

Books published

1. Fundamentals of Rocket Propulsion, D. P. Mishra (AE), CRC Press. 2017, ISBN: 9781498785358.
2. Adaptive Aeroservoelastic Control, Ashish Tewari (AE), Wiley, Chichester, U.K. 2016.
3. Chemical and Synthetic Approaches in Membrane Biology, Arun Shukla (BSBE), Springer, 2017, ISBN 978-1-4939-6835-0 (print) 978-1-4939-6836-7 (Online).
4. G-Protein Coupled Receptors, Part A, Methods in Cell Biology, Vol 142, Arun Shukla (BSBE), Academic Press, Elsevier 2017, ISBN 9780128133194
5. Metal semiconductor core-shell nanostructures for energy and environmental applications, Gupta R. K., Misra M. (CHE), Elsevier, (2017) 9780128124451; 9780323449229, 1-201.
6. Hybrid Polymer Composite Materials: Structure and Chemistry, Edited by V. K. Thakur, M. K. Thakur and R. K. Gupta (CHE), Wood head Publishing, Elsevier, 2017, ISBN: 9780081007914.
7. Hybrid Polymer Composite Materials: Processing, Edited by V. K. Thakur, M. K. Thakur and R. K. Gupta (CHE), Woodhead Publishing, Elsevier, 2017, ISBN: 9780081007891.
8. Coulson and Richardson's Chemical Engineering (7th edition) Volume 1A: Fluid Flow: Fundamentals and Applications, R. P. Chhabra and V. Shankar (CHE), Elsevier, (2017).
9. Coulson and Richardson's Chemical Engineering (7th edition) Volume 1B: Heat and Mass Transfer: Fundamentals and Applications, R. P. Chhabra and V. Shankar (CHE), Elsevier, (2017).
10. Catalytic molten metals for the direct conversion of methane to hydrogen and separable carbon, co-authored by Dr. Vishal Agarwal (CHE).
11. Wireless Networking and Mobile Data Management, R. K. Ghosh (CSE), Springer, 2017, ISBN 978-981-10-3941-6.
12. Non-convex Optimization for Machine Learning, Purushottam Kar (CSE), Now publishers, 2017, ISBN: 978-1-68083-368-3 (Print) 978-1-68083-369-0 (Online).
13. Theorizing International Trade: An Indian Perspective, Edited by Mathur, S.K., Arora, R. and Singh, S. (Eco. Sc.) (2017), Palgrave Macmillan.
14. Urbanization in India: Issues and Challenges, Arun Kumar Sharma and Bhaskar Dutt Misra (HSS), Ane Books Pvt Ltd, New Delhi.
15. The Writer, the Reader and the State: Literary Censorship in India, Mini Chandran (HSS), Sage, (2017), New Delhi.
16. Eminent Indian Psychologists: 100 Years of Psychology in India, edited by Braj Bhushan (HSS), Sage Publications, (ISBN: 9789386446411).
17. Faith and Social Movements: Religious Reform in Contemporary India, Anindita Chakrabarti (HSS), Cambridge University Press, Cambridge, UK.
18. The Changing Language Roles and Linguistic Identities of the Kashmiri Speech Community, Dr. M. Ashraf Bhatt (HSS), supervised by A.K. Sharma and T. Ravichandran, Cambridge Scholars, Newcastle, UK.
19. Innovation, Incubation and Entrepreneurship: Case Studies from IIT Kanpur, Phani B. V. (IME), Khandekar S. (ME), Springer, ISBN: 978-981-10-3333-9 (Print) 978-981-10-3334-6 (Online), (2017).
20. Modeling and Simulations of Turbulent Combustion, Santanu De, Avinash K Agarwal, (ME), Springer, Singapore, 2018, ISBN: 978-981-10-7409-7.
21. Shapes and Dynamics of Granular Minor Plants, Ishan Sharma (ME), Springer International Publishing, (2017).
22. Modeling Transport Phenomena in Porous Media with Applications, Malay K. Das (ME),

- Springer, 2017, ISBN: 978-3-319-69864-9 (Print) 978-3-319-69866-3 (Online).
23. Fluid Mechanics and Fluid Power- Contemporary Research, A. K. Saha, D. Das, R. Srivastava, P.K. Panigrahi, K. Muralidhar (ME), Springer, (2017).
 24. Pipe Inspection Robots for Structural Health and Condition Monitoring, co-authored by Bishakh Bhattacharya (ME), Springer.
 25. Environmental Contaminants, Tarun Gupta, Avinash K Agarwal (ME), Rashmi A Agarwal, Nitin K Labhsetwar, Springer, Singapore, 2018, ISBN: 978-981-10-7332-8.
 26. Air Pollution and Control, Nikhil Sharma, Avinash K Agarwal (ME), Peter Eastwood, Tarun Gupta, Akhilendra P Singh, Springer, Singapore, 2018, ISBN: 978-981-10-7184-3.
 27. Coal and Biomass Gasification, Santanu De, Avinash K Agarwal (ME), V S Moholkar, Thallada Bhaskar, Springer, Singapore, 2018, ISBN: 978-981-10-7334-2.
 28. Droplets and Sprays, Saptarshi Basu, Avinash K Agarwal (ME), Achintya Mukhopadhyay, Chetan Patel, Springer, Singapore, 2018, ISBN: 978-981-10-7448-6.
 29. Advances in Internal Combustion Engine Research, 345 pages, Published by Springer, Singapore (2018), (Eds.) Dhananjay K Srivastava, Avinash K Agarwal (ME), Amitava Datta, Rakesh K Maurya (ISBN # 978-981-10-7574-2) DOI: 10.1007/978-981-10-7575-9.
 30. Prospects of Alternative Transportation Fuels, Akhilendra P Singh, Avinash K Agarwal (ME), Rashmi A Agarwal, Atul Dhar, Mritunjay Kumar Shukla, Springer, Singapore, 2018, ISBN: 978-981-10-7517-9.
 31. Environmental, Chemical and Medical Sensors, Shantanu Bhattacharya (ME), Avinash K Agarwal (ME), Nripen Chanda, Ashok Pandey, Ashis Kumar Sen, Springer, Singapore, 2018, ISBN: 978-981-10-7750-0.
 32. Applications of Solar Energy, Himanshu Tyagi, Avinash K Agarwal (ME), Ashok Pandey, Prodyut R Chakraborty, Satvasheel Powar, Springer, Singapore, 2018, ISBN: 978-981-10-7205-5.
 33. Bioremediation: Applications for Environmental Protection and Management, Sunita J Varjani, Avinash K Agarwal (ME), Ashok Pandey, Edgard Ghansounou, Baskar Gurunathan, Springer, Singapore, 2018, ISBN: 978-981-10-7484-4.
 34. Applications Paradigms of Droplet and Spray Transport: Paradigms and Applications, Saptarshi Basu, Avinash K Agarwal (ME), Ashok Pandey, Achintya Mukhopadhyay, Chetan Patel, Springer, Singapore, 2018, ISBN: 978-981-10-7232-1.
 35. Proceedings of the 4th World Congress on Integrated Computational Materials Engineering (ICME 2017), P. Mason, C. R. Fisher, R. Glamm, M. V. Manuel, G. J. Schmitz, A. K. Singh (MSE), & A. Strachan (Eds.), Springer, 2017.

