
	Techkriti	7,89,200	**25,21,000**
	Net Cash Flow from Operating Activities		**-10,21,600**

CASH FLOW FROM INVESTING ACTIVITIES

	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Investing Activities	-

CASH FLOW FROM FINANCING ACTIVITIES

	Cash Receipts	-
Less:	Cash Payments	-
	Net Cash Flow from Financing Activities	-
	NET INCREASE IN CASH	**-10,21,600**
	Closing Cash Balance as on 31.03.2020	5,83,110
Less:	Opening Cash Balance as on 01.04.2019	16,04,710
	NET INCREASE IN CASH	**-10,21,600**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' ACTIVITIES FUND

DETAILS OF INVESTMENT HELD AS ON 31st MARCH 2020

ANNEXURE - B

DATE OF INVESTMENT	FDR NO.	OPENING BALANCE 01.04.19	MADE DURING THE YEAR		ENCASHED DURING THE YEAR	CLOSING BALANCE AS ON 31.03.20	DATE OF MATURITY	INTEREST RATE	DAYS 31.03.20	INTEREST ACCRUED TILL 31.03.20	INTEREST ACCRUED TILL 31.03.19	INTEREST ACCRUED TILL 31.03.18
			BY PAYMENT	BY RENEWAL								
10.01.18	KP/2664361	15,00,000	-	-	-	15,00,000	10.01.22	7.50%	365	1,12,500	1,12,500	24,966
	TOTAL	15,00,000	-	-	-	15,00,000				1,12,500	1,12,500	24,966

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

BALANCE SHEET AS AT 31st MARCH 2020

(Amount-Rs)

CORPUS/CAPITAL FUND & LIABILITIES	CURRENT YEAR 31.03.2020		PREVIOUS YEAR 31.03.2019
RESERVES & SURPLUS			
Opening Balance as at 01.04.2019	1,72,65,803		
Add : C/F from Income & Expenditure Account	23,29,230	1,95,95,033	1,72,65,803
Current Liabilities			
Sundry Creditors		43,550	43,550
TOTAL		**1,96,38,583**	**1,73,09,353**
ASSETS			
Investment			
Opening Balance as at 01.04.2019	56,98,206		
Add: Made during the year	1,30,00,000		
Less: Encashed during the year	31,00,000	1,55,98,206	56,98,206
Current Assets			
Bank Balances		11,64,236	91,33,812
TDS Receivable		1,12,889	51,750
Accrued Interest on FDR		10,93,283	4,41,696
Advances			
Advance to Others		40,000	-
SBF Advance		15,45,456	16,90,506
SHMC Advance		84,513	2,93,383
TOTAL		**1,96,38,583**	**1,73,09,353**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

INCOME	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
IIT Contribution	14,63,400	13,57,800
Interest on FDR	8,38,556	8,94,683
Misc Receipts	3,47,220	2,90,969
Fine & Penalty Received	4,65,000	1,16,000
TOTAL (A)	**31,14,176**	**26,59,452**
EXPENDITURE		
Audit Fee	-	11,800
Consumable Expenses	2,10,000	-
Bank Charges	1,059	826
SBF Scholarship	4,45,500	-
Student Welfare Expenses	-	45,727
SHMC Paid	1,28,387	28,69,006
TOTAL (B)	**7,84,946**	**29,27,359**
BALANCE BEING SURPLUS/ (DEFICIT) CARRIED TO RESERVE AND SURPLUS	**23,29,230**	**-2,67,907**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

(Amount-Rs)

RECEIPTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019	PAYMENTS	CURRENT YEAR 31.03.2020	PREVIOUS YEAR 31.03.2019
OPENING BALANCES			**EXPENSES**		
Balance with SBI	91,33,812	47,33,897	Audit Fee	-	11,800
			Consumable Expenses	2,10,000	-
INVESTMENT ENCASHED	31,00,000	48,60,102	Bank Charges	1,059	826
			SBF Scholarship	4,45,500	3,51,000
CURRENT ASSETS			Student Welfare Expenses	-	45,727
SBF Advance	24,31,845	23,47,521	SHMC Paid	1,28,387	29,20,474
SHMC Advance	4,12,384	18,17,469			
			CURRENT ASSETS		
INCOME			SBF Advance	22,86,795	22,08,979
IIT Contribution	14,63,400	13,57,800	SHMC Advance	2,03,514	15,43,932
Interest on FDR	1,25,830	6,92,792	Advance to Others	40,000	-
Misc Receipts	3,47,220	2,90,969			
Fine & Penalty Received	4,65,000	1,16,000	**INVESTMENT MADE**	1,30,00,000	-
			CLOSING BALANCE		
			Balance with SBI	11,64,236	91,33,812
TOTAL	**1,74,79,491**	**1,62,16,550**	**TOTAL**	**1,74,79,491**	**1,62,16,550**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENT BENEFIT FUND

CASH FLOW FOR THE YEAR ENDED 31st MARCH 2020

	CASH FLOW FROM OPERATING ACTIVITIES		
	IIT Contribution	14,63,400	
	Interest on FDR	1,25,830	
	Misc Receipts	3,47,220	
	Fine & Penalty Received	4,65,000	
	SBF Advance	24,31,845	
	SHMC Advance	4,12,384	**52,45,679**
Less:	Consumable Expenses	2,10,000	
	Bank Charges	1,059	
	SBF Scholarship	4,45,500	
	SHMC Paid	1,28,387	
	Advance to Others	40,000	
	SBF Advance	22,86,795	
	SHMC Advance	2,03,514	**33,15,255**
	Net Cash Flow from Operating Activities		**19,30,424**
	CASH FLOW FROM INVESTING ACTIVITIES		
	Cash Receipts		31,00,000
Less:	Cash Payments		1,30,00,000
	Net Cash Flow from Investing Activities		**-99,00,000**
	CASH FLOW FROM FINANCING ACTIVITIES		
	Cash Receipts		-
Less:	Cash Payments		-
	Net Cash Flow from Financing Activities		-
	NET DECREASE IN CASH		**-79,69,576**
	Closing Cash Balance as on 31.03.2020		11,64,236
Less:	Opening Cash Balance as on 01.04.2019		91,33,812
	NET DECREASE IN CASH		**-79,69,576**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

DETAILS OF INVESTMENT AS ON 31.03.2020

S. No.	Name of Bank	FDR No.	Interest rate	Investment as on 01.04.2019	Made During the Year	Matured	Investment as on 31.03.2020	Date of Investment	Date of Maturity	Days	Interest accrued as on 31.03.2020	Interest accrued as on 31.03.2019	Interest accrued as on 31.03.2018
1	HDFC	KP/2203782	8.30%	31,00,000		31,00,000	-	28.01.2016	28.09.2019				
2	SBI	10426159893	8.50%	25,98,206			25,98,206	15.04.2014	15.04.2020	365	2,20,848	2,20,848	2,20,848
3	SBI	38503770182	7.00%	-	30,00,000		30,00,000	04.06.2019	04.06.2020	301	1,73,178		
4	SBI	38503770965	7.00%	-	30,00,000		30,00,000	04.06.2019	04.06.2020	301	1,73,178		
5	UBI	537203030142090	7.00%	-	40,00,000		40,00,000	12.12.2019	12.12.2020	110	84,384		
6	UBI	537203030142315	6.10%	-	15,00,000		15,00,000	30.03.2020	30.03.2021				
7	UBI	537203030142316	6.10%	-	15,00,000		15,00,000	30.03.2020	30.03.2021				
	TOTAL			56,98,206		31,00,000	155,98,206				6,51,587	2,20,848	2,20,848

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

DETAILS OF SBF ADVANCES AS ON 31.03.2020

S.NO.	NAME OF STUDENTS	AMOUNT
1	Abhishek Singh, 150044	50,000
2	Akanksha Gupta, 17105261	50,000
3	Anan Bari Sarkar, 151131	50,000
4	Anil Adapala 11033	14,657
5	Antu Laha, 14109261	50,000
6	Avinash Yashwant Gahane, 13118063	50,000
7	Balbir Kumar Pandey (15103265)	50,000
8	Chitrasen Singh-11967	85,919
9	Dipanjan Roy, 13215063	50,000
10	Divya Rawat, 16109266	50,000
11	K. S. R. Akhilesh (13351)	97,672
12	LAKAWATH RAMMURTRI 11386	20,000
13	Lokesh Sharma-12382	56,000
14	Madhavee (14892)	26,300
15	Minhajul Islam, 161141	18,725
16	Mohit Mudgal, 19109867	17,450
17	Neeraj Meena, 150444	15,600
18	Nemichand, 181090	17,991
19	Ng. Lyazii Christopher (160442)	10,000
20	Prabhakar, 171102	17,950
21	Prabhakar Panday, 13107076	50,000
22	Puneet Sharma-16109278	50,000
23	Raghubeer Singh Bangari, 13205076	50,000
24	Rahul Kumar-16205019	9,405
25	Rajani Meena, 170538	22,500
26	Rajesh Swami, 181113	17,963
27	R.Madukar 11105048	40,000
28	Saikat Sharma-14215262	50,000
29	Saleem Shaik	31,083
30	S. Anudeep, 13203067	50,000
31	Satya Prakash Saraswat, 11115061	50,000
32	Shadman Hasan, 16102276	16,585
33	Shivam Kumar, 180717	31,000
34	Soukat Kumar Das, 15103275	50,000
35	Subham Goyal, 13714	33,656
36	Sumesh Singh, 14720	50,000
37	Sushanta Barman	45,000
38	Vikesh Singh Bhadouria, 13115066	50,000
39	Vivekanand Sharma, 13107084	50,000
	GRAND TOTAL	**15,45,456**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

STUDENTS' BENEFIT FUND

DETAILS OF SHMC ADVANCES AS ON 31.03.2020

S.NO.	NAME OF STUDENTS	AMOUNT
1	Aikagra Singh-14101261	4,931
2	Chetan Bhagwan Ingale, 17126010	2,258
3	Hamid Hussain (14887)	6,038
4	Kunchala Prasad, 14807344	3,430
5	Mandeep Saikia (11402)	5,703
6	Mohit Sheoran, 150418	17,871
7	Monmee Phukan	937
8	Rahuk Badhwani, 13539	43
9	Ranba Lambhate, 150566	3,268
10	Rohit Kumar, 160586	6,117
11	Sachin Anand, 160596	5,593
12	Satyadit De, 17101271	2,570
13	Shubham Saurabh-14684	900
14	Sibani Priyadarshani Malik (16123017)	5,083
15	Sidhartha Srivastava, 13698	8,155
16	Tiasa Bal, 17100272	11,617
	GRAND TOTAL	**84,513**

ASST. REGISTRAR (F&A)

JT. REGISTRAR (F&A)

UTILIZATION CERTIFICATES

OF

CAPITAL GRANTS

AND

REVENUE GRANTS

(FINANCIAL YEAR 2019 - 2020)

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure
GFR 12 – A
[(See Rule 238(1)]

FORM OF UTILIZATION CERTIFICATE
INDIAN INSTITUTE OF TECHNOLOGY KANPUR

UTILIZATION CERTIFICATE FOR THE YEAR 2019-2020 in respect
of Recurring/ Non-Recurring
GRANT-IN-AID/SALARIES/CREATION OF CAPITAL ASSETS

1 Name of the Scheme: Support to Indian Institute of Technology (IITs) {0920}
2 Whether recurring/ non-recurring grants : Both
3 Grant position of the beginning of the Financial year
(i) Cash in Hand/ Bank : Rs. (-) 20,50,75,593
(ii) Unadjusted advances : Nil
(iii) Total : Rs. (-) 20,50,75,593
4 Details of grants received, expenditure incurred and closing balances (Actuals)

Unspent Balances of Grants received year	Internal Income including Interest thereon	Interest deposited back to the Government				Grant received during the year			Total Available funds	Expenditure incurred	Closing Balance
						Sanction No.(i)	Date (ii)	Amount (iii)			
1	2	3				4			5 = [1+2+3+4]	6	7
-20,50,75,593	85,49,84,361	-				F.No.3-1/2019-TS.I	10.05.2019	59,00,000	6,68,44,88,768	6,97,22,43,038	-28,77,54,270
						F.No.3-1/2019-TS.I	10.05.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	18,19,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	88,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	1,84,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	27,28,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	1,28,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	2,69,00,000			
						F.No.3-1/2019-TS.I	10.05.2019	40,03,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	58,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	18,20,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	24,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	49,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	7,27,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	50,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	1,04,00,000			
						F.No.3-1/2019-TS.I	06.06.2019	15,46,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	64,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	1,34,00,000			

						F.No.3-1/2019-TS.I	29.07.2019	20,02,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	50,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	1,04,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	15,46,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	29,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	60,00,000			
						F.No.3-1/2019-TS.I	29.07.2019	8,97,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	64,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	1,34,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	20,02,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	25,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	1,34,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	47,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	73,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	13,21,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	25,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	53,00,000			
						F.No.3-1/2019-TS.I	16.08.2019	7,85,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	58,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	18,20,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	50,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	1,04,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	15,46,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	18,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	38,00,000			
						F.No.3-1/2019-TS.I	06.09.2019	5,60,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	16,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	34,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	5,02,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	73,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	1,52,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	22,75,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	59,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	18,19,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	35,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	73,00,000			
						F.No.3-1/2019-TS.I	24.10.2019	10,92,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	58,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	18,20,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	50,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	1,04,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	15,46,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	30,00,000			
						F.No.3-1/2019-TS.I	15.11.2019	61,00,000			

						F.No.3-1/2019-TS.I	15.11.2019	9,09,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	58,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	1,22,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	18,20,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	53,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	1,10,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	16,37,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	24,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	49,00,000			
						F.No.3-1/2019-TS.I	09.12.2019	7,27,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	19,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	38,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	5,77,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	22,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	46,00,000			
						F.No.27-4/2019-TS.I	31.12.2019	6,83,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	64,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	1,34,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	20,02,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	42,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	88,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	13,05,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	9,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	18,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	2,73,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	44,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	92,00,000			
						F.No.3-1/2019-TS.I	21.01.2020	13,64,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	59,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	1,22,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	18,19,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	30,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	61,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	9,09,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	38,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	79,00,000			
						F.No.3-1/2019-TS.I	06.02.2020	11,83,00,000			
						F.No.27-1/2019-TS.I	27.02.2020	25,00,00,000			
						F.No.3-1/2019-TS.I	04.03.2020	59,00,000			
						F.No.3-1/2019-TS.I	04.03.2020	1,22,00,000			
						F.No.3-1/2019-TS.I	04.03.2020	30,00,000			
						F.No.3-1/2019-TS.I	04.03.2020	61,00,000			
						F.No.3-1/2019-TS.I	04.03.2020	9,09,00,000			
						F.No.3-1/2019-TS.I	18.03.2020	2,97,00,000			
						F.No.3-1/2019-TS.I	18.03.2020	20,00,000			
						F.No.3-1/2019-TS.I	18.03.2020	10,80,000			
						F.No.3-1/2019-TS.I	26.03.2020	46,00,000			

						F.No.3-1/2019-TS.I	26.03.2020	1,26,00,000			
						F.No.3-1/2019-TS.I	26.03.2020	17,28,00,000			
							Total	6,03,45,80,000			

Component wise utilization of grants:

Grant-in-aid-General	Grant-in-aid-salary	Grant-in-aid-creation of capital assets				Internal Income - Creation of Capital Assets under HEFA	EWS Grant-Creation of Capital Assets under HEFA	HEFA Interest	Total
2,81,40,32,828	2,17,57,77,341	1,30,12,19,674				57,13,00,000	3,27,80,000	7,71,33,195	6,97,22,43,038

Details of grants position of the end of the year

(i) Cash in Hand/ Bank — Rs. (-) 28,77,54,270

(ii) Unadjusted advances — 0

(iii) Total — Rs. (-) 28,77,54,270

Assistant Registrar (F&A)

Joint Registrar (F&A)

Deputy Director

Director

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

1. The main accounts and other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mention the Act/Rules). The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
2. There exist internal controls for safeguarding public funds/assets, watching outcomes and achievements of physical targets against the financial inputs, ensuring quality in asset creation etc. & the periodic evaluation of internal controls is exercised to ensure their effectiveness
3. To the best of our knowledge and belief, no transactions have been entered that are in violation of relevant Act/Rules/standing instructions and scheme guidelines
4. The responsibilities among the key functionaries for execution of the scheme have been assigned in clear terms and are not general in nature
5. The benefits were extended to the intended beneficiaries and only such areas/districts were covered where the scheme was intended to operate.
6. The expenditure on various components of the scheme was in the proportions authorized as per the scheme guidelines and terms and conditions of the grants-in-aid
7. It has been ensured that the physical and financial performance under Indian Institute of Technology Kanpur has been according to the requirements, as prescribed in the guidelines issued by Govt. of India ~~and the performance/targets achieved statement for the year to which the utilization of the funds resulted in outcomes given at Annexure-I duly enclosed~~.
8. ~~The utilization of the funds resulted in outcomes given at Annexure-II duly enclosed (to be formulated by the Ministry/Department concerned as per their requirements/specifications.)~~
9. ~~Details of various schemes executed by the agency through grants-in-aid received from the same Ministry or from other Ministries is enclosed at Annexure-II (to be formulated by the Ministry/Department concerned as per their requirements/specifications).~~

Assistant Registrar (F&A)	Joint Registrar (F&A)	Deputy Director	Director

Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure
GFR 12 – A
[(See Rule 238(1)]

FORM OF UTILIZATION CERTIFICATE
FOR AUTONOMOUS BODIES OF THE GRANTEE ORGANIZATION - INDIAN INSTITUTE TECHNOLOGY KANPUR

UTILIZATION CERTIFICATE FOR THE YEAR 2019-2020 in respect
of Recurring/ Non-Recurring
GRANT-IN-AID/SALARIES/CREATION OF CAPITAL ASSETS

1 Name of the Scheme : PRIME MINISTER RESEARCH FELLOWSHIP(PMRF)[3268]

2 Whether recurring/ non-recurring grants : Recurring Expenditure
3 Grant position of the beginning of the Financial year
(i) Cash in Hand/ Bank : Rs.27,98,826.00
(ii) Unadjusted advances : Nil
(iii) Total : Rs.27,98,826.00
4 Details of grants received, expenditure incurred and closing balances (Actuals)

Unspent Balances of Grants received year	Interest Earned thereon	Interest deposited back to the Government	Grant received during the year 2019-20			Total Available Funds	Expenditure incurred	Closing Balance
			Sanction No.(i)	Date (ii)	Amount (iii)			
1	2	3	4			5 = [1+2+3+4]	6	7
27,98,826.00	-	-	F.No.41-1/2018-TS-I	10.07.2019	17,32,500.00	2,08,48,826.00	1,30,49,304.00	77,99,522.00
			F.No.41-1/2018-TS-I	10.07.2019	3,46,500.00			
			F.No.41-1/2018-TS-I	10.07.2019	2,31,000.00			
			F.No.41-1/2018-TS-I	03.10.2019	71,40,000.00			
			F.No.41-1/2018-TS-I	03.10.2019	14,28,000.00			
			F.No.41-1/2018-TS-I	03.10.2019	9,52,000.00			
			F.No.41-1/2018-TS-I	18.02.2020	46,65,000.00			
			F.No.41-1/2018-TS-I	18.02.2020	6,22,000.00			
			F.No.41-1/2018-TS-I	18.02.2020	9,33,000.00			
				Total	1,80,50,000.00			

Component wise utilization of grants:

Grant-in-aid-General	Grant-in-aid-Salary	Grant-in-aid-Creation of Capital Assets	Total
1,30,49,304.00	-	-	1,30,49,304.00

Details of grants position of the end of the year
(i) Cash in Hand/ Bank : **Rs.77,99,522.00**
(ii) Unadjusted advances : Rs. 0
(iii) Total : **Rs.77,99,522.00**

Assistant Registrar (F&A) Joint Registrar (F&A) Deputy Director Director

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

1. The main accounts and other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mention the Act/Rules). The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
2. There exist internal controls for safeguarding public funds/assets, watching outcomes and achievements of physical targets against the financial inputs, ensuring quality in asset creation etc. & the periodic evaluation of internal controls is exercised to ensure their effectiveness
3. To the best of our knowledge and belief, no transactions have been entered that are in violation of relevant Act/Rules/standing instructions and scheme guidelines
4. The responsibilities among the key functionaries for execution of the scheme have been assigned in clear terms and are not general in nature
5. The benefits were extended to the intended beneficiaries and only such areas/districts were covered where the scheme was intended to operate.
6. The expenditure on various components of the scheme was in the proportions authorized as per the scheme guidelines and terms and conditions of the grants-in-aid
7. It has been ensured that the physical and financial performance under **Indian Institute of Technology Kanpur** has been according to the requirements, as prescribed in the guidelines issued by Govt. of India ~~and the performance/targets achieved statement for the year to which the utilization of the funds resulted in outcomes given at Annexure I duly enclosed~~.
8. ~~The utilization of the funds resulted in outcomes given at Annexure II duly enclosed (to be formulated by the Ministry/Department concerned as per their requirements/specifications.)~~
9. ~~Details of various schemes executed by the agency through grants in aid received from the same Ministry or from other Ministries is enclosed at Annexure II (to be formulated by the Ministry/Department concerned as per their requirements/specifications).~~

Assistant Registrar (F&A)	Joint Registrar (F&A)	Deputy Director	Director

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure
GFR 12 – A
[(See Rule 238(1)]

FORM OF UTILIZATION CERTIFICATE
INDIAN INSTITUTE OF TECHNOLOGY KANPUR

UTILIZATION CERTIFICATE FOR THE YEAR 2019-2020 in respect
of Recurring/ Non-Recurring
GRANT-IN-AID/SALARIES/CREATION OF CAPITAL ASSETS

1 Name of the Scheme: **National Initiative for Technology Transfer {9026}**
2 Whether recurring/ non-recurring grants : Both
3 Grant position of the beginning of the Financial year
(i) Cash in Hand/ Bank : Rs. 808,52,809/-
(ii) Unadjusted advances : Nil
(iii) Total : Rs. 808,52,809/-
4 Details of grants received, expenditure incurred and closing balances (Actuals)

Unspent Balances of Grants received year	Interest Earned thereon	Interest deposited back to the Government	Grant received during the year			Total Available funds	Expenditure incurred	Closing Balance
			Sanction No.(i)	Date (ii)	Amount (iii)			
1	2	3	4			5 = [1+2+3+4]	6	7
8,08,52,809.00	-	-	-	-	-	8,08,52,809	8,73,80,451	-65,27,642
				Total	-			

Component wise utilization of grants:

Grant-in-aid-General	Grant-in-aid-salary	Grant-in-aid-creation of capital assets	Total
-	-	8,73,80,451	8,73,80,451

Details of grants position of the end of the year :
(i) Cash in Hand/ Bank : **Rs. (-) 65,27,642/-**
(ii) Unadjusted advances : 0
(iii) Total : **Rs. (-) 65,27,642/-**

Assistant Registrar (F&A) Joint Registrar (F&A) Deputy Director Director

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

FORM GFR 12A
GENERAL FINANCIAL RULES 2017
Ministry of Finance
Department of Expenditure

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

1. The main accounts and other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mention the Act/Rules). The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
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7. It has been ensured that the physical and financial performance under Indian Institute of Technology Kanpur has been according to the requirements, as prescribed in the guidelines issued by Govt. of India ~~and the performance/targets achieved statement for the year to which the utilization of the funds resulted in outcomes given at Annexure I duly enclosed~~.
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Assistant Registrar (F&A) | Joint Registrar (F&A) | Deputy Director | Director

100

निदेशक Director
भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

ANNEXURE TO SCHDULE 3A AND SCHEDULE 3B

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

PROJECTS' ACCOUNT

ANNEXURE 'A' SPONSORED PROJECTS

SR NO	PROJECT NO.		AGENCY CODE	AGENCY NAME	NAME OF PROJECT	OPENING BALANCE		RECEIPTS/RECOVERIES DURING THE YEAR	TOTAL	EXPENDITURE DURING THE YEAR	CLOSING BALANCE	
						DEBIT	CREDIT				DEBIT	CREDIT
1	2019284		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Wind Tunnel Model Design, Fabrication And Testing Of A Flying Wing Configuration	-	-	3,100,000	3,100,000	404,348	-	2,695,652
2	2015247		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Autonomous Flight Test Of A Low Rcs Aircraft Configuration With Ducted Fan For Multiple Flight Modes	-	13,536	-	13,536	13,536	-	-
3	20120302		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Development Of Fluidic Thrust Vectoring Capability For Aura High Aspect Ration Fixed Nozzle	1,467,331	-	1,402,479	(64,852)	-	64,852	-
4	2017023		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Characterition And Fluidic Thrust Vector Control Of Ghatak Elliptic Nozzle Model Fitted To Miniature Gas Turbine Engine	1,851,004	-	2,740,388	889,384	516,660	-	372,724
5	2018263		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Flight Demonstration And Flight Data Collection For Latest Ghatak Configuration Irc 2.3 Rd	312,260	-	1,000,057	682,797	1,482,152	794,355	-
6	20090075		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Development Of Hall Effect Based Speed & Position Sensors For Automobile Application	-	33,874	-	33,874	-	-	33,874
7	20100155		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Study Of Flow Structures And Associated Acoustics In A Weapon Bay Cavity Using Les	365,846	-	-	(365,846)	-	365,846	-
8	20100100		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Mems Based Health Management System For Automotive Brake & Steering Sub-Systems	-	211,014	-	211,014	-	-	211,014
9	20080359		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Mems Design Center, Iit Kanpur	24,878	-	-	(24,878)	-	24,878	-
10	20110047		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Miniaturized Polymeric Fluidic Pumps Based On Principle Of Peristalsis	61,958	-	-	(61,958)	-	61,958	-
11	2017462		ADA	AERONAUTICAL DEVELOPMENT AGENCY	Intake Tests On Flying Wing Model In Low Speed Wind Tunnel	-	1,684,300	-	1,684,300	1,684,300	-	-
		ADA Total	0	0	0	4,083,277	1,942,724	8,242,924	6,102,371	4,100,996	1,311,889	3,313,264
1	20130087		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Rustom-Ii Wind Tunnel Model Design, Fabrication & Testing	-	1,329,040	-	1,329,040	-	-	1,329,040
2	20171018		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Wind Tunnel Testing To Study Reynolds Number Effect Of Uav Airfoil (Sub Project - A) Aerospace Engineering Department	-	1,266,659	-	1,266,659	1,266,659	-	-
3	2018446		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Wind Tunnel Model Design, Fabrication & Testing Of Flying Wing Configuration	-	-	2,940,000	2,940,000	1,023,204	-	1,916,796
4	2016197		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Rustam-Ii (Ver 4.0 Configuration) Wind Tunnel Model, Design, Fabrication & Testing	-	6,611,155	-	6,611,155	-	-	6,611,155
5	20171018		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Wind Tunnel Testing To Study Reynolds Number Effect Of Uav Airfoil (Sub Project - B) Nwtf Department	-	4,509,892	-	4,509,892	-	-	4,509,892
6	2019147		ADE	AERONAUTICAL DEVELOPMENT ESTABLISHMENT	Wind Tunnel Model Design, Fabrication & Testing Of Cruise Uav Variant	-	-	5,748,000	5,748,000	958,000	-	4,790,000
		ADE Total	0	0	0	-	13,716,746	8,688,000	22,404,746	3,247,863	-	19,156,883
1	2018234		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Wind Tunnel Study For Torpedo Model	-	747,000	141,725	888,725	888,725	-	-
2	2019086		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Experimental Investigation Of Aerodynamic Interference Of Parachute In Presence Of Crew Model	-	-	4,514,400	4,514,400	752,400	-	3,762,000
3	2019220		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Wind Tunnel Study Of Parachute For Directional Sonobuoy As Per Scope Of Work & Atp	-	-	198,000	198,000	33,000	-	165,000
4	2019283		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Experimental Investigation Of Aerodynamics Characteristics Of Parachute With And Without Torpedo	-	-	1,494,000	1,494,000	249,000	-	1,245,000
5	20030165		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Development Of Test Rig For Optimization Study Of Ram Air Parachutes At Nwtf, Iitkanpur	118,875	-	-	(118,875)	-	118,875	-
6	20090040		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Fabrication Of Model Of 2000 Cum Aerostat For Wind Tunnel Testing.	-	221,862	-	221,862	-	-	221,862
7	20090041		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Model Design, Fabrication, Instrumentation & Inspection Of Round Canopy Parachute Model For Wind Tunnel Testing.	-	159,689	-	159,689	-	-	159,689
8	20090044		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Model Design, Fabrication, Instrumentation Of Recovery Capsule Model For Wind Tunnel Testing.	-	242,000	-	242,000	-	-	242,000
9	20130322		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Wind Tunnel Study Of Rotafoil Parachute	-	161,667	-	161,667	-	-	161,667
10	2016070		ADRDE	AERIAL DELIVERY RESEARCH AND DEVELOPMENT ESTABLISHMENT	Wt Testing Of The Fabricated Model For The Measurement Of Model Aerodynamics Forces And Moments And Hinge Moments On Model Control Suffaces	499,200	-	-	(499,200)	-	499,200	-
		ADRDE Total	0	0	0	618,075	1,532,218	6,348,125	7,262,268	1,923,125	618,075	5,957,218
1	20130248		AICTE	ALL INDIA COUNCIL OF TECH EDU	Qip/Cdc Grants	-	11,112,443	67,648	11,180,091	8,764,530	-	2,415,561
2	96266		AICTE	ALL INDIA COUNCIL OF TECH EDU	Biomethanation In Advanced Hubrid Reactors	-	12,000	-	12,000	-	-	12,000
3	20070139		AICTE	ALL INDIA COUNCIL OF TECH EDU	Future Of The Past:Application Of Science & Technology For The Study Preservation & Dissemination Of Cutural Heritage Of India	-	342	-	342	-	-	342

4	20020329		AICTE	ALL INDIA COUNCIL OF TECH EDU	Career Award For Young Teachers	646,118	-	-	(646,118)	-	646,118	-
5	19970024		AICTE	ALL INDIA COUNCIL OF TECH EDU	Aicte/Cep Grants	7,500	-	-	(7,500)	-	7,500	-
		AICTE Total	0		0	653,618	11,124,785	67,648	10,538,815	8,764,580	653,618	2,427,903
1	20070146		AIP	AUTODESK INDIA PVT LTD	Autodesk Iith For Excellence In Engineering Design	51,876	-	-	(51,876)	-	51,876	-
		AIP Total	0		0	51,876	-	-	(51,876)	-	51,876	-
1	2016469		AMIPL	APPLIED MATERIALS INDIA PRIVATE LIMITED	Tft Logical And Memory Arrays	-	1,200,176	-	1,200,176	1,047,541	-	152,635
2	2016484		AMIPL	APPLIED MATERIALS INDIA PRIVATE LIMITED	Ppp Mode Industry Project (Prototype Development Fund)	-	764,299	-	764,299	857,717	-	(93,418)
3	2016471		AMIPL	APPLIED MATERIALS INDIA PRIVATE LIMITED	Development Of Ethylene (And Other Gas) Sensors For Detection Of Food Spoilage	-	644,787	-	644,787	494,265	-	150,522
4	2016485		AMIPL	APPLIED MATERIALS INDIA PRIVATE LIMITED	Ppp Mode Industry Projects (Prototype Development Fund)	-	77,148	-	77,148	71,687	-	5,461
		AMIPL Total	0		0	-	2,686,410	-	2,686,410	1,981,210	-	705,200
1	20080142		AOARD	ASIAN OFFICE OF AEROSPACE RESEARCH AND DEVELOPMENT	Aerodynamic Characteristics Of Butterfly Flight Through Measurement Of Threedimensional Unsteady Velocityfield Using Tr-Piv System	-	430,224	-	430,224	-	-	430,224
2	20060089		AOARD	ASIAN OFFICE OF AEROSPACE RESEARCH AND DEVELOPMENT	Mechanism Of Interlayer Exchange Coupling In Fe/Nb Magnetic Multilayer System	-	544	-	544	-	-	544
3	20060107		AOARD	ASIAN OFFICE OF AEROSPACE RESEARCH AND DEVELOPMENT	Terahertz Waves Using High Density Plasma Sources	18,840	-	-	(18,840)	-	18,840	-
		AOARD Total	0		0	18,840	430,768	-	411,928	-	18,840	430,768
1	19980278		ARDB	AERONAUTICS R&D BOARD	Track Induced Dynamics Of Flexible Aircraft With Nonlinear Landing Gears	40	-	-	(40)	-	40	-
2	20120337		ARDB	AERONAUTICS R&D BOARD	Aerodynamic Shape Optimization For Unsteady Flows	23,400	-	-	(23,400)	-	23,400	-
3	2017173		ARDB	AERONAUTICS R&D BOARD	Numerical Simulation Of Instabilities To Supersonic Flow In Y Duct Air-Intakes	429,972	-	1,224,250	1,294,278	1,245,111	-	49,167
4	20060035		ARDB	AERONAUTICS R&D BOARD	Flame Synthesis Of Silica Nano- Powder	78,442	-	-	(78,442)	-	78,442	-
5	20100144		ARDB	AERONAUTICS R&D BOARD	Study Of Internal Flow Dynamics In A 2d Curved Nozzle And Development Of Fluidic Thrust Vectored Nozzle	527,575	-	-	(527,575)	-	527,575	-
6	20070044		ARDB	AERONAUTICS R&D BOARD	Experimental Investigation Of Aerodynamics Characteristic Of Bird Size Flappings And Development Of An Ornithopter	166,491	-	-	(166,491)	-	166,491	-
7	20090020		ARDB	AERONAUTICS R&D BOARD	Development Of A 3-D Parallelized Direct Simulation Monte Carlo (Dsmc) Code For Simulation Of Rarefied Hypersonic Flow Over Re-Entry Vehicles	48,436	-	-	(48,436)	-	48,436	-
8	2019365		ARDB	AERONAUTICS R&D BOARD	Unidirectional Tape Pre-Preg Based Carbon/Epoxy Short Fiber Composites:Development Mechanical Characterization, Stiffness And Strength Predictions	-	-	1,809,000	1,809,000	317,299	-	1,491,701
9	2017326		ARDB	AERONAUTICS R&D BOARD	Laser Induced Dynamic Fracture Investigation Of Aluminium/Composite Interface	162,590	-	15,093	(147,497)	609,460	756,957	-
10	2016104		ARDB	AERONAUTICS R&D BOARD	Aeroelastic Analysis Of Vertical Axis Wind Turbine With Dynamic Blade Pitch Change	-	35,628	5,009	40,637	452,668	412,031	-
11	2018500		ARDB	AERONAUTICS R&D BOARD	Development And Assessment Of Hybrid Rans/Les Models For Predicting Flow Physics In An Airfoil With Leading Edge Tubercles	-	1,420,000	15,000	1,435,000	1,546,961	111,961	-
12	2018204		ARDB	AERONAUTICS R&D BOARD	An Experimental Study To Investigate The Effect Of Shears On The Stability And Transition Of The Boundary Layers Streaks	-	1,505,000	32,922	1,537,922	1,589,177	51,255	-
13	2018189		ARDB	AERONAUTICS R&D BOARD	An Experimental Study Of The Blockage And 3-D Effect In The Wake Structure Of A Rotationally Oscillating Circular Cylinder	-	268,620	36,344	304,964	389,920	85,156	-
14	2019186		ARDB	AERONAUTICS R&D BOARD	Modeling Thermo-Mechanical Fatigue Behavior Of A Near Alpha Titanium Alloy For Compressor Disc/Bling Applications	-	-	591,400	591,400	75,938	-	515,462
15	2019232		ARDB	AERONAUTICS R&D BOARD	A New Capacitance Based Model For Sdbd Plasma Actuation	-	-	1,003,900	1,003,900	522,729	-	481,171
16	20020303		ARDB	AERONAUTICS R&D BOARD	Manufacturing Of Polymer Composite Products Using Rapid Tooling	-	3	-	3	-	-	3
17	20040196		ARDB	AERONAUTICS R&D BOARD	Large Eddy Simulations Of Wake Interactions Over Lp Turbine Blades	6,826	-	-	(6,826)	-	6,826	-
18	20070230		ARDB	AERONAUTICS R&D BOARD	A Study Of The Effects Of Wake Passing On Turbine Blade Film Cooling	-	225,511	-	225,511	-	-	225,511
19	20110288		ARDB	AERONAUTICS R&D BOARD	Numerical Simulation And Experimental Studies Of Mold Filling Process In Manufacturing Of Fibrous Composites	-	-	20,717	20,717	20,717	-	-
20	2016381		ARDB	AERONAUTICS R&D BOARD	Experimental And Theoretical Investigation In Nano-Finishing Of Freeform/Sculptured Surfaces	-	783,057	4,845	787,853	1,627,389	839,547	-
21	2015436		ARDB	AERONAUTICS R&D BOARD	Stability Analysis Of Ring Shaped Understrut Loads	44,165	-	-	(44,165)	-	44,165	-
		ARDB Total	0		0	1,487,537	4,237,569	5,258,480	8,008,113	8,397,373	3,252,287	2,363,055
1	2016138		ARMREB	ARMAMENT RESEARCH BOARD	Modification Of Conventional Artillery Rocket To A Guided Rocket With Freely Spinning Tail	-	23,825	517	24,342	24,342	-	-
2	20070276		ARMREB	ARMAMENT RESEARCH BOARD	Development Of Magnetic Field Sensors Based On Metallic Multilayers With High Magnetoresistive Sensitivity	26,052	-	-	(26,052)	-	26,052	-
		ARMREB Total	0		0	26,052	23,825	517	(1,710)	24,342	26,052	-
1	20040211		ASTRAZ	ASTRAZENECA RESEARCH FOUNDATION INDIA	Synthesis Of Small Molecule Heterocycle' Libraries On Solid Support	648	-	-	(648)	-	648	-
		ASTRAZ Total	0		0	648	-	-	(648)	-	648	-

1	2019336		AVHF	ALEXANDER VON HUMBOLDT FOUNDATION	Validating Remote Sensing Data With In Situ Measurements For Improving Soil Moisture Estimates And Water Resource Management: Technology Demonstration From Lowlands And Highlands In India	-	-	369,861	369,861	-	-	369,861
		AVHF Total	0	0	0	-	-	369,861	369,861	-	-	369,861
1	2016164		BARC	BHABHA ATOMIC RESEARCH CENTRE	Studies Of Fire Propagation, Supression And Scavenging With Associated Thermal Hydraulic Aspects In Multiple Compartments	550,590	-	4,998,750	4,448,160	5,580,414	1,132,254	-
2	20120021		BARC	BHABHA ATOMIC RESEARCH CENTRE	Development Of A Low Cost Piv System	416,221	-	-	(416,221)	-	416,221	-
3	2017253		BARC	BHABHA ATOMIC RESEARCH CENTRE	Development Of Background Oriented Schlieren (Bos) Technique For Density Measurment And Visualization In Buoyant Plumes	-	2,879,055	5,830,000	8,709,055	4,061,881	-	4,647,174
4	2018036		BARC	BHABHA ATOMIC RESEARCH CENTRE	Studies On Aerosol Behaviour Under Severe Accident Conditions In The Context Of Indian Nuclear Reactors By Setting Up Of National Aerosol Facility	-	3,881,896	445,110	4,327,006	6,610,012	2,283,006	-
5	20130260		BARC	BHABHA ATOMIC RESEARCH CENTRE	Fabrication Of Sensing Surfaces For Detection Of Uranium Ions	401,907	-	-	(401,907)	-	401,907	-
6	2016244		BARC	BHABHA ATOMIC RESEARCH CENTRE	Investigations On Hybrid-Sulfur Cycle For Solar Thermochemical Hydrogen Generation	-	11	-	11	-	-	11
7	20110264		BARC	BHABHA ATOMIC RESEARCH CENTRE	Experimental Evaluation Of Strain Rate Effects On Nuclear Grade Concrete Mixes	-	80,419	-	80,419	-	-	80,419
8	20070303		BARC	BHABHA ATOMIC RESEARCH CENTRE	Nano Finishing Of Ultra High Speed Bearing	1	-	-	(1)	-	1	-
9	20120195		BARC	BHABHA ATOMIC RESEARCH CENTRE	Fabrication Of Microchannels With Nanofinish On Ss304	512,961	-	-	(512,961)	-	512,961	-
10	2015209		BARC	BHABHA ATOMIC RESEARCH CENTRE	Studies On Heat Transfer During Condensation Of Steam-Hydrogen Mixtures Inside Closed Containments	29,608	-	753,500	723,892	1,409,430	686,538	-
		BARC Total	0	0	0	1,911,288	6,841,401	12,016,360	16,946,473	17,851,737	5,637,888	4,727,624
1	20070229		BCD	BRITISH COUNCIL DIVISION, NEW DELHI	Transceiver Chip For The Next Generation Of Networks In Telecommunication	413,477	-	-	(413,477)	-	413,477	-
		BCD Total	0	0	0	413,477	-	-	(413,477)	-	413,477	-
1	2016132		BDMC	BERKELEY DEVICE MODELING CENTER(BDMC)	Modeling Of Advanced Bulk And Soi Mosfets	-	958,693	3,185,863	4,144,556	3,999,729	-	144,827
		BDMC Total	0	0	0	-	958,693	3,185,863	4,144,556	3,999,729	-	144,827
1	2018353		BEL	BHARAT ELECTRONICS LIMITED	Software Design For Autonomous Quadrator	-	497,174	-	497,174	2,038,302	1,541,128	-
2	2018443		BEL	BHARAT ELECTRONICS LIMITED	Nano Uavs (Like Insect Copter) For Video Capture	-	-	1,193,219	1,193,219	2,517,430	1,324,211	-
3	2018464		BEL	BHARAT ELECTRONICS LIMITED	Mechanical Design, Development And Control Of A Serial Six Axis Manipulator Arm For Intelligence And Complex Manipulation Tasks	-	-	372,881	372,881	480,505	107,624	-
		BEL Total	0	0	0	-	497,174	1,566,100	2,063,274	5,036,237	2,972,963	-
1	20090263		BELL	BELL LABS FELLOWSHIP SCHEME INDIA	Bell Labs Fellowship Scheme	-	637,500	-	637,500	-	-	637,500
		BELL Total	0	0	0	-	637,500	-	637,500	-	-	637,500
1	2019272		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Lm/Lmc And Electrical Safety Testing Facility, Iit Kanpur	-	-	72,583,000	72,583,000	497,381	-	72,085,619
2	2019246		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Establishment Of A State-Of-The-Art Facility For Design And Fabrication Of Medical Devices And Equipment With In House Quality Control System For Cultivating A Local Production Hub Of Medical Grade Ta	-	-	22,912,042	22,912,042	493,226	-	22,418,816
3	2016353		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Development Of Portable Device Based On Polarized Fluorescence For Detection Of Cervical Pre-Cancer.	-	53,819	-	53,819	2,205	-	51,614
4	20120328		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Bio-Incubator Facility At Sidbi Innovation & Incubation Centre	79,225	-	-	(79,225)	-	79,225	-
5	2017354		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Bio Nest - (Birac)	-	2,180,709	4,020,715	6,201,424	7,007,809	806,385	-
6	2017355		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Birac - Seed Fund Gia	-	2,016,769	(328,132)	1,688,637	-	-	1,688,637
7	2017356		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	(Big) Biotechnology Ignition Grant	-	9,182,141	43,937,182	53,119,323	29,304,094	-	23,815,229
8	2019041		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Incredible Devices Private Limited	-	-	2,000,000	2,000,000	2,000,000	-	-
9	2019109		BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	Airshed Planning Professionals P Ltd.	-	-	1,500,000	1,500,000	1,500,000	-	-
		BIRAC Total	0	0	0	79,225	13,433,438	146,624,807	159,979,030	40,804,699	885,610	119,059,931
1	2019108		BMGF	BILL AND MELINDA GATES FOUNDATION AND TAT TRUSTS	India Agritech Incubation Network (Iain)	-	-	28,156,013	28,156,013	8,843,924	-	19,312,089
		BMGF Total	0	0	0	-	-	28,156,013	28,156,013	8,843,924	-	19,312,089
1	2014249		BOEING	BOEING	Active Flow Control High Lift Study- Year 1	-	4,588,818	-	4,588,818	4,544,394	-	44,424
2	2017092		BOEING	BOEING	Computational Studies Of Plasma Treated Polymers	-	487,939	1,430,122	1,918,061	1,826,497	-	91,564
3	2018260		BOEING	BOEING	Joining Of Thermoplastic And Thermoset Composite	-	1,672,133	-	1,672,133	2,214,868	542,735	-
4	20080273		BOEING	BOEING	Design And Development Of An Autonomous Vehicle	-	405,496	115,000	520,496	420,591	-	99,905
5	20110129		BOEING	BOEING	Investigation Into The Thermo-Oxidative And Mechanical Response Of Commercial Polyimide Resins And Polyimide Nano-Composites For Aerospace Application	-	218,770	11,842	230,612	228,080	-	2,532
6	2016081		BOEING	BOEING	Additive Manufacturing Of Functionally Engineered Materials	-	6,540,964	580,562	7,121,526	2,123,002	-	4,998,524
7	20120165		BOEING	BOEING	High Lift Aerodynamics Project Year-4	-	549	-	549	-	-	549
		BOEING Total	0	0	0	-	13,914,629	2,137,546	16,052,175	11,157,432	542,735	5,237,498

