## **Books published:**

- Basic Flight Mechanics, Ashish Tewari (AE), Springer, Basel, Switzerland.
- 2. Methods in Enzymology Volume 585: Proteomics in Biology PART A, Arun K. Shukla (BSBE), ELSEVIER, International publisher.
- Methods in Enzymology Volume 586: Proteomics in Biology – PART B, Arun K. Shukla (BSBE), ELSEVIER, International publisher.
- Chemical Engineering Fluid Mechanics, R Darby & R P Chhabra (CHE), CRC Press, Boca Raton, FL.
- 5. Structured interferometry features in femtosecond supercontinuum: towards better understanding of supercontinuum for bio applications, D. Goswami (CHM), S. Dindha and S. N. Bandyopadhyay, SPIE Proc.
- In situ temperature control and measurement with femtosecond optical tweezers: offering biomedical application, D. Mondal and D. Goswami (CHM).
- 7. Steric and stereo electronic effect in organic chemistry, Veejendra Yadav (CHM), Springer, Singapore.
- 8. Soft Computing Approaches for Two-Dimensional Beam forming, R. Kiran, P. Sircar and Nishchal. K. Verma (EE), Springer, USA.
- Object Matching Using Speeded Up Robust Features, Nishchal K. Verma (EE), Ankit Goyal, A. Harsha Vardhan, Rahul Kumar Sevakula, and Al Salour, Springer, USA.
- Law and Economics: Breaking New Grounds, Ranita Nagar, Dr. P Murali Prasad (HSS), and Pavan Mamidi, Eastern Book Company, Lucknow.
- 11. English for Technical Communication, N. P. Sudharshana (HSS), Cambridge University Press, India.
- 12. Innovation and IPRs in China and India: Myths, Realties and Opportunities, Uday S. Racherla (IME), Springer.
- 13. Decision Sciences: Theory and Practice R. N. Sengupta (IME), Aparna Gupta and Joydeep Dutta (HSS), CRC Press (Taylor and Francis).
- 14. Analysis of Step-Stress Model, Debasis Kundu (M&S) and Ayon Ganguly, Academic Press/Elsevier, 2017.
- Introduction to Statistics and Data Analysis -With Exercises, Solutions and Applications in R, Authors: Christian Heumann, Michael Schomaker and Shalabh (M&S), Springer, 2016.
- 16. Algebra, G. Santhanam (M&S), Narosa Publishers, 2017.

- 17. Combustion for Power Generation and Transportation: Technology, Challenges and Prospects, Avinash Kumar Agarwal (ME), Santanu De, Ashok Pandey, Akhilendra Pratap Singh, Springer, New Delhi.
- Locomotives and Rail Road Transportation: Technology, Challenges and Prospects, Avinash Kumar Agarwal (ME), Atul Dhar, Anirudh Gautam, Ashok Pandey, Springer, New Delhi.
- 19. The proceedings of the 17th International Heat Pipe Conference published as Science and Technology of Heat Pipes: Historical Perspective to Contemporary Developments, edited by Sameer Khandekar (ME), Begell House.
- Biofuels: Technology, Challenges and Prospects, Avinash Kumar Agarwal (ME), Rashmi Avinash Agarwal, Tarun Gupta, Bhola Ram Gurjar, Springer, New Delhi.
- 21. Technology Vision 2015: Technology Roadmap Transportation, Avinash Kumar Agarwal (ME), S S Thipse, Akhilendra P Singh, Gautam Goswami, Mukti Prasad, TIFAC, New Delhi.
- 22. Computational Fluid Dynamics and Heat Transfer, P.S. Ghoshdastidar (ME), Cengage Learning India Pvt. Ltd., New Delhi.
- Composite materials: processing, application, characterizations, Kamal K. Kar (ME) Berlin

   Heidelberg.
- Introduction to Mechanics, M. K. Verma (PHY), Universities Press, Hyderabad.