Fellowships

1. Dr. Abhishek (AE) has been chosen for the Abdul Kalam Technology Innovation Fellowship of INAE for three years.
2. Dr. S. Ganesh (BSBE) received Tata Innovation Fellowship (2017-2020) by Dept. of Biotechnology (DBT), Ministry of Science and Technology, Govt. of India.
3. Dr. Arun Shukla (BSBE) received CNR Rao Award for Excellence in Research by IIT Kanpur.
4. Dr. Yogesh M Joshi (CHE) has been elected Fellow of National Academy of Sciences, India.
5. Dr. Rahul Mangal (CHE) received Ramanujan Fellowship, SERB, Govt. of India.
6. Dr. Vishal Agarwal (CHE) received Ramanujan Fellowship, SERB, Govt. Of India.
7. Dr. J N Moorthy, (CHM), has been elected Fellow of the Indian National Science Academy, New Delhi.
8. Dr. J. K. Bera, (CHM) has been elected Fellow of the Indian National Science Academy, New Delhi.

9. Dr. Amalendu Chandra (CHM) has been elected Fellow of The National Academy of Sciences, India.
10. Dr. Sankar P. Rath (CHM) has been elected Fellow of the National Academy of Sciences, India.
11. Dr. Sankar P. Rath (CHM) has been elected Fellow of the West Bengal Academy of Science & Technology.
12. Dr. Surender Baswana (CSE) received Humboldt Fellowship for Experienced Researchers from Humboldt Foundation of Germany.
13. Dr. Laxmidhar Behera (EE) has been elected Fellow of the Indian National Academy of Engineering (INAE).
14. Dr. Anindita Chakrabarti (HSS) has been elected a Senior Fellow, Humanities Centre for Advanced Studies (2016- 2020) of Leipzig University.
15. Dr. Kumar Ravi Priya (HSS) received Fulbright-Nehru Academic and Professional Excellence Fellowship-Flex Award by USIEF.
16. Dr. RN Sengupta (IME) received DAAD Fellowship for Research Stays for University Academics and Scientists, 2017, Technische Universität Dresden, Germany.
17. Dr. Sameer Khandekar (ME) has been elected Fellow of Institution of Engineers (India).
18. Dr. Kantesh Balani (MSE) received Swarnajayanti Fellowship Award 2016-17 by Department of Science and Technology, Govt. of India.
19. Dr. Krishanu Biswas (MSE) has been elected Young Fellow of Global Young Academy (GYA), Germany.
20. Dr. A.K. Singh (MSE) received the Fellowship of the Indian Institute of Metals.
21. Dr. Sandeep Anand (EE), Dr. Joydeep Chakraborty (PHY), Dr. Somnath Jha (M&S) have been selected Associate(s) of the Indian Academy of Sciences, Bangalore.

Awards and Honors

1. Dr. Debopam Das (AE) has been awarded the 'Best Professor in Aerodynamics' in the subcategory: Education Leadership Award by Dewang Mehta National Education Awards.
2. Dr. Arun Shukla (BSBE) has been selected for the B.M. Birla Science Prize in Biology for the year 2016.
3. Dr. Arun Shukla (BSBE) has been selected for the Professor Umakant Sinha Memorial Award by the Indian Science Congress Association (ISCA).
4. Dr. Arun Shukla (BSBE) has been selected as European Molecular Biology Organization (EMBO) Young Investigator.
5. Dr. Arun Shukla (BSBE) has been selected co-recipient of CDRI Award for Excellence in Drug Research.
6. Dr. Sachchida N Tripathi (CE) has been chosen for felicitation by the Government of Uttar Pradesh.
7. Dr. Yogesh M Joshi (CHE) received RPG Life Sciences M. M. Sharma Gold Medal by Indian Institute of Chemical Engineers.
8. Dr. Ashutosh Sharma (CHE) was honored with the UNESCO Medal 2017 for contributions to and development of nano-sciences and nanotechnology.
9. Prof. Ashutosh Sharma (CHE) has been honored with the H. K. Firodia Vijnan Bhushan Award 2017 for his pioneering and highly interdisciplinary work in nanotechnology and areas of health, energy and environment.
10. Dr. Vinod K Singh (CHM) has been chosen for felicitation by the Government of Uttar Pradesh.
11. Dr. Sandeep Verma (CHM) has been chosen for felicitation by the Government of Uttar Pradesh.
12. Dr. K. Srihari (CHM) has been awarded the prestigious INSA Teachers Award (2017).