1	2018077		BPIS	BP INDIA SERVICES PVT. LTD.	India Air Pollution Study For Bp	44,550	-	175,000	130,450	130,450	-	-
		BPIS Total	0	0	0	44,550	-	175,000	130,450	130,450	-	-
1	20090116		BRFST	BOARD OF RESEARCH IN FUSION SCIENCE & TECHNOLOGY	Development Of Tomographic Code For Image Reconstruction From Visible Radiation From Aditya And Sst-1 Tokamak Plasma	43,333	-	-	(43,333)	-	43,333	-
		BRFST Total	0	0	0	43,333	-	-	(43,333)	-	43,333	-
1	2019370		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of Impurity Transport Code For Aditya U Tokamak At Ipr Gandhinagar	-	-	1,350,750	1,350,750	231,233	-	1,119,517
2	20060117		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	The Role Of Ubiquitin-Proteasome Dysfunction In Lafor Disease (Ld):Understanding The Molecular Function Of Ld Gene Product Malin - A Putative Ubiquitin Ligase	-	500	-	500	-	-	500
3	20130276		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Ground Response Analysis Of Soils From North India Considering Soil Strain	-	292,080	-	292,080	-	-	292,080
4	2018050		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	A Study Of Time Effects On Behavior Of Pile-Raft Foundations	-	2,284,504	479,981	2,764,485	2,455,896	-	308,589
5	2015035		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Studies On Aerosol Behavior Under Severe Accident Conditions In The Context Of Indian Nuclear Reactor By Setting Up Of National Aerosol Facility	2,649,506	-	4,077,000	1,427,494	1,652,581	225,087	-
6	20130251		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Dynamic Response Of Foundation Components Through Full Scale Field Tests	176,120	-	-	(176,120)	-	176,120	-
7	20120123		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of A High Volume Impaction Based Pm2.5 Sampler	-	47	141,592	141,639	141,639	-	-
8	20130279		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Removal Of Antimony And Uranium Using Functionalized Novel Carbon Nano Materials	-	169,898	-	169,898	-	-	169,898
9	20110115		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Low Temperature Catalytic Ozone Decomposition	144,539	-	-	(144,539)	-	144,539	-
10	20110028		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Extraction Of Metal Ions Using Ligand Assisted Supercritical Co2 And Ionic Liquids	14,328	-	-	(14,328)	-	14,328	-
11	2016057		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Modeling Validation And Application Of Ligand Coated Soft Materials For Adsorative Separation Of Gd+3 And Uo2+2 Ions	710,390	-	654,993	(55,397)	16,458	71,855	-
12	20100224		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Real Time Determination Of The Electronic And Structural Dynamics In Molecules By Ultrafast Spectroscopy	109,273	-	-	(109,273)	-	109,273	-
13	20130076		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Non-Noble Complexes As Proton Reduction Catalysts Comprising Bioinspired Proton Relays	-	44,817	-	44,817	-	-	44,817
14	2014118		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of Novel Fluorination Reactions Employing Fluoride Ion As The Fluorine Source	-	16,797	-	16,797	-	-	16,797
15	2014110		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Synthesis, Structure And Properties Of Half-Sandwich Metal Alkylidine And Related Complexes And Their Application In Catalysis	468,626	-	-	(468,626)	-	468,626	-
16	20130053		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Improving Coverage Of Test-Suites Via Automatic Test-Case Generation	-	14,989	-	14,989	-	-	14,989
17	20040087		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of A Mixed Reality Feedback System For Enhanced Teleoperation	-	4,951	-	4,951	-	-	4,951
18	20120182		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Spatio-Temporal Face Recognition Using Key-Frames In Video For Surveillance	-	38,344	41,554	79,898	-	-	79,898
19	20090033		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Analysis Of Gas Injection System And Gas Heavy Metal Seperation System Target For Accelerator Driven System	121,016	-	-	(121,016)	-	121,016	-
20	20030311		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Computational And Experimental Investigations Of Gaseous Mixing In A Tubular Reactor	181,860	-	-	(181,860)	-	181,860	-
21	2014327		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Local Heat Transfer Coefficient During Film Condensation Of Steam Hydrogen Mixtures	1,606,697	-	1,979,560	372,863	45,600	-	327,263
22	20130126		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of A General Purpose Cfd Solver Over A Hybrid Unstructured Grid	-	106,127	95,703	201,830	23,990	-	177,840
23	20120186		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of Nb-Based High Strength Ultrafine In-Situ Composites For High Tempreature Application	516,791	-	-	(516,791)	-	516,791	-
24	2014370		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Development Of Advanced Carbon/Carbon Composites With Carbon Nanotube Reinforced Carbon Fibre: Micro Structural Analysis And Co Relation With Mechanical Properties	88,269	-	-	(88,269)	-	88,269	-
25	20070221		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Synthesis And Investigation Of Yp- Based Strongly Correlated Electron Systems	60,359	-	-	(60,359)	-	60,359	-
26	2017029		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Low Temperature Atmospheric Pressure Micro-Plasmas: Physics And Applications	-	211,001	-	211,001	261,203	50,202	-
27	20060276		BRNS	BOARD OF RESEARCH IN NUCLEAR SCIENCES	Laser Heatedpedestal Growth Of Crystalline Rf3+:Yag For Dosimetry	-	265,736	-	265,736	-	-	265,736
		BRNS Total	0	0	0	6,847,774	3,449,791	8,821,133	5,423,150	4,828,600	2,228,325	2,822,875
1	20120128		BSDMA	BIHAR STATE DISASTER MANAGEMENT AUTHORITY	Flood Disaster And Management Indian Scenario	565	-	-	(565)	-	565	-
		BSDMA Total	0	0	0	565	-	-	(565)	-	565	-
1	20080033		BSNL	BHARAT SANCHAR NIGAM LIMITED	Bsnl Telecom Centre Of Exellence	-	112,739	-	112,739	-	-	112,739
		BSNL Total	0	0	0	-	112,739	-	112,739	-	-	112,739
1	2019423		CDAC	CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING	Linear Scaling Dft	-	-	3,700,000	3,700,000	47,612	-	3,652,388
2	20060201		CDAC	CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING	Development Of Project Of Rfid Technologies And Setting Up Of Preparatory Frame Work Of Epc Global Accredited Auto Lab	-	307,730	-	307,730	-	-	307,730

3	20050208		CDAC	CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING	Application Module For Full Spectrum Simulator	53,557	-	-	(53,557)	-	53,557	-
4	2015328		CDAC	CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING	Multiscale Microstructure Simulation And Modelling	-	-	4,705,000	4,705,000	257,318	-	4,447,682
		CDAC Total	0	0	0	53,557	307,730	8,405,000	8,659,173	304,950	53,557	8,407,728
1	20120143		CDRI	CSIR-CENTRAL DRUG RESEARCH INSTITUTE	Heliceines And Their Importanse As Applied To Biological Activity	-	857	-	857	-	-	857
2	20120105		CDRI	CSIR-CENTRAL DRUG RESEARCH INSTITUTE	Synthesis Of Highly Substituted Indole Derivatives	-	609	-	609	-	-	609
		CDRI Total	0	0	0	-	1,466	-	1,466	-	-	1,466
1	2015364		CEAT	CEAT LIMITED	Study Of Tire Noise & Vibrations	-	591,681	-	591,681	354,089	-	237,592
		CEAT Total	0	0	0	-	591,681	-	591,681	354,089	-	237,592
1	2015159		CEERI	CEERI PILANI	Smdp-C2sd	-	118,799	-	118,799	-	-	118,799
		CEERI Total	0	0	0	-	118,799	-	118,799	-	-	118,799
1	2017055		CEFIPR	CENTRE FRANCO INDIEN POPURLA PROMOTION LE LA RECHERCHE AVANCEE	Bifunctional Catalysts For Cooperative C-H Bond Cleavahe Via Intramolecular Deprotonation Toward Direct Functionalizations Of Alkanes	-	262,135	801,321	1,063,456	1,165,860	102,404	-
2	2017211		CEFIPR	CENTRE FRANCO INDIEN POPURLA PROMOTION LE LA RECHERCHE AVANCEE	Novel Chiral First Row Transition Metal Complexes For Asymmetric Catalysis Via Activation Of Inert C-H And C-Heteroatom Bonds	-	660,422	-	660,422	1,814,701	1,154,279	-
		CEFIPR Total	0	0	0	-	922,557	801,321	1,723,878	2,980,561	1,256,683	-
1	2016472		CEP	CHAIN ELEKTRONICS PVT. LTD.	Ppp Mode Industry Projects (Prototype Development Fund)	-	464,498	-	464,498	-	-	464,498
		CEP Total	0	0	0	-	464,498	-	464,498	-	-	464,498
1	2017415		CGBMS	CENTRE FOR GANGA RIVER BASIN MANAGEMENT AND STUDIES	Cganga Service Centre	1,545,868	-	1,772,759	226,891	1,353,477	1,126,586	-
		CGBMS Total	0	0	0	1,545,868	-	1,772,759	226,891	1,353,477	1,126,586	-
1	20010218		CHIPS	CHIPS, CHATTISGARH	Computer Aided Design For Furnishing (Wearing Design)	-	6,382	-	6,382	-	-	6,382
		CHIPS Total	0	0	0	-	6,382	-	6,382	-	-	6,382
1	2017496		CMC	COMPACT MODEL COALITION	Asm-Gan-Hemt	-	222,318	2,968,468	3,190,786	2,927,280	-	263,506
		CMC Total	0	0	0	-	222,318	2,968,468	3,190,786	2,927,280	-	263,506
1	20184480		CPCB	CENTRAL POLLUTION CONTROL BOARD	Delhi Air Quality Experiment:A Paradigm Shif In Source Apportionment; Iit-M And Hisar Part	-	-	-	-	75,780	75,780	-
2	2018468		CPCB	CENTRAL POLLUTION CONTROL BOARD	Delhi Air Quality Experiment: A Paradigm Shift In Source Apportionment	-	-	23,600,258	23,600,258	3,000,342	-	20,600,416
3	20184684		CPCB	CENTRAL POLLUTION CONTROL BOARD	Delhi Air Quality Experiment:A Paradigm Shift In Source Apportionment (Iit Kanpur Part)	70,500	-	45,976	(4,524)	8,733,362	8,737,886	-
4	20184688		CPCB	CENTRAL POLLUTION CONTROL BOARD	Xact 625i Ambient Metals Monitoring Systems	-	-	22,704	22,704	15,946,877	15,924,173	-
5	20184686		CPCB	CENTRAL POLLUTION CONTROL BOARD	Delhi Air Quality Experiment:A Paradigm Shift In Source Apportionment (Part C: Pil Part)	-	-	-	-	4,625,512	4,625,512	-
		CPCB Total	0	0	0	70,500	-	23,689,448	23,618,948	32,381,883	29,363,351	20,600,416
1	20060253		CPCBCE	CPCB CENTRAL POLLU.CONT.BOARD	Stack Height Regulations: A State-Of-Art Review Through Computer Simulations And Development Of Spatially Meaningful Regulations	-	1,957	-	1,957	-	-	1,957
		CPCBCE Total	0	0	0	-	1,957	-	1,957	-	-	1,957
1	20020187		CPRI	CENTRAL POWER RESEARCH INSTITUTE	Design And Development Of Remote Terminal Unit Suitable For Outdoor Operation	-	97,558	-	97,558	-	-	97,558
2	2016101		CPRI	CENTRAL POWER RESEARCH INSTITUTE	Development Of Control Strategies For Grid Connected Pv System Utilizing The Mppt And Reactive Power Capability	-	700,507	-	700,507	435,021	-	265,486
3	2019107		CPRI	CENTRAL POWER RESEARCH INSTITUTE	Thermoelectric Power Generator For Clean Energy Generation By Recycling Waste Heat Generated In Power Plant	-	-	3,923,300	3,923,300	2,731,017	-	1,192,283
		CPRI Total	0	0	0	-	798,065	3,923,300	4,721,365	3,166,038	-	1,555,327
1	20100280		CRESIS	CENTER FOR REMOTE SENSING OF ICE SHEETS	Analysis Of Wideband Printed Dipole Antennas	-	1,711	-	1,711	-	-	1,711
		CRESIS Total	0	0	0	-	1,711	-	1,711	-	-	1,711
1	2019212		CSIR	COUNCIL OF SC.& IND. RESEARCH	Discovery Of Ligand-Induced Trafficking And Signaling Bias At The Human Complement C5ar1,A G Protein-Coupled Receptor Involved In Sepsis And Inflammation	-	-	-	-	262,120	262,120	-
2	2015195		CSIR	COUNCIL OF SC.& IND. RESEARCH	Uncovering The Roles Fat-Dachsous-Four-Jointed Cell Polarity Signaling Systems In Epithelial Wound Healing In Drosophila	52,430	-	-	(52,430)	26,807	79,237	-
3	20080279		CSIR	COUNCIL OF SC.& IND. RESEARCH	Molecular Imprinting Of Endocrine Disrupters In Sol-Gel For Environmental Sensor Applications	18,444	-	-	(18,444)	-	18,444	-
4	20070193		CSIR	COUNCIL OF SC.& IND. RESEARCH	Identification Of The Molecular Mechanisms That Determine The Foveal Region In The Vertebrate Retina	25,746	-	-	(25,746)	-	25,746	-
5	20060198		CSIR	COUNCIL OF SC.& IND. RESEARCH	Effect Of Transverse Reinforcement Detailing On Confinement Of Reinforced Concrete Columns	78,552	-	-	(78,552)	-	78,552	-
6	20070046		CSIR	COUNCIL OF SC.& IND. RESEARCH	Treatment Of Wastewater Containing Azo-Dyes By Ozonation And Aerobic Biodegradation	-	337,000	-	337,000	-	-	337,000
7	20080362		CSIR	COUNCIL OF SC.& IND. RESEARCH	Aluminium Shear-Links For Passive Control Of Seismic Response Of Truss Moments Frames	210,108	-	-	(210,108)	-	210,108	-
8	2017164		CSIR	COUNCIL OF SC.& IND. RESEARCH	Low Cost Vibration Screening Technique For Machine Excitation In Built-Up Area Using Bamboos	-	105,766	265,471	371,237	383,363	12,126	-
9	2017169		CSIR	COUNCIL OF SC.& IND. RESEARCH	An Experimental And Numerical Assessment Of Indian Crushable Sands Under Cyclic Loading	-	272,978	25,000	297,978	100,550	-	197,428

10	20130199		CSIR	COUNCIL OF SC & IND. RESEARCH	Structural Control Using Tuned Liquid Dampers: An Investigation Through Real-Time Hybrid Simulation	-	-	-	-	101,405	101,405	-
11	20060259		CSIR	COUNCIL OF SC.& IND. RESEARCH	A Combined Approach To Diagnose Cervical And Oral Cancer Using Polarized Raman Intrinsic Fluorescence Spectroscopy	186,238	-	-	(186,238)	-	186,238	-
12	20080394		CSIR	COUNCIL OF SC & IND. RESEARCH	Investigation On The Crystalline Fibers Of Linbo3 Grown By Laser Heated Pedestal Growth Technique	29,057	-	-	(29,057)	-	29,057	-
13	20131198		CSIR	COUNCIL OF SC.& IND. RESEARCH	Hemilabile N-Heterocyclic Carbene (Nhc) Ligands:Design Synthesis And Application In Organometallic Catalysis	-	5,206	-	5,206	5,206	-	-
14	20151272		CSIR	COUNCIL OF SC.& IND. RESEARCH	Removal Of Volatile Organic Carbon By Functionalized Carbon Nano Composites	-	2,851	-	2,851	-	-	2,851
15	20090006		CSIR	COUNCIL OF SC.& IND. RESEARCH	Mechanism Of Mobilization Of Arsenic Into The Ground Waters Of Kanpur District And Removal Of Arsenic Using Chitosan Coated Sand	17,296	-	-	(17,296)	-	17,296	-
16	20050268		CSIR	COUNCIL OF SC & IND. RESEARCH	Degradation Of Polymer Through Heterogeneous Catalytic Depolymerization In Presence Of Molecular Oxygen	15,586	-	-	(15,586)	-	15,586	-
17	20080055		CSIR	COUNCIL OF SC & IND. RESEARCH	Promotional Effect Of Molybdenum And Chromium Oxide On Supported Vanadia Catalysts For The Propane Odh Reaction	94,368	-	-	(94,368)	-	94,368	-
18	20130242		CSIR	COUNCIL OF SC.& IND. RESEARCH	Effect Of Iron In Supported & Unsupported Nickel Iron & Cobalt Iron Bimetallic Catalysts	-	86,500	-	86,500	-	-	86,500
19	2014382		CSIR	COUNCIL OF SC.& IND. RESEARCH	Synthesis Of Pv A Starch Polymeric Composite With Metal Nanoparticles-Dispersed Carbon Micro/Nanofibres For Seed Germination And Plant Growth Applications	166,332	-	-	(166,332)	-	166,332	-
20	20131145		CSIR	COUNCIL OF SC & IND. RESEARCH	Target Specific Dual Modal Ima	-	-	17,644	17,644	17,346	-	298
21	20040234		CSIR	COUNCIL OF SC.& IND. RESEARCH	Coenzyme B12 Related Cobaloximes With Substituted Diphenylglyoxime: Synthesis Characterisation Co-C Bond Reactivity And Cis Influence Studies.	1,185	-	-	(1,185)	-	1,185	-
22	20030145		CSIR	COUNCIL OF SC & IND. RESEARCH	Chiral Synthesis Of Useful Natural Products And Synthons And Development Of Asymmetric Synthetic Methods Using Carbohydrate Based Catalysts	-	7	-	7	-	-	7
23	20010258		CSIR	COUNCIL OF SC & IND. RESEARCH	Esso-Ferrocenyl Porphyrins And Expanded Porphirins: New Generation Electrocin Materials	205,178	-	-	(205,178)	-	205,178	-
24	20070030		CSIR	COUNCIL OF SC & IND. RESEARCH	Synthesis Of Pyridine And Carboxylate/Donor Ligands And Their Metal Coordination	17,086	-	-	(17,086)	-	17,086	-
25	20100056		CSIR	COUNCIL OF SC & IND. RESEARCH	Application Of Silymethyl-Substituted Small Ring Compounds In Asymmetric Catalysis & Organic Synthesis	389,817	-	-	(389,817)	-	389,817	-
26	20070058		CSIR	COUNCIL OF SC & IND. RESEARCH	Development Of New Methods For Synthesis Of 2-Substituted Cyclobutanone And Chiral Cyclopropanol	-	99,072	-	99,072	-	-	99,072
27	20110030		CSIR	COUNCIL OF SC & IND. RESEARCH	Csir Sib Award	345,000	-	-	(345,000)	180,000	525,000	-
28	20080243		CSIR	COUNCIL OF SC & IND. RESEARCH	First Principles Theoretical Studies Of Supercritical Aqueous Solutions:Changes In Structure & Dynamics From Those Under Ambient Conditions	16,813	-	-	(16,813)	-	16,813	-
29	2018114		CSIR	COUNCIL OF SC & IND. RESEARCH	Chemical Dynamics In Enzyme-Water Systems Through Quantum-Classical And Biased Simulations	131,083	-	533,500	402,417	433,694	37,277	-
30	20030020		CSIR	COUNCIL OF SC & IND. RESEARCH	Design & Development Of New Multicomponent Coupling Reaction	-	1,703	-	1,703	-	-	1,703
31	20010271		CSIR	COUNCIL OF SC & IND. RESEARCH	A New, Flexible And Stereoselective Synthesis Of Trans-Hydrindane Systems Present In Biologically Active Natural Products	9,075	-	-	(9,075)	-	9,075	-
32	20040262		CSIR	COUNCIL OF SC & IND. RESEARCH	Magnetic And Magneto Transport Property Correlations In Nano Alloys, Oxides And Chalcogenides.	-	12,470	-	12,470	-	-	12,470
33	20070206		CSIR	COUNCIL OF SC & IND. RESEARCH	Photochromism Based On C-O Bond Heterolysis: Mechanistic Insights And Modified Benzopyrans Towards Improved Photobehavior	63,787	-	-	(63,787)	-	63,787	-
34	20080288		CSIR	COUNCIL OF SC & IND. RESEARCH	Shanti Swarup Bhatnagar Fellowship	705,000	-	360,000	(345,000)	180,000	525,000	-
35	20120206		CSIR	COUNCIL OF SC & IND. RESEARCH	Development Of Modified Ibxs With Enhanced Reactivity And Chiral Ibxs For Asymmetric Synthesis	-	5,528	-	5,528	-	-	5,528
36	2014291		CSIR	COUNCIL OF SC.& IND. RESEARCH	Development Of New Synthetic Routes For Biologically Important N-Heterocycles Via Sn2-Type Ring-Opening/Domino Ring Opening Cyclisation(Droc) Of Aziridines And Azetidines	169,868	-	-	(169,868)	-	169,868	-
37	20050295		CSIR	COUNCIL OF SC.& IND. RESEARCH	Ligand -Centered Reduction Processes Inmolecular And Supramolecular Assemblies Of ,B-Naphthyridine Based Ligands Incorporated In Metal-Metal Bonded Dimetal System	-	121	-	121	-	-	121
38	20120192		CSIR	COUNCIL OF SC.& IND. RESEARCH	Development Of New Generation Palladium Catalyzed Coupling Reactions Using Triarylbismuths And Their Applications To Organic Synthesis	27,176	-	-	(27,176)	-	27,176	-
39	20080258		CSIR	COUNCIL OF SC.& IND. RESEARCH	Coordination Polymers Based On Imidazoles / Benzimidazoles	2,057	-	-	(2,057)	-	2,057	-
40	2017082		CSIR	COUNCIL OF SC.& IND. RESEARCH	Probing Molecular Chirality By Dimeric Metalloporphyrin Hosts: Transfer, Control And Rationalization Using Exciton Coupled Circular Dichroism	462,861	-	400,000	(62,861)	358,689	421,550	-
41	20130123		CSIR	COUNCIL OF SC.& IND. RESEARCH	Molecular Level Understanding Between Wettability And Roughness Of A Solid Surface	474,986	-	-	(474,986)	-	474,986	-

42	20100268		CSIR	COUNCIL OF SC.& IND. RESEARCH	Special Honorarium To Sch Awardees	-	404	-	404	-	-	404
43	2016366		CSIR	COUNCIL OF SC.& IND. RESEARCH	Biomimetic Total Synthesis Of (+) Hongoquercin A,B And Related Natural Products	895,102			(895,102)	4,898	900,000	
44	2014392		CSIR	COUNCIL OF SC.& IND. RESEARCH	Chemical Fixation Of Carbon Dioxide: Greener Methodologies In The Synthesis Of Valuable Compounds	-	9,934	-	9,934	-	-	9,934
45	2019153		CSIR	COUNCIL OF SC.& IND. RESEARCH	Cobalt And Group Vii Metal Catalyzed C-C And C-N Bond Formation Using Alcohols	-	-	483,333	483,333	215,709	-	267,624
46	2019249		CSIR	COUNCIL OF SC.& IND. RESEARCH	Small Molecule Sulfonyl Fluorides As Irreversible Inhibitors Of Cellular Glutathione Reductase (Gsr)	-	-	-	-	195,884	195,884	-
47	2015379		CSIR	COUNCIL OF SC.& IND. RESEARCH	Modeling And Simulation Of Iii-V And Ge Transistors For Logic And Power Applications	-	5,976	-	5,976	-	-	5,976
48	20070022		CSIR	COUNCIL OF SC.& IND. RESEARCH	Carbon Nanotube Coated Carbon Fibre Composites In Polycarbonate Matrix	-	343	-	343	-	-	343
49	2014264		CSIR	COUNCIL OF SC.& IND. RESEARCH	Modeling Of Hydrodynamics-Chemistry Interaction During Carbon Nanotube Synthesis In A Cvd Reactor	-	70,178	-	70,178	-	-	70,178
50	20020187		CSIR	COUNCIL OF SC.& IND. RESEARCH	Investigation On The Effects Of Compositional Modifications On Structure And Properties Of Bife O3 Thin Films For Device Applications	51,099	-	-	(51,099)	-	51,099	-
51	20020121		CSIR	COUNCIL OF SC.& IND. RESEARCH	Study Of Electronic Structure Magnetism And Phase Stability Of Lithiated Manganese Oxides	67,157	-	-	(67,157)	-	67,157	-
52	20060036		CSIR	COUNCIL OF SC.& IND. RESEARCH	Physics Of Traffic- Like Stochastic Processes In Cell And Colonies Of Organisms	-	16,877	-	16,877	-	-	16,877
53	20010263		CSIR	COUNCIL OF SC.& IND. RESEARCH	Propagation Of Fluorescence Light In Human Breast Tissues	58,189	-	-	(58,189)	-	58,189	-
54	20100045		CSIR	COUNCIL OF SC.& IND. RESEARCH	Photonic Properties Of Periodically Patterned Nanosculptured Thin Films	817	-	-	(817)	-	817	-
55	20100326		CSIR	COUNCIL OF SC.& IND. RESEARCH	Design And Fabrication Of Micron Size Non-Hysteretic Superconducting Quantum Interference Devices (U-Squid)	10,596	-	-	(10,596)	-	10,596	-
56	20120212		CSIR	COUNCIL OF SC.& IND. RESEARCH	Design, Synthesis And Investigations Of Novel Superconducting And Magnetic Materials	181,226	-	-	(181,226)	-	181,226	-
57	20060249		CSIR	COUNCIL OF SC.& IND. RESEARCH	Intense Pulsed Plasma Sources For Terahertz Radiation	53,595	-	-	(53,595)	-	53,595	-
58	2017108		CSIR	COUNCIL OF SC.& IND. RESEARCH	Production And Study Of A Plasma Confined By A Dipole Magnet	796	-	-	(796)	44,238	45,034	-
59	2017076		CSIR	COUNCIL OF SC.& IND. RESEARCH	Chaotic Fibre Laser For Random Event Generation	86,443	-	-	(86,443)	8,812	95,255	-
		CSIR Total	0	0	0	5,320,149	1,027,984	2,084,548	(2,207,237)	2,524,571	5,841,172	1,109,384
1	20050175		CST	COUNCIL OF SCIENCE & TECHNOLOGY	Design And Development Of An Improved Woodstove	126,380	-	-	(126,380)	-	126,380	-
2	20040001		CST	COUNCIL OF SCIENCE & TECHNOLOGY	Synthetic Analog Of Nickel Containing Coenzyme F430	58,227	-	-	(58,227)	-	58,227	-
3	2016362		CST	COUNCIL OF SCIENCE & TECHNOLOGY	Experimental Cloud Seeding Using Manned And Unmanned Air Crafts	-	118,149	-	118,149	110,801	-	7,348
4	2016373		CST	COUNCIL OF SCIENCE & TECHNOLOGY	The Science Bus Project	-	169,907	640,000	809,907	637,149	-	172,758
5	2018285		CST	COUNCIL OF SCIENCE & TECHNOLOGY	Science Bus Operation/Running	-	1,444,650	-	1,444,650	1,441,473	-	3,177
		CST Total	0	0	0	184,607	1,732,706	640,000	2,188,099	2,189,423	184,607	183,283
1	20080183		CU	CAMBRIDGE UNIVERSITY	Late Quater Nary Environmental Change In Western Haryana Plains Interpreted Through Lake Deposits	-	6,893	-	6,893	-	-	6,893
		CU Total	0	0	0	-	6,893	-	6,893	-	-	6,893
1	20090034		DAE	DEPARTMENT OF ATOMIC ENERGY	Development Of Test Facility For Fire Propagation And Associated Thermal Hydraulic Aspects In Multiple Compartments	-	188,626	-	188,626	-	-	188,626
2	20110262		DAE	DEPARTMENT OF ATOMIC ENERGY	Experimental Investigation Of Turbulent Buoyant Plume & Ceiling Jet Behaviour Using Time Resolved Piv (Triple), Shadowgraph And Quantitative Schlieren	336,660	-	-	(336,660)	-	336,660	-
3	20060028		DAE	DEPARTMENT OF ATOMIC ENERGY	Structure And Sheology Of Suspensions Of Anestropic Nanometric Particles	110	-	-	(110)	-	110	-
4	20120085		DAE	DEPARTMENT OF ATOMIC ENERGY	Dynamics And Phase Behaviour Of Anisotropic Soft Materials	1,056,365	-	-	(1,056,365)	27,636	1,084,001	-
5	2014071		DAE	DEPARTMENT OF ATOMIC ENERGY	Synthesis Of Polymer Nano Composites For Energy Storage Applications	-	13,532	-	13,532	-	-	13,532
6	20120185		DAE	DEPARTMENT OF ATOMIC ENERGY	Complex Bioinspired Systems	1,845,852	-	-	(1,845,852)	-	1,845,852	-
7	2015310		DAE	DEPARTMENT OF ATOMIC ENERGY	Bifunctional Approach To Small Molecule Activation : Towards Sustainable Processes And Products	-	238,543	-	238,543	928,820	689,277	-
8	20090147		DAE	DEPARTMENT OF ATOMIC ENERGY	Dae-Graduate Fellowship Scheme-2009	-	395,084	-	395,084	-	-	395,084
9	20130186		DAE	DEPARTMENT OF ATOMIC ENERGY	Fluorescence Diffuse Optical Tomography For Grading Of Dysplasia In Cervical Cancer Progression	1,148,865	-	-	(1,148,865)	-	1,148,865	-
10	2016110		DAE	DEPARTMENT OF ATOMIC ENERGY	Development Of Frequency Coded Quantum Key Distribution Solutions Suitable For Development On 25 Km Fibre Optic Links	-	897,722		897,722			897,722
11	20070183		DAE	DEPARTMENT OF ATOMIC ENERGY	Transiet Flow Analysis Of Heavy Density Liquid Metal In Spallation Target Of Ads	-	93,887	-	93,887	-	-	93,887
12	20040003		DAE	DEPARTMENT OF ATOMIC ENERGY	Development Of A General Purpose Chl Code	50,059	-	-	(50,059)	-	50,059	-
13	20040270		DAE	DEPARTMENT OF ATOMIC ENERGY	High Performance Surface Engineered Carbon-Carbon Composite For High Temperature Applications	2,552	-	-	(2,552)	-	2,552	-
14	20120243		DAE	DEPARTMENT OF ATOMIC ENERGY	Feasibility Analysis For Flaw Detection In Rotors Using Acoustic Impedance Approach	-	211	-	211	-	-	211
15	20130110		DAE	DEPARTMENT OF ATOMIC ENERGY	Nbim-Pdf To Deepak Grover	-	14,800	-	14,800	-	-	14,800

14	20060069		DAE	DEPARTMENT OF ATOMIC ENERGY	Repair Of Potentiostat	-	15,797	-	15,797	-	-	15,797
17	20090054		DAE	DEPARTMENT OF ATOMIC ENERGY	Powder Metallurgical (Pm) Processing Of Tungsten And Tungsten-Based Alloys For Iter-Like Divertor Components.	-	2,208,416	-	2,208,416	-	-	2,208,416
18	2015390		DAE	DEPARTMENT OF ATOMIC ENERGY	Microstructural And Tribological Characterization Of Stainless Steel 316l Obtained By Modulated Machining	-	3,095,135	1,533,587	4,628,722	3,017,914	-	1,610,808
19	20030341		DAE	DEPARTMENT OF ATOMIC ENERGY	Intrinsic Fluorescence Of Tissues For Diagnosis Of Cancer	2,933	-	-	(2,933)	-	2,933	-
20	20110148		DAE	DEPARTMENT OF ATOMIC ENERGY	Fabrication Of Tunable Wetting Surfaces Based On Responsive Polymers	-	6,998	-	6,998	-	-	6,998
21	2019178		DAE	DEPARTMENT OF ATOMIC ENERGY	Surface Properties Of Weyl Semimetals	-	-	785,150	785,150	88,550	-	696,600
		DAE Total	0	0	0	4,443,350	7,568,751	2,318,737	5,044,092	4,862,470	5,160,809	6,142,643
1	20030360		DBT	DEPARTMENT OF BIOTECHNOLOGY	Cancer Genomics In Drosophila: Areal Time Expression Profiling Of Cancers Of Diverse Genetic Origin	251,803	-	-	(251,803)	-	251,803	-
2	20060343		DBT	DEPARTMENT OF BIOTECHNOLOGY	National Facility For Microarray Genetics And Cell Imaging	919,063	-	-	(919,063)	-	919,063	-
3	2018096		DBT	DEPARTMENT OF BIOTECHNOLOGY	Formate/Nitrite Transport Channel Family: Evolution, Selectivity And Transport Mechanism Using Computational Approach	-	2,315,665	-	2,315,665	2,071,229	-	244,436
4	20060111		DBT	DEPARTMENT OF BIOTECHNOLOGY	Functional Characterization Of Plant Parasitics Nematodes Genes Using The Rna-Mediated Interference(Rnai) Technology	72,487	-	-	(72,487)	-	72,487	-
5	20070042		DBT	DEPARTMENT OF BIOTECHNOLOGY	To Asses The Role Of Adam33 Grene Expression In Diagnosis And Management Of Asthmatics Children: A Case-Control Study	11,469	-	-	(11,469)	-	11,469	-
6	20080151		DBT	DEPARTMENT OF BIOTECHNOLOGY	Understanding The Functional Impact Of Alternative Mrna Splicing In Epilepsy	65,246	-	-	(65,246)	-	65,246	-
7	20060119		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Adual Growth Factors Delivery System For Tissue Engineering	168,906	-	-	(168,906)	-	168,906	-
8	20070054		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Intratumoral Drug Delivery System For The Treatment Of Lung Cancer	413,000	-	-	(413,000)	-	413,000	-
9	2017142		DBT	DEPARTMENT OF BIOTECHNOLOGY	Bioactive Molecule (Tgf Beta 1 And Wnt/Beta-Catenin Inhibitor) Presenting Injectable Double Network Hydrogels For Cartilage Regeneration	-	1,708,543	-	1,708,543	1,665,257	-	43,286
10	2017414		DBT	DEPARTMENT OF BIOTECHNOLOGY	Vaccination And Protection Studies For A Targeted Nanoparticulate Oral Vaccine Against Shigellosis	-	989,655	20,177	1,009,832	1,133,032	123,200	-
11	2018018		DBT	DEPARTMENT OF BIOTECHNOLOGY	Combination Of Egfr Targeting Aptamers And Chemotherapeutic Agent In A Single Stimuli- Responsive Drug Delivery System For Improved Treatment Of Triple Negative Breast Cancer	-	2,005,987	1,723,118	3,729,105	1,966,695	-	1,762,410
12	2018553		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of A Non-Invasive Drug Delivery System For The Treatment Of Posterior Eye Diseases	-	-	3,131,520	3,131,520	1,941,056	-	1,190,464
13	20110357		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Silk Based Advanced Biomaterials For Tissue Engineering Applications Using Cryogelation Technology	11,695	-	-	(11,695)	-	11,695	-
14	20130016		DBT	DEPARTMENT OF BIOTECHNOLOGY	Establishment Of New Generation Technologies For Cell Separation And High Throughput Screening Using Macroporous Polymeric Matrices	14,279	-	-	(14,279)	-	14,279	-
15	20130300		DBT	DEPARTMENT OF BIOTECHNOLOGY	Establishment Of Human Ectopic Liver Tissue In Mice	293,117	-	-	(293,117)	-	293,117	-
16	2016144		DBT	DEPARTMENT OF BIOTECHNOLOGY	Conducting Cryogel As A Potential Biomaterial For Nerve Regeneration	-	755,549	-	755,549	845,573	90,024	-
17	2017437		DBT	DEPARTMENT OF BIOTECHNOLOGY	Developing Bone Active Molecule Functionalized Biomaterials For Prevention/Treatment Of Osteoporotic Fractures	518,738	-	2,681,040	2,162,302	2,292,566	130,264	-
18	20080050		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Metabolics And Organogenesis: An Expression Screening Approach	549,124	-	-	(549,124)	-	549,124	-
19	20130063		DBT	DEPARTMENT OF BIOTECHNOLOGY	Deciphering The Bmp Signaling Network In Developing Bone:An Interdisciplinary Approach Combining Bioinformatic Data Mining Tools Along With Molecular Genetic And Developmental Biology Strategies	896,295	-	-	(896,295)	-	896,295	-
20	20130096		DBT	DEPARTMENT OF BIOTECHNOLOGY	Translational Control Of Maternal Mrnas In Germline Stem Cells	277,473	-	-	(277,473)	-	277,473	-
21	2016388		DBT	DEPARTMENT OF BIOTECHNOLOGY	"Muster-Musculoskeletal Stem Cells Targeting"	470,937	-	-	(470,937)	1,340,948	1,811,885	-
22	2016389		DBT	DEPARTMENT OF BIOTECHNOLOGY	Developmental Biology Inspired Tissue Engineering Protocol For Articular Cartilage	199,177	-	280,281	81,104	80,501	-	603
23	2017176		DBT	DEPARTMENT OF BIOTECHNOLOGY	Investigating The Role Of Bmp Signaling In Pathogenesis Of Osteoarthritis	1,247,543	-	2,010,168	762,625	2,245,338	1,482,713	-
24	2018573		DBT	DEPARTMENT OF BIOTECHNOLOGY	Direct 3d Bioprinting Strategies To Study Articular Cartilage Development And Regenerative Therapy For Osteoarthritis	-	-	2,276,200	2,276,200	1,478,046	-	798,154
25	2019111		DBT	DEPARTMENT OF BIOTECHNOLOGY	Investigating The Molecular Mechanism Of Cartilage Segmentation During Early Chick Embryonic Development	-	-	3,459,177	3,459,177	2,734,663	-	724,514
26	20080190		DBT	DEPARTMENT OF BIOTECHNOLOGY	"Identification And Characterization Of Topographic Guidance Molecules In The Visual Pathway".	585,959	-	-	(585,959)	-	585,959	-
27	20110172		DBT	DEPARTMENT OF BIOTECHNOLOGY	Using A Unique Tool Genetic Tool To Study The Role Of Bmp Ligands In Neurogenesis And Gliogenesis In The Developing Cortex	-	396	-	396	-	-	396
28	2014232		DBT	DEPARTMENT OF BIOTECHNOLOGY	Investigating The Role Of Retinoic Acid Signaling In The Development Of Medical Forebrain Structures	250,066	-	-	(250,066)	-	250,066	-

29	20125113		DBT	DEPARTMENT OF BIOTECHNOLOGY	Functional Characterization Of Metabolism Related Genes (Mrgs) With Restricted Expression In The Developing Vertebrate Nervous System	-	1,101,458	1,396,149	2,497,607	2,996,111	498,504	-
30	20119401		DBT	DEPARTMENT OF BIOTECHNOLOGY	Identification Of The Molecular Mechanism (S) By Which Ilmp Signaling Regulates The Migration Of Mouse Cortical Neurons	-	2,365,084	-	2,365,084	2,631,729	266,645	-
31	20100368		DBT	DEPARTMENT OF BIOTECHNOLOGY	Mechanism Based Peptide Inhibitors Of Huntingtin Fragment Aggregation In Huntigton'S Disease(Hd)	589,920	-	-	(589,920)	-	589,920	-
32	20120029		DBT	DEPARTMENT OF BIOTECHNOLOGY	Understanding Basic Self Assembly Mechanism And Characteristics Of Protein Aggregates For Nanomaterial Applications	520,820	-	-	(520,820)	-	520,820	-
33	20130099		DBT	DEPARTMENT OF BIOTECHNOLOGY	Synthesis, Characterization And Delivery Of Nanoparticles Containing Peptide Inhibitors Of Polyglutamine Aggregation In Huntington'S Disease	1,621,291	-	-	(1,621,291)	-	1,621,291	-
34	20161134		DBT	DEPARTMENT OF BIOTECHNOLOGY	Investigation Of Potential Regulatory Mechanism Involved In Agr1 Mediated Breast Cancer Progression And Metastasis	-	385,582	80,392	465,974	465,974	-	-
35	20171150		DBT	DEPARTMENT OF BIOTECHNOLOGY	Deciphering The Roles Of Mycobacterial "Sos" Response Regulated Toxin-Antitoxin (Vapbc40) Module In Persistence And Antibiotic Resistance	-	295,615	790,828	1,086,443	1,039,332	-	47,111
36	20163154		DBT	DEPARTMENT OF BIOTECHNOLOGY	Targeted Disruption Of B-Arrestin Signalingin Selected Cancer Cell Lines Using Synthetic Antibody Fragments	-	555,678	181	555,859	541,875	-	13,984
37	20185137		DBT	DEPARTMENT OF BIOTECHNOLOGY	Structural Basis Of Activation, Signaling And Regulation Of The Human Complement Receptor, C5ar1:A Gpcr Drug Target In Sepsis And Inflammation	-	9,161,280	-	9,161,280	1,785,176	-	7,376,104
38	20185172		DBT	DEPARTMENT OF BIOTECHNOLOGY	Functional Reconstitution Of C5ar1-Beta-Arrestin Complex For Cryo-Em Based Structural Analysis	-	-	500,000	500,000	508,347	8,347	-
39	20153195		DBT	DEPARTMENT OF BIOTECHNOLOGY	Role Of Neural Oscillations In The Processing Of Behaviorally Salient Odors By The Mosquito Brain	88,005	-	-	(88,005)	18,200	106,205	-
40	20142182		DBT	DEPARTMENT OF BIOTECHNOLOGY	Dissecting The Molecular Regulators Of Blood Induced Joint Damage To Develop Targeted Gene Transfer Strategies For Haemophilia	1,015,669	-	-	(1,015,669)	-	1,015,669	-
41	20142183		DBT	DEPARTMENT OF BIOTECHNOLOGY	Efficacy Of Bio-Engineered Adeno-Associated Virus Serotype 8 Vectors For The Potential Gene Therapy Of Haemophilia A	45,484	-	-	(45,484)	-	45,484	-
42	20150170		DBT	DEPARTMENT OF BIOTECHNOLOGY	Modulation Of Adeno - Associated Virus (Aav) Replication By Host Cell Transcriptional Repressors: Pharmacologic And Rnai Interference To Improve Aav Vector Delivery During Gene Therapy	2,354,059	-	2,291,043	(63,016)	-	63,016	-
43	20162109		DBT	DEPARTMENT OF BIOTECHNOLOGY	Exploiting Adeno-Associated Virus Modulated Host Cellular Microrna ome To Improve Its Therapeutic Gene Transfer	880,195	-	1,655,000	774,805	661,593	-	113,212
44	20162109		DBT	DEPARTMENT OF BIOTECHNOLOGY	Targeted Delivery Of Human Coagulation Factor Vii In Myeloid Compartment.....Adeno-Associated Virus (Aav) Vectors	209,702	-	61,100	(148,602)	366,436	515,038	-
45	20191137		DBT	DEPARTMENT OF BIOTECHNOLOGY	A Triple Approach Of Muscle Sense And Stem Cell Therapy For Early Intervention To Weakening Muscle After Chemotherapy	-	-	-	-	829,216	829,216	-
46	20191142		DBT	DEPARTMENT OF BIOTECHNOLOGY	Do Mapk Direct Motors To Choose Specific Highways? Regulation Of Cellular Transport Machinery Probed By Super-Resolution Microscopy	-	-	-	-	579,547	579,547	-
47	20191132		DBT	DEPARTMENT OF BIOTECHNOLOGY	Single Molecule Imaging Of Nipah Virus Entry	-	-	1,050,000	1,050,000	807,339	-	242,661
48	20194480		DBT	DEPARTMENT OF BIOTECHNOLOGY	Role Of Trp Channels In Thermosensation And As Therapeutic Targets For The Cancer	-	-	1,050,000	1,050,000	513,500	-	536,500
49	20191631		DBT	DEPARTMENT OF BIOTECHNOLOGY	Temperature-Sensitive Trp Ion Channels As Biological Thermometers To Gauge The Pain	-	-	1,631,520	1,631,520	100,000	-	1,531,520
50	20070160		DBT	DEPARTMENT OF BIOTECHNOLOGY	Generation And Characterisation Of Neuronal And Nonneuronal Cell Of The Nervous System From The Human Umbilical Cord	354,009	-	-	(354,009)	-	354,009	-
51	20193117		DBT	DEPARTMENT OF BIOTECHNOLOGY	Unlocking Wastewater Treatment Water Re-Use And Resource Recovery Opportunities For Urban And Peri-Urban Areas In India	-	-	19,979,200	19,979,200	945,771	-	19,033,429
52	20130154		DBT	DEPARTMENT OF BIOTECHNOLOGY	Diagnosis Of Cancer Using Fluorescence Lifetime Imaging	654,119	-	-	(654,119)	-	654,119	-
53	20150113		DBT	DEPARTMENT OF BIOTECHNOLOGY	Biocompatible Delivery And Nanocarrier Systems	257,267	-	-	(257,267)	-	257,267	-
54	20160119		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Transition Metal-Doped Carbon Nanofiber-Based Biosensor For The Detection Of Glucose Cholesterol And Creatinine In Human Blood	325,218	-	100,000	(225,218)	80,200	305,418	-
55	20171170		DBT	DEPARTMENT OF BIOTECHNOLOGY	Joint Research Project "Daphne; Delhi Air Pollution Health And Effects'	-	226,701	1,856,586	2,083,287	2,758,623	675,336	-
56	20185196		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Biodegradable P	-	-	1,724,000	1,724,000	585,083	-	1,138,917
57	20110104		DBT	DEPARTMENT OF BIOTECHNOLOGY	Immobilized Enzyme Membrane Reactor For Conversion Of Lactose To Galacto Oligosaccharides (Gos)	132,710	-	-	(132,710)	-	132,710	-
58	20110101		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Micro/Nano Carbon Fibers As Support For Enzyme Immobilization And Separation Of Amino Acids From Aqueous Systems	8,700	-	-	(8,700)	-	8,700	-
59	20100104		DBT	DEPARTMENT OF BIOTECHNOLOGY	Targeted Multifunctional Polymer Capsules: A Versatile Drug Carrier And Bioimaging Agent	1,766,819	-	-	(1,766,819)	-	1,766,819	-
60	20172119		DBT	DEPARTMENT OF BIOTECHNOLOGY	Nuclear Specific Delivery Of Anticancer Drug Via Ligand-Free Pdms Nanoparticles	-	1,052,037	-	1,052,037	1,978,236	926,199	-