#### **Fellowships:**

- 1. Dr. Arun K. Shukla (BSBE) has been elected Fellow of Society for Applied Biotechnology.
- 2. Dr. Jayandharan G Rao (BSBE) received Senior Fellowship, Wellcome Trust DBT by Wellcome Trust-DBT India Alliance.
- Dr. Debabrata Goswami (CELT) has been elected a Fellow of the Optical Society of America
- Dr. Raghunath Tewari (CSE) received Visvesvaraya Young Faculty Research Fellowship by Ministry of Electronics and Information Technology.
- Dr. Piyush Rai (CSE) received Visvesvaraya Young Faculty Research Fellowship by Ministry of Electronics and Information Technology.
- Dr. Yogesh Joshi (CHE) has been elected Fellow of the Indian National Academy of Engineering.
- 7. Dr. Thiruvancheril G. Gopakumar (CHM)

- has been elected Vsvesvaraya Young Faculty Research Fellow by Department of Electronics and Information Technology.
- 8. Dr. Vinod K Singh (CHM) has been elected Fellow of The World Academy of Sciences (TWAS).
- Dr. Manabendra Chandra (CHM) has been elected Vsvesvaraya Young Faculty Research Fellow by Department of Electronics and Information Technology.
- 10. Dr. Manas K Ghorai (CHM) has been elected to the fellowship of West Bengal Academy of sciences and Technology.
- 11. Dr. Sri Niwas Singh (EE) has been electedFellowof The Institution of Electrical and Electronics Engineers- (FIEEE), USA.
- 12. Dr. Santanu Misra (ES) has been awarded the SwarnaJayanti Fellowship of DST for the year 2015-16.
- 13. Dr. Rajiv Sinha (ES) has been elected Fellow of the National Academy of Sciences, India, for the year 2016.
- Dr. Ritwij Bhowmick (HSS) received DAAD Research Stays Fellowship for University Academics and Scientists 2017 by DAAD, Germany.
- 15. Dr. Bishakh Bhattacharya (ME) received Sakura Fellowship by Japan Science & Technology Agency (JST).
- 16. Dr. Anindya Chatterjee (ME) has been elected Fellow of the National Academy of Sciences, India, for the year 2016.
- 17. Dr. Anish Upadhyaya (MSE) has been elected Fellow of the Indian Institute of Metals.
- 18. Dr. Sagar Chakraborty (PHY) has been conferred the Associateship of the Indian Academy of Sciences, Bangalore.

#### **Awards and Honors:**

- Dr. Sanjay Mittal (AE) has been selected for the Dr. A. P. J. Abdul Kalam HPC award – 2017 and G.D. Birla Award by K K Birla Foundation.
- Dr. Debopam Das (AE) has received Excellence in Aerospace Education Award of The Aeronautical Society of India for the year 2015.
- Dr. M. Saravanan (BSBE) has been selected for the Innovative Young Biotechnologist Award (IYBA) for the year 2016 by Department of Biotechnology, Govt. of India.
- 4. Dr. S. Ganesh (BSBE) has been selected for the Basanti Devi Amir Chand Prize, given by the Indian Council of Medical Research (ICMR), for the year 2014 and also has been awarded the OPPI Scientist Award 2016 by

- the Organisation of Pharmaceutical Producers of India.
- 5. Dr. Jayandharan G. Rao (BSBE) has been selected for the 2017 CDRI Award for Excellence in Drug Research in the Life Sciences category.
- 6. Dr. Arun Shukla (BSBE) has been awarded the NASI-Young Scientist Platinum Jubilee Award in Biological Sciences for the year 2016.
- 7. Dr. Ashok Kumar (BSBE) has been conferred the Finnish Academy Research Award by Academy of Finland.
- 8. Dr. Sudib Kumar Mishra (CE), has been conferred the INAE Young Engineer Award of 2016.
- 9. Dr. Raju Gupta (CHE) has been awarded the International Association of Advanced Materials Scientist Medal for the year 2017.
- Dr. Sandeep Verma (CHM) has been selected for the National Prize for Research on Interface of Chemistry and Biology by CNR Education Foundation, JNCASR, Bangalore and also for the Chemical Research Society of India (CRSI) Silver Medal.
- 11. Dr. Piyush Rai (CSE) has been awarded the IBM Research Faculty Award for this year by IBM
- 12. Dr. Sandeep Shukla (CSE) has been chosen ACM Distinguished speaker for 3 years and an IEEE Computer Society Distinguished Visitor for a period of 3 years.
- 13. Dr. Manindra Agrawal (CSE) has been selected for the Goyal Prize of Kurukshetra University in the senior category this year.
- Dr. Sri Niwas Singh (EE) received the Outstanding Teacher Award 2016 by INAE, New Delhi.
- Dr. Adrish Banerjee (EE) received IETE-Prof. K. Sreenivasan Memorial Award, 2016 by IETE, New Delhi.
- 16. Dr. Javed H. N. Malik (ES) has been conferred the 2016 National Geosciences Award given by the Ministry of Mines.
- 17. Dr. Santanu Misra (ES) received Sera Ajeyo Samman by ABP & Indian Oil.
- 18. Dr. G. Santhanam (M&S) has been selected for the INSA Teachers Award, 2016.
- 19. Dr. Avinash K Agarwal (ME) has been honoured with Shanti Swarup Bhatnagar Prize for Science and Technology - 2016 in Engineering Sciences by CSIR, Government of India and also has been selected for the Rajib Goyal Prize for young scientists in Physical Sciences by Kurukshetra University.
- 20. Dr. J. Ramkumar (ME) has been honoured with Young Alumni Achievement award for excellence in academics, research, and