13. Dr. Jitendra K. Bera (CHM) has been selected for the C. N. R. Rao National Prize in Chemical Sciences 2018.
14. Dr. Sandeep Verma (CHM) has been selected for the MRSI- ICSC Superconductivity & Materials Science Annual Prize by the Material Research Society of India for the year 2018.
15. Dr. Sandeep Verma (CHM) received Silver Medal by The Chemical Research Society of India.
16. Dr. Pratik Sen (CHM) has been awarded the Young Faculty Research Fellowship by the Ministry of Electronics and Information Technology, Govt. of India.
17. Dr. Nishanth N. Nair (CHM) received Distinguished Lecture- ship Award by The Chemical Society of Japan.
18. Dr. Manindra Agarwal (CSE) has been chosen for felicitation by the Government of Uttar Pradesh.
19. Dr. T.V. Prabhakar (CSE) received Teaching Innovator Award-2016 by MHRD, New Delhi.
20. Dr. T.V. Prabhakar (CSE) received SKOCH GOLD Award in the category of "Technology for Growth" for the AgMOOC project.
21. Dr. Biswabandan Panda (CSE) received INSPIRE Faculty Award by DST.
22. Dr. Amey Karkare (CSE), Dr. Purushottam Kar (CSE) and Dr. T V Prabhakar (CSE) received Best faculty of the year in the category of Evangelizing and Contributing to Spread of knowledge across several Institutions; Innovative Application of Technology Tools in Teaching/Learning; Authoring Books on Contemporary Subjects respectively by the Computer Society of India, Mumbai Chapter.
23. Dr. Surendra Baswana (CSE) received Distinguished Teacher Award 2017 by Indian Institute Technology Kanpur.
24. Dr. A.K. Chaturvedi (EE) has been awarded the prestigious INSA Teachers Award (2017).
25. Dr. Sandeep Anand (EE) has been selected for the INAE Young Engineer Award 2017.
26. Dr. Ketan Rajawat (EE) received INSA Medal for Young Scientist by INSA.
27. Dr. K. Vasudevan (EE) has been awarded the Top Reviewers for Multidisciplinary by PUBLONS.
28. Dr. Santanu Misra (ES) has been awarded the prestigious Dr. K.R. Gupta Gold Medal by the Council of the Geological Society of India.
29. Dr. Shib Sankar Ganguly (ES) received the Young Scientist Award by the Ministry of Mines, Govt. of India.
30. Dr. Ritwij Bhowmik (HSS) received "Young Scientist in Visual Culture" for the year 2017, Venue International Research Awards, Venus International Foundation, awarded at the 3rd Annual Research Meet-ARM 2017 in Chennai, 11th November 2017.
31. Dr. RRK Sharma (IME) has been selected as one of the Top Ten Knowledge Producers in India for the Academic Year 2017-18 by Faculty Research Award Career 360, 2017-18.
32. Dr. Debasis Kundu (M&S) received P.C. Mahalanobis award by Operation Research Society of India.
33. Dr. Avinash Kr. Agarwal (ME) received the 6th edition of the India Research Excellence-Citation Awards by Clarivate Analytics.
34. Dr. Bhaskar Dasgupta (ME) received the Mechanism and Machine Theory Award for Excellence.
35. Dr. Gautam Biswas (ME) (presently Director, IIT Guwahati) has been awarded Honorary Doctorate (Honoris Causa) by NIT Agartala.
36. Dr. Sudhanshu Shekhar Singh (MSE) received 2018 SMD JOM Best Paper Award by The

- Minerals, Metals & Materials Society (TMS), USA.
37. Dr. Sudhanshu Shekhar Singh (MSE) received IEI Young Engineers Award by The Institute of Engineers (India).
 38. Dr. Sudhanshu Shekhar Singh (MSE) received Young Metallurgist of the Year 2017 Award by The Indian Institute of Metals (IIM), India.
 39. Dr. Ashish Garg (MSE) received Newton Prize Award for DST-RCUK APEX Project by UK National Commission for UNESCO.
 40. Dr. Kallol Mondal (MSE) received Mascot National Award by Electrochemical Society of India.
 41. Dr. Krishanu Biswas (MSE) received Metallurgist of the Year, 2017 in Metal Sciences Category by Ministry of Steels, Government of India.
 42. Dr. Anish Upadhyaya (MSE) received Distinguished Teacher Award 2017 by Indian Institute Technology Kanpur.
 43. Dr. Amit Agarwal (PHY) has been awarded the "IPA N. S. Satya Murthy Memorial Award in Physics-2016" of the Indian Physics Association.
 44. Dr. H.C. Verma (PHY) has been awarded the Maulana Abdul Kalam Azad Shiksha Puraskar-2017.
 45. Dr. Mahendra Verma (PHY) has been awarded the "Dr. APJ Abdul Kalam Cray HPC award by Cray Computers.
 46. Dr. Indranil Manna (Former Director) has been conferred the D.Sc. Degree (Honoris Causa) of the University of Kalyani (WB) during the University convocation (7th September 2017).

Appointments

1. Dr. Debabrata Goswami (CHM), Member of the Scientific Panel on Stamping and Analysis, by Food Safety and Standards Authority of India (FSSAI).
2. Dr. J.N. Moorthy (CHM), Member, Commission of Crystallographic Teaching, by The International Union of Crystallographic (IUCr), 2018-2020.
3. Dr. Manindra Agrawal and Dr. Sandeep Shukla (CSE) were invited to serve on a special committee on cyber security of UIDAI information systems.
4. Dr. Sandeep Shukla (CSE) served on two special committees of the RBI to consider cyber security of mobile payments and online banking.
5. Prof. Rajiv Shekhar (MSE) is appointed the Director of IIT (ISM) Dhanbad.