61	2015340		DBT	DEPARTMENT OF BIOTECHNOLOGY	Mechanism Of Antibiotic Resistance By Class-C Beta Lactamase And Ndm-1	-	135,618	-	135,618	103,013	-	32,605
62	2019536		DBT	DEPARTMENT OF BIOTECHNOLOGY	Cyclic Prodrugs Triggered By Chemical Or Photocaged For Spatiotemporally Controlled Degradation Of Intracellular Proteins In Cancer	-	-	1,687,200	1,687,200	100,000		1,587,200
63	20130255		DBT	DEPARTMENT OF BIOTECHNOLOGY	Development Of Mri Compatible Nerve Stimulator To Understand The Underlying Mechanism In Neuro Modulation	250,325	-	-	(250,325)	-	250,325	-
64	2019049		DBT	DEPARTMENT OF BIOTECHNOLOGY	Brain Computer Interface For Communication In Completely Locked In State Patients	-	-	2,177,548	2,177,548	2,177,548	-	-
65	20100005		DBT	DEPARTMENT OF BIOTECHNOLOGY	A Predictive Model Of Aneurysm Development In An Arterial Bifurcation	44,945	-	-	(44,945)	-	44,945	-
66	2014172		DBT	DEPARTMENT OF BIOTECHNOLOGY	Seamless Affordable Assistive Technology For Health (Saath)	-	983,038	-	983,038	-	-	983,038
67	20080106		DBT	DEPARTMENT OF BIOTECHNOLOGY	Integrated Dielectrophoresis Based Concentration And Real Time Pcr Based Identification Of Food Pathogens In A Single Microchip	146,813	-	-	(146,813)	-	146,813	-
68	20120130		DBT	DEPARTMENT OF BIOTECHNOLOGY	A Novel Biosensor For Rapid And Sensitive Detection Of Micro-Organisms In Food And Water Samples Using Novel Nonmaterial	742,765	-	-	(742,765)	-	742,765	-
69	2015034		DBT	DEPARTMENT OF BIOTECHNOLOGY	Membrane Curvature Sensing And Generation By Proteins In Lipid Bilayer Membrane	423,836	-	-	(423,836)	-	423,836	-
70	20090134		DBT	DEPARTMENT OF BIOTECHNOLOGY	Sintering, Properties And In Vitro Characterization Of Hydroxyapatite-Titanium Composites	-	93,691	-	93,691	-	-	93,691
71	2015308		DBT	DEPARTMENT OF BIOTECHNOLOGY	Programme Support On Translational Research On Biomaterials For Orthopaedic And Dental Applications	-	67,558	65,000	132,558	74,939	-	57,619
72	20110178		DBT	DEPARTMENT OF BIOTECHNOLOGY	Ultrastructural Approach To Assemble And Manipulate Spindle And Actin: Understanding Cell Division Through Experiment And Modeling	829,013	-	-	(829,013)	-	829,013	-
		DBT Total	0	0		20,477,661	24,201,134	53,675,428	57,398,902	42,447,692	22,599,644	37,550,854
1	20090182		DCHC	DC,HANDI CRAFT	Process Development Of Natural Dying In Chikan Embroidery Handicrafts	602,995	-	-	(602,995)	-	602,995	-
		DCHC Total	0	0		602,995	-	-	(602,995)	-	602,995	-
1	20080193		DOWS	DEPARTMENT OF DRINKING AND WATER SUPPLY	Salinity And Trace Elements Associated With Water Reuse In Irrigated System: Processes,Sampling Protocols Remediations Technology And Site Specific Management----Industrial Area Of Kanpur And Unnao	14,051	-	-	(14,051)	-	14,051	-
		DOWS Total	0	0		14,051	-	-	(14,051)	-	14,051	-
1	20120318		DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	Development Of Personalised And Performance Based E-Learning Tool For Editing E-Resources	22,334	-	-	(22,334)	-	22,334	-
2	2014002		DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	Multi Mobile Wireless Sensor Networks In Tracking And Surveillance	2,478,405	-	2,478,405	-	-	-	-
3	2014090		DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	Control Of Cyber-Physical Systems- Applications To Smart Grid And Formation Of Uavs"	2,131,784	-	-	(2,131,784)	63,203	2,194,987	-
4	2015350		DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	Special Manpower Development Programme For Chips To System Design	-	1,843,955	2,153,114	3,997,069	1,276,399	-	2,720,670
5	2014948		DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	Centre Of Excellence For Large Area Flexible Electronics	-	94,051,402	101,251,764	195,303,166	160,917,872	-	34,385,294
		DEITY Total	0	0		4,632,523	95,895,357	105,883,283	197,146,117	162,257,474	2,217,321	37,105,964
1	2018551		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Kritanam Technologies Private Limited	-	-	3,000,000	3,000,000	3,000,000	-	-
2	2019028		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Inigmus Biotech Private Limited	-	-	1,500,000	1,500,000	1,500,000	-	-
3	2019031		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Ekaq Educational Services Private Limited	-	-	2,499,000	2,499,000	2,499,000	-	-
4	2019033		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Agriculture Grand Challenge	-	-	691,251	691,251	772,564	81,313	-
5	2019040		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Roupe Lifesciences Private Limited	-	-	3,000,000	3,000,000	3,000,000	-	-
6	2019104		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Bioscan Research Private Limited	-	-	2,250,000	2,250,000	2,250,000	-	-
7	2019177		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Saptkrishi Scientific Pvt Ltd	-	-	1,500,000	1,500,000	1,500,000	-	-
8	2019205		DFID	DEARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),	Satsure Analytics India Private Limited	-	-	2,500,000	2,500,000	2,500,000	-	-
		DFID Total	0	0		-	-	16,940,251	16,940,251	17,021,564	81,313	-
1	2015554		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Invent Incubator	-	11,774,345	1,854,286	13,628,631	13,628,631	-	-
2	2017068		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Promorph Solutions Seed Fund	-	181,433	-	181,433	-	-	181,433
3	2017195		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Inintel Techindia Seed Fund	-	-	2,999,959	2,999,959	2,999,959	-	-

4	2017262		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Taank Brothers Ventures Private Limited	-	1,000,000	(500,000)	500,000	500,000	-	-
5	2017397		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Jb Infolabs Private Limited (Invent Program)	-	3,000,000	-	3,000,000	3,000,000	-	-
6	2018085		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Villarnart Private Limited	-	600,000	-	600,000	600,000	-	-
7	2018086		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Delmos Research Private Limited	-	1,250,000	(305,000)	945,000	945,000	-	-
8	2018250		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Incredible Devices Private Limited	500,000	-	500,000	-	-	-	-
9	2018434		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Doorastha Analytics Pvt Ltd	-	-	1,300,000	1,300,000	1,299,962	-	38
10	2018435		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Alkya Organics Private Ltd.	-	2,000,000	-	2,000,000	2,000,000	-	-
11	2018492		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Aarna Biomedical Products Private Limited	-	-	1,492,506	1,492,506	1,492,506	-	-
12	2018494		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	Nocca Robotics Private Limited	-	-	3,000,000	3,000,000	3,000,000	-	-
13	2018495		DFIDE	DFID EXECUTOR VILGRO INNOVATION FOUNDATION	M3 Toilet Resources India Private Limited	-	-	4,999,950	4,999,950	4,999,950	-	-
		DFIDE Total	0	0	0	500,000	19,805,778	15,141,701	34,447,479	34,266,008	-	181,471
1	20090351		DIT	DEPARTMENT OF INFORMATION TECHNOLOGY	Biometric System Development	42,325	-	42,325	-	-	-	-
		DIT Total	0	0	0	42,325	-	42,325	-	-	-	-
1	2018017		DMSRD	DEFENCE MATERIAL & STORES RESEARCH & DEVELOPMENT ESTABLISHMENT	Quantitative Estimation Of Leached Nanomaterials From Filtration Membrane To Drinking Water And To Device Mechanism To Stop This Discharge	123,495	-	-	(123,495)	164,361	287,856	-
		DMSRD Total	0	0	0	123,495	-	-	(123,495)	164,361	287,856	-
1	2019273		DMSRDE	DMSRDE, KANPUR	Technical Services To Dmsrde	-	-	(64,012)	(64,012)	99,700	163,712	-
2	2019094		DMSRDE	DMSRDE, KANPUR	Studies On Mechanical Behaviour Of Radar Absorbing Structural Composites (Ras)	-	-	500,000	500,000	590,598	90,598	-
3	2019093		DMSRDE	DMSRDE, KANPUR	Studies On Adhesion Characteristics Of Radar Adsorbing Structural Composite (Ras)	-	-	500,000	500,000	710,611	210,611	-
4	20050003		DMSRDE	DMSRDE, KANPUR	Development Of Nanoparticle Reinforced Transparent Composites Of High Impact Property	430,589	-	-	(430,589)	-	430,589	-
5	20110025		DMSRDE	DMSRDE, KANPUR	Studies On Shear Thickening Fluids	165,375	-	-	(165,375)	-	165,375	-
6	2019141		DMSRDE	DMSRDE, KANPUR	One Dimensional Model For The Study Of Oxidation Modeling Of Pcs Fibre On Stationary Cylinder Roll	-	-	300,000	300,000	394,000	94,000	-
7	2018110		DMSRDE	DMSRDE, KANPUR	Development Of Rapid Decontamination Membrane And Its Remote Monitoring	128,980	-	-	(128,980)	29,000	157,980	-
8	2017272		DMSRDE	DMSRDE, KANPUR	Fabrication Of Sers Sensors And Their Characterization (No Tr/0569/Drm 557/Cars 106 Dated 11/09/2017)	243,644	-	425,000	181,356	177,007	-	4,349
9	2019417		DMSRDE	DMSRDE, KANPUR	Development Of Nano Ink Of Binary And Ternary Semiconductor Materials Their Thin Films And Evaluation Of Their Optoelectronic Properties	-	-	360,000	360,000	40,566	-	319,434
		DMSRDE Total	0	0	0	968,588	-	2,029,988	1,052,400	2,041,482	1,312,865	323,783
1	20000196		DOE	DEPARTMENT OF ELECTRONICS	Learning Module Preparation (Lmp) Under Doe-Visl Project	323,451	-	-	(323,451)	-	323,451	-
		DOE Total	0	0	0	323,451	-	-	(323,451)	-	323,451	-
1	20175508		DOT	DEPARTMENT OF TELECOMMUNICATIONS	Indigenous 5g Test Bed Design	-	13,221,877	53,555,956	66,777,833	45,827,418	-	20,950,415
		DOT Total	0	0	0	-	13,221,877	53,555,956	66,777,833	45,827,418	-	20,950,415
1	2014334		DPCC	DELHI POLLUTION CONTROL COMMITTEE	Air Quality Sampling And Source Apportionment In Ncr(Outside Delhi)	-	4,819	-	4,819	-	-	4,819
		DPCC Total	0	0	0	-	4,819	-	4,819	-	-	4,819
1	20100201		DRDL	DEFENCE RESEARCH AND DEV LAB.	Experimental Studies On Spray Characteritation	102,955	-	-	(102,955)	-	102,955	-
2	2019282		DRDL	DEFENCE RESEARCH AND DEV LAB.	Wind Tunnel Testing Og Sm-C1 Configuration	-	-	779,978	779,978	129,996	-	649,982
		DRDL Total	0	0	0	102,955	-	779,978	677,023	129,996	102,955	649,982
1	20060239		DRDO	DEFENCE R & D ORGANISATION	Development Of Polymers Composites Foroptical Data Storage	2,000	-	-	(2,000)	-	2,000	-
2	20100265		DRDO	DEFENCE R & D ORGANISATION	Smart Hybrid Structure For Flapping Wing Studies And Its Application To Micro Air Vehicles	613,808	-	613,808	-	-	-	-
3	20100266		DRDO	DEFENCE R & D ORGANISATION	Theoretical And Computational Studies Of Micav	169,920	-	169,920	-	-	-	-
4	20100303		DRDO	DEFENCE R & D ORGANISATION	Aerodynamic Characterization And Performance Estimations Through Flight Test	84,019	-	84,019	-	-	-	-
5	20080230		DRDO	DEFENCE R & D ORGANISATION	Experimental Studies Of Coke Formation In Liquid Fuel Scramjet Application	135,987	-	-	(135,987)	-	135,987	-
6	2018015		DRDO	DEFENCE R & D ORGANISATION	Mechanical And Adhesion Characterization Of Radar Absorbing Paint Coatings	-	130,156	234,000	364,156	314,086	-	50,070
7	2016495		DRDO	DEFENCE R & D ORGANISATION	Collaborative Marsupial Flying Robots For Advanced Indoor Outdoor Perception	-	286,245	3,066	289,311	289,311	-	-
8	2015375		DRDO	DEFENCE R & D ORGANISATION	Off Design Engine Modeling Of Aero Engines	898,133	-	898,133	-	-	-	-

9	20030017		DRDO	DEFENCE R & D ORGANISATION	Measurement Of Refractive Index Of Turbid Suspensions: Design Of A Refractometer Using Optical Fiber As Sensor	15,160	-	-	(15,160)	-	15,160	-
10	20070121		DRDO	DEFENCE R & D ORGANISATION	Total Synthesis Of All The Chiral Forms Of Pentenocin B	381,622	-	-	(381,622)	-	381,622	-
11	2015334		DRDO	DEFENCE R & D ORGANISATION	Bio Inspired Assertion Modeling For Anomalous Event Analysis	720,816	-	-	(720,816)	-	720,816	-
12	2018526		DRDO	DEFENCE R & D ORGANISATION	Automated Synthesis Of Motion Plans For Large Scale Multi-Robot Systems From Complex Specifications	-	5,061,400	1,289,680	6,351,080	810,084	-	5,317,116
13	2015273		DRDO	DEFENCE R & D ORGANISATION	Photodiode Arrays For Near Infrared Detection And Tracking	-	443,033	42,097	485,130	485,130	-	-
14	20080119		DRDO	DEFENCE R & D ORGANISATION	Neural Network Based Visual Motor Coordination Of A 7 Dof Redundant Manipulator And Fpga Implementation Of Neural Control Algorithms	21,777	-	-	(21,777)	-	21,777	-
15	2019325		DRDO	DEFENCE R & D ORGANISATION	Development Of A Vision Based Autonomous Quadrotor System For Rescue And Search Operation	-	-	2,794,000	2,794,000	290,000	-	2,504,000
16	2017099		DRDO	DEFENCE R & D ORGANISATION	Design Of Conformal Microwave Metamaterial Absorber	140,720	-	781,800	644,080	1,448,668	804,588	-
17	2019357		DRDO	DEFENCE R & D ORGANISATION	Complex Defense Object Recognition And Autonomous Handling In Unstructured And Noisy Outdoor Environment (Phase-I)	-	-	13,447,000	13,447,000	1,409,496	-	12,037,504
18	2018481		DRDO	DEFENCE R & D ORGANISATION	Development Of Compact Model For Sopl'S Gan Hemts	-	1,110,000	-	1,110,000	1,159,212	49,212	-
19	20050121		DRDO	DEFENCE R & D ORGANISATION	Cancer Growth And Kanpur Error Theorems	-	1,200	-	1,200	-	-	1,200
20	20130337		DRDO	DEFENCE R & D ORGANISATION	Development Of A Leg Exoskeleton Robot For Soldier Support	485,318	-	-	(485,318)	-	485,318	-
21	20050264		DRDO	DEFENCE R & D ORGANISATION	Elastic And Fracture Characterization Of Functionally Graded Composites	99	-	-	(99)	-	99	-
22	20100122		DRDO	DEFENCE R & D ORGANISATION	Setting Of A Shpb Facility At Tbrl For High Strain Rate Characterization Of Low Impedance Materials	-	2,492	-	2,492	-	-	2,492
23	2016380		DRDO	DEFENCE R & D ORGANISATION	Development Of Magnetic Abrasive Finishing (Maf) Technology For Cnc Machined Diaphragms	202,725	-	-	(202,725)	-	202,725	-
24	2017103		DRDO	DEFENCE R & D ORGANISATION	Feasibility Of Prototyping Of Spectrally Selective Ir Metamaterials With Protective Top Coat At Ascale Of About 10'S Of Cm	219,994	-	478,192	258,198	258,198	-	-
25	2018053		DRDO	DEFENCE R & D ORGANISATION	Rcs Reduction Of A Winged Store Using Metamaterials And Electromagnetic Soft Surfaces	-	32,304	980,003	1,012,307	1,070,585	58,278	-
26	2016114		DRDO	DEFENCE R & D ORGANISATION	Ingazno Based Tft S On Polymer Substrates	603	-	-	(603)	-	603	-
		DRDO Total	0	0	0	4,092,601	7,064,830	21,613,638	24,585,867	7,556,670	2,878,185	19,906,382
1	2013363		DSIR	DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH	Promoting Innovations In Individuals, Start-Ups And Msmes (Prism) Scheme Of Dsir	13,816	-	-	(13,816)	-	13,816	-
2	2017102		DSIR	DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH	Prism Operating Account (2017)	-	-	131,150	131,150	131,111	-	39
3	2018097		DSIR	DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH	Prism	-	-	61,000	61,000	-	-	61,000
		DSIR Total	0	0	0	13,816	-	192,150	178,334	131,111	13,816	61,039
1	20060305		DST	DEPARTMENT OF SC.& TECHNOLOGY	Financial Assistance To The Department Of Aerospace Engineering Iit Kanpur On Fist Program	-	904,782	-	904,782	-	-	904,782
2	20030214		DST	DEPARTMENT OF SC.& TECHNOLOGY	Swarnajayanti Fellowship	153,337	-	-	(153,337)	-	153,337	-
3	2017497		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Programme Of Ae	-	26,780,283	5,627,535	32,407,816	29,939,260	-	2,468,556
4	2018456		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of An Axial Flow Turbine Test Rig	-	1,574,518	-	1,574,518	1,551,681	-	22,837
5	2019102		DST	DEPARTMENT OF SC.& TECHNOLOGY	An Experimental Investigation On Shock Wave Focusing And Associated High Tehmperature Radiating Flowfield	-	-	1,663,300	1,663,300	2,207,935	-	955,445
6	20040026		DST	DEPARTMENT OF SC.& TECHNOLOGY	A High Throughput Genetic Screen And Characterization Of Tumor Suppressonrs/Negative Regulators Of Growth In Drosophila	153,460	-	-	(153,460)	-	153,460	-
7	20090218		DST	DEPARTMENT OF SC.& TECHNOLOGY	India Uk Science Bridge: Biopharm 2020- Entrepreneurial Opportunities For Indian & Uk Scientists In The Pharmaceutical And Biotechnological Industries	2,759,638	-	-	(2,759,638)	-	2,759,638	-
8	2018213		DST	DEPARTMENT OF SC.& TECHNOLOGY	Modelling Squamous Cell Carcinoma (Scc) In Drosophila Male Accessory Gland (Mag)	-	13,897	106,097	119,994	815,483	695,489	-
9	2015183		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Support To Bsbe	-	16,670,271	273,000	16,943,271	-	-	16,943,271
10	2018153		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of A Nanoparticulate Drug (Bevacizumb) Delivery System For The Non-Invasive Treatment Of Diabetic Retinopathy	-	1,736,000	667,037	2,403,037	1,943,398	-	459,639
11	2018282		DST	DEPARTMENT OF SC.& TECHNOLOGY	Rectification Of Adipose Stem Cell Dysfunction In Osteoarthritis For Autologous Stem Cell Therapy	-	786,825	-	786,825	1,101,086	314,261	-
12	20070212		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Molecularly Imprinted Biomaterials For Cholesterol Recognition	-	84,164	-	84,164	-	-	84,164
13	2014093		DST	DEPARTMENT OF SC.& TECHNOLOGY	Construction Of A Novel Bioartificial Liver Support System	49,507	-	-	(49,507)	-	49,507	-
14	2016021		DST	DEPARTMENT OF SC.& TECHNOLOGY	Community Based Integrated Water Filter System For Clean Drinking Water	-	66,922	-	66,922	-	-	66,922
15	2016131		DST	DEPARTMENT OF SC.& TECHNOLOGY	Agarose Based Wound Dressing	827,592	-	-	(827,592)	687,572	1,515,164	-
16	2018101		DST	DEPARTMENT OF SC.& TECHNOLOGY	Technological Innovations In Regenerative Medicine With New Functional Biomaterials Combating Increased Bacterial Resistance In Emerging Bone And Joint Infections	-	281,694	-	281,694	1,347,813	1,066,119	-
17	2019143		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Multi Functional Nano-Hap Bone Substitute For Effective Bone Regeneration In Critical Defects	-	-	3,711,520	3,711,520	200,000	-	3,511,520
18	20070080		DST	DEPARTMENT OF SC.& TECHNOLOGY	Identification And Functional Characterization Of Bmp-Target Genes In Osteogenesis	247,225	-	-	(247,225)	-	247,225	-

19	2016093		DST	DEPARTMENT OF SC.& TECHNOLOGY	Investigating The Molecular Mechanism,Downstream Of Wnt Signaling, Of Articular Cartilage Differentiation	1,817,418	-	1,910,348	92,930	285,844	193,914	-
20	20070998		DST	DEPARTMENT OF SC.& TECHNOLOGY	An Investigation Of The Role Of Retinoic Acid Signaling In Development Of The Hippocampus	182,463	-	-	(182,463)	-	182,463	
21	20110173		DST	DEPARTMENT OF SC.& TECHNOLOGY	Characterization Of Reelenic Acid Signaling In The Developing Chick Optic Tectum	38,723	-	26,911	(11,813)	-	11,812	-
22	2016156		DST	DEPARTMENT OF SC.& TECHNOLOGY	Evaluating Therapeutic Potential Of Polyglutamine Aggregation Peptide Inhibitors Through Nanoparticle-Based Delivery Approach In Huntingaton'S Disease	1,525,036	-	1,868,553	343,517	1,067,727	724,210	-
23	2017334		DST	DEPARTMENT OF SC.& TECHNOLOGY	Probing The Ligand Binding And Structural Dynamics Of An Enigmatic Human Chemokine Receptor, The D6r By Nmr	-	345,682	624,776	970,458	119,876	-	850,582
24	20185.95		DST	DEPARTMENT OF SC.& TECHNOLOGY	Understanding The Structural Basis Of Biased Epor Signaling To Develop Novel Therapeutics With Minimized Side-Effects	-	1,149,120	1,000,000	2,149,120	1,083,870	-	1,065,250
25	2014284		DST	DEPARTMENT OF SC.& TECHNOLOGY	Optimized Adeno Associated Virus Mediated Gene Transfer Strategies For Phenotypic Correction Of Haemophilia	1,948,836	-	-	(1,948,836)	-	1,948,836	-
26	2017145		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Hybrid Nanoparticle-Viral Vector System For Targeted Gene Transfer In Acute Myeloid Leukemia	-	1,025,684	67,877	1,093,561	1,219,425	125,864	-
27	20040203		DST	DEPARTMENT OF SC.& TECHNOLOGY	Receptor Tyrosine Kinase (Ptk) Signaling In Cancer: Exploring Its Links With Scrib And Other Components Of Lateral Cellmembranein The Drosophila Model.	-	100,570	-	100,570	-	-	100,570
28	2015011		DST	DEPARTMENT OF SC.& TECHNOLOGY	Multi Sensor Approach For Land Slide Monitoring	-	128,362	-	128,362	117,040	-	11,322
29	2016056		DST	DEPARTMENT OF SC.& TECHNOLOGY	Information Fusion Of Hyperspectral And Other Data Sets For Modeling Of Snow Hydrological Potential	228,726	-	806,616	575,890	415,130	-	160,760
30	2019123		DST	DEPARTMENT OF SC.& TECHNOLOGY	National Center Of Excellence In Geodesy	-	-	121,253,504	121,253,504	9,460,635	-	111,792,869
31	20080127		DST	DEPARTMENT OF SC.& TECHNOLOGY	Reconstruction Of Monsoonal Rainfall From Late Quaternary Ganga And Yamuna Alluvial Plain By Stable Isotope Tracers:Implication To Climate Forcing On Vegetation And River Response	-	22,074	-	22,074	-	-	22,074
32	20090279		DST	DEPARTMENT OF SC.& TECHNOLOGY	Morphotectonic Variability Along The Nw Himalayan Front: Tectonics-Climate Coupling	20,760	-	-	(20,760)	-	20,760	-
33	20130041		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indnor: Hydrologic Sensitivity To Cryosphere-Aerosol Interaction In Mountain Processes (Hycamp)	213,699	-	-	(213,699)	-	213,699	-
34	2017358		DST	DEPARTMENT OF SC.& TECHNOLOGY	Gis And Soft Computing Based Land Consolidation System	-	330,037	6,550	336,587	429,889	93,302	-
35	2015223		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Program	-	16,085,858	-	16,085,858	3,000,000	-	13,085,858
36	2017165		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indu-Uk Joint Project Entitled: Towards An Integrated Approach For Assessing The Impact Of Climatic Stresses On Agriculture And The Exchange Of Green House Gas On The Igp	332,335	-	2,301,407	1,969,072	915,900	-	1,053,172
37	20060221		DST	DEPARTMENT OF SC.& TECHNOLOGY	Use Of Dic Technique For Strain Localization Analysis Of Clay Specimens With Controlled Microfabric Under Cyclic Loading Conditions	-	9,589	-	9,589	-	-	9,589
38	2015111		DST	DEPARTMENT OF SC.& TECHNOLOGY	Investigation Of Combustion And Soot Process In A Compression Ignition Engine Fueled With Biodiesel	300,381	-	327,629	25,248	25,248	-	-
39	20110103		DST	DEPARTMENT OF SC.& TECHNOLOGY	Investigation On Seismic Response Of Two Closely Placed Shallow Ground Anchors	399,480	-	399,480	-	-	-	-
40	20100277		DST	DEPARTMENT OF SC.& TECHNOLOGY	Response Modification Of Nonstructural Components Due To Nonlinear Behaviour Of Supporting Structures	36,170	-	-	(36,170)	-	36,170	-
41	20110300		DST	DEPARTMENT OF SC.& TECHNOLOGY	Analysis Of Size-Segregated Composition And Distribution Of Organic Compounds On Ambient Air Particles: Season Variations In Urban Environment In Northern India	-	3,237	-	3,237	-	-	3,237
42	2016157		DST	DEPARTMENT OF SC.& TECHNOLOGY	Geochemical Processes Governing In Situ Remediation Of Fluoridebearing Groundwater Using Suitable Chemical Amendments	-	840,791	-	840,791	645,219	-	195,572
43	2018221		DST	DEPARTMENT OF SC.& TECHNOLOGY	Macroscopic Hydraulic Modelling Of Urban Flood Inundation	-	1,551,195	-	1,551,195	389,732	-	1,161,463
44	20070158		DST	DEPARTMENT OF SC.& TECHNOLOGY	Investigation Of The Crystalline Re3+:Yag Fibres For Dosimetry	-	114,728	-	114,728	-	-	114,728
45	2017381		DST	DEPARTMENT OF SC.& TECHNOLOGY	Metal Nanoclusters In Nanoscience Applications	-	427,500	31	427,531	85,500	-	342,031
46	2016206		DST	DEPARTMENT OF SC.& TECHNOLOGY	Sticky Re-Usable Adhesive Pads For Variety Of Applications	-	42,451	66,042	108,493	2,209,033	2,100,540	-
47	2016329		DST	DEPARTMENT OF SC.& TECHNOLOGY	Carbon Bead-Supported Carbon Nanofibers Immobilized With Photocatalysts For The Treatment Of The Effluent Water From Pharmaceutical Industries	1,784,051	-	2,112,181	328,130	417,012	88,882	-
48	20110307		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synthesis, Functionalization, Characterization And Application Of Novel Carbon Nanomaterials For The Removal Of Arsenic From Contaminated Ground Water	-	12,258	-	12,258	-	-	12,258
49	2005-0076		DST	DEPARTMENT OF SC.& TECHNOLOGY	Unit On Nano-Science & Technology	-	216,391	-	216,391	-	-	216,391
50	20110314		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dye Sensitized Hybrid Solar Cells With Up-Conversion Nanostructures For Enhanced Efficiency	908,356	-	-	(908,356)	-	908,356	-
51	20110164		DST	DEPARTMENT OF SC.& TECHNOLOGY	Thematic Unit Of Excellence On Soft Nanofabrication With Applications In Energy, Environment And Bioplatforms At The Indian Institute Of Technology, Kanpur	9,234,225	-	-	(9,234,225)	24,528	9,258,753	-
52	2017507		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Novel Materials And Methods For The Removal Of Recalcitrant Organics From Water	-	101,752	55	101,807	496,199	396,392	-

53	20120260		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nano-Patterned Conductive Adhesive For Metal-Polymer Inter-Connectors In Solar Cell	313,670	-	-	313,670	-	-	-	-
54	2014223		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Programme	-	7,853,218	-	7,853,218	8,589,462	736,244	-	-
55	2013385		DST	DEPARTMENT OF SC.& TECHNOLOGY	Molecular Simulation Study Of The Wetting Behaviour S Of Polymer Grafted Silica Surfaces	90,443	-	-	(90,443)	-	90,443	-	-
56	2012294		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nucleation On Nanostructured Surfaces Computer Simulation Studies	-	113,677	-	113,677	207,647	93,970	-	-
57	20100263		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Computational Study Of Crystalline Wetting Behaviour On Smooth And Patterned Sub-Strates	122,581	-	-	(122,581)	-	122,581	-	-
58	20120062		DST	DEPARTMENT OF SC.& TECHNOLOGY	Self Assembly Of Two Dimensional Colloidal Crystals In Langmuir Monolayers At The Air Water Interface	233,143	-	-	(233,143)	-	233,143	-	-
59	20130250		DST	DEPARTMENT OF SC.& TECHNOLOGY	Multifunctional Paramagnetic Nanoparticles-Loaded Polymer Capsules For Mri Imaging Applications	495,101	-	-	(495,101)	-	495,101	-	-
60	2015066		DST	DEPARTMENT OF SC.& TECHNOLOGY	Target-Specific Nanomaterials As Contrast Agents For High Precision Multimodal Bioimaging Applications	154,019	-	-	(154,019)	-	154,019	-	-
61	2016452		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development And Scale-Up Of Ultrasmall Nanocatalyts For Hydrodesulfurization	534,189	-	-	(534,189)	249,180	783,369	-	-
62	20130152		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award 2013	1,940,037	-	-	(1,940,037)	-	1,940,037	-	-
63	2016126		DST	DEPARTMENT OF SC.& TECHNOLOGY	Interface Engineering And Development Of Hole-Transporting Materials For Perovskite Solar Cells	-	2,479,350	-	2,479,350	2,257,782	-	221,568	
64	20070127		DST	DEPARTMENT OF SC.& TECHNOLOGY	Preparation Of Carbon Nano-Fibres By Polymers Blend Techniques	-	3,501	-	3,501	-	-	3,501	
65	20090091		DST	DEPARTMENT OF SC.& TECHNOLOGY	Modeling The Active Site Of [Fe]-Hydrogenases Towards Hydrogen Generation Using Synthetic Analogues	192,225	-	-	(192,225)	-	192,225	-	-
66	20100213		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inorganic Hybrid Helicate And Encapsulation Assembly Mimicking Cell And Dna Structure	738,504	-	-	(738,504)	-	738,504	-	-
67	20060072		DST	DEPARTMENT OF SC.& TECHNOLOGY	J C Bose Fellowship	120,000	-	-	(120,000)	-	120,000	-	-
68	20010140		DST	DEPARTMENT OF SC.& TECHNOLOGY	Magnetic Studies Of Technologically Important Nanocrystalline Ferrites And Metal Nitrides Synthesized By Chemical Routes	1	-	-	(1)	-	1	-	-
69	20020266		DST	DEPARTMENT OF SC.& TECHNOLOGY	Structural Chemistry And Inorganic, Organic, Organometallic And Materials Chemistry	548	-	-	(548)	-	548	-	-
70	20050201		DST	DEPARTMENT OF SC.& TECHNOLOGY	Hydrolysis Of Ester By Metal Complexes Of Designed Ligands:Inorganic And Bioinorganic Perpectives	8	-	-	(8)	-	8	-	-
71	20080166		DST	DEPARTMENT OF SC.& TECHNOLOGY	Jc Bose Fellowship	51,123	-	-	(51,123)	-	51,123	-	-
72	20090266		DST	DEPARTMENT OF SC.& TECHNOLOGY	Metal-Coordinated Radicals Bioinorganic And Inorganic Perspectives	84,603	-	-	(84,603)	-	84,603	-	-
73	20040135		DST	DEPARTMENT OF SC.& TECHNOLOGY	Vibrational Spectra: An Ab Initio Study Of Clusters, Van Der Waals And Hydrogen Bonded Complexes.	22,508	-	-	(22,508)	-	22,508	-	-
74	20030023		DST	DEPARTMENT OF SC.& TECHNOLOGY	Modular Synthesis Of Cryptand-Based Nano Structures	664,146	-	-	(664,146)	-	664,146	-	-
75	20050281		DST	DEPARTMENT OF SC.& TECHNOLOGY	Metal-Organic Framework Structures With Transition And Lanthanide Metals:Emission And Guest Inclusion Studies*	23,081	-	-	(23,081)	-	23,081	-	-
76	20100333		DST	DEPARTMENT OF SC.& TECHNOLOGY	Extending The Scope Of Homo-Nazarov Cyclization To 2-Silylmethylcyclopropyl Vinyl Ketones, Exploring Spiroindene Formation To Generate Cycloheptenes	810,895	-	-	(810,895)	-	810,895	-	-
77	20080313		DST	DEPARTMENT OF SC.& TECHNOLOGY	J C Bose Fellowship	-	356,008	-	356,008	282,298	-	73,710	
78	2015296		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist 2015	-	-	15,888,964	15,888,964	15,644,510	-	244,454	
79	2019240		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Japan Joint Project- Frontiers In Molecular Spectroscopy: From Fundamentals To Applications In Chemistry And Biology	-	-	1,008,377	1,008,377	934,215	-	74,162	
80	20020054		DST	DEPARTMENT OF SC.& TECHNOLOGY	New Synthsis Strategies For Small Molecular Heterocycles	67,773	-	-	(67,773)	-	67,773	-	-
81	20050047		DST	DEPARTMENT OF SC.& TECHNOLOGY	Design & Development Of New Multicomponent Coupling Reactions	15,400	-	-	(15,400)	-	15,400	-	-
82	20030216		DST	DEPARTMENT OF SC.& TECHNOLOGY	Swarnajayanti Fellowship Tetrahalobicyclo [2.2.1] Heptone & Tetrahalobicyelo [2.2.2] Octone Devivatives: Stereoselective Inextricable Templates In Natural Product & Designed Target Synthesis	-	951	-	951	-	-	951	
83	20100299		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synthesis Of Shape And Size Controlled Metallic And Oxide Aquasols With Extraordinary Bactericidal Effects	-	108,285	-	108,285	-	-	108,285	
84	20060068		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ordered Peptide Assemblies	1,344,061	-	-	(1,344,061)	-	1,344,061	-	
85	20080233		DST	DEPARTMENT OF SC.& TECHNOLOGY	Kissing- Loop Interactions As Struts For Higher Order Dna Nanoarchitectures	-	76,965	-	76,965	-	-	76,965	
86	20050308		DST	DEPARTMENT OF SC.& TECHNOLOGY	500 Mhz Nuvlear Magnetic Resonance(Nmr) Spectrometer Facility At Department Of Chemistry	-	3,981,546	-	3,981,546	-	-	3,981,546	
87	20060246		DST	DEPARTMENT OF SC.& TECHNOLOGY	Organic Chemistry	22,693	-	-	(22,693)	-	22,693	-	
88	20050329		DST	DEPARTMENT OF SC.& TECHNOLOGY	Studies On Microbial Populations Present In The Vadose Zone In The Kanpur Area Of Indo-Gangetic Plains	-	191,687	-	191,687	-	-	191,687	
89	20090280		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synthetic And Mechanistic Perspectives Of Sn2 Type Ring-Opening Of Aziridines And Azetidines:Asymmetric Transformations Via Dynamic Kinetic Resolution	490,000	-	-	(490,000)	-	490,000	-	
90	2015211		DST	DEPARTMENT OF SC.& TECHNOLOGY	Stereoselective Syntheses Of Biologically Important Aza,Carba And Oxacyclic Compounds Via Enolate Anions And Dianions	320,797	-	-	(320,797)	-	320,797	-	

91	2019007		DST	DEPARTMENT OF SC.& TECHNOLOGY	Computational Ligand Design For Pd-Catalyzed Trifluoromethylation:Theoretical Prediction To Experiment	-	-	2,200,000	2,200,000	2,077,081	-	122,919
92	20070081		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ramanna Fellowship	19,980	-	-	(19,980)	-	19,980	-
93	20080032		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dimetal Compounds Involving N-Heterocyclic Carbenes: Synthesis Characterization And Catalysis	480,566	-	-	(480,566)	-	480,566	-
94	20090002		DST	DEPARTMENT OF SC.& TECHNOLOGY	Swarnajayanti Fellowship And Project	-	20,371	-	20,371	-	-	20,371
95	2015173		DST	DEPARTMENT OF SC.& TECHNOLOGY	Hydrogenation,Dehydrogenation And Dehydrogenative Coupling	9,984	-	-	(9,984)	-	9,984	-
96	20040218		DST	DEPARTMENT OF SC.& TECHNOLOGY	New Organometallic Reagents For Green Chemistry:Reactivity Studies Or Organobismuth Compounds In Organic Synthesis	-	84	-	84	-	-	84
97	20070040		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nhc Based Multi-Site Coordinating Ligand	7,829	-	-	(7,829)	-	7,829	-
98	20090278		DST	DEPARTMENT OF SC.& TECHNOLOGY	Models For The Photosynthetic Reaction Center:Synthesis,Structure,Reactivity And Photophysical Properties Of Porphyrin Dimmers And Rationalization Of Supramolecular Chirality	9,577	-	-	(9,577)	-	9,577	-
99	2016365		DST	DEPARTMENT OF SC.& TECHNOLOGY	Visit Of Prof. Okimoto. Tit, Japan	-	8,106	-	8,106	-	-	8,106
100	2017158		DST	DEPARTMENT OF SC.& TECHNOLOGY	Elucidation Of Synergistic Solvation In Alcohol Chlorinatedmethane Binary Solvent Mixture By Optical Kerr Effect Spectroscopy	37,375	-	-	(37,375)	184,253	221,628	-
101	2017267		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Ultrafast Photo-Functional Materials By Nano-Scale And Femtosecond Structural Dynamics	94,481	-	-	(94,481)	-	94,481	-
102	20120002		DST	DEPARTMENT OF SC.& TECHNOLOGY	Quantum Chemical Investigation On Explicit Hydration Of Molecular Systems	935	-	935	-	-	-	-
103	2016449		DST	DEPARTMENT OF SC.& TECHNOLOGY	Develop A Novel Synthesis Rout For A Key Intermediate - Noroxymorphone	-	253,162	-	253,162	109,306	-	143,856
103	2018197		DST	DEPARTMENT OF SC.& TECHNOLOGY	Label-Free Tracking Of Antibiotics Across Dual-Membrane Envelope Of Live Gram-Negative Bacteria Using Second-Harmonic Light Scattering Technique	-	473,649	18,338	481,987	1,326,773	834,786	-
104	2015244		DST	DEPARTMENT OF SC.& TECHNOLOGY	Controlling Electronic Switching In Organo-Metallic Molecular Patterns At Solid-Liquid Interface Using Scanning Electrochemical Tunneling Microscopy	140,957	-	120,311	(20,646)	120,311	140,957	-
105	20130211		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award	617,991	-	-	(617,991)	-	617,991	-
106	2014169		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synthesis Of Hydrolytically Stable Metal Organic Frameworks By Control Of Inner Surface Hydrophobicity	62,715	-	44,950	(17,765)	-	17,765	-
107	2018430		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ru And Os Complex Catalyzed Activation And Functionalization Of Alkane C-H Bonds	-	1,271,903	349,316	1,621,219	1,707,654	86,435	-
108	2017345		DST	DEPARTMENT OF SC.& TECHNOLOGY	Sustainable Molecular Architecture Through C-H Bond Functionalization	-	516,301	-	516,301	-	-	516,301
109	2019295		DST	DEPARTMENT OF SC.& TECHNOLOGY	Coordination And Redox Chemistry Of Biologically Relevant Ligands	-	-	700,000	700,000	48,070	-	651,930
110	2017179		DST	DEPARTMENT OF SC.& TECHNOLOGY	Advancing Meg Based Brain-Computer Interface Supported Upper Limb Post-Stroke Rehabilitation	-	299,164	372,092	671,256	975,064	303,808	-
111	2017239		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Nano-Bio-Platforms For Early Diagnostics Of Chronic Diseases	-	3,882,673	387,354	4,270,027	7,011,794	2,741,767	-
112	2014174		DST	DEPARTMENT OF SC.& TECHNOLOGY	Innovative Solutions For Deployment Of Sigdata And Disaster Management Applications On Clouds	-	505,670	93,326	598,996	598,996	-	-
113	20110117		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Max Planck Centre For Computer Science (Impcs)	237,798	-	-	(237,798)	-	237,798	-
114	20120060		DST	DEPARTMENT OF SC.& TECHNOLOGY	Algorithms For Data Stream Processing	-	238,496	-	238,496	-	-	238,496
115	2019101		DST	DEPARTMENT OF SC.& TECHNOLOGY	Generation And Labelling Of Lidar Point Cloud For Automatic Classification Through Cnn Approach	-	-	1,000,000	1,000,000	273,586	-	726,414
116	2015232		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Study Of The Complexity Of Graph Reachability Problem	116,529	-	-	(116,529)	136,103	252,632	-
117	2018078		DST	DEPARTMENT OF SC.& TECHNOLOGY	Three Problems In Algebraic Complexity Theory	-	74,628	1,735,371	1,810,999	636,140	-	924,859
118	2015234		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award	-	496,780	146,946	643,726	185,346	-	458,380
119	2016256		DST	DEPARTMENT OF SC.& TECHNOLOGY	Engineering Of Security Hardened Cryptographic Protocols For Critical National Infrastructu	621,691	-	-	(621,691)	53,652	675,343	-
120	20170928		DST	DEPARTMENT OF SC.& TECHNOLOGY	Uk India Clean Energy Research Institute	-	110,534	1,435	111,969	481,435	369,466	-
121	2018068		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Israel Collaborative For Infrastructure Security With Second Generation Anomaly Detection Techniques	-	1,228,600	-	1,228,600	50,000	-	1,178,600
122	2018229		DST	DEPARTMENT OF SC.& TECHNOLOGY	Research & Development Of Smart, Secure, Scalable, Resilient And Adaptive Cyber-Physical Power System (S3rea-Cpps)	-	860,000	7,500	867,500	82,234	-	785,266
123	2018380		DST	DEPARTMENT OF SC.& TECHNOLOGY	Testing The Explanatory Limits Of Limited Value Representations	-	806,000	-	806,000	466,149	-	339,851
124	2017351		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Novel Labelled Electronic Gene Sequencing And Identification System Using Impedance Spectroscopy For Molecular Diagnosis Of Diseases/Food Borne Pathogens	-	22,845	-	22,845	101,746	78,901	-
125	2018181		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inkjet Printed Electrodes Of Graphene Oxide-Metal Oxide Hierarchical Nanostructured Nanocomposites For Improved Energy Density And Power Density Thin Flexible Supercapacitors	-	406,716	544,535	951,251	575,914	-	375,337
126	2018131		DST	DEPARTMENT OF SC.& TECHNOLOGY	Innovation Ecosystem In India	-	990,000	-	990,000	988,653	-	1,347
127	20090329		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ideas-2010 The International Business Plan Competition	100,000	-	-	(100,000)	-	100,000	-
128	20130281		DST	DEPARTMENT OF SC.& TECHNOLOGY	Planar High Gain Antennas Based On Electromagnetic Band Gap Concept	191,804	-	191,804	-	-	-	-