- innovation by National Institute of Technology, Trichy, Tamil Nadu.
- 21. Dr. Kamal Kar (ME) has been awarded the Tenth Foundation Polymer Award given by Prof. Sukumar Maiti Polymer Award Foundation, for his outstanding contributions in Polymer Science and Technology for the year 2015.
- 22. Dr. Gautam Biswas (ME) has been honored with the Distinguised Alumnus Award of IIT Kharagpur.
- 23. Dr. Kantesh Balani (MSE) has been selected for the Metallurgist of the Year Award (2016) in the Metal Science category by the Ministry of Steel and Mines.
- 24. Dr. Sandeep Sangal (MSE) has been awarded the Distinguished Educator Award by the Indian Institute of Metals (IIM).
- 25. Dr. Deepak Gupta (MSE) received Indian Electronic and Semiconductor Association Technomentor Award by Indian Electronic and Semiconductor Association.
- 26. Dr. S. Anantha Ramakrishna (PHY) has been honoured with Shanti Swarup Bhatnagar Prize for Science and Technology 2016 by CSIR, Government of India.
- 27. Dr. Mahendra Verma (PHY) has been selected for the INSA Teachers Award, 2016.
- 28. Dr. Saurav Mani Tripathi (PHY) has been elevated to the grade of Senior Member in IEEE.
- 29. Dr. Sagar Chakraborty (PHY) has been selected for the NASI-Young Scientist Platinum Jubilee Award (2016).
- Dr. Indranil Manna, Director has been honored with the Distinguished Alumnus Award-2016 of IIT Kharagpur.

## **Appointments:**

- 1. Dr. Mukesh Sharma (CE) has been nominated on the governing council of the CII-NITI Aayog Initiative for Cleaner Air- Better Life.
- 2. Dr. Rajat Moona (CSE) has been appointed Director of IIT Bhilai.
- 3. Dr. Ajit Kumar Chaturvedi (EE) has been appointed Director of ITT Roorkee.
- 4. Dr. Animesh Biswas (EE) has been appointed Director of NIT, Rourkela (NITR).
- 5. Dr. Sri Niwas Singh (EE) has been appointed Vice Chancellor of Madan Mohan Malaviya University of Technology, Gorakhpur.
- 6. Dr. Manjul Gupta (M&S) has been appointed the President of the Indian Mathematical Society for the year 2017-18.
- 7. Dr. Satyaki Roy (HSS) has been invited to join the CII National Committee on Design (2016-17) as a member.

## **Editorships:**

- 1. Dr. Ashok Kumar (BSBE), Executive Board Member, Asian Federation of Biotechnology.
- 2. Dr. Arun K. Shukla (BSBE), Editor of the Journal of Cellular Biochemistry, Wiley.
- Dr. Arun K. Shukla (BSBE), Member of the Editorial Board, Journal of Cellular Biochemistry.
- Dr. Saravanan Matheshwaran (BSBE), Member of Editorial Board, Journal of Practical Biochemistry and Biophysics, Red Flower Publication.
- 5. Dr. Ashok Kumar (BSBE), Member of Editorial Board, Journal of Biosciences and Bioengineering, Elsevier.
- Dr. S. N. Tripathi (CE), Member of Editorial Board, Journal of Aerosol Sciences.
- 7. Dr. S. N. Tripathi (CE), Member of Advisory Board, environmental Science: process & Impacts, Royal Society of Chemistry Publication.
- 8. Dr. Raju Kumar Gupta (CHE), Member of Editorial Board, IET Nanodielectrics, the Institution of Engineering and Technology.
- 9. Dr. Jayant Singh (CHE), Associate Editor, Journal Chemical engineering Communications (Taylor & Francis).
- Dr. Jitendra K Bera (CHM), Member of Editorial Advisory Board, Organometallics, American Chemical Society.
- 11. Dr. Vinod K Singh (CHM), Regional Editor, Tetrahedron Letters, Elsevier Ltd.
- Dr. Sandeep Verma (CHM), Member of Editorial Advisory Board, Royal Society of Chemistry.
- 13. Dr. Sandeep Verma (CHM), Member of Editorial Advisory Board, Cell Chemical Biology, Cell Press.
- Dr. Sandeep Verma (CHM), Member of Editorial Advisory Board, Journal of Peptide Science, Wiley.
- Dr. Sandeep Verma (CHM), Member of Editorial AdvisoryBoard, Indian Journal of Chemistry, NISCAIR, CSIR.
- Dr. Amalendu Chandra (CHM), Editorial Advisory Board, Journal of Physical Chemistry.
- 17. Dr. Jitendra K Bera (CHM), Editorial Advisory Board, Organometallics.
- 18. Dr. Sandeep Shukla (CSE), Editor-in-Chief, ACM TECS.
- 19. Dr. Satyadev Nandakumar (CSE), Guest Editor, Special Issue on Theory of Computing Systems, CCR.
- 20. Dr. Javed N Malik (ES), Member Editorial Board Fast Track Articles, Journal of the