Editorships/Membership

1. Dr. C. Venkatesan (AE), Associate Editor, Journal of Intelligent Unmanned Systems, Emerald Publishing.
2. Dr. A.K. Ghosh (AE), Member of National Advisory Board of DRDO Young Scientist Center.
3. Dr. Arun Shukla (BSBE) has been invited to join the Editorial Board of Cellular Signaling, Elsevier.
4. Dr. Arun Shukla (BSBE) has been invited to join the Editorial Board of Chemical Biology & Drug Design, Wiley.
5. Dr. Jayandharan Rao (BSBE) selected as an invited member of the Hematology and Immunology Gene and Cell therapy Committee for the period of 2017-2020.
6. Dr. Yogesh M Joshi (CHE), Member of Editorial Advisory Board, Langmuir, American Chemical Society.
7. Dr. Raju Kumar Gupta (CHE), Member of Editorial Advisory Board, Molecular Systems Design & Engineering, Royal Society of Chemistry.

8. Dr. Jayant Singh (CHE) has been invited to join the Editorial Board of ACS Omega.
9. Dr. R N Mukherjee (CHM) has been invited as a Guest Co- Editor of the ACS journal Inorganic Chemistry for Reactivity of Metal Complexes with Ligand-Centered Radicals.
10. Dr. Jitendra K Bera (CHM) has been invited to join as an Associate Editor of Applied Organometallic Chemistry, AOC, Wiley Inter science.
11. Dr. S.P. Rath (CHM), Member of Editorial Advisory Board, Current Inorganic Chemistry, Bentham Science.
12. Dr. J.N. Moorthy (CHM), Member of Editorial Board, Journal of Chemical Sciences, Springer.
13. Dr. Baskar Sundararaju (CHM), Member of Early Career Advisory Board, ACS Catalysis, American Chemical Society.
14. Dr. Sandeep Shukla (CSE), Associate Editor, ACM Transactions on Cyber Physical Systems, ACM.
15. Dr. Sandeep Shukla (CSE), Book Series Editor, River Publishers Series, Information Science and Technology, River Publishers, Denmark.
16. Dr. Yogesh Singh Chauhan (EE) has been invited to serve as an editor for "Device and Process Modeling", IEEE Transactions on Electron Devices.
17. Dr. Ketan Rajawat (EE), Associate Editor, IEEE Communication Letters, IEEE.
18. Dr. Rajiv Sinha (ES), Member of Editorial Board, Earth Surface Processes & Landforms, Wiley.
19. Dr. Rajiv Sinha (ES), Member of Editorial Board, Current Science, Indian Academy of Science.
20. Dr. Debajyoti Paul (ES), Member of Editorial Board, Chemical Geology, Elsevier.
21. Dr. Kumar Ravi Priya (HSS), Associate Editor, Psychological Studies, Springer.
22. Dr. Malay Banerjee (M&S), Associate Editor, Mathematical Modeling of Natural Phenomena, EDP Sciences.
23. Dr. Anindya Chatterjee (ME), Editorial Board Member, International Journal of Mechanical Sciences, Elsevier.
24. Dr. Avinash Kumar Agarwal (ME), Editor-in-Chief, Journal of Energy and Environmental Sustainability, International Society for Energy, Environment and Sustainability.
25. Dr. Bishakh Bhattacharya (ME), Editorial Board Member, Journal of Low Frequency Noise and Vibration Control, SAGE Publishing.
26. Dr. K. Muralidhar (ME), Editor-in-Chief, Journal of Flow Visualization and Image Processing, Begell House.
27. Dr. P. S. Ghoshdastidar (ME), Editorial Board Member, Engineering Science and Technology, an International Journal, Elsevier.
28. Dr. Sameer Khandekar (ME), Editorial Board Member, Interfacial Phenomena and Heat Transfer, Begell House.
29. Dr. Sumit Basu (ME), Associate Editor, Sadhana, Indian Academy of Sciences.
30. Dr. Kantesh Balani (MSE), Editor in Chief, Nano materials and Energy, ICE Publication.
31. Dr. Kantesh Balani (MSE), Guest Editor, Journal of Thermal Spray Technology, International Thermal Spray Conference ITSC 2018 special issue, Springer.
32. Dr. Krishanu Biswas (MSE), Guest Editor, J. Materials Research for Special Issue on Nano-structured High Entropy Alloys: Processing Challenges and Properties, Materials Research Society, USA.
33. Dr. Rajdip Mukherjee (MSE) has been invited to co-edit "Phase-Field Methods for Pattern-Formation" by Journal of Indian Institute of Science.
34. Dr. Subhajit Dutta (M&S) is elected Member of the International Statistical Institute, The Netherlands.
35. Dr. Debashish Chowdhury (PHY) has been elected and appointed a member of the "C6 Commission: Biological Physics" by the 29th General Assembly of the International Union of Pure and Applied Physics (IUPAP).