129	20050090		DST	DEPARTMENT OF SC.& TECHNOLOGY	High Speed Coarse Wdm Waveguide Photodiodes By Quantum Well Intermixing	378,963	-	-	(378,963)	-	378,963	-
130	20050318		DST	DEPARTMENT OF SC.& TECHNOLOGY	Research Facilities In The Intelligent Sensors Lab	1,161,344	-	-	(1,161,344)	-	1,161,344	-
131	2014255		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Multi Dimensional Smart Energy Grids Analysis For Indian Scenario	-	1,756	-	1,756	-	-	1,756
132	20110013		DST	DEPARTMENT OF SC.& TECHNOLOGY	Stability And Performance Of Photovoltaic (Stapp)	4,527,711	-	-	(4,527,711)	-	4,527,711	-
133	20090292		DST	DEPARTMENT OF SC.& TECHNOLOGY	India-Uk Advanced Technology Centre (Iu-Atc) Of Excellence In Next Generation Network Systems And Services	-	332,280	-	332,280	-	-	332,280
134	20120273		DST	DEPARTMENT OF SC.& TECHNOLOGY	India-Uk Advanced Technology Centre (Iu Atc Phase 2) Of Excellence In Next Generation Networks Systems And Services	-	69,559	-	69,559	-	-	69,559
135	20050331		DST	DEPARTMENT OF SC.& TECHNOLOGY	Intelligent Control Schemes And Application To Dynamics &Visual Control Of Redundant Manipulators Systems	49,888	-	-	(49,888)	-	49,888	-
136	20090316		DST	DEPARTMENT OF SC.& TECHNOLOGY	Intelligent Visual Control Of Redundant Manipulator Systems For Grasping 3-D Objects	3,474	-	-	(3,474)	-	3,474	-
137	2017213		DST	DEPARTMENT OF SC.& TECHNOLOGY	Learning Robotic Motor Skill, Visual Control And Perception For Warehouse Automation	-	363,432	1,239,626	1,603,058	329,357	-	1,273,701
138	2018309		DST	DEPARTMENT OF SC.& TECHNOLOGY	Intelligent Control Of Multi Robot Systems Based On Serial And Parallel Manipulators In Cyber Physical Framework	-	1,082,209	-	1,082,209	942,135	-	140,074
139	20110021		DST	DEPARTMENT OF SC.& TECHNOLOGY	A 1mw Re-Synchronizable Autonomous Grid: Dc-Ac Inversion & Grid Site Paralleling	443,385	-	443,385	-	-	-	-
140	2014245		DST	DEPARTMENT OF SC.& TECHNOLOGY	Reconfigurable Distribution Networks	1,462,179	-	451,601	(1,010,578)	629,204	1,439,782	-
141	2017067		DST	DEPARTMENT OF SC.& TECHNOLOGY	Re-Synchronizable Grid Interactive Inverters For Indian Rooftop Solar Pv Systems	-	4,218,234	-	4,218,234	2,162,078	-	2,056,156
142	2017092		DST	DEPARTMENT OF SC.& TECHNOLOGY	Uk India Clean Energy Research	-	-	60,822	60,822	60,822	-	-
143	2017092A		DST	DEPARTMENT OF SC.& TECHNOLOGY	Uk India Clean Energy Research Institute	-	361,638	11,566	315,204	990,081	674,877	-
144	20040215		DST	DEPARTMENT OF SC.& TECHNOLOGY	Theoretical And Experimental Investigation Into An Artificial Tree Channel In High Voltage Poymeric Insulation	16,235	-	-	(16,235)	-	16,235	-
145	20130098		DST	DEPARTMENT OF SC.& TECHNOLOGY	Experimental Characterization And Numerical Modeling Of Charge Transport In Synthetic Polymers Used For Electrical Insulation Under Low And High Applied Voltages	-	208,516	-	208,516	-	-	208,516
146	2015122		DST	DEPARTMENT OF SC.& TECHNOLOGY	Study Of Electrodes In Organic Solar Cell For Efficiency And Reliability Improvement	261,273	-	38,712	(222,561)	38,712	261,273	-
147	2017038		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Uk Center For Education And Research In Clean Energy	-	1,800,000	(1,318,759)	481,241	481,241	-	-
148	20170388		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Uk Center For Education And Research In Clean Energy (Sub Project-B)	-	603,257	958,500	1,562,757	2,213,693	650,936	-
149	2018159		DST	DEPARTMENT OF SC.& TECHNOLOGY	Mix-Energy-Source Electric Vehicle Charging System Design	-	2,561,319	58,426	2,619,745	3,083,687	463,942	-
150	20090336		DST	DEPARTMENT OF SC.& TECHNOLOGY	Design Of Compact Band-Pass Filter Using Composite Right/Left Handed Transmission Line	10,000	-	10,000	-	-	-	-
151	2016307		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Microwave Sensor System For Humanitarian Technology Applications	2,745,266	-	8,000	(2,737,266)	1,006,932	1,744,199	-
152	20120275		DST	DEPARTMENT OF SC.& TECHNOLOGY	India-Uk Advanced Technology Centre (Iuatc) Phase Ii	166,865	-	-	(166,865)	-	166,865	-
153	20100292		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fibre-Optic Entangled Photon Pair Generation For Quantum Key Distribution And Quantum Optics	-	136,105	-	136,105	-	-	136,105
154	2015332		DST	DEPARTMENT OF SC.& TECHNOLOGY	Quantum Key Distribution Using Magneto-Optic Interactions In Epitaxial Garnet Films	-	315,000	-	315,000	-	-	315,000
155	2019062		DST	DEPARTMENT OF SC.& TECHNOLOGY	Single-Carrier Decoy-State Frequency-Coded Quantum Key Distribution Over 50km Optical Fiber	-	-	9,450,000	9,450,000	1,787,314	-	7,662,686
156	20100256		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synchronized Measurement Technology For Voltage Stability Monitoring And State Estimation Of Power Systems	8,031	-	-	(8,031)	-	8,031	-
157	2014246		DST	DEPARTMENT OF SC.& TECHNOLOGY	Advanced Communication And Control For The Prevention Of Blackouts (Accept)	8,047,629	-	8,071,408	23,779	23,779	-	-
158	2014250		DST	DEPARTMENT OF SC.& TECHNOLOGY	Stabilize Energy	1,839,133	-	2,922	(1,836,211)	2,922	1,839,133	-
159	2017092C		DST	DEPARTMENT OF SC.& TECHNOLOGY	Uk India Clean Energy Research Institute	-	49,143	-	49,143	1,239,150	1,190,007	-
160	2018174		DST	DEPARTMENT OF SC.& TECHNOLOGY	Stability Analysis, Protection And Coordinated Control Of Networked Microgrids	-	14,297,289	341,552	14,638,841	6,443,215	-	8,195,626
161	2016199		DST	DEPARTMENT OF SC.& TECHNOLOGY	Integration And Enablement Of 0.18micron Rf-Soi Technology For Analog Mixed-Signal Applications	2,717,800	-	3,218,190	500,390	834,852	334,462	-
162	2016368		DST	DEPARTMENT OF SC.& TECHNOLOGY	Atomistic Simulation And Compact Modeling Of Alternate Channel Materials For Nanoscale Devices	1,001,930	-	1,562,080	560,040	1,178,781	618,741	-
163	20130226		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award	31,255	-	-	(31,255)	-	31,255	-
164	20130212		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Research Grant	-	11,972	-	11,972	-	-	11,972
165	2016137		DST	DEPARTMENT OF SC.& TECHNOLOGY	Harmonic Compensation Using Distributed Solar Pv Inverters	-	107,044	552	107,596	296,049	188,453	-
166	2017038A		DST	DEPARTMENT OF SC.& TECHNOLOGY	Indo-Uk Center For Education And Research In Clean Energy (Sub Project-A)	492,506	-	996,698	504,193	1,372,667	868,475	-
167	2018258		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Non-Invasive Techniques For Nanoscale Surface Metrology	-	1,583,532	-	1,583,532	1,248,128	-	335,404
168	2014127		DST	DEPARTMENT OF SC.& TECHNOLOGY	Adaptive Clustering For Decentralized Resilient Energy Management (Adrem)	-	2,441	-	2,441	-	-	2,441

169	2017087		DST	DEPARTMENT OF SC.& TECHNOLOGY	High Power Device Analyzer, Enhancement Of Existing Vna, Time - Resolved Correlation Measurement, Power Electrics, Antenna Positioner System	7,642,756	-	-	(7,642,756)	771,056	8,471,812	-
170	20110108		DST	DEPARTMENT OF SC.& TECHNOLOGY	Geochemical Evolution Of The Earth	131,833	-	-	(131,833)	-	131,833	-
171	2014145		DST	DEPARTMENT OF SC.& TECHNOLOGY	Vanadium Isotopes In Crude Oil And Organic Rich Source Rocks: A New Paleoredox Proxy	1,422,440	-	-	(1,422,440)	-	1,422,440	-
173	2017490		DST	DEPARTMENT OF SC.& TECHNOLOGY	"Dust Or Soot? Tracing The Primary Drivers Of Increased Glacial Melt Of The Himalayan Glaciers"	-	726,317	123,490	849,807	1,694,705	844,898	-
178	2019256		DST	DEPARTMENT OF SC.& TECHNOLOGY	Magnitude And Pathway Of Anthropogenic Platinum Gorup Elements; Emerging Environmental Contaminant In India	-	-	371,000	371,000	310,841	-	60,159
174	2015270		DST	DEPARTMENT OF SC.& TECHNOLOGY	Integrated Geophysical Study In The East Geothermal Province Hats Belt,Odisha,India:An Insight Into The Geotherma System And Tectonic Set Up	-	104,951	565,789	674,780	543,185	-	131,595
175	2017238		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dynamics Of Subduction Interface And Its Implication For Earthquake Generating Frictional Sliding To Volcano Feeding Partial Melting In Convergent Plate Tectonic Boundaries	-	23,099,900	480,889	23,580,789	2,162,432	-	21,418,357
176	2015394		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst-Inspire Investigating The Laterdization Of Attentional Processes	-	153,748	-	153,748	488,133	334,385	-
177	2016328		DST	DEPARTMENT OF SC.& TECHNOLOGY	Investigating Visual Word Proceeding In Hindi	343,574	-	96,027	(247,547)	557,682	805,229	-
178	2017171		DST	DEPARTMENT OF SC.& TECHNOLOGY	Role Of Intentionality In Emotion Perception And Sense Of Agency	-	107,085	472,217	579,302	373,464	-	205,838
179	20110276		DST	DEPARTMENT OF SC.& TECHNOLOGY	Analytical And Numerical Study Of Mixed Convection Process In Corrugated Fluid Saturated Porous Configurations	334,040	-	-	(334,040)	-	334,040	-
180	2018342		DST	DEPARTMENT OF SC.& TECHNOLOGY	Arbitrary Langrangian-Eulerian Finite Element Method For Computation Of Multiphase Flow With Surfactants	-	614,783	-	614,783	855,451	240,668	-
181	20040060		DST	DEPARTMENT OF SC.& TECHNOLOGY	Issues On Estimation, Calibration And Prediction In Measurement Error Models	11,000	-	-	(11,000)	-	11,000	-
182	2018207		DST	DEPARTMENT OF SC.& TECHNOLOGY	Operator-Valued Multishifts Associated With Directed Graphs	-	551,423	2,267,769	1,219,190	2,141,666	-	1,077,524
183	20130356		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award	-	630,233	-	630,233	665,233	35,000	-
184	20130304		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award Research Grant For Dr. Debasis Sen [Ma-15]	-	213,020	-	213,020	232,313	19,293	-
185	2015029		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award (Ma-29)	-	331,973	-	331,973	351,073	19,100	-
186	2016073		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award	-	268,041	-	268,041	215,741	-	52,300
187	2016240		DST	DEPARTMENT OF SC.& TECHNOLOGY	Non Commutative Iwasawa Theory Of Hida Deformation	-	1,345,502	75,000	1,320,502	513,178	-	807,324
188	2016487		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst-Inspire Research Grant	-	1,364,767	-	1,364,767	184,384	-	1,180,383
189	2017449		DST	DEPARTMENT OF SC.& TECHNOLOGY	Partial Differential Equations In Conformal Geometry	-	702,011	70,000	772,011	375,354	-	396,657
190	2018248		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst Inspire Faculty Award	-	629,091	70,909	700,000	264,517	-	435,483
191	2018408		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst Inspire Faculty Grant	-	2,059,940	-	1,059,940	197,948	-	861,992
192	2018187		DST	DEPARTMENT OF SC.& TECHNOLOGY	Central Limit Theorem And Bootstrap Asymptotics In High Dimension	-	-	1,141,486	1,141,486	482,486	-	659,000
193	2019224		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst Inspire	-	-	649,084	649,084	684,084	35,000	-
194	2019550		DST	DEPARTMENT OF SC.& TECHNOLOGY	Subconversity Problems:Dst Inspire Faculty	-	-	1,816,248	1,816,248	-	-	1,816,248
195	2018406		DST	DEPARTMENT OF SC.& TECHNOLOGY	Thermodynamics Of Micro-Droplets Interacting With Engineered Surfaces	-	822,275	68,888	891,163	725,344	-	165,819
196	20130162		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of An Acoustic Online Weld Quality Monitoring System	786,071	-	761,941	(24,130)	-	24,130	-
197	2018214		DST	DEPARTMENT OF SC.& TECHNOLOGY	Design And Prototyping Of Machinery For Achieving Cleaner Habitat Environment	-	1,216,000	71,447	1,287,447	761,140	-	526,307
198	2019252		DST	DEPARTMENT OF SC.& TECHNOLOGY	Pilot Project On Development And Implementation Of Industry 4.0 Protocols For Rail-Coach Design & Manufacturing At Modern Couch Factory, Raebarely	-	-	126,041,435	126,041,435	1,703,986	-	124,337,449
199	20110306		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Micro-Inverter Based Modular Solar Energy Generator For Line Power	178,603	-	178,603	-	-	-	-
200	20060268		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Program In Mechanical Engineering	4,621,127	-	-	(4,621,127)	-	4,621,127	-
201	2018247		DST	DEPARTMENT OF SC.& TECHNOLOGY	Neuro-Cognitive Instrumentation Of Validated Human-Robot Interactions To Enhance Learning And Developmental Processes In Children	-	90,480	2,247	92,727	220,563	127,836	-
202	2020009		DST	DEPARTMENT OF SC.& TECHNOLOGY	Design And Development Of Auto	-	-	2,871,295	2,871,295	-	-	2,871,295
203	20100185		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development And Performance Evaluation Of Carbon Nano Coil Structure For The Catalyst Support In Pem Fuel Cells	197,719	-	-	(197,719)	-	197,719	-
204	20100271		DST	DEPARTMENT OF SC.& TECHNOLOGY	Novel Multifunctional Nanocomposites Made Of Epoxy Reinforced With Carbon Nanocoil Coated Carbon Fiber For Structural Applications	55,459	-	-	(55,459)	-	55,459	-
205	2017009		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nanostructured Carbon Decorated With Metal Nanoparticle...Thermoelectric	-	107,414	1,652,210	1,759,624	1,759,021	-	603
206	20090332		DST	DEPARTMENT OF SC.& TECHNOLOGY	Combustion, Material Compatibility And Engine Tribology Investigation In A Biodiesel Fuelled Turbo-Charged Transportation Engine	13,269	-	-	(13,269)	-	13,269	-
207	2017410		DST	DEPARTMENT OF SC.& TECHNOLOGY	Design & Retrofitment For Development Methanol Fuelled Large Bore Engine (Emd 710: 4500hp) For Locomotive Marine & Power Generation Application	-	26,315,297	1,074,755	27,390,052	28,323,663	933,611	-
208	20030176		DST	DEPARTMENT OF SC.& TECHNOLOGY	Numerical Investigation On The Failure Of Metal-Polymer Interfaces	11,518	-	-	(11,518)	-	11,518	-

209	20040147		DST	DEPARTMENT OF SC.& TECHNOLOGY	Multiscale Modeling Of Deformation And Fracture In Glassy Amourphous Polymers.	33,300	-	-	(33,300)	-	33,300	-
210	20130354		DST	DEPARTMENT OF SC.& TECHNOLOGY	A Bci Operated Hand Exoskeleton Based Neurorehabilitation System For Movement Restoration In Paralysis	899,478	-	-	(899,478)	-	899,478	-
211	2016095		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of A Programmable Robotic Motion Phantom	-	417,510	-	417,510	11,800	-	429,310
212	20185446		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fatde Fracture And Delamination Under Dynamic Loading	-	1,622,880	-	1,622,880	701,434	-	921,446
213	20050120		DST	DEPARTMENT OF SC.& TECHNOLOGY	3-D Nanofabrication Using Electric Discharge Machining	280,672	-	-	(280,672)	-	280,672	-
214	20130235		DST	DEPARTMENT OF SC.& TECHNOLOGY	An Independent Stair Climbing Wheel Chair (Manual) For Up/Down Climbing	864,417	-	-	(864,417)	-	864,417	-
215	2018239		DST	DEPARTMENT OF SC.& TECHNOLOGY	Designing And Developing A Desktop Micro Wire Edm Machine	-	2,380,057	-	2,380,057	927,959	-	1,452,098
216	2016796		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Program-2016	-	15,419,982	-	15,419,982	9,538	-	15,410,444
217	2018193		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Novel Cooling Systems For High Power Leds For Enhanced Reliability And Lifetime	-	391,102	511,022	902,124	1,446,213	544,089	-
218	20110109		DST	DEPARTMENT OF SC.& TECHNOLOGY	Segregation In Vibrated Granular Materials	1,633	-	1,633	-	-	-	-
219	2016313		DST	DEPARTMENT OF SC.& TECHNOLOGY	Installation Of A Pilot Plant Of 10 Kld Capacity ....On Acid Modified Soil	1,706,501	-	2,950,000	1,243,499	2,129,088	885,589	-
220	2014001		DST	DEPARTMENT OF SC.& TECHNOLOGY	Co2 Sequestration In Marine Hydrate Sediments With Simultaneous Ch4 Recovery	247,488	-	-	(247,488)	-	247,488	-
221	20120003		DST	DEPARTMENT OF SC.& TECHNOLOGY	Motion And Interactions Of Domains In Fluid Lipid Membranes	15,928	-	3,521	(12,407)	-	12,407	-
222	2014199		DST	DEPARTMENT OF SC.& TECHNOLOGY	Innovative Thermal Energy Storage System (Inests)	660,182	-	884,284	224,102	224,102	-	-
223	2018266		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Process Map For Additive Manufacturing Of Ti6al4v And Inconel Alloys	-	3,168,907	6,720	3,175,627	1,311,810	-	1,863,817
224	2015434		DST	DEPARTMENT OF SC.& TECHNOLOGY	Boron Nitride Based Adsorbent For Removal Of Arsenic From Aqueous Streams	1,226,227	-	12,538	(1,213,689)	127,225	1,340,914	-
225	2019149		DST	DEPARTMENT OF SC.& TECHNOLOGY	Enhanced Liquid Atomization Through Acoustic Cavitation	-	-	700,000	700,000	350,427	-	349,573
226	20100209		DST	DEPARTMENT OF SC.& TECHNOLOGY	Experimental And Numerical Investigation On The Mechanical Behaviour Of Micro-Sized Structural Elements	61,751	-	-	(61,751)	-	61,751	-
227	20100203		DST	DEPARTMENT OF SC.& TECHNOLOGY	White Organic Light Emitting Diode For Lighting And Displays	635,370	-	635,370	-	-	-	-
228	20130221		DST	DEPARTMENT OF SC.& TECHNOLOGY	Advanced Materials Processing And Characterization Facilities	15,926,021	-	-	(15,926,021)	-	15,926,021	-
229	20090169		DST	DEPARTMENT OF SC.& TECHNOLOGY	Studies On Kinetic Of Scrap Dissolution And Effect Of Other Parameters On Dynamic Control Of Steelmaking Process	-	50,593	-	50,593	-	-	50,593
230	2015177		DST	DEPARTMENT OF SC.& TECHNOLOGY	Advancing The Efficiency And Production Potential Of Excitonic Solar Cells (Apex Phase Ii)	-	614,070	-	614,070	-	-	614,070
231	2018381		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of A Portable And Non-Contact Type Intraocular (Iop) Pressure Measurement Device	-	2,818,600	-	2,818,600	1,432,032	-	1,386,568
232	20090167		DST	DEPARTMENT OF SC.& TECHNOLOGY	Phase Transformation Of Multiphase Embedded Alloy Nanoparticles And Multilayer Thin Films	256,041	-	-	(256,041)	-	256,041	-
233	2019012		DST	DEPARTMENT OF SC.& TECHNOLOGY	Energy Storage Platform On Hydrogen	-	-	6,262,000	6,262,000	6,237,669	-	24,331
234	2017476		DST	DEPARTMENT OF SC.& TECHNOLOGY	Swarnajayanti Fellowship To Dr. Kantesh Balani	-	2,002,882	297,221	2,300,103	1,757,986	-	542,117
235	20110297		DST	DEPARTMENT OF SC.& TECHNOLOGY	Lithography Assisted Patterning And In Vitro Polymerization Of Microtubule Asters	83,449	-	-	(83,449)	-	83,449	-
236	2016124		DST	DEPARTMENT OF SC.& TECHNOLOGY	Agarose Based Wound Dressing	1,421,131	-	-	(1,421,131)	3,683,797	5,104,928	-
237	2014096		DST	DEPARTMENT OF SC.& TECHNOLOGY	Synthesis And Characterization Of Iron Chalcogenide, Fes2 (Pyrite) And Fe2sis4 Thin-Films For Photovoltaic Application	631,878	-	480,926	(150,952)	-	150,952	-
238	20010091		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of A Diagnostic Tool For Tumbling Mills Based On Vibration Analysis	128,125	-	-	(128,125)	-	128,125	-
239	19990166		DST	DEPARTMENT OF SC.& TECHNOLOGY	Electronic Properties Of Disordered Materials	4,184	-	-	(4,184)	-	4,184	-
240	20060341		DST	DEPARTMENT OF SC.& TECHNOLOGY	Fist Programme	-	550,020	-	550,020	-	-	550,020
241	20000301		DST	DEPARTMENT OF SC.& TECHNOLOGY	Three Dimensional Magnetohynamic Turbulence Simulations	24,832	-	-	(24,832)	-	24,832	-
242	20130155		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Resource Material For Teachers Training In Experiment Based Physics Teaching In Rural Areas	639,946	-	-	(639,946)	-	639,946	-
243	20050128		DST	DEPARTMENT OF SC.& TECHNOLOGY	Pulse Dynamics In Nonlinear Photonic Bandgap Stuctures	243,633	-	-	(243,633)	-	243,633	-
244	2017455		DST	DEPARTMENT OF SC.& TECHNOLOGY	Development Of Optical Vein Visualisation Aid	-	1,527,702	76,036	1,603,738	514,506	-	1,089,232
245	20100143		DST	DEPARTMENT OF SC.& TECHNOLOGY	Study Of Metamaterial Based Photonic Crystals And Its Applications	374,692	-	749,384	374,692	374,692	-	-
246	20130147		DST	DEPARTMENT OF SC.& TECHNOLOGY	Metamaterials And Designer Plasmonic Structures For Controlling Emission And Absorption Of Light	1,613,763	-	-	(1,613,763)	-	1,613,763	-
247	20120076		DST	DEPARTMENT OF SC.& TECHNOLOGY	Creation Of Heterogeneous Pinning In Iron Pnictides And Cuprate Superconductors By Introducing Nanopatterned Pins	65,766	-	-	(65,766)	-	65,766	-
248	2015447		DST	DEPARTMENT OF SC.& TECHNOLOGY	Developing Prototype Of A Smart Superconducting Fault Current Limiter (Scfclim) With Three Dimensional Field And Current Mapping Technology For Early Fault And Hot Spot Detection	196,554	-	2,228,000	2,031,446	1,292,738	-	738,708
249	2018444		DST	DEPARTMENT OF SC.& TECHNOLOGY	Developing A Compact Graphene Based Hall Sensor For Monitoring Steel Structures Under Stress In Advanced Materials	-	4,062,877	-	4,062,877	3,133,421	-	929,456
250	2017411		DST	DEPARTMENT OF SC.& TECHNOLOGY	Compact Plasmon-Based Bio-Sensor And Imager	-	2,406,726	1,480,334	3,887,060	1,999,625	-	1,887,435
251	2018429		DST	DEPARTMENT OF SC.& TECHNOLOGY	Electric Field Controlled Spin Dynamics In Nanomagnets	-	342,930	-	342,930	193,446	149,516	-
252	20120242		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Fellowship: Quantum Transport And Many Body Physics In Low Dimensional Systems	-	49,584	-	49,584	-	-	49,584
253	2014151		DST	DEPARTMENT OF SC.& TECHNOLOGY	Effect Of Composition And Thermal Gradients On The Dynamics Of Intracluster Medium	371,839	-	-	(371,839)	272,293	644,132	-

254	2019080		DST	DEPARTMENT OF SC.& TECHNOLOGY	Developing Efficient Method For The Measurement And Characterization Of High-Dimensional Quantum States For Photonic Quantum Information		-	5,450,000	5,450,000	6,498,627	-	951,373
255	2014220		DST	DEPARTMENT OF SC.& TECHNOLOGY	Label Free High Performance Fiber-Optic Biosensors	343,906	-	-	(343,906)	35,033	378,939	-
256	20130115		DST	DEPARTMENT OF SC.& TECHNOLOGY	Inspire Faculty Award 2012	8,577	-	-	(8,577)	605,441	614,018	-
257	2016248		DST	DEPARTMENT OF SC.& TECHNOLOGY	Probing Quantum Gravity Through Holography	-	199,475	-	199,475	233,588	34,113	-
258	2016419		DST	DEPARTMENT OF SC.& TECHNOLOGY	Entropy, Entanglement & Flat Space	-	96,799	-	96,799	61,167	-	35,632
259	2017514		DST	DEPARTMENT OF SC.& TECHNOLOGY	Dst Inspire Faculty Grant	-	45,078	69,990	115,068	715,650	600,582	-
260	20030184		DST	DEPARTMENT OF SC.& TECHNOLOGY	Study Of Potential Fluctuations In Amorphous Silicon	-	1,819	-	1,819	-	-	1,819
261	20060019		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ion Beam Facility For Micro And Nanoscale Science And Engineering	-	668,400	-	668,400	-	-	668,400
262	20020062		DST	DEPARTMENT OF SC.& TECHNOLOGY	The Analysis Of Fused Deposition Through Electro-Chemical Discharge	35,161	-	-	(35,161)	-	35,161	-
263	20110113		DST	DEPARTMENT OF SC.& TECHNOLOGY	Research And Development Of Ingazno4 (Igzo) Large Area Electronics And Its Applications To Active Matrix Flat Panel Displays	4,261,756	-	4,261,756	-	-	-	-
264	2018079		DST	DEPARTMENT OF SC.& TECHNOLOGY	Large Area Opto-Electronics For Australia And India: From Materials To Advanced Devices	-	29,058	26,808	55,866	869,695	813,829	-
265	20130065		DST	DEPARTMENT OF SC.& TECHNOLOGY	Establishment Of A Multidisciplinary Innovation Lab (Tinkering Lab)	-	140,075	-	140,075	-	-	140,075
266	20130195		DST	DEPARTMENT OF SC.& TECHNOLOGY	Decision Support System To Enhance Safety Of Railway Track Workers	3,777,537	-	3,682,874	(94,663)	-	94,663	-
267	2014385		DST	DEPARTMENT OF SC.& TECHNOLOGY	Ideas	52,486	-	-	(52,486)	-	52,486	-
268	2016186		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nidhi - Eir	-	1,472,143	120,126	1,592,269	1,418,270	-	173,999
269	2016427		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nidhi Prayas	-	8,743,744	2,762,667	11,506,411	8,758,001	-	9,738,410
270	2019198		DST	DEPARTMENT OF SC.& TECHNOLOGY	Nidhi Sss	-	-	21,000,004	21,000,004	5,641,050	-	15,358,954
		DST Total	0		0	112,973,744	236,983,848	392,616,952	516,626,056	232,707,302	110,331,127	394,281,879
1	2016214		DSTRSF	DST & RUSSIAN FEDERATION	Helicity Effects In Magnetohydrodynamic, Rotating, And Convective Turbulence	251,758	-	1,578,340	1,327,183	935,279	-	391,903
		DSTRSF Total	0		0	251,758	-	1,578,340	1,327,183	935,279	-	391,903
1	20100102		EADS	E AEROPEAS AERO DEFENCE SYSTEM	Communication, Localization & Navigation Using Solely Ad Hoc Network Providing Robust Solutions	-	10,387	-	10,387	-	-	10,387
		EADS Total	0		0	-	10,387	-	10,387	-	-	10,387
1	2018314		EIL	ENGINEERS INDIA LIMITED	Eil-Engvil/Sric	-	167,400	5,060,300	5,227,700	5,227,700	-	-
		EIL Total	0		0	-	167,400	5,060,300	5,227,700	5,227,700	-	-
1	2017425		EMBO	EMBO, GERMANY	Structure And Function Of Selected G Protein-Coupled Receptors	-	2,716,150	1,139,633	3,855,783	-	-	3,855,783
		EMBO Total	0		0	-	2,716,150	1,139,633	3,855,783	-	-	3,855,783
1	2019337		EPSRC	EPSRC	Developing Statistical Downscaling To Improve Water Quality Understanding And Management In The Ramganga Sub-Basin	-	-	568,540	568,540	348,080	-	220,460
2	2018064		EPSRC	EPSRC	Sunrise	1,483,659	-	2,476,403	992,744	2,011,980	1,019,236	-
		EPSRC Total	0		0	1,483,659	-	3,045,343	1,561,284	2,360,060	1,019,236	220,460
1	2018332		ER-IR	EASTERN RAILWAYS ZONE INDIAN RAILWAYS	Continuous Monitoring Of Sampreeti Setu (New Jubilee Bridge): Instrumentation, Design And Health Assessment	-	28,641,823	-	28,641,823	2,977,021	-	25,664,802
		ER-IR Total	0		0	-	28,641,823	-	28,641,823	2,977,021	-	25,664,802
1	2018211		ESNPL	E-SPIN NANOTECH P. LTD.	Addressable Peptide-Polymer Electrospun Nanofibres For Cell Sorting Diagnosis And Delivery	-	253,200	-	253,200	122,561	-	130,639
		ESNPL Total	0		0	-	253,200	-	253,200	122,561	-	130,639
1	2019197		ESPL	ELIFE SCIENCES PUBLICATION LIMITED	Neb Names Spotlight Awards	-	-	312,630	312,630	312,630	-	-
		ESPL Total	0		0	-	-	312,630	312,630	312,630	-	-
1	2016049		FLIPKA	FLIPKART	Flipkart Grant For Collaboration	-	325,123	-	325,123	-	-	325,123
2	2015376		FLIPKA	FLIPKART	Identifying Fake Product Listings And Sellers.	-	10,282	-	10,282	-	-	10,282
		FLIPKA Total	0		0	-	335,405	-	335,405	-	-	335,405
1	20030248		FLUENT	FLUENT INDIA PVT. LTD.	Development Of Computer Code On Pressure Based Navier-Stokes Solver For Unstructured Grids	-	12,598	-	12,598	-	-	12,598
		FLUENT Total	0		0	-	12,598	-	12,598	-	-	12,598
1	2014188		FMI	FINNISH METEOROLOGICAL INSTITUTE	Black And Brown Carbon Influence On Climate Change In India -From Local To Regional Scale	-	1,000	-	1,000	-	-	1,000
		FMI Total	0		0	-	1,000	-	1,000	-	-	1,000
1	2016086		GAIL	GAS AUTHORITY OF INDIA LTD	Development Of Super Elastic Friction Damper (Sfd) For Vibration Control Of Pipelines.	389,821	-	-	(389,821)	-	389,821	-
2	2018093		GAIL	GAS AUTHORITY OF INDIA LTD	Low Altitude Long Endurance (Lale) Unmanned Aerial System (Uas) For Surveillance, Reconnaissance And Asset Monitoring (Sram)	-	6,679,647	(7,689,346)	(1,009,699)	-	1,009,699	-
3	2015679		GAIL	GAS AUTHORITY OF INDIA LTD	Development Of Compressed Air Based Test Bed For Pipe-Line Health Monitoring Robot	-	195,711	2,900	198,611	-	-	198,611
4	2017069		GAIL	GAS AUTHORITY OF INDIA LTD	Design And Development Of Adoptive Intellegent Phmr For Fuel Transportation Systems	-	3,102,528	1,033,936	4,136,464	3,204,012	-	932,452
		GAIL Total	0		0	389,821	9,977,886	(6,652,510)	2,935,555	3,204,012	1,399,520	1,131,063
1	2018358		GE	GE INDIA TEHNOLOGY CENTRE PVT. LTD.	Aircraft Engine Combustor Design For Improved Operability, Durability, Pattern Factor And Emissions	-	3,968,813	7,751,176	11,719,989	5,030,644	-	6,689,345
2	20130244		GE	GE INDIA TEHNOLOGY CENTRE PVT. LTD.	Developing Test Methods For High Strain Rate Characterization Of Polymer Matrix Composites	-	63	-	63	-	-	63

3	2014323		GE	GE INDIA TEHNOLOGY CENTRE PVT. LTD.	Developing Test Methods For High Strain Rate Characterization Of Polymer Matrix Composites	-	21,491	-	21,491	-	-	21,491
4	2015184		GE	GE INDIA TEHNOLOGY CENTRE PVT. LTD.	Microstructural Evaluation Of Deformation And Recrystallization Behaviour	-	2,839	-	2,839	-	-	2,839
5	20120266		GE	GE INDIA TEHNOLOGY CENTRE PVT. LTD.	Inter Diffusion Between Thermal Barrier Coating & Bond Coats: Growth Kinetics Of Thermally Grown Oxides	-	82	-	82	-	-	82
		GE Total	0	0	0	-	3,993,288	7,751,176	11,744,464	5,030,644	-	6,713,820
1	20060080		GEGR	GE GLOBAL RESEARCH	Development Of Non Linear Finite Element Based Software For The Analysis Of Overall Properties Of Multi Phase Polymer Blends With A Pre-Defined Morphology	-	2,296	-	2,296	-	-	2,296
		GEGR Total	0	0	0	-	2,296	-	2,296	-	-	2,296
1	20080322		GIMLS	GURUDEV INTERNATIONAL , MUMBAI LAKE, SRINAGAR	Piloting Zero Discharge System In House Boat Dal	-	395,514	-	395,514	-	-	395,514
		GIMLS Total	0	0	0	-	395,514	-	395,514	-	-	395,514
1	20110261		GM	GENERAL MOTORS INDIA PVT.LTD.	Cryptographic Algorithms	-	125,604	-	125,604	-	-	125,604
		GM Total	0	0	0	-	125,604	-	125,604	-	-	125,604
1	20130318		GMMOTO	GENERAL MOTORS USA	Investigations Of Interdiffusion In Aluminum Alloys	-	33,201	-	33,201	-	-	33,201
		GMMOTO Total	0	0	0	-	33,201	-	33,201	-	-	33,201
1	2014332		GOOGLE	GOOGLE ONLINE INDIA PVT.LTD	Google Transperency : A Desktop Plug-In Google Maps	-	5,340	-	5,340	-	-	5,340
		GOOGLE Total	0	0	0	-	5,340	-	5,340	-	-	5,340
1	2019166		GSI	GEOLOGICAL SURVEY OF INDIA	Paleoseismology Along The Foothill Zone Of The Central Himalaya Uttarakhand India	-	-	-	-	383,030	383,030	-
		GSI Total	0	0	0	-	-	-	-	383,030	383,030	-
1	20110087		GTRE	GAS TURBINE RESEARCH ESTABLISHMENT	Aero-Elastic Study Of Turbo-Machinery Blades	277,364	-	-	(277,364)	-	277,364	-
		GTRE Total	0	0	0	277,364	-	-	(277,364)	-	277,364	-
1	2013359		HAL	HINDUSTAN AERONAUTICS LTD	Ofdm Based Jam Proof Data/Voice Digital Link For Aircraft Communications	-	233,000	-	233,000	-	-	233,000
		HAL Total	0	0	0	-	233,000	-	233,000	-	-	233,000
1	2016453		HPCL	HINDUSTAN PETROLEUM CORPORATION LIMITED	Development And Scale-Up Of Ultrasmall Nanocatalysts For Hydrodesulfurization	901,605	-	766,300	(135,305)	647,463	782,768	-
		HPCL Total	0	0	0	901,605	-	766,300	(135,305)	647,463	782,768	-
1	2017439		HSI	HELVETAS SWISS INTERCORPORATION (THROUGH UNDP)	Strengthening State Strategies For Climate Action	-	184,216	15,019	199,235	195,411	-	3,824
		HSI Total	0	0	0	-	184,216	15,019	199,235	195,411	-	3,824
1	20120285		HUDCO	HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.	Installation Of Zero Discharge Toilet System (Zdts) At Kumbh 2013, Allahabad	36,088	-	-	(36,088)	-	36,088	-
2	20120015		HUDCO	HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.	Housing And Urban Development Corporation Ltd. Chair	40,643	-	40,643	-	-	-	-
		HUDCO Total	0	0	0	76,731	-	40,643	(36,088)	-	36,088	-
1	2018120		HUL	HUL	(Uay)-Biodegradable Polymers For Packing Applications	-	550,980	860,400	1,411,380	917,889	-	493,491
		HUL Total	0	0	0	-	550,980	860,400	1,411,380	917,889	-	493,491
1	2016250		IBM	INTERNATIONAL BUSINESS MACHINES CORPORATION	Ibm Shared University Research Award	-	25,594	-	25,594	-	-	25,594
2	2016434		IBM	INTERNATIONAL BUSINESS MACHINES CORPORATION	Provenance In Graph Databases	-	73,380	-	73,380	39,000	-	34,380
3	2016207		IBM	INTERNATIONAL BUSINESS MACHINES CORPORATION	Ibm Research Faculty Award	-	1,469,913	50,000	1,519,913	660,007	-	859,906
		IBM Total	0	0	0	-	1,568,887	50,000	1,618,887	699,007	-	919,880
1	20080184		IC	IMPIRIAL COLLEGE	Sub Surface Stratigraphy Of The Ghaggar Plains: Linkage Of Landscape Evolution & Cultural Heritage	-	4,514	-	4,514	-	-	4,514
		IC Total	0	0	0	-	4,514	-	4,514	-	-	4,514
1	20120058		ICAR	INDIAN COUNCIL OF AGRICULTURAL RESEARCH	Understanding Plant Nematode Interaction: Identification Of Plant And Nematode Genes Involved In Disease Development	268,172	-	-	(268,172)	-	268,172	-
		ICAR Total	0	0	0	268,172	-	-	(268,172)	-	268,172	-
1	2014068		ICIMOD	INTERNATIONAL CENTRE FOR INTEGRATED MOUNTAIN DEVELOPMENT	Sediment Dynamics And Sediment Connectivity In The Koshi Basin : Implications For River Hazards	125,740	-	-	(125,740)	-	125,740	-
2	2015144		ICIMOD	INTERNATIONAL CENTRE FOR INTEGRATED MOUNTAIN DEVELOPMENT	Thestructure And Dynamics Of Groundwater Systems In North Bihar With Special Focus On The Koshi Megafan	-	16,683	-	16,683	-	-	16,683
		ICIMOD Total	0	0	0	125,740	16,683	-	(109,057)	-	125,740	16,683
1	20100270		ICMR	ICMR	Design & Development Of A Non Invasive Ocular Drug Delivery System For The Treatment Of Retinal Diseases	-	254	-	254	-	-	254
2	2017068		ICMR	ICMR	Gradient Of Chemical Cues And Differentially Pre-Induced Mesenchymal Stem Cell In An Injectable Hydrogel For Osteochondral Tissue Regeneration	-	102,000	48,240	150,240	676,126	525,886	-
3	2018137		ICMR	ICMR	Fabrication Of New Generation Of Self Resorbibf Implants And Devices From Bioactive And Biodegradable Materials For Orthopaedic Applications	-	1,319,000	-	1,319,000	972,185	-	346,815
4	2016489		ICMR	ICMR	Targeting Multiple Pathway By A Single Molecule As A Therapeutic Strategy In Huntington'S Disease	-	455,557	-	455,557	953,206	497,649	-

5	20110029		ICMR	ICMR	Multiple Tip Hyprodermine Syringe Needle For Easy Insertion Into Soft Tissues	43,654	-	-	(43,654)	-	43,654	-
6	2018210		ICMR	ICMR	Addreessable Peptide-Polymer-Electrospun Nanofibers For Cell Sorting Diagnostics And Delivery	-	1,175,806	-	1,175,806	555,800	-	620,006
		ICMR Total	0	0	0	43,654	3,052,617	48,240	3,057,203	3,157,317	1,067,189	967,075
1	2015043		ICPR	INDIAN COUNCIL OF PHILOSOPHICAL RESEARCH	Gandhi'S Critique Of Modernity In Hind Swaraj: A Philosophical Study	-	83,937	-	83,937	-	-	83,937
		ICPR Total	0	0	0	-	83,937	-	83,937	-	-	83,937
1	2017511		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	Income Inequality Development And Kuznets Curve: A Second Generation Panel Cointegration Analysis Of India	-	80,000	-	80,000	-	-	80,000
2	2018244		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	Economic Growth, Inequality And Poverty Alleviations In India: The Implications Of Nightlight (Ega)	-	4,500	-	4,500	-	-	4,500
3	2015427		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	Skill Formation And Self Employment Generation Through Vocational Training	66,803	-	-	(66,803)	-	66,803	-
4	20130331		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	A Study On The Interaction Between Formal And Informal Institutions And Its Effect On Entrepreneurship	89,134	-	-	(89,134)	-	89,134	-
5	2017071		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	Sense Of Agency As Tracking Control: A Multi-Level Approach	-	27,158	17,649	44,807	34,101	-	10,706
6	2019029		ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	Climate Energy Policy Network: A Comparative Study Of India And Japan	-	-	500,000	500,000	492,373	-	7,627
		ICSSR Total	0	0	0	155,937	111,658	517,649	473,370	531,474	155,937	92,833
1	2014325		IDRC	IDRC, CANADA	Courts, Networks And Start-Ups: Institutions Matter For South Asian Small Enterprises	372,440	-	372,440	-	-	-	-
		IDRC Total	0	0	0	372,440	-	372,440	-	-	-	-
1	20130329		IEEE	IEEE USA	Orientation Detection Using Passive Uhf Rfid Technology	-	4	-	4	-	-	4
		IEEE Total	0	0	0	-	4	-	4	-	-	4
1	2019039		IFCPAR	IFCPAR	Chromium Isotopes As Tracers Of Environmental Contamination And Remediation	-	-	2,357,540	2,357,540	1,168,730	-	1,188,810
2	20070086		IFCPAR	IFCPAR	Development Of Functionalized Carbon Nanotubes- Nucleobase Constructs And Their Use In Biomimetic Catalysts	-	33,366	-	33,366	-	-	33,366
3	20090305		IFCPAR	IFCPAR	Bimetallic Catalysis Involving Ruthenium And Palladium:C-H Bond Activation, Functionalization And Beyond	119,423	-	-	(119,423)	-	119,423	-
4	2018317		IFCPAR	IFCPAR	Formal Verification Of Autopilot Software For Uavs	-	1,154,801	-	1,154,801	645,592	-	509,209
5	2014394		IFCPAR	IFCPAR	Device To Device (D2d) Communications For Lte-Advanced Cellular Netwro	247,404	-	-	(247,404)	-	247,404	-
6	20110065		IFCPAR	IFCPAR	The Kosi River Alluvial Dynamics And Associated Risks	133,024	-	-	(133,024)	-	133,024	-
7	2018179		IFCPAR	IFCPAR	"Fog City: Qos-Aware Resource Management For Smart Cities"	-	261,444	1,118,220	1,379,664	768,890	-	610,774
8	20060273		IFCPAR	IFCPAR	Development Of An Experimentally Valldated Simulaton Scheme For Fracture Of Glassy,Amorphous Polymers	13,799	-	-	(13,799)	-	13,799	-
9	20100236		IFCPAR	IFCPAR	Thermo-Hydrodynamics Of Phase-Change Induced Oscillating Taylor Bubble Flows	139,355	-	-	(139,355)	-	139,355	-
10	2017003		IFCPAR	IFCPAR	Loop Heat Pipes For Avionics And Terrestrial Applications	-	57,357	417,514	474,871	1,491,035	1,016,164	-
11	20020217		IFCPAR	IFCPAR	Radiation Induced Electronic Phase Separation In Epitaxial Films Of Perovskite Manganites	-	23,732	-	23,732	-	-	23,732
12	20120319		IFCPAR	IFCPAR	Reversals Of A Large Scale Field On A Turbulent Background	294,916	-	-	(294,916)	-	294,916	-
13	2018557		IFCPAR	IFCPAR	Turbulent Flows In Equilibrium	-	-	-	-	242,600	242,600	-
14	2017226		IFCPAR	IFCPAR	Micro-Squid Magnetometry Of Nano-Scale Magnetic Structures	-	1,305,265	1,017,161	2,322,426	2,847,345	524,919	-
15	20080101		IFCPAR	IFCPAR	Field Effect Transistor Of Spreuvikite Oxides For Spintronics	19,101	-	-	(19,101)	-	19,101	-
16	2019163		IFCPAR	IFCPAR	Design Of Flexible Sweat Sensors Snd Stretchable Batteries Embedded In E-Textile To Monitor Personal Health And Fitness Parameters	-	-	858,568	858,568	160,858	-	697,710
		IFCPAR Total	0	0	0	967,022	2,835,965	5,769,003	7,637,946	7,325,050	2,750,705	3,063,601
1	2018115		IGCAR	INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH, KALPAKKAM	Non Contact Metrology Of Hexagonal Wrapper Tube Throgh Glass Medium	-	661,774	-	661,774	701,513	39,739	-
2	20040140		IGCAR	INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH, KALPAKKAM	Analysis And Simulation Of Snake Like Robots	-	13	-	13	-	-	13
3	2015120		IGCAR	INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH, KALPAKKAM	Csrdm Shroud Tube Hydraulics Of Control Plug In Fast Breeder Reactors	-	19,730	-	19,730	23,730	4,000	-
4	20100193		IGCAR	INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH, KALPAKKAM	Sintering Studies On Nuclear Materials	-	1,236,581	-	1,236,581	-	-	1,236,581
		IGCAR Total	0	0	0	-	1,918,098	-	1,918,098	725,243	43,739	1,236,594
1	2017025		IGNTU	INDRA GANDHI NATIONAL TRIBAL UNIVERSITY	Brihaspati Erp System Deployment In Igntu Amarkantak	73,023	-	-	(73,023)	-	73,023	-
		IGNTU Total	0	0	0	73,023	-	-	(73,023)	-	73,023	-
1	2019200		IGSTC	INDO-GERMAN SCIENCE & TECHNOLOGY CENTRE	Robot Skill Transfer From Simulation To Real World Development In Manufacturing Industries And Warehouse (Translearn)	-	-	5,624,175	5,624,175	1,314,264	-	4,309,911
2	2015454		IGSTC	INDO-GERMAN SCIENCE & TECHNOLOGY CENTRE	Minkowskian Holography	87,705	-	68,181	(19,524)	-	19,524	-
3	20120009		IGSTC	INDO-GERMAN SCIENCE & TECHNOLOGY CENTRE	Flexible Printed Integrated Disposable Electronics (Flexipride)	1,216,455	-	-	(1,216,455)	-	1,216,455	-
		IGSTC Total	0	0	0	1,304,160	-	5,692,356	4,388,196	1,314,264	1,235,979	4,309,911