- Geological Society of India, JGSI/Springer: Bangalore.
- 21. Dr. G Neelakantan (HSS), Reviewer, IIMB Management Review, Elsevier Journal.
- 22. Dr. Avinash K Agarwal (ME), Board Member, International Journal of Engine Research, SAE International and IMechE, London, UK.
- 23. Dr. Avinash K Agarwal (ME), Associate Editor, Journal of the Institution of Engineers (India): Series C, Springer.
- 24. Dr. Avinash K Agarwal (ME), Associate Editor (Reappointed in 2017), Journal of Energy Resource Technology, Transactions of ASME, American Society of Mechanical Engineers.
- 25. Dr. J. Ramkumar (ME), Board member, IJP Tech, Inderscience Publisher.
- 26. Dr. Bishakh Bhattacharya (ME), Associate Editor, ISSS Journal of Micro and Smart Systems, Springer.
- 27. Dr. Anurag Gupta (ME), Board Member, Journal of Mathematics and Mechanics of Solids, SAGE Publications.
- 28. Dr. Anindya Chatterjee (ME) has been appointed Associate Editor of ASME Journal of Computational & Nonlinear Dynamics for 3 years.
- Dr. Anindya Chatterjee (ME), Associate Editor, Journal of Computational and Nonlinear dynamics, Transactions of ASME, American Society of Mechanical Engineers.
- 30. Dr. P. Venkitanarayanan (ME), Associate Editor, Journal of Dynamic Behavior of Materials, Society for Experimental Mechanics and Springer.
- 31. Dr. Mohua Banerjee (M&S), Member of the editorial board, Transactions on Rough Sets, LNCS journal sub-line, Springer.
- 32. Dr. Mohua Banerjee (M&S), Member of the editorial board, Fuzzy Sets and Systems, Elsevier.
- 33. Dr. Mohua Banerjee (M&S), Member of the steering committee, Indo-European Research and Training Network in Logic, IERTNiL.
- 34. Dr. Mohua Banerjee (M&S), Member of the council of the Association for Logic in India, ALI.
- 35. Dr. D Kundu (M&S), Member of the editorial board. IEEE Transactions on Reliability.
- 36. Dr. D Kundu (M&S), Member of the editorial board, Sankhya, Ser. B.
- 37. Dr. D Kundu (M&S), Member of the editorial board, Communications in Statistics Theory and Methods.
- 38. Dr. D Kundu (M&S), Member of the editorial board, Communications in Statistics Simulation and Computation.