Students' Awards

1. Mr. Karthik S. (AE), Rahul Ramanujam (AE), Ramdas (AE), Diksha Aggarwal(AE), Sakshi Gupta (AE), Avinash Shet (AE), Vishesh Kumar Singh(AE), and Naba Kishore Routray (AE) have received third prize in the graduate category of 34th Annual Student Design Competition by American Helicopter Society (AHS) (August 2017) for designing a High Efficiency Dissimilar Coaxial Helicopter design called "Vibhram".
2. Mr. SagarSetu (AE), Mr. Nidhish Raj (AE) and Mr.Karthik. S. (AE) have won the first stage of "The Unmanned Aerial Sys- tems Flight and Payload Challenge" organized by National Institute of Standards and Technology (US Department of Commerce) and Public Safety Communications Innovation Accelerator (USA).
3. Mr. Sourav Sinha (AE) won the prestigious Vertical Flight Foundation (of the American Helicopter Society) Scholarship for 2018 in UG category for his work on autopilot development for multirotor convertiplane for Urban Mobility (Air Taxi system) and aerial logistics.
4. Mr. Yonas Gebre (AE) won the best poster award at International Workshop on Sustainable Energy, Power and Propulsion (ISEPP2018) for his innovative work on the high efficiency vertical axis wind turbine.
5. Ms. Ritika Tiwari (BSBE) has been awarded the Shastri Re- search Student Fellowship (SRSF)-Doctoral award for the year 2017-18 for 13 weeks to undertake a research project on 'Role of SPINK1 in neuroendocrine trans differentiation in prostate cancer' in Canada.
6. Ms. Punita Kumari (BSBE) was selected a co-recipient of the Sun Pharma Science Scholar Award 2017 in the Bio-Medical Sciences category.
7. Ms. Punita Kumari (BSBE) has received the first prize in the Young Scientists Oral Presentation category at the 86thConference of Society of Biological Chemists held in JNU during November 16th to 19th 2017.
8. Mr. Burra Gunasekhar (BSBE) has been elected the Chair for "Gordon Research Seminar (GRS) on CAG Triplet Repeat Disorders" to be held in 2019-Italy.
9. Mr. Parvaiz A. Shiekh (BSBE) was awarded Torrent ISHR Young Investigator Award at a conference on Cardio vascular Research Convergence 2017: A scientific forum for exchanging of research views between clinicians and basic scientists, held on 12th August, 2017 at the THSTI (Translational Health Science and Technology Institute) Faridabad, jointly organized by THSTI (Faridabad)and AIIMS (New Delhi) in collaboration with International Society for Heart Research (ISHR, Indian chapter).
10. Mr. JacklinJeke Nilling (CE) and Mr. Akshat Verma (CE) won 4th position in the 7th International Groundwater conference (IGWC-2017) held at ICAR-NASC Complex, New Delhi (December 11-13, 2017), organized jointly by NIH, Roorkee, Central Ground Water Board, India, Texas A&M, and AGGS. Poster Title: "Geochemical Analysis of Arsenic Speciation in Groundwater".
11. Ms. Khushboo Suman (CHE), Mr. Indresh Chaudhary (CHE) and Mr. Mohammad Khalid (CHE) have been chosen for the best poster award at the CompFlu 2017 symposium (Sympo- sium on Complex fluids) held at IIT Madras.
12. Ms. Shweta Dixit (CHE) received the Best Paper Award under session of Waste Water Treatment, in 70th Annual Session of Indian Institute of Chemical Engineers (CHEMCON-2017) on Versatility of Chemical Engineering to Meet Societal Challenges, organized by Haldia Regional Center in association with Department of Chemical Engineering, HIT, Haldia, (December 27-30, 2017). Paper titled: "Development of a Recombinant Bacterium for Mine- ralization of Hazardous Sulphonated Aromatic Amines from Industrial Wastewater".
13. Mr. Saikat Das (CHM) received Cash Prize Award in Organic Chemistry Symposium

held at IIT Kanpur for the paper titled: "Enantiospecific Total Syntheses of Carbazole Alkaloids Murrayamines-O,P and Marine Natural Products Hapalindole-H, 12-epi-Hapalindole-UName:".

14. Mr. Hilal Ahmad Pal (CHM) received Cash Prize Award in Organic Chemistry Symposium held at IIT Kanpur for the paper titled: "Self-assembling soft structures for intracellular NO release and promotion of neurite outgrowth".
15. Mr. Bapan Saha (CHM) received Book Prize Award in Organic Chemistry Symposium held at IIT Kanpur for the title: "Supramolecular Chirogenesis: Chirality Induction, Inversion and Amplification".
16. Ms. Deepti Kalsi (CHM) received Book Prize Award in Organic Chemistry Symposium held at IIT Kanpur for the paper titled "Co (III)-Catalyzed Isonitrile Insertion/Acyl-Group Migration Between C-H and N-H Bonds of Arylamides" respectively.
17. Mr. Prithwidip Saha (CHM) has received the IUVESTA-Elsevier Student Award for his presentation at 33rd European Conference on Surface Science (ECOSS) held at Szeged, Hungary during 27th Aug. to 1st September 2017.
18. Ms. Chetna Yadav (CHM) received the best poster award in International Union Crystallography Congress held at Hyderabad (August 21-28, 2017) for her work titled "Influence of Sterics on the Self-Assembly of Sterically-Hindered Arylsulfonamides".
19. Mr. Sagarmoy Mondal (CHM) has been awarded the Best Poster Award in an International Symposium -CPMD 2017, held in Tsukuba, Japan (Oct 18-20, 2017) for his poster titled "Ab Initio MD Simulations with Hybrid Functionals: Implementation and Application". This work was carried together with a BS-MS student, Ms. Jayashrita Debnath (CHM) as a part of her MS Project.
20. A recent paper of Mr. Vijay Kumar Maska (CHM) titled "Photochromic 2D Metal Organic Framework Nanosheets (MONs): Design, Synthesis, and Functional MON-Ormosil Composite" is published in the journal, CHEM. The work demonstrates that 2-dimensional metal-organic nanosheets (MONs) constructed from photochromic building blocks can be used for the desired optical properties in photochromic polymers. This research will have many applications notably in ophthalmic lenses. CHEM is a prestigious journal published by the Cell Press.
21. Mr. Vipin Mishra (CHM) has received the best paper presentation award for the work entitled "Two dimensional materials for electronic applications" at the International Conference on Thin Film (ICTF-17), held during Nov 13-17, 2017, at CSIR-NPL, New Delhi, India.
22. Mr. Mrigank Singh Verma (CHM) has received 'RSC Best Poster Award' for his presentation at the National Symposium on Convergence of Chemistry and Materials (CCM 2017), held at BITS Pilani, Hyderabad Campus, during Dec 21-22, 2017.
23. Mr. Vishwesh Jatala (CSE) for his poster titled "GREENER: A Tool for Improving Energy Efficiency of GPU Register File" has been selected for the Best Poster Award at the 24th IEEE International Conference on High Performance Computing, Data, and Analytics, Student Research Symposium (HiPC, SRS), held during Dec 18-21, 2017 in Jaipur, India.
24. Vishwesh Jatala (CSE), Ph.D. student received the "Best Poster Award" at the 24th IEEE International Conference on High Performance Computing, Data, and Analytics, Student Research Symposium (HiPC, SRS), for his work titled "GREENER: A Tool for Improving Energy Efficiency of GPU Register File".
25. Umair Z. Ahmed (CSE) won the best poster award for the work titled "Automated Example Hint Generation for Syntax Errors in Student Programming Assignments" during his internship at IBM Bangalore.
26. Mr. Nayan Deshmukh, Mr. Snehil Verma, Mr. Prakhar Agrawal (CSE) won the second prize for their outstanding performance at the International Symposium on Computer

Architecture.