1	2017322		IHA	INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE ACADEMY (INTACH)	Mapping Singaveerpura: An Inter-Disciplinary Research	118,480	-	-	(118,480)	8,232	126,712	-
		IHA Total	0		0	118,480	-	-	(118,480)	8,232	126,712	-
1	20130189		IICHE	INDIAN INSTITUTE OF CHEMICAL ENGINEERS	Green Synthesis Of Near Infrared Wavelength Absorbing Pb Se Quantum Dots	-	536	-	536	-	-	536
		IICHE Total	0		0	-	536	-	536	-	-	536
1	2018125		IIM	INDIAN INSTITUTE OF MANAGEMENT	A Study Of Artisanal Entrepreneurship, Skill Development And Network Among Goldsmiths In Contemporary India	32,755	-	280,692	247,937	206,946	-	41,991
		IIM Total	0		0	32,755	-	280,692	247,937	206,946	-	41,991
1	2015416		IITB	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY	Khel (Knowledge Hub For E-Learning)	4,075,692	-	8,232	(4,067,460)	153,595	4,219,055	-
		IITB Total	0		0	4,075,692	-	8,232	(4,067,460)	153,595	4,219,055	-
1	2015399		IITCOE	IIMA-IDEA TELECOM CENTER OF EXCELLENCE (IITCOE)	Cooperative Communication In Cellular Networks Protocol Design And Performance Analysis	102,092	-	-	(102,092)	-	102,092	-
2	2019002		IITCOE	IIMA-IDEA TELECOM CENTER OF EXCELLENCE (IITCOE)	Spectrum Utilization Policies And Techniques For Millimeter Wave (Mmwave) Mimo Based Internet Of Things (Iot) In 5g Wireless Networks	345,024	-	2,261,824	1,916,800	2,092,801	176,001	-
		IITCOE Total	0		0	447,116	-	2,261,824	1,814,708	2,092,801	278,093	-
1	2016272		IITD	INDIAN INSTITUTE OF TECHNOLOGY DELHI	Ik Pal	-	80,350	-	80,350	-	-	80,350
		IITD Total	0		0	-	80,350	-	80,350	-	-	80,350
1	2016295		IITK	INDIAN INSTITUTE OF TECHNOLOGY	Construction Safety And Quality Control Studies	-	65,450	181,045	246,495	187,200	-	59,295
2	20060224		IITK	INDIAN INSTITUTE OF TECHNOLOGY	Development Of Multi Elemental Focused Ion Beam System	79,040	-	-	(79,040)	-	79,040	-
		IITK Total	0		0	79,040	65,450	181,045	167,455	187,200	79,040	59,295
1	2014346		IITM	INDIAN INSTITUTE OF TROPICAL METEOROLOGY	Monsoon Dynamics And Thermodynamics From The Land Surface, Through Convection To The Confidential Scale (Incompass)	57,978	-	25,276	(32,702)	16,458	49,160	-
2	2018208		IITM	INDIAN INSTITUTE OF TROPICAL METEOROLOGY	The Developments Of Very High Resolution Cfs Model Based On Icosahedral Grid	-	8,055,650	4,237,358	12,293,008	5,819,697	-	6,473,311
		IITM Total	0		0	57,978	8,055,650	4,263,234	12,260,306	5,836,155	49,160	6,473,311
1	2015006		INAE	INDIAN NATIONAL ACADEMY OF ENGINEERING	Inae Kanpur Local Chapter	-	41,205	-	41,205	-	-	41,205
		INAE Total	0		0	-	41,205	-	41,205	-	-	41,205
1	2018138		INCOIS	INDIAN NATIONAL CENTRE FOR OCEAN INFORMATION SERVICES	Paleo-Seismic & Paleo Tsunami Investigation Along South-Middle Adaman & Car Nicobar Islands Towards Earthquake & Tsunami Hazard Assessment Of A&N Island	73,200	-	73,200	-	-	-	-
		INCOIS Total	0		0	73,200	-	73,200	-	-	-	-
1	20090231		INDOUS	INDO-US SCIENCE & TECHNOLOGY FORUM	Atmospheric Haze:Adverse Impacts On Glaciers & Cultural Heritage In India	1,181	-	-	(1,181)	-	1,181	-
2	2017373		INDOUS	INDO-US SCIENCE & TECHNOLOGY FORUM	Integrated Dc-Dc Converter Based Grid Connected Transformerless Photovoltaic Inverter	83,252	-	83,252	-	-	-	-
3	20080105		INDOUS	INDO-US SCIENCE & TECHNOLOGY FORUM	Indo-Us Networked Centaron Development Of Metal-Ceramic Composites Through Microwave Processing	-	696,699	-	696,699	-	-	696,699
		INDOUS Total	0		0	84,433	696,699	83,252	695,518	-	1,181	696,699
1	2014012		INSA	INDIAN NATIONAL SCIENCE ACADEM	Molecular And Biochemical Characterization Of Nuclear Actin Related Proteins (Arps) From Ustilago Maydis	8,971	-	-	(8,971)	-	8,971	-
2	2015331		INSA	INDIAN NATIONAL SCIENCE ACADEM	Chemical Characterization Of Organic Aerosols Under Difference Environmental Conditions	-	22	-	22	-	-	22
3	2015260		INSA	INDIAN NATIONAL SCIENCE ACADEM	Kanpur Local Chater Of Insa	-	189,463	-	189,463	-	-	189,463
4	2014004		INSA	INDIAN NATIONAL SCIENCE ACADEM	Development Of Highly Selective Chemosensors For Cost-Effective Detection And Estimation Of Biologically And Environmentally Important Metal Ions	-	37	-	37	-	-	37
5	2017249		INSA	INDIAN NATIONAL SCIENCE ACADEM	Unraveling Shringverpura: Ancient Technology For Harvesting Water	67,024	-	24	(67,000)	75,000	142,000	-
6	20110034		INSA	INDIAN NATIONAL SCIENCE ACADEM	Development Of High Strength In-Situ Nanocomposites For Aerospace And Defence Applications	50,000	-	-	(50,000)	-	50,000	-
7	20120219		INSA	INDIAN NATIONAL SCIENCE ACADEM	Development Of High Strength In-Situ Nanocomposite For Aerospace And Defense Applications	278,513	-	-	(278,513)	-	278,513	-
		INSA Total	0		0	404,508	189,522	24	(214,962)	75,000	479,484	189,522
1	20050031		INTEL	INTEL TECHNOLOGY INDIA PVT.LTD.	Generation And Improvement Of Functional Tests For Sequencial Circuits	-	168	-	168	-	-	168
2	2015443		INTEL	INTEL TECHNOLOGY INDIA PVT.LTD.	Cross-Layer Optimization Techniques In Video Streaming Over Wireless Fading Networks	-	766,850	9,934	776,784	593,055	-	183,729
3	2018246		INTEL	INTEL TECHNOLOGY INDIA PVT.LTD.	"Intel India Faculty Excellence Program"	-	902,178	-	902,178	-	-	902,178
		INTEL Total	0		0	-	1,669,196	9,934	1,679,130	593,055	-	1,086,075
1	20050367		INTELS	INTEL SEMICONDUCTER INDIA LTD	Power Modelling In Microprocessors	-	90,840	-	90,840	-	-	90,840
		INTELS Total	0		0	-	90,840	-	90,840	-	-	90,840
1	20050240		ISRO	INDIAN SPACE RES. ORGANIZATION	Long Term Monitoring Of Black Carbon	-	9,761	-	9,761	-	-	9,761
2	20070228		ISRO	INDIAN SPACE RES. ORGANIZATION	Environmental Observatory	17,867	-	-	(17,867)	-	17,867	-
3	20110019		ISRO	INDIAN SPACE RES. ORGANIZATION	Study Of Parametric Sensitivity Of Water Permeation In Fuel Cell Proton Exchange Membranes	149,758	-	-	(149,758)	-	149,758	-
4	2019299		ISRO	INDIAN SPACE RES. ORGANIZATION	Chandrayaan-2 Science Plan	-	-	600,000	600,000	109,837	-	490,163

5	20090050		ISRO	INDIAN SPACE RES. ORGANIZATION	Development And Testing Of Algorithms For Computer Vision Based Autonomous Navigation System For The Lunar Rover Mission	372,000	-	-	(372,000)	-	372,000	-
6	20090001		ISRO	INDIAN SPACE RES. ORGANIZATION	Development, Validation And Testing Of Kinematic Control For Algorithm For Rover Motion On An Uneven Terrain	334,898			(334,898)	-	334,898	-
7	20085216		ISRO	INDIAN SPACE RES. ORGANIZATION	Liquid Phase Sintering in Microgravity	-	137,369	-	137,369	-	-	137,369
8	2019451		ISRO	INDIAN SPACE RES. ORGANIZATION	#N/A	-	-	(396,000)	(396,000)	-	396,000	-
		ISRO Total	0	0	#N/A	974,523	147,130	204,000	(623,393)	109,837	1,370,523	637,293
1	20174000		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Design & Development Of Aquatic Autonomous Observatory (Niracara Svayamsakta Vedhshala-Nivs) For In Situ Monitoring, Real Time Data Transmission & Web Based Visualization (Sub Project-D) Dett. Of Ae	1,303,582	-	1,772,543	468,961	1,746,615	1,277,654	-
2	2018250		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Space Debrisdisposal And Control Mechanism - Innovation Id No Iggudp3vwn4p	-	-	1,000,000	1,000,000	7,593		992,407
3	2019218		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Course On Nanotechnology Applications In Healthcare'S Toxicological Risk Assessment Using In Vitro, Ex Vivo And In Vivo Host-Microbiome Interaction Models" At Iit Kanpur	-	-	354,208	354,208	353,299	-	909
4	2017379		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Streaming Analytics Over Temporal Variables From Air Quality Monitoring (Satvam)	-	4,118,000	(4,271,657)	46,343	-	-	46,343
5	20173798		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Streaming Analytics Over Temporal Variables From Air Quality Monitoring (Satvam)	-	1,206,052	28,685	1,231,737	4,109,247	2,877,510	-
6	2019257		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	University Challenge Competition-Winning University Teams 2019	-	-	1,000,000	1,000,000	100,000	-	900,000
7	2017282		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist,Us India Collaborati	-	-	10,395,847	10,395,847	-	-	10,395,847
8	2017282A		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist: Iit Kanpur Centre Budget	-	2,568,787	5,607,362	8,176,149	4,534,760	-	3,641,389
9	20172828		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist:Iit Kanpur R&D Budget	-	22,368,392	10,444,220	32,812,612	14,577,425	-	18,235,187
10	2017282C		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist:Iit Kanpur Pilot 1 Budget	-	152,960	6,243,560	6,396,520	2,511,969	-	3,884,551
11	20172820		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist:Iit Kanpur Pilot 2 Budget	-	764,883	3,985,190	4,750,053	4,220,047	-	540,006
12	2017282E		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Ui-Assist:Iit Kanpur Pilot 3 Budget	-	583,588	19,706,150	20,289,738	1,066,465	-	19,223,273
13	2019185		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Gan Based High Power Lna For 5g Applications	-	-	3,650,000	3,650,000	3,348,446	-	301,554
14	20174000		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Design & Development Of Aquatic Autonomous Observatory (Niracara Svayamsakta Vedhshala-Nivs) For In Situ Monitoring, Real Time Data Transmission & Web Based Visualization (Sub Project-C) Dett. Of Ee	260,303	-	2,140,634	1,886,133	1,784,634	-	101,499
15	2019261		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Device For Inrush Current Minimization In Three Phase Transformers	-	-	1,000,000	1,000,000	621,435	-	378,565
16	20174008		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Design & Development Of Aquatic Autonomous Observatory (Niracara Svayamsakta Vedhshala-Nivs) For In Situ Monitoring, Real Time Data Transmission & Web Based Visualization (Sub Project-B) Dett. Of Ee	-	103,081	1,994,451	2,095,532	1,221,853	1,126,319	-
17	2017400		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Design & Development Of Aquatic Autonomous Observatory (Niracara Svayamsakta Vedhshala-Nivs) For In Situ Monitoring, Real Time Data Transmission & Web Based Visualization	-	9,962,310	(3,732,855)	6,229,455	300,000	-	5,929,455
18	2017400A		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Design & Development Of Aquatic Autonomous Observatory (Niracara Svayamsakta Vedhshala-Nivs) For In Situ Monitoring, Real Time Data Transmission & Web Based Visualization (Sub Project-A) Dett. Of Me	551,229	-	1,049,853	2,498,624	2,295,074	-	203,550
19	20173798		IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	Streaming Analytics Over Temporal Variables From Air Quality Monitoring (Satvam)	-	5,194,601	-	5,194,601	2,330,835	-	2,863,766
		IUSSTF Total	0	0	0	2,115,112	47,221,084	64,381,191	109,487,113	47,139,695	5,281,483	67,638,901
1	20100237		JICA	JAPAN INTERNATIONAL COOPERATION AGENCY	Paleoseismic & Gps Studies For Active Fault Mapping And Slip Rate Estimation In Nw-Central Himalaya,India	-	19,409	-	19,409	-	-	19,409
		JICA Total	0	0	0	-	19,409	-	19,409	-	-	19,409
1	2016022		KDMIPE	KDMIPE,ONGC	An Organometallic Fingerprinting Proxy To Locate Shale Oil Pools	214,962	-	55,965	(158,997)	1,861,104	2,020,101	-
		KDMIPE Total	0	0	0	214,962	-	55,965	(158,997)	1,861,104	2,020,101	-
1	20181194		KEIT	KOREAN EVALUATION INSTITUTE OF INDUSTRIAL TECHNOLOGY	A Development Of Optimal Ecs Driving System In Hev/Phev Based On Connected Vehicle Environment	-	674,719	873,252	1,547,971	425,286	-	1,122,685
		KEIT Total	0	0	0	-	674,719	873,252	1,547,971	425,286	-	1,122,685
1	2017346		KIS	KALPA INNOVATIVE SOLUTION	Development Of Gas Sensors For Detection Of Adulteration And Milk Spoilage	-	144,262	1,080,000	1,224,262	996,861	-	227,401
2	2017347		KIS	KALPA INNOVATIVE SOLUTION	Ppp Mode Industry Projects (Prototype Development Fund)	1,227	-	-	(1,227)	-	1,227	-
		KIS Total	0	0	0	1,227	144,262	1,080,000	1,223,035	996,861	1,227	227,401
1	2019291		KSPL	KEHR SURGICAL P LTD.	Design System For Stacking Of Surgery Blades	-	-	584,746	584,746	431,932	-	152,914
		KSPL Total	0	0	0	-	-	584,746	584,746	431,932	-	152,914
1	2019026		MAXPLA	MAX PLANCK GESELLSCHAFT	Max-Planck Partner Group Project	-	-	1,366,574	1,366,574	714,830	-	651,744
2	2018577		MAXPLA	MAX PLANCK GESELLSCHAFT	Max-Planck Partner Group Project	-	-	1,534,714	1,534,714	964,753	-	569,961
		MAXPLA Total	0	0	0	-	-	2,901,288	2,901,288	1,679,583	-	1,221,705
1	2016450		MCF	MINISTRY OF CHEMICALS AND FERTILIZERS	Develop A Novel Synthesis Rout For A Key Intermediate - Nerosymorphone	867,056	-	-	(867,056)	-	867,056	-
		MCF Total	0	0	0	867,056	-	-	(867,056)	-	867,056	-

1	20040219		MCIT	MINISTRY OF COMMUNICATION & INFORMATION TECHNOLOGY	Quantum Computing With Ultrafast Pulse Shaping Technology	11	-	-	(11)	-	11	-
2	2014257		MCIT	MINISTRY OF COMMUNICATION & INFORMATION TECHNOLOGY	Engineering Of Security Hardened Cryptographic Protocols For Critical National Infrastructu	629,935	-	-	(629,935)	527,500	1,207,435	
3	2015325		MCIT	MINISTRY OF COMMUNICATION & INFORMATION TECHNOLOGY	Setting Up Of Electronics And Ict Academies	7,961,666	-	-	(7,961,666)	534	7,962,200	-
4	20040594		MCIT	MINISTRY OF COMMUNICATION & INFORMATION TECHNOLOGY	Development Of Text And Image Based Tools For Technology Mapping From Patents Literature With A Specific Application To Language Technology Crm And Molecular Structure	415	-	-	(415)	-	415	-
5	20050021		MCIT	MINISTRY OF COMMUNICATION & INFORMATION TECHNOLOGY	Development Of Magnesium Oxide Coatings By Sputtering For Plasma Display Panels	190,706	-	-	(190,706)	-	190,706	-
		MCIT Total	0	0	0	8,832,733	-	-	(8,832,733)	528,034	9,360,767	-
1	2018356		MEITY	MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY	Femtosecond Laser Approaches To Quantum Information And Computation Towards A Perfectly Secure Channel For Robust And Scalable Information Processing	-	18,857,591	42,051	18,899,642	1,394,522	-	17,505,120
2	2019548		MEITY	MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY	Tribe Connect: Integrated Smart Tribal Eco-Platform-A Proof Of Concept In Chattisgarh	-	-	2,188,460	2,188,460	-	-	2,188,460
		MEITY Total	0	0	0	-	18,857,591	2,230,511	21,088,102	1,394,522	-	19,693,580
1	20070003		MHFW	MINISTRY OF HEALTH & FAMILY WELFARE	Tele-Opthalmology	50,000	-	-	(50,000)	-	50,000	-
		MHFW Total	0	0	0	50,000	-	-	(50,000)	-	50,000	-
1	2017089		MHPA	MINISTRY OF HOUSING AND POVERTY ALLEVIATION	Regional Hub And Technical Centre(Technology Submission Of Pradhan Mantri Awas Yojna, Mhupa)	476,691	-	-	(476,691)	-	476,691	-
		MHPA Total	0	0	0	476,691	-	-	(476,691)	-	476,691	-
1	20130082		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Knowledge Incubation For Teqip-Ii	-	1,688,374	20,976,762	22,665,136	31,357,555	-	1,307,581
2	2018357		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Aircraft Engine Combustor Design For Improved Operability, Durability, Pattern Factor And Emissions	-	21,430,093	-	21,430,093	11,837,823	-	9,592,270
3	20161420		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of High Efficiency Wind Turbine	-	11,236	-	11,236	-	-	11,236
4	2019352		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare: Modeling Of Diluted Turbulent Spray Flames In Hot Coflow Using Les Fgm	-	-	2,500,000	2,500,000	-	-	2,500,000
5	2018136		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare: Development Of Computational Model For Multi-Physics Simulation Of Flows During Planetary Landing Of Spacecrafts	-	-	150,000	150,000	31,501	-	118,499
6	2019063		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare: Stabilizing Neurodegenerative Polyglutamine Repeat Fibrils By Sufex Chemistry: A Combined Synthetic And Biophysical Investigation	-	-	2,899,970	2,899,970	250,000	-	2,649,970
7	2018135		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Fabrication Of New Generation Of Self Resorbbl Implants And Devices From Bioactive And Biodegradable Materials For Orthopaedic Applications	-	2,365,022	-	2,365,022	1,816,383	-	548,639
8	2018540		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare:Development Of 3d Printable Bone And Nerve Guiding Drug Eluting Composite Implants For Vertebral/Spine Trauma In Infection/Tuberculosis And Cancer	-	-	1,409,598	1,409,598	647,588	-	762,010
9	2018082		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Iitk Kamu Chemical Biodesign Immersion Program	-	63,225	20,000	83,225	20,000	-	63,225
10	2018476		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Improving Pulse (Chick Pea And Soyabean) Production And Nitrogen Content Of The Soil By Nano Iron Pyrite Seed Treatment	-	-	2,566,000	2,566,000	140,000	-	2,426,000
11	20130176		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Advanced Computational Research & Education	-	3,223,860	719,134	3,942,994	6,964,951	1,021,957	-
12	20050057		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Out-Of-Plan Behavior Of Masonry Walls Using Shake Table:An Experimental Study	46	-	-	(46)	-	46	-
13	20030046		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Earthquake Disaster Mitigation	-	517	-	517	-	-	517
14	2016142Q		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Field Validation Of Stabilized Material For Subgrade Pavement	-	66,594	-	66,594	23,600	-	42,994
15	2016142X		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Designing Of A Novel, Off-Centric Nozzle Impaction Based Automatic Pm2.5 Air Sampler	597,170	-	-	(597,170)	103,215	700,385	-
16	2016142O		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	A Device For Estimation Of Solar Power	-	603,631	-	603,631	-	-	603,631
17	2016143W		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Beneficial Utilization Of Sustainable Industrial Waste For The Development Of Self-Compacting Cement Based Pre-Cast Panels	-	453,385	-	453,385	94,127	-	359,258
18	2018542		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare:Park-It: Advanced Parking Information And Management For Indian Traffic	-	-	1,600,000	1,600,000	981,180	-	618,820
19	2018559		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spare: Development Of Precise Gravimetric Geoid Model For India Using Terrestrial, Airborne And Satellite Gravity Data	-	-	2,098,212	2,098,212	2,459,111	360,899	-
20	2016142A		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Microscope Adapter For Smartiphone Camera	-	55,841	-	55,841	-	-	55,841
21	2016147R		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Economically Viable Paper-Based Microchip For Oral Pre-Cancer/Cancer Patients Screening Using Saliva As Sample Fluid	353,740	-	-	(353,740)	-	353,740	-
22	2018209		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Addressable Peptide-Polymer-Electrospun Nanofibers For Cell Sorting Diagnostics And Delivery	-	3,100,000	-	3,100,000	632,857	-	2,467,143
23	20090124		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Quantum And Nano Computing Virtual System	-	339	-	339	-	-	339
24	2016142B		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Multi Electrode Electroporator Prototype	-	826,283	-	826,283	-	-	826,283
25	2015251		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Teaching And Learning Centre	-	6,285,746	5,248,583	11,534,329	11,011,379	-	522,950
26	20090141		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	National Programme Of Technology Enhanced Learning (Phase Ii)	-	696	-	696	-	-	696
27	2016142C		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Implementation Of Web Based Scalable Secure Institute Grade Management System	491,580	-	-	(491,580)	-	491,580	-

28	2015427		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars: Developing Safe And Secure Autonomous Cyber-Physical Systems	-	-	2,056,695	2,056,695	-	-	2,056,695
29	2015437		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Central Sector Scheme For Mooc-Compliant I-Content Creation (Nptel Phase Iv)	-	8,753,286	89,000,496	97,753,782	54,709,210	-	43,044,572
30	2018201		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of Rehabilitation And Monitoring Tool For Neurological Movement Disorder	-	14,934	-	14,934	-	-	14,934
31	20161421		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Diagnosis Of Dengue Using Paper Based Devices	-	5,109	-	5,109	-	-	5,109
32	2015264D		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Dic Academics	-	790,281	-	790,281	-	-	790,281
33	2016142F		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Developing Prototype Of Portable Light Weight Power Bank From Indigenous Eco-Friendly Sustainable Charge Storage Materials	-	337,366	-	337,366	-	-	337,366
34	2015264F		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Dic-Residents & Fellows	-	374,519	-	374,519	-	-	374,519
35	2015264H		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spagi Spoke	-	1,587,671	-	1,587,671	-	-	1,587,671
36	2016163		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Dic Operational Plan	315,210	-	-	(315,210)	1,197,186	1,512,396	-
37	2019435		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Leadership For Academics Programme (Leap)	-	-	15,000,000	15,000,000	61,121	-	14,938,879
38	20050050		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Indo-French Cyber University	-	370,083	-	370,083	-	-	370,083
39	2018363		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Imprint Cell	-	11,799,947	-	11,799,947	9,273,217	-	2,526,730
40	20100108		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Synchronous Live Lecture Delivery System-Brihaspatisync	84,557	-	-	(84,557)	-	84,557	-
41	20100117		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Lep-Mission	7,622	-	-	(7,622)	-	7,622	-
42	20161427		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Development Of Thunderbird Plugin Based P2p Messaging Client	452,529	-	-	(452,529)	138,142	590,671	-
43	2016142Y		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Fog Visibility Enhancement	638,405	-	-	(638,405)	367,856	638,261	-
44	2018150		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Teaching Learning Centre For Internet-Of-Things	441,682	-	40,257	(401,425)	3,113,189	3,514,614	-
45	2018545		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars: Deployment Of Low-Cost Multi-Rotor Mini-Uavs For Early Detection Of Crop Diseases And Development Of An Optimal System For Management Of Farming Activities	-	-	2,700,000	2,700,000	505,600	-	2,194,400
46	20050061		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Custom Power And Improvement Of Power Quality At Critical Load Centres In The Distribution Network	5,400	-	-	(5,400)	-	5,400	-
47	20161423		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Automatic Book Copier	201,918	-	-	(201,918)	319,915	521,833	-
48	2016142K		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Electronic Digitization Of Biomolecules For Rapid And Real Time Detection Of Human Pathogens Using Npt	150,176	-	-	(150,176)	30,400	180,776	-
49	2018558		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars: Machine Learning For Lattice Quantum Chromodynamics	-	-	2,700,000	2,700,000	852,196	-	1,847,804
50	2018225		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	The Socio-Economic Costs Of Road Crashes In India - Evaluation Of The Role Of Exante And Ex-Post Policies	-	-	450,000	450,000	159,700	-	290,300
51	20161425		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Development Of Assistive Touch Screen Based Interface For Children With Dyslexia And Dysgraphia	479,354	-	-	(479,354)	145,200	624,554	-
52	2018697		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Rural Craft And Artisans Devel	-	-	500,000	500,000	699,225	199,225	-
53	2019079		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars: Development And Neurological Application Of High Definition Fibre Tracking (Hdft)	-	-	2,949,970	2,949,970	1,760,961	-	1,189,009
54	2017270		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Deformation Theory Of Algebraic Structures And Twisted Algebraic Structures	-	64,031	-	64,031	-	-	64,031
55	2017271		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Differential Geometry And Pde'S	-	148,579	-	148,579	-	-	148,579
56	2016261		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Dth Project	-	8,841,831	10,551,051	19,392,882	9,620,747	-	9,772,135
57	2015264		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design Innovation Centre	893,000	-	715,840	(183,160)	715,840	893,000	-
58	20030048		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Rainbow Schlieren Tomography Measurements During Combustion Of Alternative Gaseous Fuels Such As Hydrogen	-	236	-	236	-	-	236
59	2015264A		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Hoti Spoke	1,517,500	-	-	(1,517,500)	-	1,517,500	-
60	20161421		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Construction Of Computer Controlled Automated Radio-Chemistry Synthesizer	153,653	-	-	(153,653)	123,600	277,253	-
61	2016142M		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Designing And Manufacturing Of Prototype Of Dynamic Endotracheal Tube Holder	-	5,957	-	5,957	146,957	141,000	-
62	2016142N		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Development Of A Fiber Optic Intubation Device With A Co-Sensor At Its Tip For Facilitation Of Endotracheal Intubation	-	72,538	-	72,538	-	-	72,538
63	2016474		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of Adaptive Intelligent Phmr For Fuel Transportation Systems Mhrd (Dst) Uay	-	1,267,864	-	1,267,864	9,261,574	7,993,710	-
64	2018544		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars: Vibration Absorption Using Metamaterial Based Composites	-	-	3,037,638	3,037,638	2,197,534	-	840,104
65	20161421		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Prototype Heart Valve	3,915	-	-	(3,915)	-	3,915	-
66	2015264B		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Dic-Pd Lab	-	65,210	-	65,210	-	-	65,210
67	2016142P		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of Dual Wavelength Led Based Phototherapy Unit	-	537,570	-	537,570	467,319	-	70,251
68	2016142Z		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Indigenization & Improvisation Of Puncher Gun For Manual Tissue Micro-Array Construction	26,102	-	-	(26,102)	-	26,102	-
69	2015264I		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Development Of Prosthetic Pinna	-	14,398	-	14,398	14,716	318	-
70	2016142U		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of Implants For Middle Ear	-	249,712	-	249,712	-	-	249,712
71	2018543		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Spars:Lean Premixed Prevaporized Combustion Of Diesel And Biofuels In A Laboratory-Scale Gas Turbine Combustor	-	-	1,959,594	1,959,594	1,059,546	-	900,048
72	2018387		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	National Resource Centre Swayam	-	1,439,374	8,000,000	9,439,374	1,439,374	-	8,000,000
73	2017127		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Unnat Bharat Abhiyan	-	15,589	-	15,589	-	-	15,589
74	2019077		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Uba (Unnat Bharat Abhiyan)- Regional Coordination	-	-	500,000	500,000	124,155	-	375,845
75	16142AA		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Design And Development Of Needle With Flexible Bend At The Tip	-	115,067	-	115,067	10,700	-	104,367
76	2016142E		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Layered Steel For Structural Application	-	301,364	-	301,364	305,315	3,951	-

77	2014758		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Virtual Lab Phase -II	-	1,931,903	1,199,249	5,131,152	2,005,643	-	3,125,509
78	2018064		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Virtual Lab Phase III	-	528,690	8,800,000	7,328,690	2,782,973	-	4,545,717
79	2018119		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Usyl-Biodegradable Polymers For Packing Applications	-	569,992	-	569,992	791,460	221,468	-
80	2016541		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Soare:Observation And Phenomenology Of Ultra High Energy Cosmic Ray Neutrinos At Anita, Ara And Arianna And Other Detectors	-	-	2,181,806	2,181,806	1,822,013	-	359,793
81	20161427		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Development Of Low-Cost Multi-Photon Laser Micro-Writer For Lithography	-	800,000	-	800,000	-	-	800,000
82	2015560		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Soare: Topology, Interaction A	-	-	2,073,652	2,073,652	332,043	-	1,741,610
83	2015293		MHRD	MIN. OF HUMAN RESOURCE DEVELOP	Soare Spac Iit Kanpur	-	-	299,970	299,970	-	-	299,970
		MHRD Total	0		0	6,419,759	81,188,002	194,904,477	269,672,720	157,691,996	16,858,783	128,839,507
1	93034		MIB	MIN. OF INFORMATION & BRODCAST	Doordarshan Training Programme	2,451,720	-	-	(2,451,720)	-	2,451,720	-
		MIB Total	0		0	2,451,720	-	-	(2,451,720)	-	2,451,720	-
1	20130047		MICROS	MICROSOFT CORPORATION	Telemedicine	24,192	-	-	(24,192)	-	24,192	-
		MICROS Total	0		0	24,192	-	-	(24,192)	-	24,192	-
1	20100032		MIS	MIS	Flight Lab Training Program	-	76	-	76	-	-	76
		MIS Total	0		0	-	76	-	76	-	-	76
1	20100020		MISC01	misc	Remote Sensing Assisted Mapping Of Megageomorphology In Parts Of The Indo Gangetic Plains, India	-	3,915	-	3,915	-	-	3,915
		MISC01 Total	0		0	-	3,915	-	3,915	-	-	3,915
1	2015024		MISC	MISCELLANEOUS	Design & Development Of Pine Needle Based Smokeless Chulla	116,907	-	116,907	-	-	-	-
2	2015058		MISC	MISCELLANEOUS	Design, Development & Field Testing Of 1 Kw Vertical Axis Wind Turbine At Bikit Dwarahi	373,099	-	-	(373,099)	-	373,099	-
3	2016064		MISC	MISCELLANEOUS	Joint Research Study Between Aalto University & Iit Kanpur On Recycling Of Asphalt Materials In Road Construction	-	171,442	-	171,442	18,372	-	153,070
4	2015325A		MISC	MISCELLANEOUS	Iict Academy Ii	-	-	4,857,331	4,857,331	4,502,353	-	354,978
5	2018009		MISC	MISCELLANEOUS	Prabandhan 2017	-	470	2,097	2,567	-	-	2,567
		MISC Total	0		0	490,006	171,912	4,976,135	4,656,241	4,520,725	373,099	510,615
1	2014015		MIT	MINISTRY OF INFORMATION TECHNOLOGY	Ernet Project	119,037	-	-	(119,037)	-	119,037	-
2	20010296		MIT	MINISTRY OF INFORMATION TECHNOLOGY	Cail Net: A Hindi To English Machine Aided Translation System Based On Anubharti Approach	1	-	-	(1)	-	1	-
3	20010245		MIT	MINISTRY OF INFORMATION TECHNOLOGY	Development Of Ready Reckner Of Global S/W Patents In Manufacturing Sector	111	-	-	(111)	-	111	-
		MIT Total	0		0	119,149	-	-	(119,149)	-	119,149	-
1	20040222		MLA	MEDIA LAB ASIA	A Portable Model Of Primary Healthcare Delivery	4,390	-	-	(4,390)	-	4,390	-
2	20030303		MLA	MEDIA LAB ASIA	E-Flip Everbodng'S Platform For Information Processing	579,387	-	-	(579,387)	-	579,387	-
3	20050014		MLA	MEDIA LAB ASIA	Ruralnet (Digital Gangetic Plains Ii)	125,227	-	-	(125,227)	-	125,227	-
4	20010285		MLA	MEDIA LAB ASIA	Bries: Boeild Robots, Create Science	-	155,234	-	155,234	-	-	155,234
		MLA Total	0		0	709,004	155,234	-	(553,770)	-	709,004	155,234
1	2016473		MMC	MURATA MANUFACTURING COMPANY	Ppp Mode Industry Projects (Prototype Development Fund)	-	7,312,991	-	7,312,991	7,025,329	-	287,662
2	2017466		MMC	MURATA MANUFACTURING COMPANY	Flexible Multi Point Temperature Sensing Systems & Algorithm (Phase - Ii)	455,153	-	445,589	(9,564)	779,913	789,477	-
		MMC Total	0		0	455,153	7,312,991	445,589	7,303,427	7,805,442	789,477	287,662
1	20100021		MNRE	MINISTRY OF NEW AND RENEWABLE ENERGY	Design And Development Of Hydrogen Gas Burner For Industrial Application	554,664	-	-	(554,664)	-	554,664	-
2	20060344		MNRE	MINISTRY OF NEW AND RENEWABLE ENERGY	Development Of Direct Methanol Fuel Cell And Special Proton Exchange Membranes Impervious To Methanol	275,501	-	-	(275,501)	-	275,501	-
3	2015356		MNRE	MINISTRY OF NEW AND RENEWABLE ENERGY	Research On Metal Organic Framework (Mofs): Searching Of Paradigms For Selective And Reversible Hydrogen Storage At Ambient And Near Ambient Temperatures.	839,970	-	-	(839,970)	-	839,970	-
4	20100383		MNRE	MINISTRY OF NEW AND RENEWABLE ENERGY	Design And Development Of Organic Solar Cell Sub-Modules	3,853,275	-	-	(3,853,275)	-	3,853,275	-
		MNRE Total	0		0	5,523,410	-	-	(5,523,410)	-	5,523,410	-
1	20100313		MOEF	MINISTRY OF ENVIRONMENT AND FOREST	Development Of Viable Technology For Mercury Remediation From Industrial And Dental Hospital Waste Waters Using Polymer Nanocomposites	511,582	-	-	(511,582)	-	511,582	-
2	20120018		MOEF	MINISTRY OF ENVIRONMENT AND FOREST	Reduction Of Chromium Toxicity Using Nanoparticles: Laboratory And Field Scale Study	609,692	-	-	(609,692)	-	609,692	-
3	20090319		MOEF	MINISTRY OF ENVIRONMENT AND FOREST	Various Remediation Approaches For Management Of Lindane Contamination In Chinhat Area Of Lucknow	264,632	-	-	(264,632)	-	264,632	-
		MOEF Total	0		0	1,385,906	-	-	(1,385,906)	-	1,385,906	-
1	2016045		MOEFCC	MOEFCC	National Carbonaceous Aerosols Programme (Ncap) Working Group-Iii Project	-	32,696,728	1,895,921	34,592,649	22,021,276	-	12,571,373
		MOEFCC Total	0		0	-	32,696,728	1,895,921	34,592,649	22,021,276	-	12,571,373
1	2017310		MOES	MINISTRY OF EARTH SCIENCES	Megacity Delhi Atmospheric Emission Quantification	-	235,352	392,000	617,352	507,781	-	109,571
2	20120184		MOES	MINISTRY OF EARTH SCIENCES	Synthesis Of Marine Bioactive Peptides/ Biomolecules And Their Analogs	1,092,688	-	-	(1,092,688)	-	1,092,688	-
3	2018272		MOES	MINISTRY OF EARTH SCIENCES	Improved Description Of The Water Cycle In The Upper Ganga Catchment Using Isotopic, Geochemical Data And Model Simulations	-	3,823,393	122,259	3,945,652	2,883,906	-	1,061,746

4	2014279		MOES	MINISTRY OF EARTH SCIENCES	Aligned Carbon Nanotubes As Porous Materials For Selective Carbon Dioxide Adsorption And Desorption: Effect Of Pressure And Charge	218,077	-	267,962	49,885	55,085	15,200	-
5	2018261		MOES	MINISTRY OF EARTH SCIENCES	Sequesteration And Activation Of Co2 Using Newly Emerging Weak Interactions: Lone Pair-Pi Interactions At Work	-	3,066,928	-	3,066,928	58,460	-	2,508,468
6	20110186		MOES	MINISTRY OF EARTH SCIENCES	The Structure And Dynamic Of Groundwater System In Northwestern India Under Past, Present And Future Climates	1,187,023	-	-	(1,187,023)	-	1,187,023	-
7	20110267		MOES	MINISTRY OF EARTH SCIENCES	Hydrometeorological Feedback And Changes In Water Storage And Fluxes In Northern Indian Basins	2,436,133	-	-	(2,436,133)	-	2,436,133	-
8	2014139		MOES	MINISTRY OF EARTH SCIENCES	Establishing The Reference Condition On The Ganga River With Corona Archival Imagery	63,356	-	-	(63,356)	-	63,356	-
9	2015571		MOES	MINISTRY OF EARTH SCIENCES	Inference Of Rupture Characteristics Of The 25 April 2015 Nepal Earthquake: A Proposal For A Reconnaissance Survey In Southern Nepal	-	189	-	189	-	-	189
10	2015329		MOES	MINISTRY OF EARTH SCIENCES	Integrated Project On Active Fault Mapping In Kachchh Basin Western India	-	28,284	13,990	42,274	363,933	321,659	-
11	2015433		MOES	MINISTRY OF EARTH SCIENCES	Active Fault, Paleoseismic And Crustal Deformation In Nw And Central Himalaya India : An Integrated Approach Towards Seismic Hazard Assessment	391,954	-	3,121,914	2,819,960	1,965,877	-	854,083
12	2018169		MOES	MINISTRY OF EARTH SCIENCES	5th Panic Of Seismology	-	270,779	-	270,779	-	-	270,779
13	2015295		MOES	MINISTRY OF EARTH SCIENCES	Establishing A Critical Zone Observatory (Czo) In The Ganga Basin: Focus On Water Balance,Water Quality, And Hydrometeorological Information System	-	89,433	230,447	319,880	325,471	5,591	-
14	2017366		MOES	MINISTRY OF EARTH SCIENCES	"Role Of Crust-Mantle Interaction In The Origin Of Bimodal Silicic-Mafic Magmas In The Deccan Traps Large Igneous Province"	-	-	5,591	5,591	-	-	5,591
15	2014217		MOES	MINISTRY OF EARTH SCIENCES	Isotopes Technique To Evaluate The Seasonal And Inter-Annual Variation Of Glacial Melt And Snowmelt Discharge In The Ganges River At Gomukh And Mana	40,297	-	-	(40,297)	-	40,297	-
		MOES Total	0		0	5,339,728	7,504,358	4,154,149	6,318,799	4,210,513	5,162,147	5,270,437
1	2018273		MOS	MINISTRY OF STEEL	Fundamental Process Engineering To Minimize Re-Oxidation Of Steel During Teeming Via A Ladle Shroud Leading To Improved Castability And Cleanliness		10,515,842	1,519,000	12,034,842	10,689,140		1,345,202
2	2014138		MOS	MINISTRY OF STEEL	Study On Requirement And Availability Of Technical Manpower For Steel Industry In India	-	1,788	-	1,788	1,788	-	-
		MOS Total	0		0	-	10,517,630	1,519,000	12,036,630	10,690,928	-	1,345,202
1	20080046		MOT	MINISTRY OF TEXTILES	Design Bank	94,986	-	-	(94,986)	-	94,986	-
2	20070264		MOT	MINISTRY OF TEXTILES	Design Centre In Brass Products For Development Of Moradabad Cluster And Its Allied Craftsmanship	-	468	-	468	-	-	468
3	20070266		MOT	MINISTRY OF TEXTILES	Setting Up Handicrafts Museum	1,338,361	-	-	(1,338,361)	-	1,338,361	-
4	2012065		MOT	MINISTRY OF TEXTILES	Focus Incubation Centre (Technical Textile)	-	15,050,000	-	15,050,000	-	-	15,050,000
		MOT Total	0		0	1,433,347	15,050,468	-	13,617,121	-	1,433,347	15,050,468
1	2014330		MOWR	MINISTRY OF WATER RESOURCES	Operation And Maintenance Of 07 Nos Of Mobile Zero Discharge Toilet Systems During Magh Mela-2015	-	402,119	-	402,119	-	-	402,119
2	2015357		MOWR	MINISTRY OF WATER RESOURCES	Deployment Of Zero Waste Toilets And Waterless Urinals In Magh Mela Allahabad	2,590,907	-	4,796,890	2,205,983	-	-	2,205,983
3	2012510		MOWR	MINISTRY OF WATER RESOURCES	Statistical Downscaling For Hydro-Climatic Projections With Cmip5 Simulation To Assess Impact Of Climate Change	-	450,612	-	450,612	535,705	81,093	-
4	2018066		MOWR	MINISTRY OF WATER RESOURCES	Reconstructing The Ganga Of The Past From Corona Archival Imagery	-	301,309	2,897,598	3,198,907	1,898,398	-	1,300,509
		MOWR Total	0		0	2,590,907	1,154,040	7,694,488	6,257,621	2,430,103	81,093	3,908,611
1	2016014		MOWRG	MINISTRY OF WATER RESOURCES,RIVER DEVELOPMENT & GANGA REJUVENATION	Centre For Ganga River Basin Management	21,411,851	-	72,894,293	51,482,442	15,000,000	-	36,482,442
2	2016014A		MOWRG	MINISTRY OF WATER RESOURCES,RIVER DEVELOPMENT & GANGA REJUVENATION	Cgrbms At Iit Kanpur	-	22,636,882	22,951,772	45,588,654	30,278,353	-	15,310,301
		MOWRG Total	0		0	21,411,851	22,636,882	95,846,065	97,071,096	45,278,353	-	51,792,743
1	20030066		MPLADS	M.P. LADS-CDO	Mplads Project Vi	151,524	-	-	(151,524)	-	151,524	-
2	20040066		MPLADS	M.P. LADS-CDO	Mplads Project - Viii	440,535	-	-	(440,535)	-	440,535	-
		MPLADS Total	0		0	592,059	-	-	(592,059)	-	592,059	-
1	2016274		MRLIPL	MICROSOFT RESEARCH LAB INDIA PRIVATE LIMITED	Virtual Center For Extreme Classification	-	629,743	-	629,743	-	-	629,743
2	20080312		MRLIPL	MICROSOFT RESEARCH LAB INDIA PRIVATE LIMITED	Microsoft Research India Travel Grant 2008	-	24,799	-	24,799	-	-	24,799
		MRLIPL Total	0		0	-	654,542	-	654,542	-	-	654,542
1	2015713		MSDE	MINISTRY OF SKILL DEVELOPMENT AND ENTERPRENEORSHIP	National Entrepreneurship Awards	-	-	3,446,082	3,446,082	3,065,214	-	380,868
		MSDE Total	0		0	-	-	3,446,082	3,446,082	3,065,214	-	380,868
1	20050341		MTECH	M-TECH INNOVATION LTD	Rfid Based System For Ee Stores	524,650	-	-	(524,650)	-	524,650	-
		MTECH Total	0		0	524,650	-	-	(524,650)	-	524,650	-
1	2017079		MTL	MANIPAL TECHNOLOGIES LIMITED	Passive Tan Stamp Tags	-	343,527	-	343,527	515,706	172,179	-