39. Dr. Amit Dutta (PHY) Member of Editorial Board, European Physical Journal B.

#### Students' Awards:

- Mr. K. Subramanian (AE) won the best paper award for his paper titled Optimum Design of Realistic Helicopter Rotor Blade with Variable Properties at 5th Asian/Australian Rotorcraft Forum at Singapore.
- 2. Mr. Praveen Honhar and Mr. Satish Kumar (AE) have won Project Proficiency Award.
- Mr. Ran Vijay Singh, Ms. Namrata Gupta, Charms Charly Punnoose, Makkapati Venkata Ramana and Rahul Ajay Deshpande (AE) have won Cadence Gold/Silver Award Medal.
- Mr. Salil Goel (CE) won the best student paper award for his paper entitled A Distributed Cooperative UAV Swarm Localization System: Development and Analysis by the Institute of Navigation, USA.
- Mr. Geet George and Mr. Chandan Sarangi (CE) received the Best Oral Presentation award at the International Conference on Aerosol Climate Change Connection (AC3) held in Bose Institute, Darjeeling.
- Ms. Pradhi Rajeev (CE) received the Best Poster Presentation Award in the International Conference on Aerosol Climate Change Connection (AC3) held in Bose Institute, Darjeeling.
- 7. Ms. Shally Gupta (CHE) received Ambuja's Young Researcher's Award.
- Mr. V Veeraswamy (CHM) has been selected for for ICOS 21 Best Poster award for his poster entitled Memory of Chirality (MOC) Concept: Stereoselective Synthesis of α,β-Diamino Ester, Aziridines, Cyclic 2-Oxo-Oxazolidines and Cyclic Urea Derivatives in 21st International Conference on Organic Synthesis (ICOS21) held at ITT Bombay.
- 9. Mr. R. Parasuraman (CHM) has been selected for the Best Poster award for his presentation Diastereoselective Overman Rearrangement of an L- Ascorbic-Acid-Derived Allylic Alcohol: Application in the Synthesis of (+)-1, 2 Di \_ e pi \_ s wainsonine and a Tetrahydroxypyrrolizidine in a recently organized INDO-GERMAN WORKSHOP on Recent Applications of Carbohydrates in Chemistry and Biology (RACCB-2017) held at IIT (BHU) Varanasi.
- Mr. Anas Ansari (CHM) was selected for Michael C. Pirrung Best Poster award for his poster entitled Diastereoselective synthesis of Sugar amino acids and Polyhydroxy amino

- acids via  $\alpha$ -amination of aldehyde using proline as an Organocatalyst in 21st International Conference on Organic Synthesis (ICOS 21) held at IIT BOMBAY.
- Mr. Prithwidip Saha (CHM) has won the best poster award in theme Scanning Probe Microscopy and Electron Microscopy during the International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) at IISc Bangalore.
- 12. Ms. Gagandeep Kaur and Mr. Nagaraju Barsu (CHM) are selected for the 67th Lindau Nobel Laureate Meeting, to be held in Lindau, Germany.
- 13. Mr. Rohit Gurjar (CSE) has been named the winner of the ACM India Dissertation Award, 2017 for his PhD thesis Derandomizing PIT for ROABP and Isolation Lemma for Special Graphs.
- 14. Mr. Sachin N P (Design Programme) won the Gandhian Young Technological Innovation Award from Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI) for his M. Des. work entitled Anubhav- An efficient Braille Writing Tool.
- 15. Ms. Ekta Surender (Design Programme) has won the Bronze award in the STEM category of the Re-imagine Education Awards in 2016 Re-imagine Education Conference, organized by The Wharton School SEI Center at the University of Philadelphia, and QS Quacquarelli Symonds, compiler of the QS World University Rankings.
- 16. Mr. C. Vimal (Design Programme) has won a Bronze award under Lighting Design category for IRILLA TASK LAMP.
- 17. Mr. Mrityunjay Kumar and Swati Mittal (Design Programme) have been selected for the best paper award for their paper titled Comparing the incubation effect between various age group of students during the creative problem-solving at the International Conference on creativity and cognition in art and design organized by NIMHANS and NID at NIMHANS convention center Bengaluru.
- 18. Mr. Eshan Sadasivan (Design Programme) received the 1st prize for his exhibit on Design and development of a study companion for rural students in India in HTC 2016 conference.
- 19. Ms. Priyanka Bharti (Design Programme) won the best poster award at the 6th International Conference on Research into Design (ICoRD'17) held at IIT Guwahati for her