27. Ms. Ritika Singh (Design) has been awarded the Gandhian Young Technological Innovation Award 2018.
28. Mr. C Vimal (Design) has been awarded the Gandhian Young Technological Innovation Award 2018 for his thesis project titled TULO- An automated mandibular advancement device for the treatment of sleep apnea.
29. Mr. Karthik. P B (Design) has won The Red Dot Design Award for 2017 hosted by the Design Zentrum Nordrhein-Westfalen in Essen, Germany.
30. Mr. Ashish Mohandas (Design) has become the first Indian National to receive the 'James Dyson Award' by the James Dyson Foundation for his work titled "Design and development of an efficient low-cost retrofit patient transfer stretcher".
31. Mr. Gajendra Raikwar (Design) received the Design Hackathon Award hosted by Adani group.
32. Ms. Soumya Sahoo (EE), Vandana Pawreya and Apoorva Shukla (CE) received an award titled "Pratibha: An Eaton Excellence Award 2017-2018" by Eaton India.
33. IITK-TCS team reached to the podium finish at the Amazon Robotics Challenge 2017, Nagoya, Japan (EE).
34. Mr. Nachiketa Deshmukh, Abhinav Arya and Avinash Maguluri (EE) have been selected the University Challenge winners of the DST – Lockheed Martin – Tata Trusts India Innovation Growth Programme (IIGP) 2.0 for 2017. Their innovation is in the area of Solar PV Inverters.
35. Ms. Asha Sharma (EE) has been granted the 2017 IEEE DEIS (Dielectrics and Insulation Society) Fellowship, for her project entitled "Modelling of interfaces in Nano-dielectrics using Electron Force Microscopy".
36. Dr. Sinnu Susan Thomas (EE) has received the Gandhian Young Technological Innovation (GYTI) 2018 Award from the Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI).
37. Mr. S. Vinoth Kumar (EE) received 'Honors Award' for his work entry titled "Design of a Two Port Dual-Polarized Trefoil Torus Knot Antenna using Characteristic Mode Analysis" in 2017 FEKO Design Competition.
38. Mr. Girish Pahwa (EE), for "Energy-Delay Tradeoffs in Negative Capacitance FinFET based CMOS Circuits" has been selected for the best paper award in IEEE International Conference on Emerging Electronics (ICEE), Mumbai, India, Dec. 2016.
39. Dr. Kushmanda Saurav (EE) has been awarded the best thesis for his thesis entitled "Studies On Multi-band Linearly and Circularly Polarized Printed Antennas For Wireless Communication Systems" in the Electronics track of the Ph.D. Symposium organized by IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics (IEEE UPCON 2017) held at GLA University, Mathura (26-28 October 2017).
40. A paper titled "A Polarization-Insensitive Frequency Selective Radome with Wideband Absorption" authored by Mr. Ritesh Pandey (EE), Saptarshi Ghosh (EE), Harsh Sheokand (EE), Mondeep Saikia (EE) has received the Best Paper Award in "Antenna and Microwave" track in "4th IEEE UP Section Conference on Electrical, Computer and Electronics (IEEE UPCON)" organized by IEEE UP Section and hosted by GLA University Mathura.
41. Dr. Saptarshi Ghosh (EE) has been selected as one of the Young Scientist Awardees in 2nd URSI Atlantic Radio Science Meeting (AT-RASC) held at Gran Canaria, Spain during May 27- June 2, 2018.
42. Mr. Priyank Rastogi (EE) has been awarded for the Best Oral Presentation under Advances in Electron Devices track in IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE-CONECCT 2018) organized by IEEE Bangalore for the paper on "Diameter Scaling in III-V Gate-All-Around Transistor

for Different Cross-Sections".