2	2018476		MTL	MANIPAL TECHNOLOGIES LIMITED	Conductive Carbon Paste/Paint	-	59,400	186,320	225,720	225,720	-	-
		MTL Total	0	0	0	-	402,927	166,320	569,247	741,426	172,179	-
1	2017243		MU	MONASH UNIVERSITY	Affirmation Action, Discrimination & Economic Development: Lessons & Evidence	46,426	-	-	(46,426)	-	46,426	
		MU Total	0	0	0	46,426	-	-	(46,426)	-	46,426	-
1	20070261		NAIP	NATIONAL AGRICULTURAL INNOVATION PROJECT	Understanding Plant Nematode Interactions Using Rnai	1,836,221	-	-	(1,836,221)	-	1,836,221	-
2	20080331		NAIP	NATIONAL AGRICULTURAL INNOVATION PROJECT	Potential Of Rnai In Insect Pest Management	39,430	-	-	(39,430)	-	39,430	-
		NAIP Total	0	0	0	1,875,651	-	-	(1,875,651)	-	1,875,651	-
1	20070307		NAL	NAL	Experimental Studies On Single And Multi-Element Airfoils At Nwtf, Iit Kanpur	-	162,123	-	162,123	-	-	162,123
		NAL Total	0	0	0	-	162,123	-	162,123	-	-	162,123
1	20070349		NASA(N	NASA (NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	Tigers	-	868,276	412,753	1,281,029	455,532		825,497
		NASA(N Total	0	0	0	-	868,276	412,753	1,281,029	455,532	-	825,497
1	20030228		NBHM	NATIONAL BOARD OF HIGHER MATHS	Abstract Evaluation Evations And Their Applications	-	275	-	275	-	-	275
2	2018259		NBHM	NATIONAL BOARD OF HIGHER MATHS	Mathematics Olympiad Program	-	7,030	149,760	156,790	151,075	-	5,715
		NBHM Total	0	0	0	-	7,305	149,760	157,065	151,075	-	5,990
1	2017516		NC	THE NATURE CONSERVANCY	Ganga Basin Health In The Middle Stretch	1,008,575	-	1,008,575	-	-	-	-
		NC Total	0	0	0	1,008,575	-	1,008,575	-	-	-	-
1	20190209		NCTU	NATIONAL CHIAO TUNG UNIVERSITY	Mou For Research Collaboration Between National Nctu & Iit Kanpur	-	-	1,761,373	1,761,373	135,022	-	1,626,351
		NCTU Total	0	0	0	-	-	1,761,373	1,761,373	135,022	-	1,626,351
1	20110061		NETAPP	NETAPP INDIA PRIVATE LTD. BANGALORE	Flash Aware Optimizations For Columnar Databases	-	179,104	-	179,104	-	-	179,104
		NETAPP Total	0	0	0	-	179,104	-	179,104	-	-	179,104
1	20070285		NFP	NATIONAL FUSION PROGRAMME	Development Of A Microwave Plasma Based Negative Ion Source And Study Of Plasma Dynamics Through A Transverse Magnetic Filter In The Negative Ion Source	-	16,873	-	16,873	-	-	16,873
		NFP Total	0	0	0	-	16,873	-	16,873	-	-	16,873
1	2015269		NIE	NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING, MUMBAI	Deployment Of Brihaspati Erp	299,629	-	-	(299,629)	-	299,629	-
		NIE Total	0	0	0	299,629	-	-	(299,629)	-	299,629	-
1	20060106		NILU	NILU	Environmental Health Assessment	-	4,803	-	4,803	-	-	4,803
		NILU Total	0	0	0	-	4,803	-	4,803	-	-	4,803
1	2015279		NIRDES	NATIONAL INSTITUTE FOR R&D IN DEFENCE SHIPBUILDING	Developing And Validating The Algorithm Suitable For Hvac And Validation For Implementation At Design Stage.	-	61,003	13,398	74,401	74,401	-	-
		NIRDES Total	0	0	0	-	61,003	13,398	74,401	74,401	-	-
1	20010181		NLDP	NATIONAL LEATHER DEVELOPMENT PROGRAMME	Development Of Western Saddlery Technology.	205,811	-	-	(205,811)	-	205,811	-
		NLDP Total	0	0	0	205,811	-	-	(205,811)	-	205,811	-
1	20130138		NMRL	NAVAL MATERIALS RESEARCH LABORATORY, DRDO	Organic/Polymer Light Emitting Diodes Fabrication And Characterization	38,979	-	-	(38,979)	-	38,979	-
		NMRL Total	0	0	0	38,979	-	-	(38,979)	-	38,979	-
1	2018292		NOKIA	NOKIA	Physical Layer Design Techniques For Next Generation Cellular Technologies	-	723,082	-	723,082	-	-	723,082
		NOKIA Total	0	0	0	-	723,082	-	723,082	-	-	723,082
1	2018354		NPOL	NAVAL PHYSICAL & OCEANOGRAPHIC LABORATORY	Development Of Flexible Thin Film Transistor Circuit For Acoustic Sensors	-	587,433	1,750,000	2,337,433	1,195,066	-	1,142,367
		NPOL Total	0	0	0	-	587,433	1,750,000	2,337,433	1,195,066	-	1,142,367
1	2015258		NRB	NAVAL RESEARCH BOARD	Fiber-Optic Hydrophone Sensor Array For Underwater Surveillance	1,364,190	-	-	(1,364,190)	-	1,364,190	-
2	2018506		NRB	NAVAL RESEARCH BOARD	Skin-Friction Drag Reduction Through Control Of The Turbulent Boundary Layer On Axisymmetric Bodies	-	4,602,500	-	4,602,500	477,571	-	4,124,929
3	20090196		NRB	NAVAL RESEARCH BOARD	Development Of Corrosion And Wear Resistant Ni And Al-Based Metallic Glass Coatings And Nanocrystalline Coatings	331,914	-	-	(331,914)	-	331,914	-
		NRB Total	0	0	0	1,696,104	4,602,500	-	2,906,396	477,571	1,696,104	4,124,929
1	2017214		NRDC	NATIONAL RESEARCH DEV. CORP.	Innovation Facilitation Centre (Ifc)	-	14	-	14	-	-	14
		NRDC Total	0	0	0	-	14	-	14	-	-	14
1	20050199		NRSA	NRSA	Development Of Advanced Tools For Geometric Correction, Classification And Fusion Of Sar Data Of Agricultural Areas	17,639	-	-	(17,639)	-	17,639	-
		NRSA Total	0	0	0	17,639	-	-	(17,639)	-	17,639	-
1	2017518		NSCS	NATIONAL SECURITY COUNCIL SECRETARIAT	Development Of National Blockchain And Demonstrate Two Strategic Applications	-	118,806,337	82,450	118,888,787	40,927,084	-	77,961,703
2	2019422		NSCS	NATIONAL SECURITY COUNCIL SECRETARIAT	Demodulation Of Complex Waveform	-	-	916,000	916,000	150,000	-	766,000
		NSCS Total	0	0	0	-	118,806,337	998,450	119,804,787	41,077,084	-	78,727,703
1	2016258		NSPL	NIVETTI SYSTEMS PRIVATE LTD.	Engineering Of Security Hardened Cryptographic Protocols For Critical National Infrastructu	-	44,424	-	44,424	-	-	44,424
		NSPL Total	0	0	0	-	44,424	-	44,424	-	-	44,424

1	2016448		NSRT	NAVIN SARENA RESEARCH & TECHNOLOGY	Develop A Novel Synthesis Rout For A Key Intermediate - Noroxymorphone	-	218,038	-	218,038	217,114	-	924
		NSRT Total	0		0	-	218,038	-	218,038	217,114	-	924
1	2017135		OFMK	ORDINANCE FACTORY, MEDAK	Optimization Of Aluminium Steel Composite Mesarial	25,494	-	-	(25,494)	-	25,494	-
		OFMK Total	0		0	25,494	-	-	(25,494)	-	25,494	-
1	2015393		OIDB	OIDB	Modeling And Simulation Of Methane Extraction From Gas Hydrates Via Simultaneous Depressurization And Co2 Injection	-	260,873	-	260,873	52,956	-	207,917
		OIDB Total	0		0	-	260,873	-	260,873	52,956	-	207,917
1	2017517		ONGC	ONGC	Enhanced Coal-Bed-Methane And Shale-Gas Recovery From Underground Reservoirs Aided By Permeability Enhancement And Co2 Sequestration-An Experimental Approach	-	361,543	23,107,046	23,468,589	3,567,493	-	19,901,096
2	2017299		ONGC	ONGC	Modeling And Imaging Of Gas Hydrates Reservoirs Using Integrated Techniques	895,392	-	2,141,936	1,246,544	1,076,566		169,978
3	2018067		ONGC	ONGC	Estimation Of Reservoir Properties Of Hydrocarbon Bearing Sediments Using Frequency Dependent Amplitude Variation With Offset (Favo) Analysis	-	60,042	568,255	428,297	1,176,913	748,616	-
4	2017404		ONGC	ONGC	Micro-Poro-Mechanical Modelling Of Shale Anisotropy And Permeability	-	1,006,319	186,109	1,192,028	683,531	-	508,497
5	2016152		ONGC	ONGC	Optical Diagnostics Of Transport Phenomena During Gas Hydrate Formation And Dissociation	1,147,378	-	-	(1,147,378)	76,972	1,224,350	-
		ONGC Total	0		0	2,042,770	1,427,504	26,003,346	25,388,080	6,776,475	1,972,966	20,584,571
1	20110038		OPCW	ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS	Synthesis And Functionalization Of Multiwalled Cnt	41,595	-	-	(41,595)	-	41,595	-
		OPCW Total	0		0	41,595	-	-	(41,595)	-	41,595	-
1	2018136		ORPL	ORTHO REGENICS PRIVATE LIMITED	Fabrication Of New Generation Of Self Retorbbf Implants And Devices From Bioactive And Biodegradable Materials For Orthopaedic Applications	-	545,973	-	545,973	1,254,233	708,260	-
		ORPL Total	0		0	-	545,973	-	545,973	1,254,233	708,260	-
1	20120172		OSDDU	OPEN SOURCE DRUG DISCOVERY UNIT, CSIR	Development And Analysis Of Novel Inhibitors Against M.Tuberculosis Gimu	-	28,764	-	28,764	-	-	28,764
		OSDDU Total	0		0	-	28,764	-	28,764	-	-	28,764
1	20050210		PCRA	PETROLEUM CONSERVATION RESEARCH ASSOCIATION	Design And Development Of A Low Emission Lpg Burner	46,229	-	-	(46,229)	-	46,229	-
		PCRA Total	0		0	46,229	-	-	(46,229)	-	46,229	-
1	2019507		PFZER	PFZER INC.	Targeted Modification Of Post-Translational Modification Sites In Aav1-Rh10 Serotypes To Improve The Phenotypic Outcome Of Aav Mediated Gene Therapy In Haemophilia	-	-	17,597,181	17,597,181	3,977	-	17,593,204
		PFZER Total	0		0	-	-	17,597,181	17,597,181	3,977	-	17,593,204
1	2015449		PI	THE PETROLEUM INSTITUTE	A Condition Monitoring System With Multi Agent Mechanism For External Non Contact Smart Inspection Of Buried Oil And Gas Pipelines.	-	1,679,068	2,890,380	4,569,448	4,285,335	-	284,113
		PI Total	0		0	-	1,679,068	2,890,380	4,569,448	4,285,335	-	284,113
1	2015239		PLANEX	PLANETARY SCIENCES AND EXPLORATION PROGRAM	Investigation Of Stratified Turbulence And Its Applications To Planetary Atmospheres.	52,222	-	-	(52,222)	141,749	193,971	-
		PLANEX Total	0		0	52,222	-	-	(52,222)	141,749	193,971	-
1	2019145		PPMDF	PARENT PROJECT MUSCULAR DYSTROPHY FOUNDATION	Aav Mediated Gene Therapy For Duchenne Muscular Dystrophy	-	-	910,789	910,789	187,635	-	723,154
		PPMDF Total	0		0	-	-	910,789	910,789	187,635	-	723,154
1	20130121		PRL	PHYSICAL RESEARCH LABORATORY	Shapes, Stability And Dynamics Of Granular Minor Planets	580,112	-	-	(580,112)	-	580,112	-
		PRL Total	0		0	580,112	-	-	(580,112)	-	580,112	-
1	2018281		PSA	OFFFICE OF THE PRINCIPAL SCIENTIFIC ADVISER	Rural Technology Action Group (Rutag)	-	3,507,468	20,000	3,527,468	1,127,299	-	2,400,169
2	2015314		PSA	OFFFICE OF THE PRINCIPAL SCIENTIFIC ADVISER	Rutag Sub Project(Design And Development Of Amla Pricking Machine)	-	4,678	-	4,678	-	-	4,678
3	2018206		PSA	OFFFICE OF THE PRINCIPAL SCIENTIFIC ADVISER	Technology Development & Dissemination Of Improved Horseshoes In Uttar Pradesh	-	563,134	-	563,134	636,160	73,026	-
4	2015431		PSA	OFFFICE OF THE PRINCIPAL SCIENTIFIC ADVISER	Ru-Tag:Solar Power Evaporaorative Cooler For Vegetable Storage	159,056	-	-	(159,056)	40,633	199,689	-
		PSA Total	0		0	159,056	4,075,280	20,000	3,936,224	1,804,092	272,715	2,404,847
1	2017091		QPL	M/S QUINTALLIANCE PVT. LTD.	Undertake Joint Studies For The Utterakhand Disaster Recovery Project With Eos, Singapore	-	65,008	20,000	85,008	82,457	-	2,551
		QPL Total	0		0	-	65,008	20,000	85,008	82,457	-	2,551
1	20110182		RCI	RESEARCH CENTRE IMMRT,C/O PROGRAMME 'AD' (MMG)	Attitude From Vector Observations	23,684	-	-	(23,684)	-	23,684	-
		RCI Total	0		0	23,684	-	-	(23,684)	-	23,684	-
1	2017416		RDSO	R.D.S.O.	Centre For Railway Research	-	3,339,227	55,460	3,394,687	810,240	-	2,584,447
2	20120253		RDSO	R.D.S.O.	Railway Technology Cell (Mechanical)	-	3,932,967	-	3,932,967	-	-	3,932,967
3	20120254		RDSO	R.D.S.O.	Geo-Technical Engineering With Refrence To Formation	-	3,435,751	-	3,435,751	-	-	3,435,751
		RDSO Total	0		0	-	10,711,945	55,460	10,767,405	810,240	-	9,957,165
1	2015230		RNT	RENAULT NISSAN TECHNOLOGY & BUINESS CENTRE INDIA PRIVATE LIMITED	Study On Personal Drone Benefit For Driver Assist	-	54,784	-	54,784	3,265	-	51,519

2	2016121		RNT	RENAULT NISSAN TECHNOLOGY & BUINESS CENTRE INDIA PRIVATE LIMITED	Procurement Of Dji Matrice 100 Unmanned Aerial Vehicles For Project-Unmanned Aerial Vehicle Aided Driver Assistances System	6,400	-	-	(6,400)	-	6,400	-
		RNT Total	0	0	0	6,400	54,784	-	48,384	3,265	6,400	51,519
1	20110314		SAMSUN	SAMSUNG	Electronic,Optical,Structural And Dynamical Properties Of Zno-Pmma Nanocomposite	-	51,526	-	51,526	-	-	51,526
2	2019083		SAMSUN	SAMSUNG	Indoor Device Localization	-	-	552,343	552,343	258,378	-	293,965
		SAMSUN Total	0	0	0	-	51,526	552,343	603,869	258,378	-	345,491
1	19990214		SCDT	SMTEL CENTRE FOR DISPLAY TECHNOLOGY	Samtel Display Technology Centre	-	784,035	1,522,125	2,306,160	542,109	-	1,764,051
		SCDT Total	0	0	0	-	784,035	1,522,125	2,306,160	542,109	-	1,764,051
1	2019239		SEPIO	SEPIO PRODUCTS PRIVATE LTD	Development Of A Smart Label With Hybrid Integration	-	-	3,981,113	3,981,113	4,617,397	636,284	-
2	2019278		SEPIO	SEPIO PRODUCTS PRIVATE LTD	Ppp Mode Industry Projects (Prototype Development Fund)	-	-	4,000,000	4,000,000	253,109	-	3,746,891
		SEPIO Total	0	0	0	-	-	7,981,113	7,981,113	4,870,506	636,284	3,746,891
1	2018164		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	J C Bose Fellowship	-	1,598,589	600,000	2,198,589	2,422,898	224,309	-
2	2014054		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental Studies Of Annular Trapped Vortex Combuster	-	255,363	-	255,363	-	-	255,363
3	2018569		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Passive Stall Control Of Turbo Machinery Blades Using Leading Edge Tubercles	-	2,561,019	4,793	2,565,812	1,946,945	-	618,867
4	2019344		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Integrated Dampers For Combustion Dynamics Abatement For Low Emission/Advanced, Biojet Fuel Gt Combustors	-	-	5,697,830	5,697,830	336,360	-	5,361,470
5	2014057		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design And Development Of An Autonomous Helicopter- Phase Ii	4,062,461	-	11,468,370	7,405,909	9,963,078	2,557,169	-
6	2017028		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Cfd-Caa Simulation Of Flow-Acoustic Coupling In A Half-Dump Combustor	195,102	-	-	(195,102)	-	195,102	-
7	2019496		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of A Computational Model For Reentry Trajectory Analysis Of Space Debris	-	-	220,000	220,000	20,000	-	200,000
8	2019539		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Coupling Of Particle-Based Dem And Dsmc Techniques For Understanding Dusty Gas Flow Dynamics	-	-	910,688	910,688	-	-	910,688
9	2015439		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experiments On Bypass Transition In Axisymmetric Boundry Layer	-	227,928	99,518	327,446	580,729	253,283	-
10	2015317		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Aero And Thermoacoustic Response Of Premixed Burners	196,008	-	24,821	(171,187)	-	171,187	-
11	2019549		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental Investigation Of Azimuthal Combustion Instability (Screech) In Annular Combustors/Afterburners Of Gas Turbine Engines	-	-	2,493,823	2,493,823	-	-	2,493,823
12	2017020		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Reaction Zone Characterization Of A Low Emission Reverse-Cross Flow Combustor	425,865	-	39,040	(386,825)	12,500	199,325	-
13	2017021		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Liquid Fuelled Colorless Combustor For Aircraft Gas Turbines	835,297	-	837,020	1,723	824,075	822,352	-
14	2018579		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Concurrent Multiscale Method For Micro-Crack Propagation In Polycrystalline Alloys	-	-	1,636,666	1,636,666	1,163,740	-	472,926
15	2018578		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development And Demonstration Of Fibre-Optic Sensor-Based System For Aircraft Loads And Usage Monitoring	-	-	7,617,730	7,617,730	2,004,115	-	5,613,615
16	2019398		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Turbulent Boundary Layer Combustion For Propulsion And Fire Science Applications: Theoretical, Experimental And Computational Studies	-	-	2,495,500	2,495,500	290,548	-	2,204,952
17	2019551		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Real Time Flight Vehicles Distress Management Using Inline System Identification	-	-	2,400,799	2,400,799	-	-	2,400,799
18	2018271		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Scientific Validation Of Ayurvedic Formulation Medicines Recommended For Mitigation Of Cancer Anorexia Cachexia Syndrome (Cacs) In The Drosophila Tumour Model	-	1,535,919	-	1,535,919	2,531,564	995,645	-
19	2014119		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding The Molecular Basis Of Muoclonic Epitepsy In Lafora Disease Using Mice Models	163,398	-	166,898	3,500	3,500	-	-
20	2016075		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding Molecular Basis Of Myopathy In Lafoora Neurodegenerative Disease	-	51,000	125,000	176,000	176,000	-	-
21	2016245		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Deciphering The Neurotective Mechanisms Of Ayruvedic Formulation.....Lafora Neurodegenerative Disorder	636,949	-	-	(636,949)	598,859	1,235,808	-
22	20120103		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design Of A Layered 3-D Composite Scaffold For Aeticular Cartilage Tissue Engineering	-	46	-	46	-	-	46
23	2017311		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Biomimetic Scaffold-Based Approach For Ligament Tissue Engineering	-	942,596	1,200,867	2,143,463	1,840,879	-	302,584
24	2017022		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigating The Role Of Microrna Mir-19b During The Development Of The Chick Forebrain	-	126,443	1,731,786	1,858,229	1,929,792	71,563	-
25	2017185		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigate The Role Of Distal-Less Homebox-1 (Dlx1) In Transdifferentiation Of Prostate Cancer Cells And Neoplastic Progression	362,914	-	1,500,000	1,137,086	1,230,743	93,657	-
26	2014006		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Molecular & Biochemical Characterization Of Sachharomyces Cerevisiae Actin Related Protein 8 (Arp8)	151,425	-	1,643	(149,782)	-	149,782	-
27	2018570		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding The Role Of Sos-Regulated Hnh Nucleases Of Mycobacterium Tuberculosis In Latency And Reactivation	-	-	1,005,374	1,005,374	1,616,292	610,918	-
28	2014105		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Expression, Purification And Structural Characterization Of Diabetes Drug Target, The Human Free Fatty Acid Receptor 1 (Ffar1)	33,869	-	30,000	(3,869)	-	3,869	-
29	2014273		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Structural Basis Of The Human Complement Anaphylatoxin C5a Interaction With Its Cognate G Rotein Coupled Receptor, The C5ar	85,000	-	-	(85,000)	-	85,000	-

30	2017013		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Structural Dynamics Of Selected G Protein-Coupled Receptors To Delineate The Molecular Basis Of Biased Signaling	-	6,689	-	6,689	-	-	6,689
31	2018270		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding The Structural Basis Of Gpcr-Bila Arrestin Interaction And Signaling For Designing Pathway Selective Drugs	-	781,666	-	781,666	961,619	179,953	-
32	2019475		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Deciphering The Role Of Small Rnas In The Development Of Hemophilic Arthropathy And Formulation Of A Microrna Based Therapeutic To Alleviate Joint Damage	-	-	2,806,333	2,806,333	175,000	-	2,631,333
33	2019444		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	3d Printed Biomedical Personalized Caps With Drug Releasing Ability For Rescue Of Alopecia Condition After Chemotherapy	-	-	1,745,000	1,745,000	139,050	-	1,605,950
34	2019518		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	In Union There Is Strength To Sense Mechanisms Of Mtorc1 Clustering On Lysosome For Nutrient Sensing And Their Implications In Diabetes Probed With Super-Resolution Microscopy	-	-	3,539,500	3,539,500	191,333	-	3,348,167
35	2019440		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Single Molecule Imaging Of Mhc Class Ii Protein Mediated Bat Influenza Virus Entry Into Mammalian Cell	-	-	2,207,400	2,207,400	280,955	-	1,926,445
36	2017495		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Study On Impact Of Bio-Aerosols, Particulate Based Organics And Metals On The Health Of Exposed Population Residing At A Major Site Within The Indo-Gangetic Plain	-	1,754,950	1,130,000	2,884,950	2,901,727	16,777	-
37	2014233		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design Of Nonlinear Spring As A Re-Centering Mechanism In Flat Sliding Base Isolation System	1,305,068	-	-	(1,305,068)	-	1,305,068	-
38	2015337		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental Investigation Of Pressure Flow Deek Scour	428,837	-	4,000	(424,837)	20,270	445,107	-
39	2018564		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Hydro-Mechanical Behavior Of Compacted Soils Under Varied Stress State And Saturation Conditions	-	1,861,353	-	1,861,353	951,084	-	910,269
40	2015302		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investing The Role Of Changes In Physicochemical Properties Of Cementitious Materials On Long Term Performance Of Stabilized Layers	-	287,304	-	287,304	271,414	-	15,890
41	2016334		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Permeability Evolution In Deep-Reservoir Rocks An Experimental And Numerical Study	-	3,002,551	-	3,002,551	2,817,063	-	185,488
42	2016254		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Numerical And Experimental Investigation Of Water Movement Under Heterogeneous Conditions In Unsaturated Soils	-	476,186	296,850	773,036	949,465	176,429	-
43	2018279		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Structural Identification From Incomplete And Uncertain Information: Identifiability,Optimal Experiment Design And Probabilistic Condition Assessment	-	3,002,509	-	3,002,509	1,996,014	-	1,006,495
44	2019126		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Real-Time Hybrid Simulation: Implementation, Validation And Application To Multi-Hazar Performance Assessment Of Buildings Outfitted With A Novel Damping Device	-	-	3,995,060	3,995,060	241,196	-	3,753,864
45	2016347		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Functional Photonic Crystal Devices	44,613	-	619,067	574,454	642,958	68,504	-
46	2018520		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Preparation Of Cost-Effective Transition Metal Oxides-Dispersed Graphitic Nanocomposite-Based Electrodes Of A Microbial Fuel Cell For Simultaneous Bioelectricity Generation And Cod Reduction In Wastew	-	3,149,667	-	3,149,667	3,472,700	323,033	-
47	2017498		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Nanohybrids For Hydrogen Storage	86,560	-	900,000	813,440	847,377	33,937	-
48	20120156		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Synthesis And Characterization Of Cellulose Clay Nanocomposites	1,228,701	-	-	(1,228,701)	-	1,228,701	-
49	2014230		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Environmentally Benign Peptide Synthesis Using Thermostable Enzymes	69,311	-	-	(69,311)	-	69,311	-
50	2017011		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Role Of Swi Chromatin Remodeling Complex In Radiation Resistance Fungus "Ustilago Maydis"	-	310,115	650,000	960,115	1,306,307	346,192	-
51	2016236		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Integration Of Air Mass Trajectory Models And 1870s/1880s.....Atmospheric Dust In India	2,037,952	-	-	(2,037,952)	97,534	2,135,486	-
52	2019523		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Cognitive Robotics Based Study Of Child-Robot Interaction (Cr)-Characterization Of Critical Parameters And Interaction Design	-	-	1,784,690	1,784,690	123,271	-	1,661,419
53	20130030		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Non-Gassing Electrode Materials For Electro-Osmotic Pumping Based Subcutaneous Drug Delivery System	100,000	-	-	(100,000)	-	100,000	-
54	20130210		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Metal Monolith Catalysts For Steam Reforming Of Methane	784,386	-	-	(784,386)	-	784,386	-
55	2019472		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Microchannels Containing And Metal-Graphene Oxide Dispersed Carbon Film-Based Chemiresistive/Electrochemical Sensors For Aqueous Metals	-	-	1,820,000	1,820,000	306,978	-	1,513,022
56	2016371		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental Investigations Of Instabilities In Newtonian And Viscoelastic Fluid Flow Through Deformable Tubes	-	26,729	773,619	800,348	761,400	-	38,948
57	2016346		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Simultaneous Process Design And Control	485,922	-	687,862	200,940	828,923	627,983	-
58	20120086		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Prevention Of Antibiotic Resistant Bacterial Biofilm Formation By Using Lytic Bacteriophages On A Topographically Patterned Substrate	-	31,936	-	31,936	31,936	-	-
59	20130032		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Flexible Pressure Sensors	636,108	-	710,919	74,811	74,811	-	-
60	20130045		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Mineralization Of Peptides And Proteins On Topographically And Chemically Patterned Hetrogeneous Substrates	102,500	-	-	(102,500)	-	102,500	-
61	2018405		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Process For Making Rewritable And Re-Printable Paper Material	-	2,531,786	-	2,531,786	2,565,320	33,534	-

62	2019544		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Study Of Wetting Kinetics Of Liquid On Soft Substrate In Presence Of Elasto-Capillary Effect And Surface Reaction	-	-	1,280,000	1,280,000	-	-	1,280,000
63	2015131		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Procurement Of Book Based On Wipa (Dst) Projects	957	-	-	(957)	-	957	-
64	2018532		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental And Theoretical Investigations Of Complex Rheological Behaviors In Time Dependent (Aging) Soft Materials	-	3,362,469	-	3,362,469	3,033,145	-	3,329,334
65	2015286		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Wetting Behavior Of Fluids In Presence Of Large Particles On Surfaces	1,077,809	-	-	(1,077,809)	-	1,077,809	-
66	20195.10		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of A Hybrid Approach For High-Throughput Screening Of Materials		-	220,000	220,000	20,000	-	200,000
67	2019543		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Structural Evaluation Of Building Block Of Ice In Different Geometry/Conditions And Its Impact On Nucleation Behavior	-	-	1,290,000	1,290,000	-	-	1,290,000
68	2019545		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding The Self-Assembly Of Amphiphilic Molecules In Supercooled Solvents Using Molecular Simulations		-	3,685,000	3,685,000	-	-	3,685,000
69	20130175		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Biosensors For Multi-Analyte Disease Detection	1,061,070	-	-	(1,061,070)	-	1,061,070	-
70	2016118		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Pattern Recognition Algorithms For An Intelligent Chemical Sensor Array	49,363	-	49,363	-	-	-	-
71	2017515		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Climbing With Support: Scaling Volcano In Electrocatalytic Oxygen Evolution, Chlorine-Evolution And Co2 Reduction Reactions	-	1,233,808	150,230	1,384,038	939,950	-	2,444,088
72	2014303		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Sinter-Resistant Nanoparticles Encapsulated By Zeolite Nanoshell As Bifunctional Catalyst	2,243,984	-		(2,243,984)		2,243,984	-
73	2014120		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Dip-Coating Of Micro-Patterned Surfaces With Newtonian And Non Newtonian Fluids With/Without Surfactants	303,248	-	333,371	30,123	30,123	-	-
74	2017264		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Explaining The Puzzling Experimental Observations Of Polymer Dynamics In Solutions: Theoretical And Computational Studies Over Multiple Length And Time Scales	-	143,899	611,200	753,099	316,737	-	436,362
75	2017421		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Molecular Simulation Of Electr	-	864,197	350,000	1,214,197	1,195,778	-	18,419
76	2019484		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Modeling The Nature Of Active Sites And The Role Of Support In Hydrodeoxygenation Catalyst	-	-	4,480,000	4,480,000	195,757	-	4,284,243
77	2017340		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Fellowship Of Ramanujan	-	252,281	500,000	752,281	524,959	-	227,322
78	2019077		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Active Colloids In Complex Environments	-	-	3,605,540	3,605,540	1,843,159	-	1,762,381
79	2016432		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	The Study Of Aromaticity Anomeric Effect And Bond Path In Otaim Using Interaction Coordinates And Anharmonicity Analysis	1,125,852	-	38,653	(1,087,199)	167,848	1,255,047	-
80	20130239		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Macrobicyclic Cryptands As Platforms For Attachment Of Donor And Acceptor Groups: Photo-Induced Energy And Charge Transfer	440,800	-	440,800	-	-	-	-
81	2015228		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Enantioselective Synthesis Of Isoindolinones And Tetrahydroisoquinolines.	119,626	-	-	(119,626)	-	119,626	-
82	2016324		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Insulin Amyloidosis Interference And Modulation Of Bacterial Quorum Sensing	-	658,291	1,200,027	1,858,318	2,482,063	623,745	-
83	2017237		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Biocompatible System For Targeted Delivery Of Gasotransmitter	77,684	-	540,298	462,614	462,614	-	-
84	2018399		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Jc Bose Fellowship	-	1,543,846	854	1,544,650	1,208,104	-	336,546
85	2018421		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Jc Bose Fellowship To Prof. Sandeep Verma	-	1,026,417	900,000	1,926,417	1,743,795	-	182,622
86	2018561		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Michael Initiated Ring Closing Reactions Enantioselective Synthesis Of Highly Substituted Spiro-Cyclopropanes	-	3,144,060	-	3,144,060	2,463,333	-	680,727
87	2018331		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Theoretical Studies Of Hydrogen Bond Fluctuation And Time Dependent Infrared And Terahertz Spectroscopy Of Aqueous Solutions Of Complex Molecular Solutes	-	4,639,883	513,933	5,153,816	4,871,589	-	282,227
88	2018151		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Jc Bose Fellowship	-	348,663	1,844,097	2,192,760	2,143,553	-	49,207
89	2017132		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Insights Into The Origins Of Non-Statistically In Rection Dynamics From Mechanism To Control	-	245,737	800,000	1,045,737	599,021	-	446,716
90	20130241		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Coordination Driven New Self Assembled Organometallic Metallacycles For Biomedical Applications	-	221,107	-	221,107	-	-	221,107
91	20120049		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Organic Functional Materials With A Rational Design Of Molecular Building Blocks	337,130	-	-	(337,130)	-	337,130	-
92	2015083		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	J.C. Bose Fellowship	184,035	-	1,900,000	1,715,965	1,788,256	72,291	-
93	2018118		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Targeting Nexus Of Metabolic And Neurodegenerative Disorders: Application In Lafora Disease And Islet Amyloid Deposits	156,872	-	2,000,000	1,843,128	2,570,275	727,147	-
94	20194.78		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Synthetic Perspective Of Domino Ring-Opening Cyclization(Droc) And Ring-Opening Cyclization(Roc) Of Activated Aziridines And Acetidines To Various Biologically Significant Aza/Oxa-Heterocyclic Compound	-	-	2,939,640	2,939,640	451,086	-	2,488,554
95	2018301		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Therapeutic Evaluation Of Organometallic Compounds As Potent Antibacterial Agents	39,511	-	249,602	210,091	210,222	131	-
96	2018530		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Metal-Coordinated Ligand Radicals, Molecular And Electronic Structure And Reactivity	-	609,967	-	609,967	628,106	18,139	-
97	20185.38		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Jc Bose Fellowship	-	1,607,200	75,000	1,682,200	1,837,930	155,730	-
98	20130095		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Metal Catalyzed Decarbonylative Coupling Reactions And Their Applications To Organic Synthesis	681,994	-	-	(681,994)	-	681,994	-

99	2019118		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Unexplored New Reactivity Of Triarylbismuths As Threefold Atom-Economic Reagents In Cross-Coupling Reactions	-	-	1,590,400	1,590,400	625,434	-	964,966
100	2017269		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of In-Situ Contactless Thermometer And Viscometer Through Spatiotemporal Control At Nano-Scale Dimension To Unravel The Dynamics Of Complex System: Vibrating Molecules....Multiple Phases		2,733,109		2,733,109	522,299		2,210,810
101	2014143		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	N - Heterocyclic Carbene (Nhc) Stabilized Metal Alkoxides/Aryloxides: Potential Precursor For The Preparation Of Heterobimetallic Oxides	340,045	-	-	(340,045)	-	340,045	-
102	2014092		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Porphyrin Dimers As Model Of Di Heme Proteins:Inorganic And Bioinorganic Perspectives And Consequences Of Heme-Heme Interactions	671,863	-	671,863	-	-	-	-
103	2013481		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Modeling Diheme Enzyme Maug: Understanding Nature'S Design, Structure-Function Correlation And Application	-	2,070,581	2,009,529	4,080,110	4,156,488	76,378	-
104	2017016		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Computational Study Of The Role Of Elastic Anisotropy Surface Stress And Compositional Segregation In Ge-Si Coherent Heteroepitaxial Growth	-	951,506	330,000	951,506	959,184	107,678	-
105	2019471		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of An Efficient Method For Free Energy Calculations	-	-	3,499,700	3,499,700	135,233	-	3,364,467
106	2019505		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Efficient Methods For Carrying Out Hybrid Density-Functional Based Ab Initio Molecular Dynamics Simulations: Development And Implementation	-	-	220,000	220,000	20,000	-	200,000
107	20120100		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Femtosecond Study Of Metal Complexes, Green Fluorescent Protein And Related Molecules	1,458,068	-	-	(1,458,068)	-	1,458,068	-
108	2018167		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Elucidation Of Active Site Dynamics, Function And Receptor Binding Of Insulin At The Single Molecular Level	-	3,689,523	-	3,689,523	1,091,239	-	2,598,284
109	20120055		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design And Synthesis Of Functionalized Peptide Scaffols For Protein Prenyltransferases Inhibition: Potential Cancer Chemotherapeutics	18,242	-	-	(18,242)	-	18,242	-
110	2018322		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Stereoselective Synthesis Of Nitrogen Containing Natural Products Through Organocatalysis	-	348,626	1,000,000	1,348,626	1,084,344	-	164,282
111	2014248		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Enantioselective Total Synthesis Of Antimalarial Flindersia Alkaloids	1,700,634	-	1,700,634	-	-	-	-
112	2018527		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Double Sn2 Cascade For Biomimetic Total Synthesis Of Anti-Diabetic Natural Products Chlorabietol A-C And Cuilitrilones A,B	-	2,935,533	-	2,935,533	3,183,148	247,615	-
113	20130225		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Nitric Oxide Delivery To Biological Targets From Transition Metal Nitrosyl Complexes	59,967	-	-	(59,967)	-	59,967	-
114	2016491		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Luminescent Lanthanide Complexes As Targeted Theranostic Agents	153,179	-	1,150,005	996,826	1,252,296	255,470	-
115	2015153		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Biomimetics Of Acireductone Dioxygenase Through Model Nickel And Iron Complexes	332,356	-	-	(332,356)	-	332,356	-
116	2015346		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Stereoisomers Of New Dipicolylamine Complexes From Multi-Component One-Pot Reactions: Isolation And Post Synthetic Modification Transmetallation And Bioinspired Hydrogen Production Catalysis.	-	2,808,290	-	2,808,290	200	-	2,808,090
117	2016335		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Probing Coherent Coupling Of Molecular Excitons To Localized Surface Plasmons Of Hollow Metal Nanoparticles Using Single-Particle Level Spectroscopy	-	770,506	76,712	847,218	617,535	-	229,683
118	2015202		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Novel Visible Light Promoted Transformations	134,269	-	-	(134,269)	48,910	183,259	-
119	2018188		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Synergistically Coupled Catalytic Systems For Sustainable Processes And Products	-	350,329	-	350,329	333,730	-	16,559
120	2013214		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Water Soluble Transition Metal Complexes:Synthesis And Catalysis	98,990	-	-	(98,990)	-	98,990	-
121	2018565		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Sustainable Synthesis Value Added Chemicals	-	1,982,200	-	1,982,200	963,749	-	1,018,451
122	2016087		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Cobalt Catalysed C-H Bond Functionalization	538,867	-	1,043,255	504,788	952,231	447,443	-
123	2019461		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Non-Heme Metal-Peroxynitrites: Synthesis And Reactivity	-	-	3,670,700	3,670,700	150,666	-	3,520,034
124	2019304		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of A Multi-Scale Modelling Framework For Non-Covalent Interactions	-	-	1,750,000	1,750,000	90,000	-	1,660,000
125	2019303		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Study Of Solar Cell From Quantum Thermodynamics Perspective	-	-	1,915,000	1,915,000	105,000	-	1,810,000
126	2019327		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Magnetic Field Dependent Charge-Transport In Nanometric Chiral Molecular Films	-	-	3,700,000	3,700,000	474,322	-	3,225,678
127	2019516		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Molecular Device Fabrication For Charge-Transport Measurements:Replacing Metal Electrodes By Carbon Electrode	-	-	2,300,000	2,300,000	121,500	-	2,178,500
128	2019302		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Plasmonic Janus Nanoparticle For Photocatalysis	-	-	2,683,213	2,683,213	380,058	-	2,303,155
129	2019532		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Controlling The Efficiency Of Molecular Switches And The Dynamics Of Switchable States On Surface	-	-	6,686,900	6,686,900	243,667	-	6,443,233
130	2016466		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	National Interdisciplinary Center For Cyber Security And Cyber Defense Of Critical Infrastructures	-	84,681,624	1,483,995	85,965,619	21,130,289	-	64,835,330
131	2020001		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Technology Innovation Hub In C	-	-	72,500,000	72,500,000	-	-	72,500,000
132	2014065		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Extending Skyline Queries To Distributed And Uncertain Database	506,522	-	-	(506,522)	-	506,522	-
133	2019096		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Nyaya: A Legal Assistance System For Legal Experts And The Common Man In India	-	-	1,238,600	1,238,600	187,234	-	1,051,366

134	2019195		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Scalable Spatio-Temporal Measurement And Analysis Of Air Pollution Data For Delhi-Ncr Using Vechical Mounted Sensors Imprint Ii	-	-	969,000	969,000	86,879	-	882,121
135	2013378		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Effective Recurrence And Ergodicity	-	194,300	-	194,300	-	-	194,300
136	20110299		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Heap Analysis For Garbage Collection, Parallelization And Other Applications	79,803	-	79,803	-	-	-	-
137	2018510		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Improvement Dynamics In Games And Asynchronous Systems	-	200,000	-	200,000	202,431	2,431	-
138	2019179		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Safe Streets At Night: Automated Monitoring Of Streets With Natural Language Summaries	-	-	2,400,600	2,400,600	651,871	-	1,748,729
139	2015178		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Ramanujan Fellowship Award	-	129,055	-	129,055	167,832	38,777	-
140	2016264		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Framework For Synthesizing Robust Motion Primitives For Uavs	-	445,539	24,916	470,455	946,497	476,042	-
141	2019494		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design Of Feedback Controllers For Safe Operations Of Autonomous Systems	-	-	220,000	220,000	20,000	-	200,000
142	2016263		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Early Career Research Award (By Serb)	-	1,679,873	-	1,679,873	1,832,235	152,362	-
143	2018126		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Formal Methods For Provably Secure Enclave Platforms	-	688,759	-	688,759	232,280	-	456,479
144	2019449		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Go With The Flow Practical Hardware Support For Efficient Concurrency Analyses	-	-	587,500	587,500	37,500	-	550,000
145	2019169		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Review Meeting For Cyber Security Center	-	-	10,228,000	10,228,000	90,335	-	10,137,665
146	2019492		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Study Of First Order Methods In Scalar And Vector Optimization	-	-	220,000	220,000	20,000	-	200,000
147	2018106		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Vajra Faculty Scheme	-	225,865	-	225,865	225,865	-	-
148	2019060		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Ku-K-Ka Band Phase Array Antenna For Satcom On The Move Applications	-	-	3,357,000	3,357,000	2,815,738	-	1,541,262
149	2015013		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Electric Stress Control Using Filled Polymers	1,046,356	-	-	(1,046,356)	-	1,046,356	-
150	2018524		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Electrical Treeing In Nanodielectrics	-	-	3,566,750	3,566,750	210,321	-	3,356,429
151	2017244		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Human Driven Full-Size 4ws4wd Electric Vehicle	-	1,247,362	1,100,000	2,347,362	1,197,716	-	1,149,646
152	2015089		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Optimal Power Architecture For Next Generation Datacenters	573,149	-	-	(573,149)	-	573,149	-
153	2017242		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Minimum Phase Hrtf Modeling Using Fbs Interpolation In Spherical Harmonic Domain For Spatial Audio Systems	-	901,470	30,001	931,471	539,592	-	391,879
154	2018862		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design And Development Of Textile Based Metamaterial Absorber For Radar Stealth	-	5,895,020	-	5,895,020	2,859,899	-	3,035,121
155	2015097		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Joint Target Detection And Localization Algorithms For Mimoradar Systems	-	76,819	-	76,819	-	-	76,819
156	2014161		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Electro-Optic And Magneto-Optic Interaction Based High Speed Quantum Key Distribution	479,389	-	-	(479,389)	-	479,389	-
157	2019647		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Study On Cyber-Physical Aproach For Electric Power Grid	-	-	800,000	800,000	-	-	800,000
158	2016004		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Characterization And Modeling Of Gan Hemt For Rf Applications	-	62,079	-	62,079	-	-	62,079
159	2017255		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Stochastic Optimization In 5g Networks	-	825,272	-	825,272	928,846	103,574	-
160	2019495		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Scalable Algorithms For Constrained Compositional Optimization	-	-	220,000	220,000	20,000	-	200,000
161	2019119		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Improving Performances Of Power Electronic Circuits Using Gan-Hemt Devices	-	-	3,404,791	3,404,791	634,742	-	2,770,049
162	2018172		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design And Control Synthesis Of A Tilt-Rotor Quadcopter	-	851,087	1,238,137	2,089,224	1,001,750	-	1,087,474
163	2015338		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Integrated Nanophotonic Devices Operating At Room Temperature	48,912	-	700,000	651,088	703,264	52,176	-
164	2017342		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design, Fabrication And Characterization Of Nanoparticle-Based Photonic Elements	-	440,828	1,810,931	2,251,759	2,079,229	-	172,530
165	2016117		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Multi Component Signal Analysis Method In Digital Holography For Precision Metrology	-	2,321	-	2,321	82,961	80,640	-
166	2016467		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	"Virtual Full-Duplex Relaying For Cellular Networks Using Half-Duplex Relays	-	195,420	846,468	1,041,888	935,186	-	106,702
167	2018566		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Epitaxial Growth Of Wide-Bandgap Beta-Gallium(Iii) Trioxide Thin Films For High Power Switching Applications	-	2,696,150	24,400	2,720,550	2,808,117	87,567	-
168	2019388		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design And Analysis Of Modern Communication Networks Using Stochastic Geometry For Molecular Communication And Beyond-5g Systems	-	-	1,531,045	1,531,045	100,145	-	1,430,900
169	2019400		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Smart Music Tutor For Indian Classical Music (Vocal And Instrumental)	-	-	2,357,357	2,357,357	141,569	-	2,215,788
170	2015038		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Geochemical And Isotopic Investigations Of Tertiary Sediments From The Ne India Understanding The Early Tectonic Uplift And Weathering In The Himalayas	-	75,512	-	75,512	-	-	75,512
171	2015389		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Drainage Reorganization Paleoclimate Reconstruction And Sediment Sourcing In The (Paleo-) Yamuna Plains Using A Multi-Proxy Approach-Reg	-	218,901	-	218,901	218,901	-	-
172	2019354		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Isotopic Evolution Of Terrestrial Reservoirs In Open System Models Of The Earth And Its Implication For Crust Mantle Differentiation And Distribution Of Chemical Heterogeneity In The Mantle	-	-	659,490	659,490	174,209	-	485,281
173	2016183		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Integrated Geophysical Study For Delineating Details Subsurface Structures And Possible Mineral Deposits Around Madawara Region, Lalitpur, Uttar Pradesh, India	-	70,562	10,799	81,161	548,900	467,739	-