- poster titled Semiotic Analysis of Digital Medium of Education.
- 20. Mr. Vineel Kumar Veludandi (EE) has been chosen the best presenter for presenting his paper titled Noncoherent detection of DQPSK in OFDM systems using Predictive VA at the 2016 International Conference on Communication, Image and Signal Processing (CCISP 2016), Dubai, UAE.
- 21. Mr. Soumitra Bhowmick (EE) received the best paper award for his paper titled A New Coarse Timing Estimation Method for OFDM Signals, at ICWMC 2016, Barcelona, Spain.
- 22. Dr. Anup Shukla (EE) received POSOCO award 2017 for his PhD thesis on Evolutionary Technique Based Solution to the Unit Commitment Problem including Renewable Energy Sources.
- Ms. Anju Meghwani (EE) received POSOCO award 2017 for his Ph.D. thesis titled DC Microgrid Protection: Challenges and Solutions.
- 24. Ms. Anju Meghwani (EE) received Dr. Ramamoorthy best paper Award in Power Electronics and Drives for her paper entitled A Fast Scheme for Fault Detection in DC Microgrid Based on Voltage Prediction in the 19th National power Systems Conference (NPSC 2016).
- 25. Mr. Saurav Roy Choudhury (EE) received POSOCO award 2017 for MTech thesis on Dynamic voltage restorer with adaptive active filtering.
- 26. Ms. Nandini Negi (EE) received POSOCO award 2017 for her MTech thesis on Decentralized Adaptive Primary and Distributed Secondary Control for Radial AC Microgrid.
- 27. Ms. Debasmita Panda (EE) won the first prize for her work entitled as Risk Based Optimal genco's Self in M V Chauhan All India Student Paper Contest 2016.
- 28. Mr. Vivek Kumar Pandit (EE) received the award, the best poster across all the tracks of INDICON 2016 for his paper titled Design of Dual-Band CPW- Fed Monopole Antenna with Dual Band AMC Surface for WLAN at 13th International IEEE India Conference (INDICON 2016) at Bangalore.
- 29. Mr. Debdeep Sarkar, Ms. Yashika Sharma and Mr. Kushmanda Saurav (EE) have been awarded the first prize for oral presentation of their paper titled A Compact Two Element MIMO Antenna System for Pattern and Polarization Diversity in the Microwave

- Engineering and Antenna track of 3rd IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics (IEEE UPCON 2016).
- 30. Ms. Gaurangi Gupta (EE) has won the Best Paper in the Microwave Technology Track for her paper titled Baluns for Dipole with Reflector at the 13th International IEEE India Conference (INDICON 2016) at Bangalore.
- 31. Ms. Prama Bhattacharya (HSS) has been awarded the best paper award for her poster titled Personal Recovery Amidst the Challenges of Social Suffering in Homeless Individuals with Severe Mental Illness: A Qualitative Inquiry in the Poster session titled Understanding Psychopathology and recovery at the International Conference on Contemporary Trends in Clinical Psychology: Training, Research and Practice organized by the Department of Clinical Psychology, National Institute of Mental Health and Neuro Sciences NIMHANS, Bengaluru.
- 32. Mr. Tamerat Kebede (IME) has received the Best Paper Award for his paper entitled Impact of information sharing in a non-serial supply chain with stochastic lead time in the 20th Conference of Society of Operations Management, held in IIIT Gwalior.
- 33. Mr. Somen Dey (IME) won the Best Track Paper Award for Research Paper entitled Relating flexibility of information systems to different planning process styles, information systems architecture and strategy of the organization: In Operations Management Track for 2017 at International Conference on Industrial Engineering and Operations Management Rabat, Morocco.
- 34. Mr. Mukesh Adlak (ME) received the best oral presentation award for Large eddy simulation of mixing and combustion in a hydrogen fuelled scramjet computer with parallel strut injectors at International Conference on Sustainable Energy and Environmental Challenges 2017 at Mohali.
- 35. Ms. Shweta Sharma (ME) received Raman Charpak Fellowship (Indo-French).
- 36. Dr. Akhilendra Pratap Singh and Dr. Chetan Patel (ME) received the Best Ph.D. Thesis Award at 1st ISEES International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) at Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India.
- 37. Mr. Ayush Jain and Mr. Krishna Chandra (ME) received the Best M.Tech Thesis Award