43. Mr. Ankit Yadav (EE), for his paper titled "Modular Multi-level Converter Topologies: Present Status and Key Challenges" has been selected for the best paper award in IEEE UP section International Conference on Electrical, Computer and Electronics (IEEE UPCON 2017) held at GLA University, Mathura (26-28 October 2017).
44. Mr. S. Vinoth Kumar (EE) has received the best paper award for his paper titled "Circularly Polarized 3D Printed Knot Antenna with Sequential-Phase Feed" at 2017 IEEE International Conference on Antenna Innovations & Modern Technologies for Ground, Aircraft and Satellite Applications (iAIM 2017) at Bangalore, India on 24-26 November 2017.
45. The paper titled "Differential Quasi Self-Complimentary (QSC) Ultra Wide-band (UWB) MIMO Antenna" authored by Ms. Yashika Sharma (EE), Mr. Debdeep Sarkar (EE) and Mr. Kushmanda Saurav (EE) has been selected for NNSRKB Best Female Student Paper Award in "IEEE International Conference on Antenna Innovations and Modern Technologies (IEEE iAIM)" organized by IEEE Bangalore section.
46. Mr. Debdeep Sarkar (EE), for his paper titled "A Compact Two-Port MIMO Antenna with Enhanced Isolation using SRR-loaded Slot-loop" has received the second prize in the student paper competition (SPC) in "IEEE Applied Electromagnetics Conference (IEEE AEMC)", organized by IEEE Kolkata section in MIT Aurangabad.
47. Mr. Adarsh Patel (EE) has been selected for Innovative Student Projects Award 2017 by Indian National Academy of Engineering (INAE).
48. Mr. Suraj Srivastava and Ms. Saumya Dwivedi (EE) have been selected for the Qualcomm Innovation Fellowship (QInF) 2018-2019 for an innovative idea entitled "Sparse Signal Processing for 5G mm Wave MIMO Technology."
49. Ms. Seema Kumari (ES) has been selected DAAD fellow to pursue one year research work at University of Münster, Germany.
50. Ms. Sohini Bhattacharjee (ES) has been selected DAAD fellow to pursue one year research work at University of Potsdam, Germany.
51. Dipro Sarkar's (ES) Ph.D. work featured in a film "Mighty Rivers" broadcasted on Animal Planet on 8th April 2018.
52. Mr. Gaurav Seth (IME) has received Best Student Paper Award in 24th IAMB Conference, organized in collaboration with University of Wollongong, Dubai (October 9-11, 2017) for his paper titled "Does Global Capital Adequacy Regulation Hamper Growth of Bank Credit? Evidence from Indian Banks".
53. Mr. Vinayak A. Drave, IME has published a conceptual paper on "Strategy and Supply Chain Structure of E-Tailers in India". After extensive Data collection and analysis the work got recognized by the Retailers association of India and published as a cover story (The changing interplay of Strategy, supply chain & Retail) in their quarterly magazine Storai (Vol 9 | Issue 3; March-April 2018).
54. Mr. Sahil Kalra (ME) has been awarded excellent paper award in the 11th International Symposium at IPS, Waseda University, Japan for the paper "Intelligent RF Radiation Pattern Control by Reconfigurable Space Antenna".
55. Mr. Sanjay Kumar (ME) has won Merit Award for the IFMBE sponsored Young Investigator Award 2017 at the 10th Asian-Pacific Conference on Medical and Bio-Engineering held at Penang Malaysia.
56. Mr. Ram Krishna Shah (ME) and Md. Asfer (ME) received the Best Poster Award at the 24th National, and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMT-2017) held at BITS-Pilani, Hyderabad Campus, (December 27-30, 2017) for the paper titled: "Control And Manipulation of Air - Ferrofluid Taylor Bubble Flow in a Magneto-Fluidic System".
57. Mr. Vikram Soni (ME) has received the Best Student Paper Award in "12th IIR

Conference on Phase Change Material and Slurries for Refrigeration and Air Conditioning" for the paper titled "Behaviour of Phase Change Material during Discharge Stage in a Thermal Energy Storage System: An Experimental and Numerical Study".

58. Mr. Puneet Jindal (ME) has won the Best Poster Award in the workshop on 'Battery Technologies and Electric Mobility' organized by HPCL R&D Centre, Bangalore for the poster titled "Thermal Behaviour of Liion Batteries at High Discharge Rates."
59. Mr. Sankalp Verma (MSE) received the best poster award at International conference for advances in polymer science and technology, organized by Asian Polymer Association at New Delhi (23rd-25th November 2017).
60. Mr. Prvan Kumar Katiyar (MSE), for his poster titled "Corrosion behavior of newly developed TMT steel rebars" has been selected for the Best Poster Award in International Conference on Advanced Materials and Processes ADMAT 2017, SkyMat held during December 14-16, 2017 at Thiruvananthapuram, India.
61. Dr. Md. Faisal (MSE), received Hydrogen Energy and Advanced Materials (HEAM) Young Scientist Award 2018 along with a cash prize of Rs. 20,000 at University of Kerala by Indian Association of HEAM, funded by ONGC at Trivandrum, India, Mar. 5-6, 2018.
62. Ms. Khushubo Devi (MSE) has been selected for an internship from NIMS, Japan to work with Dr. Alok Singh.
63. Mr. Nirmal Kumar (MSE) has got funding from SERB/DST to attend the International Conference on Rapidly Quenched and Metastable Materials (RQ16) Leoben, Austria.
64. Mr. Prabhat K. Rai (MSE), 'Corrosion and wear behavior of harmonic structured SUS304L austenitic stainless steel' has been selected for the 'Best Poster Award' in '13th International Conference on Advanced Materials and Nanotechnology' held during October 26-28, 2017 in Osaka, Japan.
65. H. S. Maharana (MSE), chosen for the Best poster award for the paper: "Electrophoretic Deposition of Cu-RGO Composite Coatings and its High Temperature Oxidation Resistance" authored by H. S. Maharana, A. Basu, K. Mondal, ICAMP ADMAT-SkyMat, Thiruvananthapuram, 14-16 Dec 2017.
66. Mr. Pravan Kumar Katiyar (MSE), Best poster award for the paper: "Corrosion behaviour of Newly Developed TMT Steel Rebars" authored by Prvan Kumar Katiyar, S. Misra and K. Mondal, ICAMP ADMAT-SkyMat, Thiruvananthapuram, 14-16 December 2017.
67. Ms. Semanti Mukhopadhyay (MSE) has been selected "Gold Award winner" ASM India – Fluidtherm Masters Award for her distinguished Master's research in the area of Materials Science and Engineering.
68. Ms. Ambreen Nisar (MSE) has been selected "Silver Award winner" ASM India - Pradeep Metals Ph.D. Award for her distinguished Doctoral research in the area of Materials Science and Engineering.
69. Mr. Krashnavtar (MSE) has been selected for Dr. A K Bose Gold Medal, 2017 from the Indian Institute of Metals (IIM).
70. Mr. Arjak Bhattacharjee (MSE) has won the Best Poster Award for his poster entitled, "Crystal Chemistry of Transition Metal Doped Apatites and Their Potential as Antibacterial Agent" in NMD-ATM 2017 conference, organized by Indian Institute of Metals during 11th - 14th November in Goa.
71. Mr. Prabhat Kumar Rai (MSE) has been selected for the Best Poster Award in '13th International Conference on Advanced Materials, and Nanotechnology' held during October 26-28, 2017 in Osaka, Japan for his poster titled 'Corrosion and wear behavior of harmonic structured SUS304L austenitic stainless steel'.
72. Mr. Sourav Biswas (PHY), for his poster presentation on dynamic hysteresis in micro-SQUID has received the best poster award at the conference, Recent Trend in Condensed Matter Physics, held at Kolkata during Oct 31-Nov 3.