174	2017007		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Characterisation Of The Frictional Properties And Seismic-Aseismic Transitics In Active Faults Of The Himalaya: An Experimental Investigation	-	401,684	650,000	1,050,684	166,227	-	884,457
175	2017052		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Deformation Processes In The Evolution Of Gneissic Structures: Experimental & Field Investigations	193,229	-	650,000	456,771	830,458	373,687	-
176	2017318		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Delineation Of Shallow Subsurface Morphotectonics Below The Central Seismic Gap Himalaya Using An Integration Of Passive And Controlled Source Seismology	-	295,936	8,050	303,986	668,214	364,228	
177	2019488		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Exploringfractal Dimension As A Technique To Study Facial Expressions Of Emotions	-	-	220,000	220,000	20,000	-	200,000
178	2018582		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Unified Software Defined Architecture For Industrial Internet Of Things	-	-	1,152,358	1,152,358	582,960	-	569,398
179	2018509		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Analysis Of Statistical Signal Processing Models	-	200,000	-	200,000	185,358	-	14,642
180	2018016		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Wavelet Galerkin Scheme For Higher Order Multidimensional Partial Differential Equations	-	338,353	-	338,353	221,902	-	116,451
181	2019078		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Image Specific Multi-Well Potential In Parabolic Pde Based Gray Scale Image Inpainting	-	-	220,000	220,000	85,462	-	134,539
182	2019048		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Graphs With Combinatorial Matrices & Algebraic Combinatorics	-	-	960,000	960,000	820,029	-	139,971
183	2014043		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Evolution Equations With Fractional Order Derivatives And Nonlocal Conditions And Their Applications	303,806	-	-	(303,806)	16,000	319,806	-
184	2019502		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Goodness Of Fit Statistical Models	-	-	220,000	220,000	20,000	-	200,000
185	2018571		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Non-Commutative Lecunary Sets	-	-	220,000	220,000	238,012	18,012	-
186	2018155		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Order Estimation Of Important Signal Processing Models Methodologies And Asymptotic Analysis	-	200,000	-	200,000	213,647	13,647	-
187	2018571		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Bifurcation Of Various Spatio-Temporal Patterns In Integro-Differential Equations	-	200,000	-	200,000	213,235	13,235	-
188	2018157		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Contact Problems On Planar Heterogeneous Elastic Media	-	-	220,000	220,000	268,326	48,326	-
189	20130246		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Efficient And Accurate Algorithms For Acoustic And Electromagnetic Scattering From Inhomogeneous Scatters In Two And Three Dimensions	213,006	-		(213,006)		213,006	
190	2018186		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	High-Order Numerical Integration Scheme Based On Fourier Continuation Approximations	-	200,000	-	200,000	214,480	14,480	-
191	2018528		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Deformation Theory Of Algebraic Structures And Hom Algebras In Geometry	-	200,000	-	200,000	215,850	15,850	-
192	2019504		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Study On Non-Parametric Regression	-	-	220,000	220,000	20,000	-	200,000
193	2019226		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	The Study Of Projective Normality Of G.I.T Quotient Varieties Modulo Finite Group	-	28,983	30,441	59,424	59,424	-	-
194	2018556		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Torus Quotients Of Homogeneous Spaces	-	-	220,000	220,000	240,000	20,000	-
195	2017501		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Some Methods For Classification And Clustering Of Functional Data	-	127,160	150,000	277,160	121,288	-	155,872
196	2017503		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Iwasawa Theory Over P-Adic Lie Extensions	-	295,307	300,000	595,307	279,899	-	315,408
197	2019511		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Arithmetic Of Elliptic Curve & Selmer Group	-	-	220,000	220,000	20,000	-	200,000
198	2019503		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Almost And Generalized Complex Structures On Principal Bundles	-	-	220,000	220,000	20,000	-	200,000
199	2019296		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	J C Bose National Fellowship	-	-	535,975	535,975	467,509	-	73,466
200	2019450		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Ultra-Clean Emissions Dme Fuelled Tractor Engine Prototype Development For Agricultural Applications	-	-	13,310,000	13,310,000	726,000	-	12,584,000
201	2019517		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Highly Efficient, Low Emission Gasoline Compression Ignition Engine Prototype Development	-	-	3,986,800	3,986,800	178,800	-	3,808,000
202	20130173		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Analysis, Fabrication And Testing Of A Dielectric Elastomer Based Energy Harvesting System	24,302	-	-	(24,302)	-	24,302	-
203	2019092		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Into The Correlation Between Porosity, Mechanical Properties And Performance Of Supercapacitors Based On Vertically Aligned Carbon Nanotube Arrays	-	-	918,986	918,986	296,919	-	622,067
204	20130227		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Analysis Of Human Gait And Design Of A Leg Exoskeleton For Rehabilitation	588,599	-	-	(588,599)	-	588,599	-
205	2017522		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Contact Mechanics Of Soft And Thin Adhesive Structures	-	1,308,627	1,010	1,309,637	1,203,333	-	106,304
206	20130109		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Novel Efficiency Micro-Scale Gene Transfection System Using Nanoenergetic Materials	249,775	-	-	(249,775)	-	249,775	-
207	2018152		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Wave Propagation In Lattice Waveguides With Defects	-	149,278	-	149,278	171,326	22,048	-
208	2018550		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Micromechanics Of Defects In Thin Elastic Structures	-	1,126,500	-	1,126,500	404,846	-	721,654
209	2019492		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Topological Transformation Of Elastic Surfaces	-	-	220,000	220,000	20,000	-	200,000
210	2014200		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Solidification Processing, Liquid Metals Engineering, Heat Transfer In Manufacturing Phase Change Energy Technologies Surface Coating Technologies	115,120	-	21,097	(94,023)	98,000	192,023	-
211	2018554		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Towards Realization Of Additive Manufacturing Of Aerospace Structural Component In India	-	5,813,000	2,450	5,815,450	3,053,662	-	2,762,788
212	2015441		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Three Application Areas Of A Novel Hysteresis	-	231,166	-	231,166	146,641	-	84,525
213	2014128		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	An Investigation On Carbon Nanotube-Glass Composites For Bone Tissue Engineering	200,000	-	200,770	770	-	-	770

214	2016044		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Developing An Efficient Algorithm To Automate Configuration Modeling For Multi Component Materials	73,000	-	42,841	(30,159)	42,841	73,000	-
215	2017059		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Mixing And Autoignition Of Dimethyl Ether Jets In A Preheated Turbulent Collowing Air Stream	-	3,685,720	-	3,685,720	4,394,843	710,123	-
216	2017364		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Numerical Investigation On Wave Activities In The Stratosphere	-	339,173	-	339,173	486,543	147,370	-
217	2019065		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Effect Of Flexibility In Flapping Foil On Flow And Thrust Generation	-	-	3,170,963	3,170,963	2,691,488		479,475
218	2016393		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Dynamics And Stability Of Circular Sawing: Experimental Characterization, Modelling And Control	101,622	-	390,282	288,660	358,705	-	29,960
219	2019120		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Soft Acoustic Metamaterials:Fabrication, Computation And Instrument Development	-	-	1,885,600	1,885,600	1,019,140	-	866,460
220	2019386		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Exploring An Alternate Route To Geostrophic Turbulence Through Instability	-	-	2,339,470	2,339,470	1,071,388	-	1,268,082
221	2019395		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Experimental And Numerical Investigation Into The Longitudinal Compressive Failure Of Carbon Fibre Reinforced Composites	-	-	2,266,550	2,266,550	138,050	-	2,128,500
222	2019387		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Resolving Aerial Self-Noise Mechanism Using Diagnostic Acoustic Imaging Tool	-	-	2,706,660	2,706,660	161,139	-	2,545,521
223	20130252		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigations Into Compositionally Modulated Magnetoelectric Gallium Ferrite For Sensor And Transducer Applications	291,621	-	-	(291,621)	-	291,621	-
224	2018052		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Manipulation Of Structure, Composition And Properties Of CaO Ceramics And Thin Films To Achieve Near Room Temperature Multiferroism For Device Applications	-	1,424,998	1,250,000	1,174,998	3,541,320	366,322	-
225	2018548		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Energy Harvesting Device With Giant Power Density (~10 Mw/Cm)Using Thin Film Multiferroic Composites	-	7,288,000	-	7,288,000	5,239,094	-	2,048,906
226	2019089		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Multiferroicity In Strain-Engineered Thin Films	-	-	350,000	350,000	350,000	-	-
227	2014039		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Free Standing Nano Particles Formation By Ball Millingat Cryogenic Temperature	483,378	-	-	(483,378)	-	483,378	-
228	2017292		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Micromechanisms Of Deformation And Development Of Processing Map For Novel Single And Multiphase High Entrophy Alloys	-	1,028,121	1,250,000	2,278,121	2,403,392	-	74,729
229	20130274		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Computational And Experimental Investigations Into Coherent To Semicoherent Transition Of Precipitates In Nanoscale Systems	57,500	-	-	(57,500)	-	57,500	-
230	2018431		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	High Temperature Materials For Thermal Protection Systems	-	2,587,360	200,002	2,787,362	1,557,789	-	1,229,573
231	2019548		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Hydrogenated Amorphous Silicon-Germanium Alloy Films For Enhanced Efficiency Of Thin-Film Solar Cell Based On Cu2znsns4(Czts)	-	-	3,070,666	3,070,666	-	-	3,070,666
232	2015061		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Double Perovskite Based Oxide Materials For Thermoelectric Applications	206,657	-	-	(206,657)	-	206,657	-
233	2018547		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Solid-State Thermoelectric Power Generator For Electricity Generation From Waste Heat In Steel Plant	-	16,500,000	-	16,500,000	1,413,881	-	15,086,119
234	20130278		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Higher Conductive Sc2o3-Zro2 Based Electrolyte For Solid Oxide Fuel Cells	600	-	-	(600)	-	600	-
235	2017303		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Nasicon Framwork Cathode.....Battery	275,778	-	97,648	(178,130)	974,065	1,152,197	-
236	2019233		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Overseas Visiting Doctoral Fellowship Scheme (Indo-Us Faculty Travel)	-	-	603,994	603,994	603,994	-	-
237	2018563		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Amorphous Metal Oxy-Nitride Semiconductors For Tfts	-	2,949,466	-	2,949,466	2,171,982	-	777,484
238	2014044		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Inter Diffusion And Diffusional Interactions In The Ternary Ti-Al-Mo Alloys	49,931	-	-	(49,931)	-	49,931	-
239	2018276		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	2d Materials Beyond Graphene: A Computational Study Of Van Der Waals Heterostructures	-	430,556	308,520	739,070	339,307	-	399,763
240	2014060		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Integration Of In-Situ Electron Backscatter Diffraction And Crystal Plasticity Simulations To Decipher-Tension-Compression Asymmetry In Titanium And Ti6al4v	773,945	-	-	(773,945)	-	773,945	-
241	2017506		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Effect Of Crystallographic Texture On Fracture Behaviour Of Titanium And Ti6al4v Using Digital Image Correlation And Electron Backscatter Diffraction	-	4,488,902	-	4,488,902	4,968,477	479,575	-
242	2015444		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Effect Of Magnetic Field On Spinodal Decomposition-A Phase Field Study	-	184,195	1,331	185,506	125,231	-	60,275
243	2019508		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Multiscale Modelling Of Segregation Behaviour At Interphase Interfaces In Advanced High Strength Steel	-	-	795,400	795,400	71,400	-	724,000
244	2016441		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Development Of Lanthana (La2o3) Based Ods Steels For Nuclear Reactor Application	676,115	-	1,086,387	410,272	613,194	202,922	-
245	2016260		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Effect Of Structural Distortion And Bandwidth On Topological Phases And Magnetic Orders In 5d-Ir Based Oxides: A Novel Kind Of Electronics	-	85,795	-	85,795	-	-	85,795
246	2018150		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	J C Bose Fellowship	-	1,342,416	602,576	1,944,992	1,214,201	-	730,791
247	2016442		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Large Scale Anisotropy In The Universe	131,087	-	800,287	669,199	525,596	-	143,596
248	2018555		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Technology Demonstrator Of An Infra-Red Camouflage Screen Based On Large Area Metamaterials	-	10,456,230	3,291	10,459,521	1,133,676	-	9,326,845

249	2019009		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Quantum Criticality, Dynamics & Quantum Information Studies In Quantum Many Body Systems	482,373	-	491,348	9,075	9,075	-	-
250	2016255		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Thermal Re-Stability And Related Dynamics In Superconducting Weak Link Based Devices	-	19,133	-	19,133	83,126	63,043	
251	2019208		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Design Synthesis And Physical Properties Of Topological Materials	-	-	1,210,500	1,210,500	294,068	-	916,403
252	2017246		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Entanglement And Information In Holographic Field Theories	179,116	-	1,000,000	820,884	364,837	-	456,047
253	20120841		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Localized Subsurface Modification Using Low Energy Multiple Ion Beamlets For Tailoring Electrical And Optical Properties Of Materials At Micron Scales	89,878	-	-	(89,878)	-	89,878	-
254	2017206		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Microwave Plasma Generated Low Energy Ion Beams And Their Interaction With Matter For Modification Of Wettability And Optical Properties	-	856,243	303,394	259,643	472,226	-	287,417
255	2019442		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Understanding The Three Dimensional Structure Of Proton	-	-	767,500	767,500	59,466	-	708,034
256	20120126		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Slip-Length Of Newtonian Fluids From Dewetting Dynamics In Triangular Grooves	109,259	-	-	(109,259)	-	109,259	-
257	2019397		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigation Of Wetting Behavior And Mobility Of Aqueous Drops On Lubricating Fluid Coated Slippery Surfaces	-	-	3,864,500	3,864,500	314,073	-	3,550,427
258	2015404		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	A Triggered Source Of Single Photons And Photon Pairs	546,681	-	-	(546,681)	465,545	1,412,227	-
259	2019125		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Physics Of Dirac And Weyl Semimetals	-	-	1,623,222	1,623,222	885,956	-	737,266
260	2019524		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Magneto-Electric And Thermal Transport Phenomena In Topological Materials	-		220,000	220,000	20,000	-	200,000
261	2016320		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Investigating Angular Coherence Properties Of One Photon And Entangled Two-Photon.....Based Application	485,266	-	447,758	(37,508)	135,461	172,969	-
262	2018267		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Construction Of A Combined Recoil Ion Momentum And Electron Energy Spectrometer To Study Collision Induced Excitation And Fragmentation Of Molecules And Clusters	-	4,263,716	-	4,263,716	4,094,920	-	168,796
263	2017506		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Optical-Waveguide Sensor For Accurate Detection Of Bio-Contaminant In Drinking Water	-	3,522,688	-	3,522,688	4,212,206	689,518	-
264	2016348		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Probing Beyond Standard Model Physics At The Large Hadron Collider And Future Circular Collider	359,189	-	-	(359,189)	284,784	643,973	-
265	2019501		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Hilbert Series Construction For Effective Field Theories	-	-	220,000	220,000	20,000	-	200,000
266	2017504		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Holography For Asymptotically Flat Spacetimes	-	527,659	150,000	677,659	619,493	-	58,166
267	2018196		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	String Theory At Very High Energies	-	50,000	-	50,000	181,238	131,238	-
268	2019535		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	One Symmetry To Rule Them All	-	-	2,587,501	2,587,501	177,773	-	2,409,728
269	2018522		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Non-Local Quantum Transport, Confinement And Correlation In Weyl Semimetals	-	1,084,970	-	1,084,970	598,270	-	486,700
270	2019414		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Crystal Growth And Electronic Structure Exploration Of Newly Discovered Magnetic Weyl Semimetals And Multiple Degenerate Fermions	-	-	1,860,500	1,860,500	137,568	-	1,722,932
271	2019399		SERB	SCIENCE & ENGINEERING RESEARCH BOARD	Controlling The Mott Insulating States By Dc Current	-	-	2,439,660	2,439,660	130,460	-	2,309,200
		SERB Total	0	0	0	38,304,753	239,875,925	309,539,848	511,111,020	206,681,910	42,826,454	347,255,514
1	2018428		SGRI	SAINT GOBAIN RESEARCH INDIA	Finite Element Modelling For Seismic Analysis Of Non-Structural Plaster Board Suspended Ceiling Systems	-	1,350,000	180,000	1,530,000	687,600	-	842,400
2	2018483		SGRI	SAINT GOBAIN RESEARCH INDIA	Development Of Theoretical Model For Droplet Dynamics Of Anti-Corrosion Treatment On Hot Float Glass	-	-	410,000	410,000	68,334	-	341,666
3	2018484		SGRI	SAINT GOBAIN RESEARCH INDIA	Fundamental Understanding Of The Reaction Kinetics Of The Chemical Vapour Deposition Process	-	-	690,000	690,000	119,000	-	571,000
		SGRI Total	0	0	0	-	1,350,000	1,280,000	2,630,000	874,934	-	1,755,066
1	2017186		SHB	SHRAMIK BHARTI	Evaluation Of Gram Samridhi Project (Part - 1)	-	300	-	300	300	-	-
		SHB Total	0	0	0	-	300	-	300	300	-	-
1	20040074		SIDA	SIDA	Treatment Of Domestic Wastewater In India : Uasb Optimization.	-	744	-	744	-	-	744
		SIDA Total	0	0	0	-	744	-	744	-	-	744
1	20000123		SIDBI	SMALL IND. DEV. BANK OF INDIA	Incubation Centre	677	-	-	(677)	-	677	-
		SIDBI Total	0	0	0	677	-	-	(677)	-	677	-
1	2014372		SPPGMS	SARDAR PATEL POST-GRADUATION INSTITUTE OF MEDICAL SCIENCE	Design And Fabrication Of A Dental Chair For Rural India	-	5,491	-	5,491	-	-	5,491
		SPPGMS Total	0	0	0	-	5,491	-	5,491	-	-	5,491
1	20060262		SRC	SWADESH RESEARCH LINKS PROGRAMME	Modelling Of Dinuclear Active Sites Metallo Proteins (Planning Grants)	-	124,133	-	124,133	-	-	124,133
		SRC Total	0	0	0	-	124,133	-	124,133	-	-	124,133
1	2018264		SRCUSA	SEMICONDUCTOR RESEARCH CORPORATION, USA	Time For Secure Memory Hierarchies	55,456	-	436,354	380,898	348,858	-	32,040
2	2019334		SRCUSA	SEMICONDUCTOR RESEARCH CORPORATION, USA	Breaking The Memory Wall With Near-Core Optimization	-	-	107,135	107,135	112,636	5,501	-
3	2018265		SRCUSA	SEMICONDUCTOR RESEARCH CORPORATION, USA	Formal Method For Security Validation Of Trustworthy Hardware Platforms	-	163,000	955,236	1,118,236	569,555	-	548,681
		SRCUSA Total	0	0	0	55,456	163,000	1,498,725	1,606,269	1,031,049	5,501	580,721
1	2019201		STAMLO	STAMLO INDUSTRIES LTD.	Ppp Mode Industry Projects (Prototype Development Fund)	-	-	6,600,000	6,600,000	574,213	-	6,025,787
2	2019202		STAMLO	STAMLO INDUSTRIES LTD.	Material Evaluation Stamlo Flexy, Etk	-	-	594,000	594,000	234,113	-	359,887

		STAMLO Total				-	-	7,194,000	7,194,000	808,325	-	6,385,675
1	2014095		STC	SPACE TECHNOLOGYCELL	Experimental Studies On Isrosene Gel-Propellant Spray Loaded With Nano Alumina Particle	-	3,008	-	3,008	3,008	-	-
2	2017192		STC	SPACE TECHNOLOGYCELL	Go2/Gch4 Combustion Studies In High Pressure Rocket Combustors	-	-	803,245	803,245	803,245	-	-
3	20080053		STC	SPACE TECHNOLOGYCELL	Measurement Of 3-D Unsteady Velocity Field Of Impinging Transient ---—Water Injection	-	210,319	-	210,319	210,319	-	-
4	2016178		STC	SPACE TECHNOLOGYCELL	Three Dimensional Transient Analysis Of Side Load For Current And Future Booster Nozzles During Start-Up And Shut Down	-	-	38,000	38,000	38,000	-	-
5	2017180		STC	SPACE TECHNOLOGYCELL	Control Of Transition In Dual-Bell Nozzle Using Film Cooling	-	-	348,782	348,782	348,782	-	-
6	2019437		STC	SPACE TECHNOLOGYCELL	Investigation Of Near And Far Field Acoustics Due To The Jet Impingement On The Flame Deflector During Rocket Lift-Off	-	-	210,000	210,000	210,000	-	-
7	2018033		STC	SPACE TECHNOLOGYCELL	Numerical Study Of Flow-Thermal Response Of A High Speed Vehicle With Ablative/Non-Ablative Thermal Protection System	-	147,486	442,026	589,512	589,512	-	-
8	2019438		STC	SPACE TECHNOLOGYCELL	Experimental And Numerical Investigation Of Aerospike Nozzles For Effective Propulsion Systems	-	-	268,416	268,416	268,416	-	-
9	2018021		STC	SPACE TECHNOLOGYCELL	Characterization And Modeling Of Membeances For Inflatable Space Structures\	13,108	-	636,466	621,358	621,358	-	-
10	20110064		STC	SPACE TECHNOLOGYCELL	Developing Biomedical Technologies To Counter The Deleterious Effects Of Microgravity On The Rod And Cone Photo-Receptor Network Of The Retina	-	14,402	-	14,402	14,402		
11	2018038		STC	SPACE TECHNOLOGYCELL	Integration Of Spectral And Spatial Information For Hyperspecral Image Classification	-	209,960	579,835	789,795	789,795	-	-
12	2018055		STC	SPACE TECHNOLOGYCELL	Detectability Of Critical Delamination In Composite Space Components-Vibration Based Approach	-	34,660	1,076,181	1,110,841	1,110,841	-	-
13	2017182		STC	SPACE TECHNOLOGYCELL	Gigahertz And Terahertz Antenna On Photonic Crystal Substrate	-	-	694,197	694,197	694,197	-	-
14	2019452		STC	SPACE TECHNOLOGYCELL	Hydrogen Storage And Delivery System Based On Inexpensive Industrially Scalable Hybrids	-	-	196,000	196,000	196,000	-	-
15	2018046		STC	SPACE TECHNOLOGYCELL	Integrating Lithium Oxychloride Based Solid State Electrolytes With Carbon Encapsulated Si/Ge Anodes And Li-Excess Mnc Cathodes For Advanced Lithium Ion Batteries	-	84,823	726,104	810,927	810,927	-	-
16	2018045		STC	SPACE TECHNOLOGYCELL	Development Of Ultrasmall Bimetallic Oxide Nanoclusters (E.G. Nico2,Mnco2o4,Nimoo4 And Mnmoo4) For High Performance Non-Aqueous/Aqueous Asymmetric Electrochemical Supercapacitor.	-	84,865	1,171,908	1,256,773	1,256,773	-	-
17	2018040		STC	SPACE TECHNOLOGYCELL	Molecular Size And Mass Sensitive Ultrasensative Thermal Spectrometer Applications	-	3,008	1,722,564	1,725,572	1,725,572	-	-
18	20110020		STC	SPACE TECHNOLOGYCELL	Isro-Iisk-Stc	7,837,280	-	2,726,018	(5,111,262)	56,259	5,167,521	-
19	2014085		STC	SPACE TECHNOLOGYCELL	Space Trechnology Cell	-	1,155,746	-	1,155,746	860,901	-	294,845
20	20120036		STC	SPACE TECHNOLOGYCELL	Satellite Formation-Keeping Control	-	27,223	-	27,223	27,223	-	-
21	2019439		STC	SPACE TECHNOLOGYCELL	Conformal, Transparent And Lightweight Microwave Absorbers For Ground And Space Applications	-	-	229,400	229,400	229,400	-	-
22	2016203		STC	SPACE TECHNOLOGYCELL	Rte-Tomography Based Cloud Monitoring	-	-	439,991	439,991	439,991	-	-
23	2018028		STC	SPACE TECHNOLOGYCELL	Design Of Polymer Nanocomposites Based Wideband Microwave Absorbers For Stealth And Electromagnetic Shielding Applications	-	175,985	1,274,754	1,450,739	1,450,739	-	-
24	2017203		STC	SPACE TECHNOLOGYCELL	Underlay Cognitive Radio Based Satellite - Terrestrial Non-Cooperative/Cooperative Communication For Efficient Resource Utilization....Performance Analysis	-	-	42,009	42,009	42,009	-	-
25	2018056		STC	SPACE TECHNOLOGYCELL	Pdk Development And Modeling Support For Isro'S Gan Hemt Technology	-	21,055	2,158,623	2,179,678	2,179,678	-	-
26	2017204		STC	SPACE TECHNOLOGYCELL	Space Time Trellis Coding (Sttc)/Turbo Coding Based Robust Satellite Image Processing And Communication	-	-	172,900	172,900	172,900	-	-
27	2016164		STC	SPACE TECHNOLOGYCELL	High Throughput Surface Characterization Using Coherent Optical Imaging	-	-	32,817	32,817	32,817	-	-
28	2018032		STC	SPACE TECHNOLOGYCELL	Optical Characterization Of Wetlands From Earth Observation	-	103,794	678,462	782,256	782,256	-	-
29	2018039		STC	SPACE TECHNOLOGYCELL	Impact Melt Cover On Central Peaks Of Lunar Impact Craters: Evaluating Its Implications For Deriving Sub-Surface Mineralogy Using Data From Chandrayaan-1 & Other Recent Lunar Missions	-	480,970	586,549	1,067,519	1,067,519	-	-
30	20120326		STC	SPACE TECHNOLOGYCELL	Phase-Ii Expanded Proposal On Design Of Active Flexible And Re-Configurable Parabolic Antenna Using Sma Based Smart Actuators	-	76,920	-	76,920	76,920	-	-
31	2014086		STC	SPACE TECHNOLOGYCELL	Design Of A Smart Inflated Torus And Antenna Membrane	-	824,431	-	824,431	824,431	-	-
32	2017183		STC	SPACE TECHNOLOGYCELL	Design Validation Of Active Flexible And Reconfigurable Parabolic Antenna Using Sma Based Smart Actuator	-	5,255	-	5,255	5,255	-	-
33	2018044		STC	SPACE TECHNOLOGYCELL	Shape Memory Alloys Actuated Mechanically Active Reconfigurable Lightweight Peekmaterial Based Parabolic Reflector For Active Control On Rf Patterns Forhigh Frequency Micro/Nano Spacecraft Application	-	232,728	1,931,080	2,163,308	2,163,308	-	-
34	2017189		STC	SPACE TECHNOLOGYCELL	Development Of High Power Density Polymer Electrolyte Membrane Fuel Cell (Pemfc) For Space Applications Biomass-Derived Multidoped Carbon/Multihelix Carbon Nanotubes (Mhcn)....Free Catalyst	-	-	351,884	351,884	351,884	-	-

35	2019436		STC	SPACE TECHNOLOGYCELL	Development And Evaluation Of Multiscale Cnt/Polymer Composites	-	-	304,897	304,897	304,897	-	-
36	20120040		STC	SPACE TECHNOLOGYCELL	Excimer Laser Micromachining For Mhmic	-	25,000	-	25,000	25,000	-	-
37	2017190		STC	SPACE TECHNOLOGYCELL	Development Of A Gas Sensor To Detect Leakage Of Helium Gas From Inflatable Space Structures	-	-	625,577	625,577	625,577	-	-
38	2018048		STC	SPACE TECHNOLOGYCELL	Modeling And Simulation Of Lox-Ch4 (Semi-Cryogenic) Combustion	-	81,346	1,311,343	1,392,889	1,392,889	-	-
39	2015306		STC	SPACE TECHNOLOGYCELL	Vibration Control Of Cryo-Coolers Used For Satellite Applications	-	417,074	-	417,074	417,074	-	-
40	2018134		STC	SPACE TECHNOLOGYCELL	Stabilization Of 3d Platform For Space Aplications Against Rolling And Pitching Excitations	-	498,837	-	498,837	481,960	-	11,877
41	2018026		STC	SPACE TECHNOLOGYCELL	Numerical And Experimental Framework For Laser Based Additive Manufacturing Of High Performation Parts Of Titanium Alloy	-	882,402	915,044	1,797,446	1,797,446	-	-
42	2017197		STC	SPACE TECHNOLOGYCELL	Numerical Simulation Of Liquid-Sheet Breakup In Gascentered Swirl Coaxial Atomizers	-	-	1,319,799	1,319,799	1,319,799	-	-
43	2018027		STC	SPACE TECHNOLOGYCELL	Numerical Investigation Of A Kerosene Fuelled Scramjet Combustor Using Rans Based Flamelet Model	-	168,979	-	168,979	168,979	-	-
44	2016176		STC	SPACE TECHNOLOGYCELL	Numerical Investigations On Surface Gravity Waves And Internal Tides	-	-	56,117	56,117	56,117	-	-
45	2016177		STC	SPACE TECHNOLOGYCELL	Surface Grooving Of Cu/Ni Based Alloys Using Jet Electrolytic Dissolution For Enhancement Of Heat Transfer Rate	-	-	435,280	435,280	435,280	-	-
46	2017193		STC	SPACE TECHNOLOGYCELL	Development Of Controlled Expansion (Ce) Al-Si Alloys By Packed Rolling	-	-	455,453	455,453	455,453	-	-
47	2018041		STC	SPACE TECHNOLOGYCELL	Development Of High Entropy Metal Diboride For Ultrahigh Temperature Application	-	509,047	592,481	1,101,528	1,101,528	-	-
48	2019437		STC	SPACE TECHNOLOGYCELL	Development Of Product Based On High Entropy Alloys For Space Technology Application	-	-	182,619	182,619	182,619	-	-
49	2019431		STC	SPACE TECHNOLOGYCELL	Brazing Of Ultra High Temperature Hfb2-Zrb2 Based Ceramics	-	-	321,000	321,000	321,000	-	-
50	2015099		STC	SPACE TECHNOLOGYCELL	Development Of Novel Plasmonic Devices For Next Generation Chip Scale Technology Based On Nanophotonics	-	1,882	16,451	18,333	18,333	-	-
51	2018112		STC	SPACE TECHNOLOGYCELL	Development Of Thermoelectric Power Source For Space Application	-	237,103	1,098,755	1,335,858	1,335,858	-	-
52	2019429		STC	SPACE TECHNOLOGYCELL	Development Of Solid Electrolyte Based Sodium-Sulfur Battery	-	-	236,000	236,000	236,000	-	-
53	2017193		STC	SPACE TECHNOLOGYCELL	Microstructural And Mechanical Characterization Of High Silicon Stainless Steel	-	-	461,564	461,564	464,524	2,960	-
54	2017181		STC	SPACE TECHNOLOGYCELL	Interdiffusion And Diffusional Interaction In High Entropy Alloys	-	-	939,613	939,613	939,613	-	-
55	2017184		STC	SPACE TECHNOLOGYCELL	Development Of Friction Stir Welding And Processing Technology For Aa2195 Structural Application	-	-	498,866	498,866	498,866	-	-
56	2018047		STC	SPACE TECHNOLOGYCELL	Microstructure And Texture Analysis Of Hot Forget Ti-6al-4v Alloy	-	442,600	636,298	1,078,898	1,078,898	-	-
57	2019430		STC	SPACE TECHNOLOGYCELL	Phase-Field Modelling Of Microstructure Evolution In Ti-6 Al-4v Alloy During Annealing	-	-	350,000	350,000	350,000	-	-
58	2016188		STC	SPACE TECHNOLOGYCELL	Laser Assisted Fabrication Of Functionally And Microstructurally Graded Thermal Protection Systems (Tpss) For Reusable Launch Vehicles (Rlvs)	-	-	328,604	328,604	328,604	-	-
59	2019434		STC	SPACE TECHNOLOGYCELL	Synthesis And Characterization Al-B And Al-B4c Alloys As Fuel In Solid Propellant	-	-	190,360	190,360	190,360	-	-
60	2018037		STC	SPACE TECHNOLOGYCELL	Parallel Electro-Magnetic Solver For Microwave, Infrared, And Optical Applications (Mip-Pems)	-	118,600	910,980	1,029,580	1,029,580	-	-
61	2019433		STC	SPACE TECHNOLOGYCELL	Investigation Of Optical Properties Of Metallic Thin Films Mirrors By Low Energy Plasma (Ion) Irradiation For Space Applications	-	-	167,000	167,000	167,000	-	-
62	2019453		STC	SPACE TECHNOLOGYCELL	Development Of Reconfigurable Flat Panel Metasurface Antenna	-	-	250,000	250,000	250,000	-	-
		STC Total	0	0	0	7,850,388	7,276,258	32,142,772	31,568,642	36,430,401	5,170,481	308,722
1	20180808		STFC	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL (STFC), UK	Thermal Infrared Technologies For Supporting Environmental Assessment And Decision Making In The Ganges Basin (Part-B)	-	699,311	4,458	703,769	1,266,618	562,849	-
2	2018080		STFC	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL (STFC), UK	Thermal Infrared Technologies For Supporting Environmental Assessment And Decision Making In The Ganges Basin	-	5,509	2,416,995	2,422,504	-	-	2,422,504
3	20180804		STFC	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL (STFC), UK	Thermal Infrared Technologies For Supporting Environmental Assessment And Decision Making In The Ganges Basin (Part-A)	-	1,313,353	200,000	1,513,353	3,113,235	1,599,882	-
		STFC Total	0	0	0	-	2,018,173	2,421,453	4,639,626	4,379,853	2,162,731	2,422,504
1	2013369		SUKRIT	SUKRITI VIDYUT UDYOG PVT. LTD. GHAZIABAD	Development Of Plasma Heating System For Copper Wire Annealing-Feedback And Acceptance From Sukriti	-	23,557	-	23,557	-	-	23,557
		SUKRIT Total	0	0	0	-	23,557	-	23,557	-	-	23,557
1	2016141		TATAST	TATA STEELS LTD.,	Characterization Of Particle Size And Shape Factor Distribution Of The Blast Furnace Feed And Simulation Of The Flow And Packing Of The Components	-	296,816	318,794	615,610	613,784	-	2,826
		TATAST Total	0	0	0	-	296,816	318,794	615,610	613,784	-	2,826
1	20120199		TCE	TATA CONSULTING ENGINEERS	Vibration Mitigation Of Power Plant Chimneys: Analytical And Wind Tunnel Study	-	1,070	-	1,070	-	-	1,070
		TCE Total	0	0	0	-	1,070	-	1,070	-	-	1,070
1	20080174		TCS	TATA CONSULTANCY SERVICES	Tcs Foundation For Research In Algorithms	8,041	-	-	(8,041)	-	8,041	-
2	2017252		TCS	TATA CONSULTANCY SERVICES	Ismr National Hub	857,272	-	-	(857,272)	-	857,272	-

3	2018490		TCS	TATA CONSULTANCY SERVICES	Isme National Hub-Tcs Grant Project	900,000	-	4,723,014	1,829,910	691,111	-	3,138,905
4	2016059		TCS	TATA CONSULTANCY SERVICES	Developing Robotic Application For Automated Item Picking	52,736	-	-	(52,736)	-	52,736	-
5	20119156		TCS	TATA CONSULTANCY SERVICES	Programming Robots By Demonstration For Industrial And Warehouse Automation	-	-	4,903,200	4,903,200	877,662	-	4,025,538
6	2017251		TCS	TATA CONSULTANCY SERVICES	Modeling Of Mechanical Properties Of Ahss Steels Using Advanced Characterization Tools	327,477	-	1,946,486	1,619,009	654,154	-	964,855
		TCS Total	0		0	2,145,526	-	11,579,602	9,434,076	2,222,927	918,049	8,129,338
1	19990270		TDM	TECHNOLOGY DEVELOPMENT MISSION	Field Trial And Testing Of Integrated Da Technology At Ill Banpur.	289,426	-	-	(289,426)	-	289,426	-
2	19990169		TDM	TECHNOLOGY DEVELOPMENT MISSION	Formulation Of Project Fund Tdm-Ii Scheme	-	261,354	-	261,354	-	-	261,354
		TDM Total	0		0	289,426	261,354	-	(28,072)	-	289,426	261,354
1	2017287		TEEDE	TOWARDS EXCELLENCE IN ENGINEERING CURRICULUM FOR DUAL EDUCATION	Towards Excellence In Engineering Curriculum For Dual Education	-	1,627,155	837,331	2,464,486	634,138	-	1,830,348
		TEEDE Total	0		0	-	1,627,155	837,331	2,464,486	634,138	-	1,830,348
1	2014340		THERMA	THERMAX	Search Of Alloy Systems For Hydrogen Storage Application	-	10	-	10	-	-	10
		THERMA Total	0		0	-	10	-	10	-	-	10
1	2017095		TI	THE TAOS INSTITUTE	Reconstructing Forgiveness And Reconciliation For Post Violence Healing: An Ethnographistudy In India	-	2,316	-	2,316	-	-	2,316
		TI Total	0		0	-	2,316	-	2,316	-	-	2,316
1	20070192		TIFAC	TECH.INFORM,FORECAST & ASSESMT	Electronic Stability Control Systems	-	318,389	-	318,389	-	-	318,389
		TIFAC Total	0		0	-	318,389	-	318,389	-	-	318,389
1	2015272		TMIR	TECHNOLOGY MISSION FOR INDIAN RAILWAYS	Seed Money -Tmir(Technology Mission For Indian Railways)	-	535,135	7,500	542,635	542,305	-	330
		TMIR Total	0		0	-	535,135	7,500	542,635	542,305	-	330
1	2017215		TNVASU	TAMIL NADU VETERINARY AND ANIMAL SCIENCE UNIVERSITY	Software Development Activities In Edrp Components	-	113,778	152,542	266,320	285,613	19,293	-
		TNVASU Total	0		0	-	113,778	152,542	266,320	285,613	19,293	-
1	2019027		TRAKIT	TRACKIT SOLUTIONS FZ LLC	Real Time Location System Using Ble	-	-	196,371	196,371	264,961	68,590	-
		TRAKIT Total	0		0	-	-	196,371	196,371	264,961	68,590	-
1	2018111		UA	UNIVERSITY OF ALABAMA, TUSCALOOSA, ALABAMA	Design Of Antenna Element And Array	-	677,505	-	677,505	279,641	-	397,864
		UA Total	0		0	-	677,505	-	677,505	279,641	-	397,864
1	2013463		UEEM	UEE MISSION-EDUCATION DEPARTMENT DELHI GOVERNMENT	Bas Labs For Samagra Shiksha Delhi	-	-	48,960,300	48,960,300	48,960,000	-	300
		UEEM Total	0		0	-	-	48,960,300	48,960,300	48,960,000	-	300
1	2016377		UGC	UNIVERSITY GRANTS COMMISSION	Deciphering The Structural Role Of Glycogen In Neuronal Autophagy And Neurodegeneration	-	409,315	4,737,600	5,146,915	5,146,885	-	30
2	2015424		UGC	UNIVERSITY GRANTS COMMISSION	Understanding Innate Responses To Odors And Odor Mixtures: Across-Species Integrated Approach	-	673,982	-	673,982	673,010	-	6,972
3	20120147		UGC	UNIVERSITY GRANTS COMMISSION	Creating A International Program For Sustainable Infrastructure Development Under Obama-Singh 21st Century Knowledge Initiative (Cai)Grant	-	238	-	238	-	-	238
4	2018042		UGC	UNIVERSITY GRANTS COMMISSION	Mixed Explosives Biodegradation For Remediation Of Contaminated Ground Water	-	5,155,569	5,574	5,161,143	2,737,086	-	2,424,057
5	2014247		UGC	UNIVERSITY GRANTS COMMISSION	Dynamic Graph Algorithms	-	740,764	-	740,764	-	-	740,764
6	2013366		UGC	UNIVERSITY GRANTS COMMISSION	Adaptive And Reconfigurable Multiband, Multimode And Multifunction Monolithi Millimeter-Wave Integrated Circuits (Mmics) Technologies For 5g Wireless Communications	-	242,788	-	242,788	-	-	242,788
7	2014236		UGC	UNIVERSITY GRANTS COMMISSION	Fluid Dynamical Methods For Gravity	934,498	-	-	(934,498)	-	934,498	-
		UGC Total	0		0	934,498	7,228,656	4,743,174	11,037,332	8,556,981	934,498	3,414,849
1	2017118		UGOT	UNIVERSITY OF GOTHENBURG	Religion And Politics In India	199,193	-	19,827	(179,366)	-	179,366	-
		UGOT Total	0		0	199,193	-	19,827	(179,366)	-	179,366	-
1	2018459		UKGOVT	UK GOVERNMENT	Newton Apex Ii	14,879	-	32,468	17,589	1,046,274	1,028,685	-
		UKGOVT Total	0		0	14,879	-	32,468	17,589	1,046,274	1,028,685	-
1	20070155		UKIERI	UKIERI	Mathematical And Experimental Modeling Of The Animal Stress Response Network	-	441	-	441	-	-	441
2	20120045		UKIERI	UKIERI	Integrated Sensing, Monitoring And Healing For Complex Autonomous Systems	-	1,014	-	1,014	-	-	1,014
		UKIERI Total	0		0	-	1,455	-	1,455	-	-	1,455
1	20070226		UNICEF	UNITED NATIONS CHILDRENS FUND	Enviornmem Friendly Toilet System For A Congested Localityin Aligarh	66,902	-	-	(66,902)	-	66,902	-
2	20000007		UNICEF	UNITED NATIONS CHILDRENS FUND	Technical And Capacity Building Suppot To Demonstration Projects	-	216,742	-	216,742	-	-	216,742
3	20070139		UNICEF	UNITED NATIONS CHILDRENS FUND	Evaluation Of As Field Test Kit	-	2,671	-	2,671	-	-	2,671
		UNICEF Total	0		0	66,902	219,413	-	152,511	-	66,902	219,413
1	20130129		UNIVER	UNIVERSITY OF SOUTHAMPTON	Assessing Health, Livelihoods, Ecosystem Services And Poverty Alleviation In Populous Deltas Collaboration	-	6,044	-	6,044	-	-	6,044
		UNIVER Total	0		0	-	6,044	-	6,044	-	-	6,044
1	20060022		UNU	UNITED NATIONS UNIVERSITY,KOREA	Exposure Assessment Of Lead	149,403	-	-	(149,403)	-	149,403	-
		UNU Total	0		0	149,403	-	-	(149,403)	-	149,403	-
1	20090348		UOA	UOA	Cert: Allahabad	-	540,253	-	540,253	-	-	540,253
		UOA Total	0		0	-	540,253	-	540,253	-	-	540,253