- at the 1st ISEES International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) at Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India.
- 38. Mr. Akhilendra Pratap Singh, Nikhil Sharma and Vikram Kumar (ME) received the best Oral Presentation Award in Track for their individual papers at 1st ISEES International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) at Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India.
- 39. Ms. Ambreen Nisar (MSE) has won the IBM Best Ph.D Thesis Award 2017.
- 40. Mr. Akash Bajaj (MSE) received 2016 IIM Vidyabharati Prize.
- 41. Ms. Y. Pushpalatha Devi (MSE) won the second best poster award in EMSI 2016 (at IIT BHU) Microstructural and textural evolution during deformation in Zirconium-Oxygen dilute alloys.
- 42. Mr. Subhasis Sinha (MSE) won the second best poster presentation award in ICoTMMB 2017 (at IISc, Bangalore) Effect of twinning on monotonic and cyclic deformation behaviour of hexagonal close packed titanium.
- 43. Mr. Vikrant Kumar (MSE) received the best presentation award in the symposium Advance in Manufacturing in NMD-ATM2016 held at IIT Kanpur.
- 44. Mr. Sumeet Mishra (MSE) received the second best poster presentation award in ICoTMMB 2017 (at IISc, Bangalore) Effect of temper condition on rolling texture development in age hardenable AI-Mg-Si alloy.
- 45. Research paper authored by Mr. Abhinav Varsheney (MSE) received IIM SAIL GOLD MF DAI.
- Mr. Prabhat Rai (MSE) received the best presentation award in the symposium Railway Materials & Processing.
- 47. Mr. Nitin Sharma (MSE) awarded Student Research Award at International conference on Recrystallization and Grain Growth held at Pittsburgh, USA.
- 48. Ms. Rita Maurya and Mr. Abdul Siddiqui (MSE) won the second prize for oral presentation in An Environmental Friendly Phosphate Chemical Conversion Coating on Novel Mg-9Li-7Al-1Sn and Mg-9Li-5Al-3Sn1Zn Alloys for Corrosion Protection.
- 49. Ms. Kalpana Rathore (MSE) won the Best poster award in NMD 2016 at IIT Kanpur – Agar-based bio-composites for wound

- dressing applications with antibacterial properties.
- 50. Mr. Sankalp Verma (MSE) received the Best oral presentation award in ICSM 2016 at MNIT, Jaipur Single step patterning of proteins: an effective approach for developing protein based sensors.
- 51. Mr. Vinod Kumar Dwivedi (MSP) has been selected for the Best Poster Award for presenting the paper titled Study of Optical Properties of Polycrystalline Yttrium Iridate (Y2Ir2O7) at the 61st DAE Solid State Physics Symposium (DAE SSPS 2016), held in KIIT University, Bhubaneswar, Odisha.
- 52. Mr. Jitendra K Pradhan (PHY) has been awarded the first prize in the Student Paper Competition in the URSI Regional Conference on Radio Science for his paper entitled Wavelength selective dual-band mid-infrared metamaterial absorber/emitter.
- 53. Mr. Sagar Paul (PHY) received the best paper award for his paper titled Fabrication and characterization of micron size superconducting quantum interference devices (μ-SQUIDs) of lead (Pb) presented at 26th National Symposium on Cryogenics & Superconductivity (NSCS26) at VECC, Kolkata.
- 54. Ms. Ritu Gupta (PHY) has been awarded the Raman-Charpak Fellowship-2016.

#### Major Projects sanctioned:

- 1. Bifunctional approach to Small Molecule Activation: towards Sustainable Processes and Products (DAE).
- 2. Centre for Ganga River Basin Management (MOWRG).
- 3. PPP Mode Industry Project (Prototype Development Fund) (SEPL).
- 4. Coding of Innate Olfactory Preferences in the Mosquito Brain (WT).
- National Carbonaceous Aerosols Programme (NCAP) Working Group-III Project (MOEFCC).
- 6. PPP Mode Industry Projects (Prototype Development Fund) (MMC).
- 7. Agarose Based Wound Dressing (DST).
- 8. Teaching Learning Centre for Internet-Of-Things (MHRD).
- Optical Diagnostics of Transport Phenomena during Gas Hydrate Formation and Dissociation (ONGC).
- 10. Integration and Enablement of 0.18 micron RF-SOI Technology for Analog Mixed-Signal Applications (DST).
- 11. Rustam-II (Ver 4.0 Configuration) Wind

- Tunnel Model, Design, Fabrication & Testing (ADE).
- 12. Installation of a Pilot Plant of 10 KLD Capacity comprising ZnO-Graphene Based sensitive Photo Catalytic Filter For Visible Light Catalysis And Carbon Nano-Mat Fiber Filter For The Treatment Of Effluent Of CELP, Jodhpur As A Replacement Of Their Secondary Treatment Unit And Development Of An Alternative Low Cost Process For Dye Adsorption On Acid Modified Soil (DST).
- 13. Studies of Fire Propagation, Suppression and Scavenging with Associated Thermal Hydraulic Aspects in Multiple Compartments (BARC).
- 14. Deciphering the Structural Role of Glycogen in Neuronal Autophagy, and Neuro degenration (UGC).
- 15. National Interdisciplinary Center for Cyber Security and Cyber Defense of Critical Infrastructures (SERB).