1	2018467E		UPEIDA	UTTAR PRADESH EXPRESSWAYS INDUSTRIAL DEVELOPMENT AUTHORITY	Center Of Excellence For Defense Corridor Office Expenses	-	-	4,142,548	4,142,548	4,279,543	136,995	-
2	2018467		UPEIDA	UTTAR PRADESH EXPRESSWAYS INDUSTRIAL DEVELOPMENT AUTHORITY	Center Of Excellence For Defence Corridor	-	19,991,150	(19,727,300)	263,850	276,071	12,221	-
		UPEIDA Total	0	0	0	-	19,991,150	(15,584,753)	4,406,398	4,555,614	149,216	-
1	20080073		UPPTCL	UPPTCL	Ehv/Uhv Transmission System Planning For Upptcl	-	2,074	-	2,074	-	-	2,074
		UPPTCL Total	0	0	0	-	2,074	-	2,074	-	-	2,074
1	20090295		URBAN	URBAN	Zero Discharge Toilet System (Zdts)	-	860,672	-	860,672	-	-	860,672
		URBAN Total	0	0	0	-	860,672	-	860,672	-	-	860,672
1	20120397		USAID	U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT	Developing Low Carbon Cities In India: Focus On Urban Infrastructures, Climate Risks & Vulnerability	-	17,721	-	17,721	-	-	17,721
		USAID Total	0	0	0	-	17,721	-	17,721	-	-	17,721
1	20050137		UTMB	UTMB, USA	Impact Of Helminths On Asthma	338,607	-	-	(338,607)	-	338,607	-
		UTMB Total	0	0	0	338,607	-	-	(338,607)	-	338,607	-
1	20130010		WT	WELLCOME TRUST DBT	Role Of Spink1 In Cancer Progression: Regulatory Mechanisms And Therapeutic Target Potential	173,513	-		(173,513)	775,373	948,886	-
2	2014171		WT	WELLCOME TRUST DBT	Structure, Function And Novel Signalling Pathways Of The Noncanonical G Protein Coupled Receptors	-	2,638,112	3,090	2,641,162	10,511,214	7,870,052	-
1	2019004		WT	WELLCOME TRUST DBT	Elucidating The Conformational Dynamics Of Non-Canonical Seven-Transmembrane Receptor Activation And Signaling	-	-	3,800,280	3,800,280	4,571,852	771,572	-
4	2016054		WT	WELLCOME TRUST DBT	Coding Of Innate Olfactory Preferences In The Mosquito Brain	373,402	-	2,108,307	1,734,905	2,401,116	666,211	-
5	2017001		WT	WELLCOME TRUST DBT	Development Of A Highly Efficient And Immunologically Inert Adeno-Associated Virus Based Vector System For Rentinal Gene Therapy	-	117,194	6,301,152	6,418,346	10,682,884	4,264,538	-
		WT Total	0	0	0	546,915	2,755,306	12,212,789	14,421,180	28,942,439	14,521,259	-
1	2015388		WTI	WILDLIFE TRUST OF INDIA	Training On Moonj Grass Weaving	-	60	-	60	-	-	60
		WTI Total	0	0	0	-	60	-	60	-	-	60
1	20090088		WWF-I	WWF- INDIA	Collation Of Water Quality And Pollution Data Of The River Ganga In The Gangotri-Kanpur Stretch	-	76,431	-	76,431	-	-	76,431
2	20090103		WWF-I	WWF- INDIA	Fluvial Geomorphology And Hydraulic Modeling Of The Upper Ganga For Maintaining Sustainable Flows	-	4,251	-	4,251	-	-	4,251
3	2015064		WWF-I	WWF- INDIA	Develope Airborne Remote Sensing Technology Capable Of Monitoring Water Quality Of River Ganga	-	87,601	-	87,601	-	-	87,601
		WWF-I Total	0	0	0	-	168,283	-	168,283	-	-	168,283
1	2018307		XLRI	XAVIER SCHOOL OF MANAGEMENT (XLRI) JAMSHEDPUR	National Entrepreneurship Awards Scheme	1,307,000	-	1,259,135	(47,865)	68,402	116,267	-
		XLRI Total	0	0	0	1,307,000	-	1,259,135	(47,865)	68,402	116,267	-
1	2015329		ZEEN	ZEE NETWORK	Development Of Commercial Package For Restoration Of Old Films And Videos	26,451	-	-	(26,451)	-	26,451	-
		ZEEN Total	0	0	0	26,451	-	-	(26,451)	-	26,451	-
		Grand Total	0	0		308,232,700	1,233,206,290	1,844,272,325	2,769,244,915	1,490,348,426	350,422,173	1,629,318,662

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

PROJECTS' ACCOUNT

ANNEXURE 'B' SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

S.NO.	PROJECT NO.	SPONSOR CODE	NAME OF SPONSOR	OPENING BALANCE AS ON		TRANSACTIONS DURING THE		CLOSING BALANCE AS ON	
				CR	DR	CR	DR	CR	DR
1	20060237	AICTE	ALL INDIA COUNCIL OF TECH EDU	202,300	-	-	-	202,300	-
2	20040266	AICTE	ALL INDIA COUNCIL OF TECH EDU	20,000	-	-	-	20,000	-
3	20040273	AICTE	ALL INDIA COUNCIL OF TECH EDU	26,873	-	-	-	26,873	-
4	20060235	AICTE	ALL INDIA COUNCIL OF TECH EDU	10,019	-	-	-	10,019	-
5	20040299	AICTE	ALL INDIA COUNCIL OF TECH EDU	1,101	-	-	-	1,101	-
6	19990132	AICTE	ALL INDIA COUNCIL OF TECH EDU	-	63,299	-	-	-	63,299
		AICTE Total		**260,293**	**63,299**	**-**	**-**	**260,293**	**63,299**
1	2016205	BIRAC	BIOTECHNOLOGY INDUSTRY RESEARCH ASSISTANCE COUNCIL	-	375,000	375,000	-	-	-
		BIRAC Total		-	**375,000**	**375,000**	-	-	-
1	2014374	CSIR	COUNCIL OF SC.& IND. RESEARCH	15,000	-	180,000	180,000	15,000	-
2	2013398	CSIR	COUNCIL OF SC.& IND. RESEARCH	128,787	-	-	**128,787**	-	-
3	2017323	CSIR	COUNCIL OF SC.& IND. RESEARCH	20,000	-	-	20,000	-	-
4	2016425	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	345,000	-	180,000	-	525,000
5	2019018	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	-	-	19,141	-	19,141
6	20080136	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	525,000	720,000	180,000	15,000	-
7	2018335	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	90,000	-	180,000	-	270,000
8	20080137	CSIR	COUNCIL OF SC.& IND. RESEARCH	15,000	-	180,000	180,000	15,000	-
9	2014180	CSIR	COUNCIL OF SC.& IND. RESEARCH	435,416	-	-	-	435,416	-
10	2013400	CSIR	COUNCIL OF SC.& IND. RESEARCH	143,605	-	-	-	143,605	-
11	2016497	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	165,000	-	180,000	-	345,000
12	2018235	CSIR	COUNCIL OF SC.& IND. RESEARCH	13,315	-	-	13,315	-	-
13	2016502	CSIR	COUNCIL OF SC.& IND. RESEARCH	-	-	405,000	570,000	-	165,000
14	20090304	CSIR	COUNCIL OF SC.& IND. RESEARCH	25,586	-	-	-	25,586	-
15	19990131	CSIR	COUNCIL OF SC.& IND. RESEARCH	26,638,347	-	732,131	1,022,432	26,348,046	-
		CSIR Total		**27,435,056**	**1,125,000**	**2,217,131**	**2,853,675**	**26,997,653**	**1,324,141**
1	2015442	CST	COUNCIL OF SCIENCE & TECHNOLOGY	352,000	-	352,000	352,000	352,000	-
		CST Total		**352,000**	**-**	**352,000**	**352,000**	**352,000**	**-**
1	2018002	CSTUP	COUNCIL OF SCIENCE AND TECHNOLOGY UP	32,000	-	432,000	432,000	32,000	-
		CSTUP Total		**32,000**	**-**	**432,000**	**432,000**	**32,000**	**-**
1	2014397B	DAE	DEPARTMENT OF ATOMIC ENERGY	6,801	-	-	-	6,801	-
2	20090306	DAE	DEPARTMENT OF ATOMIC ENERGY	233,673	-	-	-	233,673	-
3	20120116	DAE	DEPARTMENT OF ATOMIC ENERGY	128,000	-	-	56,000	72,000	-
4	2015343A	DAE	DEPARTMENT OF ATOMIC ENERGY	101,485	-	-	-	101,485	-
5	2015343B	DAE	DEPARTMENT OF ATOMIC ENERGY	36,901	-	-	-	36,901	-
6	2015343C	DAE	DEPARTMENT OF ATOMIC ENERGY	12,400	-	-	-	12,400	-

7	2016390	DAE	DEPARTMENT OF ATOMIC ENERGY	31,967	-	-	13,163	18,804	-
8	2019135	DAE	DEPARTMENT OF ATOMIC ENERGY	-	-	604,000	462,925	141,075	-
9	2014398	DAE	DEPARTMENT OF ATOMIC ENERGY	323,368	-	460,000	95,852	687,516	-
10	2013396	DAE	DEPARTMENT OF ATOMIC ENERGY	70,667	-	-	-	70,667	-
11	2014397A	DAE	DEPARTMENT OF ATOMIC ENERGY	91,000	-	-	-	91,000	-
12	2014397C	DAE	DEPARTMENT OF ATOMIC ENERGY	8,000	-	-	-	8,000	-
13	19990120	DAE	DEPARTMENT OF ATOMIC ENERGY	-	3,988,697	-	-	-	3,988,697
		DAE Total		**1,044,262**	**3,988,697**	**1,064,000**	**627,940**	**1,480,322**	**3,988,697**
1	2019214	DBT	DEPARTMENT OF BIOTECHNOLOGY	-	-	1,883,000	939,760	943,240	-
2	2015377	DBT	DEPARTMENT OF BIOTECHNOLOGY	86,000	-	208,562	51,000	243,562	-
3	20020200	DBT	DEPARTMENT OF BIOTECHNOLOGY	1,210,685	-	-	-	1,210,685	-
4	20060174	DBT	DEPARTMENT OF BIOTECHNOLOGY	145,533	-	-	-	145,533	-
5	20120349	DBT	DEPARTMENT OF BIOTECHNOLOGY	32,750	-	-	-	32,750	-
6	2015040	DBT	DEPARTMENT OF BIOTECHNOLOGY	-	-	3,931,000	-	3,931,000	-
7	2017486	DBT	DEPARTMENT OF BIOTECHNOLOGY	435,927	-	134,880	514,399	56,408	-
8	2018146	DBT	DEPARTMENT OF BIOTECHNOLOGY	75,081	-	420,000	433,948	61,133	-
9	2017178	DBT	DEPARTMENT OF BIOTECHNOLOGY	25,000	-	903,231	902,889	25,342	-
10	2017485	DBT	DEPARTMENT OF BIOTECHNOLOGY	503,600	-	134,880	638,480	-	-
11	20080035	DBT	DEPARTMENT OF BIOTECHNOLOGY	177,997	-	-	-	177,997	-
12	2015326	DBT	DEPARTMENT OF BIOTECHNOLOGY	25,013	-	543,258	529,843	38,428	-
13	2018297	DBT	DEPARTMENT OF BIOTECHNOLOGY	-	-	757,129	547,935	209,194	-
14	2018591	DBT	DEPARTMENT OF BIOTECHNOLOGY	-	-	101,387	68,806	32,581	-
15	2015327	DBT	DEPARTMENT OF BIOTECHNOLOGY	56,559	-	471,000	469,000	58,559	-
16	20090287	DBT	DEPARTMENT OF BIOTECHNOLOGY	787,283	-	-	-	787,283	-
		DBT Total		**3,561,428**	**-**	**9,488,327**	**5,096,060**	**7,953,695**	**-**
1	2016047R	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	432,500	432,500	-	-
2	2016047O	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	480,000	480,000	-	-
3	2016047I	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	420,000	420,000	-	-
4	2016047J	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	443,970	443,970	-	-
5	2016047K	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	436,905	436,905	-	-
6	2016047L	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	420,000	420,000	-	-
7	2016047M	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	420,000	420,000	-	-
8	2016047N	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	350,000	350,000	-	-
9	2016047S	DEITY	DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY	-	-	367,500	367,500	-	-
		DEITY Total		-	-	**3,770,875**	**3,770,875**	-	-
1	2018089	DIC	DIGITAL INDIA CORPORATION	-	39,209	742,550	604,997	98,344	-
2	2017521	DIC	DIGITAL INDIA CORPORATION	637,416	-	-	757,933	-	120,517
3	2018090	DIC	DIGITAL INDIA CORPORATION	359,194	-	265,221	315,923	308,492	-
4	2018198	DIC	DIGITAL INDIA CORPORATION	576,129	-	-	522,316	53,813	-
5	2018091	DIC	DIGITAL INDIA CORPORATION	308,800	-	740,000	1,050,090	-	1,290
6	2018088	DIC	DIGITAL INDIA CORPORATION	694,194	-	-	694,926	-	732
		DIC Total		**2,575,733**	**39,209**	**1,747,771**	**3,946,185**	**460,649**	**122,539**
1	2017431	DST	DEPARTMENT OF SC.& TECHNOLOGY	128,359	-	2,007,332	2,282,206	-	146,515
2	2017328	DST	DEPARTMENT OF SC.& TECHNOLOGY	481,245	-	2,200,000	2,735,028	-	53,783

3	2017041	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,323	-	3,677	-	5,000	-
4	2019262	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	4,228,000	1,667,371	2,560,629	-
5	2018180	DST	DEPARTMENT OF SC.& TECHNOLOGY	633,527	-	20,874	1,074,432	-	420,031
6	20100194	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	168,513	6,976	-	-	161,537
7	20130220	DST	DEPARTMENT OF SC.& TECHNOLOGY	106,534	-	-	-	106,534	-
8	2017077	DST	DEPARTMENT OF SC.& TECHNOLOGY	174,390	-	800,000	1,045,043	-	70,653
9	20060066	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	908,748	2,600,000	1,228,432	462,820	-
10	2017388	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	240,665	1,106,288	580,674	284,949	-
11	2014293	DST	DEPARTMENT OF SC.& TECHNOLOGY	468,729	-	1,000	469,729	-	-
12	2017482	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	101,359	-	819,656	-	921,015
13	20070051	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	2,208,808	1,000,000	535,657	-	1,744,465
14	2014309	DST	DEPARTMENT OF SC.& TECHNOLOGY	393,272	-	1,815,894	923,467	1,285,699	-
15	2016356	DST	DEPARTMENT OF SC.& TECHNOLOGY	171,509	-	1,689,647	2,252,496	-	391,340
16	2016443	DST	DEPARTMENT OF SC.& TECHNOLOGY	111,506	-	2,347,194	2,319,319	139,381	-
17	2016459	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	74,418	2,421,754	2,475,421	-	128,085
18	2016180	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	116,442	600,000	19,250	464,308	-
19	2015452	DST	DEPARTMENT OF SC.& TECHNOLOGY	523,629	-	-	42,825	480,804	-
20	20130207	DST	DEPARTMENT OF SC.& TECHNOLOGY	105,000	-	-	-	105,000	-
21	20100118	DST	DEPARTMENT OF SC.& TECHNOLOGY	269,890	-	-	495,222	-	225,332
22	2014184	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,691,680	-	-	-	1,691,680	-
23	2017451	DST	DEPARTMENT OF SC.& TECHNOLOGY	152,834	-	24,491	1,077,825	-	900,500
24	20060225	DST	DEPARTMENT OF SC.& TECHNOLOGY	35,390	-	1,965,000	2,182,184	-	181,794
25	2018133	DST	DEPARTMENT OF SC.& TECHNOLOGY	329,050	-	-	391,850	-	62,800
26	2019271	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	330,000	244,656	85,344	-
27	2019187	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	18,721,420	14,870,519	3,850,901	-
28	2016440	DST	DEPARTMENT OF SC.& TECHNOLOGY	56,301	-	2,430,558	1,144,039	1,342,820	-
29	2016349	DST	DEPARTMENT OF SC.& TECHNOLOGY	393,423	-	-	393,423	-	-
30	2014074	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	71,720	71,720	-	-	-
31	2019368	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	900,600	235,702	664,898	-
32	2018013	DST	DEPARTMENT OF SC.& TECHNOLOGY	439,513	-	2,169,574	2,420,030	189,057	-
33	2016291	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,875,461	-	1,795,057	2,173,760	1,496,758	-
34	2016361	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	115,552	2,400,405	2,457,394	-	172,541
35	2018311	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,502,958	-	2,307,364	2,213,126	1,597,196	-
36	2015369	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	90,667	2,446,532	2,486,872	-	131,007
37	2019013	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	2,200,000	511,472	1,688,528	-
38	2016475	DST	DEPARTMENT OF SC.& TECHNOLOGY	60,715	-	2,168,985	2,459,926	-	230,226
39	2017289	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	95,168	3,971,153	2,486,552	1,389,433	-
40	20050093	DST	DEPARTMENT OF SC.& TECHNOLOGY	58,236	-	-	-	58,236	-
41	2019005	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,280,000	-	-	983,840	296,160	-
42	2014383	DST	DEPARTMENT OF SC.& TECHNOLOGY	846,953	-	-	-	846,953	-
43	2014041	DST	DEPARTMENT OF SC.& TECHNOLOGY	625,772	-	-	396,909	228,863	-
44	2018398	DST	DEPARTMENT OF SC.& TECHNOLOGY	473,827	-	240,000	814,446	-	100,619
45	2015281	DST	DEPARTMENT OF SC.& TECHNOLOGY	115,668	-	1,815,817	1,848,800	82,685	-
46	2017059	DST	DEPARTMENT OF SC.& TECHNOLOGY	564,558	-	2,164,915	1,887,183	842,290	-

47	2018254	DST	DEPARTMENT OF SC.& TECHNOLOGY	394,448	-	11,544	743,469	-	337,477
48	2019455	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	330,000	51,200	278,800	-
49	2015330	DST	DEPARTMENT OF SC.& TECHNOLOGY	618,297	-	2,345,025	2,301,325	661,997	-
50	2015037	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	763,313	1,526,622	763,311	-	2
51	2019513	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	885,000	-	885,000	-
52	2018269	DST	DEPARTMENT OF SC.& TECHNOLOGY	1,491,333	-	2,304,580	2,306,641	1,489,272	-
53	2019514	DST	DEPARTMENT OF SC.& TECHNOLOGY	-	-	300,000	25,000	275,000	-
		DST Total		**16,575,330**	**4,955,373**	**78,674,998**	**70,837,682**	**25,836,995**	**6,379,722**
1	137	GEFUND	GE FUND SCHOLARSHIP	-	259,680	-	-	-	259,680
		GEFUND Total		-	**259,680**	-	-	-	**259,680**
1	20130188	GOOGLE	GOOGLE ONLINE INDIA PVT.LTD	537	-	-	-	537	-
2	2014292	GOOGLE	GOOGLE ONLINE INDIA PVT.LTD	966,747	-	-	-	966,747	-
		GOOGLE Total		**967,284**	-	-	-	**967,284**	-
1	2016280	ICMR	ICMR	123,000	-	461,000	474,000	110,000	-
2	2018305	ICMR	ICMR	66,000	-	248,000	278,916	35,084	-
3	20130165	ICMR	ICMR	19,200	-	-	-	19,200	-
4	20060021	ICMR	ICMR	5,000	-	-	-	5,000	-
		ICMR Total		**213,200**	-	**709,000**	**752,916**	**169,284**	-
1	20130223	ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	15,174	-	111,400	53,400	73,174	-
2	2016488	ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	12,228	-	142,400	141,416	13,212	-
3	20120072	ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	1,442	-	-	-	1,442	-
4	2018400	ICSSR	INDIAN COUN.OF SOCIAL SC.RESE	142,500	-	198,500	296,300	44,700	-
		ICSSR Total		**171,344**	-	**452,300**	**491,116**	**132,528**	-
1	2018049	INAE	INDIAN NATIONAL ACADEMY OF ENGINEERING	-	13,006	1,864,175	1,862,609	-	11,440
		INAE Total		-	**13,006**	**1,864,175**	**1,862,609**	-	**11,440**
1	20090130	INDOUS	INDO-US SCIENCE & TECHNOLOGY FORUM	19,000	-	-	-	19,000	-
		INDOUS Total		**19,000**	-	-	-	**19,000**	-
1	2018236	IUSSTF	INDO-US SCIENCE & TECHNOLOGY FORUM	-	-	64,916	64,916	-	-
		IUSSTF Total		-	-	**64,916**	**64,916**	-	-
1	2018148	LADY	LADY TATA MEMORIAL TRUST	800,000	-	1,000,000	1,043,529	756,471	-
		LADY Total		**800,000**	-	**1,000,000**	**1,043,529**	**756,471**	-
1	20100154	MICROS	MICROSOFT CORPORATION	5,876	-	-	-	5,876	-
		MICROS Total		**5,876**	-	-	-	**5,876**	-
1	2018140	MLA	MEDIA LAB ASIA	617,566	-	-	545,838	71,728	-
2	2015210A	MLA	MEDIA LAB ASIA	-	-	14,677	14,677	-	-
3	2015210B	MLA	MEDIA LAB ASIA	-	-	450,000	450,000	-	-
4	2015210E	MLA	MEDIA LAB ASIA	-	-	456,101	456,101	-	-
5	2015210I	MLA	MEDIA LAB ASIA	-	-	420,000	420,000	-	-
6	2015210J	MLA	MEDIA LAB ASIA	-	-	427,200	427,200	-	-
7	2015210L	MLA	MEDIA LAB ASIA	86,097	-	333,903	420,000	-	-
8	2015210M	MLA	MEDIA LAB ASIA	18,131	-	481,150	481,150	18,131	-
9	2015210R	MLA	MEDIA LAB ASIA	34,997	-	517,638	552,635	-	-
10	2015210W	MLA	MEDIA LAB ASIA	-	-	420,000	420,000	-	-
11	2015210X	MLA	MEDIA LAB ASIA	-	-	409,689	409,689	-	-

12	2015210Y	MLA	MEDIA LAB ASIA	-	-	420,000	420,000	-	-
13	2015210Z	MLA	MEDIA LAB ASIA	-	-	480,101	480,101	-	-
14	2016047B	MLA	MEDIA LAB ASIA	-	-	447,704	447,704	-	-
15	2016047C	MLA	MEDIA LAB ASIA	-	-	450,000	450,000	-	-
16	2016047D	MLA	MEDIA LAB ASIA	-	-	449,037	449,037	-	-
17	2016047E	MLA	MEDIA LAB ASIA	-	-	448,010	448,010	-	-
18	2016047F	MLA	MEDIA LAB ASIA	-	-	413,070	413,070	-	-
19	2016047G	MLA	MEDIA LAB ASIA	-	-	416,460	416,460	-	-
20	2015210	MLA	MEDIA LAB ASIA	5,889,777	-	6,856,564	1,000,000	11,746,341	-
21	2015210F	MLA	MEDIA LAB ASIA	-	-	421,638	421,638	-	-
22	2015210G	MLA	MEDIA LAB ASIA	-	-	420,000	420,000	-	-
23	2015210H	MLA	MEDIA LAB ASIA	-	-	700,000	450,000	250,000	-
24	2015210N	MLA	MEDIA LAB ASIA	-	-	211,000	211,000	-	-
25	2015210P	MLA	MEDIA LAB ASIA	-	-	453,617	453,617	-	-
26	2015210Q	MLA	MEDIA LAB ASIA	-	-	547,965	450,000	97,965	-
27	2015210T	MLA	MEDIA LAB ASIA	-	-	455,000	455,000	-	-
28	2015210V	MLA	MEDIA LAB ASIA	-	-	427,243	427,243	-	-
29	2016047P	MLA	MEDIA LAB ASIA	-	-	455,000	455,000	-	-
30	2016047T	MLA	MEDIA LAB ASIA	-	-	494,000	494,000	-	-
		MLA Total		**6,646,568**	-	**18,896,767**	**13,359,170**	**12,184,165**	-
1	2015347	NAMS&T	NAM S&T CENTRE RESEARCH TRAINING FELLOWSHIP FOR DEVELOPING COU	19,194	-	-	-	19,194	-
		NAMS&T Total		**19,194**	-	-	-	**19,194**	-
1	2017040	NAS	THE NATIONAL ACADEMY OF SCIENCES ALLAHABAD	240	-	80,242	80,421	61	-
		NAS Total		**240**	-	**80,242**	**80,421**	**61**	-
1	2014166	NBHM	NATIONAL BOARD OF HIGHER MATHS	234,924	-	-	-	234,924	-
2	2014030	NBHM	NATIONAL BOARD OF HIGHER MATHS	113,813	-	-	-	113,813	-
3	2014390	NBHM	NATIONAL BOARD OF HIGHER MATHS	86,400	-	-	-	86,400	-
4	2016016	NBHM	NATIONAL BOARD OF HIGHER MATHS	108,615	-	-	-	108,615	-
5	2016490	NBHM	NATIONAL BOARD OF HIGHER MATHS	36,000	-	580,666	616,462	204	-
6	2016229	NBHM	NATIONAL BOARD OF HIGHER MATHS	72,000	-	-	72,000	-	-
7	2014336	NBHM	NATIONAL BOARD OF HIGHER MATHS	169,415	-	-	-	169,415	-
8	2014213	NBHM	NATIONAL BOARD OF HIGHER MATHS	99,348	-	-	91,219	8,129	-
9	2014116	NBHM	NATIONAL BOARD OF HIGHER MATHS	237,400	-	-	-	237,400	-
10	2017412	NBHM	NATIONAL BOARD OF HIGHER MATHS	36,000	-	615,666	476,267	175,399	-
11	2014289	NBHM	NATIONAL BOARD OF HIGHER MATHS	47,548	-	-	47,548	-	-
12	2014060	NBHM	NATIONAL BOARD OF HIGHER MATHS	40,000	-	-	40,000	-	-
13	19990134	NBHM	NATIONAL BOARD OF HIGHER MATHS	14,555	-	-	-	14,555	-
		NBHM Total		**1,296,018**	-	**1,196,332**	**1,343,496**	**1,148,854**	-
1	2018580	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	335,000	25,000	310,000	-
2	2018187	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	55,000	-	910,000	960,000	5,000	-
3	2018226	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	100,833	-	910,000	905,000	105,833	-
4	2015344	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	115,210	-	30	-	115,240
5	2017137	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	193,935	-	-	193,935	-	-
6	2016060	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	193,153	-	-	-	193,153	-

7	2017231	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	301,038	-	21,987	323,025	-	-
8	2016445	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	162,376	-	900,000	1,121,167	-	58,791
9	2017163	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	33,346	269,877	236,531	-	-
10	2016426	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	156,971	-	-	156,971	-	-
11	2016444	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	150,000	150,000	-	-	-
12	2016436	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	50,000	50,000	-	-	-
13	2017224	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	330,144	-	-	325,000	5,144	-
14	2019419	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	1,065,600	274,994	790,606	-
15	2014115	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	57,876	-	1,051	-	58,927
16	2017217	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	264,223	-	27,696	291,919	-	-
17	2017304	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	130,321	-	-	-	130,321	-
18	2018171	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	93,230	-	-	-	93,230	-
19	2017512	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	16,889	374,363	357,474	-	-
20	2018575	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	1,062,860	1,039,506	23,354	-
21	2017274	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	33,181	500,000	496,600	-	29,781
22	2017222	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	195,445	-	278,807	-	474,252
23	2016148	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	49,625	49,625	-	-	-
24	2017371	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	63,496	479,046	415,550	-	-
25	2015246	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	65,925	131,850	65,925	-	-
26	2016430	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	72,290	72,290	-	-	-
27	2016458	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	95,613	95,613	-	-	-
28	2016481	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	127,864	127,864	-	-	-
29	2016242	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	456,222	-	-	-	456,222	-
30	2017223	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	397,648	-	-	-	397,648	-
31	2018489	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	860,000	-	-	837,299	22,701	-
32	2018539	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	860,000	-	114,684	916,377	58,307	-
33	2019090	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	434,854	525,146	-
34	2017086	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	282,305	-	-	282,305	-	-
35	2018511	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	310,000	-	-	115,139	194,861	-
36	2016222	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	33,593	-	-	-	33,593	-
37	2017131	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	77,358	-	-	-	77,358
38	2019406	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	205,729	754,271	-
39	2017297	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	220,218	-	-	-	220,218	-
40	2016415	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	38,214	50,000	11,786	-	-
41	2019392	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	900,000	182,097	717,903	-
42	2016410	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	50,000	50,000	-	-	-
43	2019446	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	162,097	797,903	-
44	2017279	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	146,252	-	371,483	517,735	-	-
45	2019006	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	1,064,748	1,002,612	62,136	-
46	2016461	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	27,812	50,877	23,065	-	-
47	2019407	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	299,691	660,309	-
48	2019481	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	111,379	848,621	-
49	2018536	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	335,000	-	335,000	268,621	401,379	-
50	2017285	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	383,995	-	-	55,000	328,995	-

51	2019081	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	960,000	780,446	179,554	-
52	2016437	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	89,162	-	2,088	100,000	-	8,750
53	2017220	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	80,222	26,600	-	-	53,622
54	2017230	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	540,262	918,325	388,950	-	10,887
55	2018592	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	670,000	220,243	449,757	-
56	2015316	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	1,552,560	-	11,598	-	1,564,158
57	2016233	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	77,805	-	-	77,805	-	-
58	2017265	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	150,603	-	200,065	395,394	-	44,726
59	2017032	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	158,641	-	-	180,900	-	22,259
60	2019171	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	-	846,000	846,000	-	-
61	2017138	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	333,771	-	50,000	383,771	-	-
62	2017221	SERB	SCIENCE & ENGINEERING RESEARCH BOARD	-	352,707	910,000	593,100	-	35,807
		SERB Total		**7,076,439**	**3,845,895**	**19,853,541**	**16,872,478**	**8,766,165**	**2,554,558**
1	20060313	TCS	TATA CONSULTANCY SERVICES	18,200	-	-	-	18,200	-
2	2011191A	TCS	TATA CONSULTANCY SERVICES	152,013	-	-	-	152,013	-
3	2011191B	TCS	TATA CONSULTANCY SERVICES	140,000	-	-	-	140,000	-
4	2011191D	TCS	TATA CONSULTANCY SERVICES	185,659	-	-	-	185,659	-
5	2011191E	TCS	TATA CONSULTANCY SERVICES	-	48,800	-	-	-	48,800
6	2011191F	TCS	TATA CONSULTANCY SERVICES	-	102,568	384,000	-	281,432	-
7	2011191G	TCS	TATA CONSULTANCY SERVICES	325,940	-	-	-	325,940	-
8	2011191H	TCS	TATA CONSULTANCY SERVICES	-	127,000	-	384,000	-	511,000
9	2011191I	TCS	TATA CONSULTANCY SERVICES	229,242	-	-	94,968	134,274	-
10	2011191J	TCS	TATA CONSULTANCY SERVICES	267,065	-	-	-	267,065	-
11	20110191	TCS	TATA CONSULTANCY SERVICES	73,402	-	-	-	73,402	-
12	2011191N	TCS	TATA CONSULTANCY SERVICES	-	-	436,000	223,097	212,903	-
13	2011191K	TCS	TATA CONSULTANCY SERVICES	596,250	-	384,000	447,927	532,323	-
14	2011191L	TCS	TATA CONSULTANCY SERVICES	662,107	-	534,000	564,107	632,000	-
15	2011191M	TCS	TATA CONSULTANCY SERVICES	647,062	-	534,000	589,840	591,222	-
16	2011191O	TCS	TATA CONSULTANCY SERVICES	-	-	436,000	224,000	212,000	-
17	2011191P	TCS	TATA CONSULTANCY SERVICES	-	-	436,000	224,000	212,000	-
		TCS Total		**3,296,940**	**278,368**	**3,144,000**	**2,751,939**	**3,970,433**	**559,800**
1	2014329	UGC	UNIVERSITY GRANTS COMMISSION	6,341,477	-	724,787	861,213	6,205,051	-
2	19990130	UGC	UNIVERSITY GRANTS COMMISSION	7,647,004	-	2,774	109,050	7,540,728	-
		UGC Total		**13,988,481**	-	**727,561**	**970,263**	**13,745,779**	-
1	2014035	WT	WELLCOME TRUST DBT	696,233	-	-	1,128,106	-	431,873
2	2019003	WT	WELLCOME TRUST DBT	-	-	3,072,697	3,074,697	-	2,000
		WT Total		**696,233**	-	**3,072,697**	**4,202,803**	-	**433,873**
		Grand Total		**87,032,919**	**14,943,527**	**149,183,633**	**131,712,073**	**105,258,701**	**15,697,749**

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01-09-20

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
FINANCE AND ACCOUNTS SECTION

No. IITK/FBC/2019-20/
Dated: 31 August 2020

Subject: Request for approval of the Unaudited Annual Accounts of the Institute for the FY 2019-20

The accounts for the financial year 2019-20 is now ready for recommendation of the Finance Committee for further adoption and approval by the Board of Governors.

It is likely that the Finance Committee and Board of Governors meeting may take some time. However, due to pandemic condition, the preparation of accounts were delayed which is to be put up before CAG audit at the earliest.

It is therefore requested to approve the unaudited accounts by the Chairman, Board of Governors, so that the same may be handed over to the audit party for commencement of audit at the earliest.

The above proposal is in accordance with the powers vested in the Chairman under Statute 7(4) of the Institute's Statutes.

Assistant Registrar (F&A)
31/08/2020

31/8/2020
Joint Registrar (F&A)

01/09/2020
Registrar &
Secretary, Board of Governors

1/9/20
Deputy Director

Recommended
01/09/20
Director

Approved and Adopted

3 Sep 2020
Dr. K Radhakrishnan
Chairman, Board of Governors Kanpur

Separate Audit Report of the Comptroller and Auditor General of India on the accounts of Indian Institute of Technology, Kanpur for the year ended 31 March, 2020

We have audited the attached Balance Sheet of the Indian Institute of Technology, Kanpur (Institute) as on 31st March 2020, Income and Expenditure Account and Receipts and Payments Account for the year ended on that date under section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, read with section 23(2) of the Institutes of Technology (Amendment) Act 2012 (Act). These financial statements are responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms etc. Audit observations on financial transaction with regard to compliance with the Laws, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc. if any, are reported through Inspection Reports/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain the reasonable assurance about whether the statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that;

(i) We have obtained all the information and explanation which, to the best of our knowledge and belief, were necessary for the purpose of our audit.

(ii) The Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report have been drawn up in the Format of Financial Statement for Central Higher Educational Institutions (Format) prescribed by MHRD, Government of India.

(iii) In our opinion proper books of accounts and other relevant records have been maintained by the Institute as required under section 23(1) of the Act in so far as it appears from our examination of such books.

(iv) We further report that:

(A) General

(A.1) The Institute charged depreciation amounting to ₹ 137.43 crore on the fixed assets, directly through the Corpus/Capital Fund and did not charge this through Income and Expenditure account. This is not as per MHRD format.

(A.2) The Institute has charged prior period expenditure directly through the Corpus/Capital Fund and not charged through Income and Expenditure account. This is not as per MHRD format.

(A.3) Current Liabilities (Schedule-3) and Current Assets (Schedule-8)

The credit and debit balances shall appear in sub-head Receipt against sponsored projects under head Current Liabilities and in sub-head Receivables from sponsored projects under head Current Assets respectively. The total of debit balance shown in sub-Schedule-3A is ₹ 35.04 crore but Receivables from sponsored projects under head Current Assets is shown ₹ 41.97 crore. The total of credit balance shown in sub-Schedule-3A is ₹ 162.93 crore but Receipt against sponsored projects under head Current Liabilities is shown ₹ 342.17 crore. The differences need to be reconciled.

(B) Grant in Aid

(B.1) The Institute received grant-in aid of ₹ 605.26 crore from Govt. of India and generated internal income of ₹ 85.50 crore. After taking opening balance of 'Nil' total fund available worked out to ₹ 690.76 crore. The Institute utilised ₹ 707.27 crore leaving a balance of 'Nil'. The excess expenditure is met from own resources.

(B.2) Project Grant: The Institute received project grants of ₹ 335.45 crore (Government of India ₹ 177.25 crore, State Government ₹ 7.85 crore and others ₹ 150.35 crore) during the year 2019-20. After taking opening balance of ₹ 256.24 crore and other income of ₹ 8.13 crore total fund available worked out to ₹ 599.82 crore. The Institute utilised ₹ 299.62 crore leaving a balance of ₹ 300.20 crore.

(v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure and Receipts and Payments Accounts dealt with by this report are in agreement with the books of accounts.

(vi) In our opinion and to the best of our information and according to the explanations given to us the said financial statements read together with the Accounting Policies and Notes to Accounts, and subject to the significant matters, stated above and other matters mentioned in Annexure to this Audit Report gives a true and fair view in conformity with accounting principles generally accepted in India.

a. In so far as it relates to the Balance Sheet, of the state of affairs of the Indian Institute of Technology, Kanpur as at 31st March, 2020 and

b. In so far as it relates to Income and Expenditure of the 'surplus' for the year ended on that date.

For and on behalf of the C&AG of India

Place: Lucknow
Date: 15.3.2021

Director General of Audit (Central)

Annexure

1. **Adequacy of Internal Audit System:**

   The Internal audit system reflected following deficiencies:

   - Internal Audit of the Institute has not been conducted.
   - No Internal Audit Manual has been prepared by the Institute.
   - Only bills, vouchers, purchase files, IWD payments, establishment matters, service matters etc. are audited by the Internal Audit section.

2. **Adequacy of Internal Control System:**

   The inadequacy of Internal Control System of the Institute is characterised by observing a penalty of ₹ 3.79 lakh for late payment of tax.

3. **System of Physical Verification of Fixed Assets**

   Physical verification of fixed assets has been carried out for the year 2019-20.

4. **System of Physical Verification of Inventory**

   Physical verification of inventory has been carried out for the year 2019-20.

5. **Regularity in Payment of Statutory dues**

   The Institute is regular in payment of statutory dues.

Director (CE)

REPLY TO SEPARATE AUDIT REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA ON THE ACCOUNTS OF INDIAN INSTITUTE OF TECHNOLOGY, KANPUR FOR THE YEAR 31 MARCH 2020

We have audited the attached Balance Sheet of the Indian Institute of Technology, Kanpur (Institute) as on 31st March 2020, Income and Expenditure Accounts and Receipts and Payments Account for the year ended on that date under section 19(2) of the Comptroller and Auditor General's (Duties, powers and Conditions of Service) Act, 1971, read with section 23(2) of the Institutes of Technology (Amendment) Act 2012 (Act). These financial statements are responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements based on our audit.	Statement of facts. No Comments.
2. This Separate Audit Report contains the comments of Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms etc. Audit observations on financial transaction with regard to compliance with the Laws, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc. if any, are reported through Inspection Reports /CAG's Audit Reports separately.	Statement of facts. No Comments.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain the reasonable assurance about whether the statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.	Statement of facts. No Comments.
4. Based on our audit, we report that; (i) We have obtained all the information and explanation which, to the best of our knowledge and belief, were necessary for the purpose of our audit.	Statement of facts. No Comments.

(ii) The Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report have been drawn up in the Format of Financial Statement for Central Higher Educational Institutions (Format) prescribed by MHRD, Government of India.	Statement of facts. No Comments.
(iii) In our opinion proper books of accounts and other relevant records have been maintained by the Institute as required under section 23(1) of the Act. In so far as it appears from our examination of such books.	Statement of facts. No Comments.
(iv) We further report that:	
(A) General	
(A.1) The Institute charged depreciation amounting to Rs. 137.43 crore on the fixed assets, directly through the Corpus/Capital Fund and did not charge this through Income and Expenditure Account. This is not as per MoE format.	Institute till FY2017-18, was routing the amount of depreciation through Income and Expenditure by showing the amount of depreciation under expenditure and amount equivalent to depreciation under income as deferred revenue income (reducing the same amount from corpus/capital fund). However, during the audit of FY2017-18, it was pointed that Deferred Revenue Income should not be routed through I&E. Hence, in compliance to the Separate Audit Report of FY2017-18, we started debiting the amount of depreciation / deferred revenue income directly to corpus/capital fund. As suggested by audit, Institute will again adopt the earlier procedure from next financial year.
(A.2) The Institute has charged prior period expenditure directly through the Corpus/Capital Fund and not charged through Income and Expenditure Account. This is not as per MoE format.	Necessary action will be taken in next year's balance sheet.
(A.3) Current Liabilities (Schedule-3) and Current Assets (Schedule-8) The credit and debit balances shall appear in sub-head Receipt against sponsored projects under head Current Liabilities and in sub-head receivables from sponsored projects under head Current Assets respectively. The total of debit balance shown in sub- Schedule-3A is Rs. 35.04 crore but Receivables from sponsored projects under head current assets shown Rs. 41.97 crore. The total of credit balance shown in sub-	Necessary action will be taken in next year's balance sheet.

Schedule-3A is Rs. 162.93 crore but Receipt against sponsored projects under head Current Liabilities shown Rs. 342.17 crore. The differences need to be reconciled.	
(B) Grants-in-aid	
(B.1) The Institute received Grants-in-aid of Rs. 605.26 Crore from Government of India and generated Internal Income of Rs. 85.50 Crore. After taking Opening Balance of 'Nil', the total funds available worked out to Rs. 690.76 Crore. The Institute utilized Rs. 707.27 Crore leaving a balance of 'Nil'. The excess expenditure is met from own resources.	As the books of accounts of FY2019-20 has been closed and audited, adjustment required to nullify the negative unspent balance will be made in balance sheet and utilization certificate of FY2020-21.
(D.2a) Project Grant: The Institute received Grants-in-aid of Rs. 335.45 Crore (Government of India Rs. 177.25 crore, State Government Rs. 7.85 crore and others Rs. 150.35 crore) during the year 2019-20. After taking opening balance of Rs. 256.24 crore and other income of Rs. 8.13 crore total fund available worked out to Rs. 599.82 crore. The Institute utilized Rs. 299.62 Crore leaving a balance of Rs. 300.20 Crore.	Facts have been found correct.
(v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure and Receipts and Payments dealt with by this report are in agreement with the books of accounts.	Statement of facts. No Comments.
(vi) In our opinion and to the best of our information and according to the explanations given to us the said financial statements read together with the Accounting Policies and Notes to Accounts, and subject to the significant matters, stated above and other matters mentioned in Annexure to this Audit Report gives a true and fair view in conformity with accounting principles generally accepted in India.	Statement of facts. No Comments.
a. In so far as it relates to the Balance Sheet, of the state of affairs of the Indian Institute of Technology, Kanpur as at 31st March, 2020, and	Statement of facts. No Comments.
b. In so far as it relates to Income and Expenditure of the 'surplus' for the year ended on that date.	Statement of facts. No Comments.

For and on Behalf of C&AG of India **-- s/d--** **Principal Director of Audit (Central)**	
Annexure	
1. Adequacy of Internal Audit System: The Internal audit system reflected following deficiencies:	
• Internal Audit of the Institute has not been conducted. • No Internal Audit manual has been prepared by the Institute. • Only bills, vouchers, purchase files, IWD payments, establishment matters service matters etc. are audited by the Internal Audit Section.	Internal Audit Section was established with prime objective of getting all financial activities of the Institute pre-audited. We are in the process of preparing the Internal Audit Manual of the Institute.
2. Adequacy of Internal Control System:	
The inadequacy of Internal Control System of the Institute is characterised by observing a penalty of Rs. 3.79 lakh for late payment of tax.	This liability was determined at the annual GST audit for FY2017-18 conducted in FY2019-20. Since, the law was new and continuous amendments were being made. Taking the huge structural and procedural changes, required to abide by it, which resulted few procedural lapses.
3. System of physical Verification of Fixed Assets. Physical Verification of fixed assets has been carried out for the year 2019-20.	Statement of facts. No Comments.
4. System of physical Verification of Inventory Physical Verification of Inventory has been carried out for the year 2019-20.	Statement of facts. No Comments.
5. Regularity in Payment of Statutory dues The Institute is regular in payment of statutory dues.	Statement of facts. No Comments.
Director (CE)	

संपादक मण्डल

संरक्षक

प्रो. अभय करंदीकर

प्रो. एस. गणेश	अध्यक्ष
प्रो. ए. आर. हरीश	सदस्य
प्रो. ओंकार दीक्षित	सदस्य
प्रो. वाई. एम. जोशी	सदस्य
श्री के. के. तिवारी	सदस्य
प्रो. कांतेश बलानी	सदस्य
डॉ. तनिमा हाजरा	सदस्य
श्री अमर पाल	सदस्य–सचिव

आभार

श्री जगदीश प्रसाद
श्रीमती प्रियंका देवी

अभिकल्प

श्री प्रवीण शर्मा

प्रकाशक

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