## Labs / Facilities developed:

- Advanced Combustion & Acoustics Laboratory (AE).
- ★ Lipidic Cubic Phase (LCP) Nanolitre Dropdispenser for Crystallization (BSBE).
- ★ SCADA Cyber Security Laboratory, Institute Initiation Grant (CSE).
- Computer Organization Laboratory (CSE).
- Transducers and Instrumentation Virtual Laboratory (202.3.77.143/virtuallab/): Transducers and Instrumentation Virtual Laboratory is developed under the project MHRD/EE/20100082 at IIT Kanpur. This lab caters mainly to students of UG level for conducting the experiments online and offline to have a feel of working of various transducers and related experiments (EE).
- Automatic Guided Vehicle Prototype: Automated Guided Vehicle Prototype has been developed under the project BOEING/EE/20100220. For navigation purpose, computer vision based machine learning algorithms has been used. Prototype is useful for the testing of various control strategies as well as vision based machine learning based algorithms (EE).

# Software developed:

- 1. Multi-species compressible flow solver for ISRO (AE).
- 2. NAAVIK (Navigation for Autonomous

- Aerial Vehicles by IIT Kanpur) (AE).
- 3. CARMA (Comprehensive Advanced Rotorcraft Modelling and Analysis (AE).
- 4. Vertical Axis Wind Turbine (VAWT) (AE).
- 5. TASS: Temperature Accelerated Sliced Sampling Program (CHM).
- 6. QM/MM using CPMD/GULP Interface: A Module for CPMD program (CHM).
- 7. MATLAB Toolbox on Biclustering (EE).
- 8. BIDEAL Toolbox on Biclustering and Gene Pattern Analysis (EE).
- 9. Desktop Application for Sensitive Position Finding (EE).
- 10. Condition Based Monitoring using Smart phones/Tablets (EE).
- 11. Vision Based for Inventory Management (EE).
- 12. Pseudo spectral code TARANG that scales up to 196608 processors of Cray XC40 (PHY).

## Technologies developed:

- 1. Modeling and analysis of horizontal stabilizer with corrosion of a light transport aircraft (AE).
- 2. Design and Development of Solar UAV having span of around 5.35 m, weight around 16 kg and endurance of about 10-14 hrs (AE).
- 3. Design and development of both battery powered (endurance 2 hrs) and IC engine powered UAV (endurance 6 hrs) (AE).
- 4. Medicament and Diagnosis for SPINK1 Positive Cancer (BSBE).
- 5. Integrated Bio-Artificial Liver (BAL) for treatment of acute liver failure (BSBE).
- 6. Nano Hydroxyapatite based bone substitutes for clinical applications (BSBE).
- 7. Technology for cell storage and transportation (BSBE).
- 8. Improved method for extraction of lipopolysaccharide (BSBE).
- Growth factor binding preformed injectable scaffolds with shape memory properties for cartilage tissue engineering (BSBE).
- 10. Enzymatically cross linked injectable hydrogel for growth factor delivery for in situ chondrogenesis (BSBE).
- 11. High speed SWIR Photodiode Arrays (EE).
- 12. Nonlinear Optical Embedded Ring high speed switches (EE).
- 13. Intelligent CBM through Smart phones and Tablets: Intelligent Condition Based Monitoring System is developed at IIT Kanpur under the project BOEING/EE/20100220. It is used for detection of various faults in industrial reciprocating air compressors using smart applications developed on various platforms i.e. Smart

- phones and Tablets (EE).
- 14. Sensitive Position finder for Sensor Data Acquisition: Sensitive position finder is a napplication developed at IIT Kanpur under the project BOEING/EE/20100220. It is a ranking based system that detects the most sensitive position around the machine for positioning a sensor (EE).
- 15. Amla Grating machine by RuTAG (ME).
- 16. Bela Slicing machine by RuTAG (ME).

#### **Graduation Data**

Programme Programme	Number of Students
Ph.D.	160
M. Tech	339
MBA	33
M. DES	24
VLFM	40
M. Sc (2 Year)	127
M. Sc. (Integrated)	2
B. Tech-M. Tech (Dual Degree)	142
B. Tech	515
BS	72
Double Major	12
BS-MS	62
BT-MS	5
BS-MBA	1
MS-PD (for the award of MS-2Yr. degree)	10
Total	1544

*	No. of UG and dual degree	
	students graduating with 1 minor	152
*	No. of UG and dual degree	
	students graduating with 2 minors	17
<b>*</b>	No. of UG and dual degree students graduating with 3	1
	minors	
<b>*</b>	No. of UG and dual degree students graduating with distinction	174
<b>.</b>	UG and dual degree students graduating with distinction	21.5%