73. Mr. Anuj Ram Baitha (PHY), for his work titled “Radiation Belts and Particle Diffusion in a Plasma Confined by a Dipole Magnet” has received the Best oral presentation award (session: Plasma Diagnostics) in 32nd National Symposium on Plasma Science and Technology (PLASMA 2017), jointly organized by the Plasma Science Society of India (PSSI) and the Institute for Plasma Research (IPR), Gandhinagar (Gujarat) during November 7-10, 2017.
74. Ms. Kalyani Barman (PHY), for her poster titled “Optical Emission Spectroscopy and Electrical Modelling of Atmospheric Pressure Plasma Jets” has received Poster presentation award (session: Basic Plasma) in 32nd National Symposium on Plasma Science and Technology (PLASMA 2017), jointly organized by the Plasma Science Society of India (PSSI) and the Institute for Plasma Research (IPR), Gandhinagar (Gujarat) during November 7-10, 2017.
75. Ms. Kavita Rathore (PHY), for her poster titled “Application Of Fractal Dimension for the Study of Tomographic Images of a Microwave Induced Compact Plasma” has received Poster presentation award (session: Plasma Diagnostics) in 32nd National Symposium on Plasma Science and Technology (PLASMA 2017), jointly organized by the Plasma Science Society of India (PSSI) and the Institute for Plasma Research (IPR), Gandhinagar (Gujarat) during November 7-10, 2017.
76. Ms. Meenaxi Sharma (PHY), for her poster titled “Effect of oil viscosity on sinking behavior of aqueous drops on lubricating fluid based slippery surfaces” has received the best poster award during 'COMPFLU 2017', held at IIT Madras during Dec 18 - Dec 20.
77. Mr. Anil Kumar Singh (PHY) received the best poster award in the Annual Meeting on Physics of Strongly Correlated Electron Systems (PSCES), held at IIT Mandi (2-4 April 2018). The Title of his poster was "Role of Charge-State of Interface Defects on Electronic Inhomogeneity Evolution with Gate Voltage in Graphene".
78. Mr. Ankit Kumar (PHY) and Mr. Biplab Bag received the best poster award in 62nd DAE Solid State Physics Symposium held at BARC, Mumbai (December 26-30,2017) for the poster titled: "Interplay of Superconductivity and Magnetic Fluctuations in Single Crystals of BaFe_{2-x}CoxAs₂".

Major Projects sanctioned

1. Nuclear Specific Delivery of Anticancer Drug Via Ligand-Free PDMS Nano particles (DBT).
2. Climbing with support: Scaling volcano in electro catalytic oxygen-evolution, chlorine-evolution and Co₂ reduction reactions (SERB).
3. Functional Characterization of Metabolism Related Genes (MRGs) with restricted expression in the developing vertebrate nervous system (DBT).
4. Effect of crystallographic texture on fracture behaviour of titanium and Ti6Al4V using digital image correlation and electron backscatter diffraction (SERB).
5. Optical-Waveguide sensor for accurate detection of bio- contaminant in drinking water (SERB)
6. Nanohybrids for Hydrogen Storage (SERB).
7. Modeling Diheme Enzyme MauG: Understanding Nature's Design, Structure-Function Correlation and Application (SERB)
8. Dust or Soot? Tracing the Primary Drivers of Increased Glacial Melt of the Himalayan Glaciers (DST)
9. Modeling and imaging of gas hydrate reservoirs using integrated techniques (ONGC)
10. Compact Plasmon-based Bio-sensor and Imager (DST)
11. (Big) Biotechnology Ignition Grant (BIRAC)
12. PPP Mode Industry Projects (KIS)
13. Development of gas sensors for detection of adulteration and milk spoilage (KIS)

14. Design, Fabrication, and Characterization of Nanoparticle based Photonic Elements (SERB)
15. Delineation of shallow subsurface morphotectonics below the central seismic gap-Himalaya using an integration of passive and controlled source seismology (SERB)
16. Development Of NASICON framework Cathode for All-Solid- State Na-ion Battery (SERB)
17. Modeling and imaging of Gas Hydrates reservoirs using integrated techniques (ONGC)
18. Micro-mechanisms of Deformation and Development of Processing Map for Novel Single and Multiphase High Entropy Alloys (SERB)
19. Development Of in-Situ contactless thermometer and viscometer through spatiotemporal control at nano-scale dimension to unravel the dynamics of complex system: vibrating molecules, colloidal clusters and multiple phases (SERB)
20. Explaining the puzzling experimental observations of polymer dynamics in solutions (SERB)
21. Development Of Background Oriented Schlieren (BOS) Technique For Density Measurement And Visualization In Buoyant Plumes (BARC)
22. Modeling of mechanical properties of AHSS steels using advanced characterization tools (TCS)
23. Human-Driven Full-Size 4WS4WD Electric Vehicle (SERB)
24. Micro-SQUID magnetometry of nano-scale magnetic structures (IFCPAR)
25. Learning Robotic Motor Skills, Visual Control and Perception for Warehouse Automation (DST)
26. Novel Chiral First Row Transition Metal Complexes for Asymmetric Catalysis via Activation of Inert C-H And C-Heteroatom Bonds (CEFIPRA)
27. Investigate The Role Of Distal-Less Homeobox-1 (Dlx1) In Transdifferentiation Of Prostate Cancer Cells And Neoplastic Progression (SERB)
28. Investigating the role of BMP signaling in pathogenesis of osteoarthritis (DBT)
29. DAPHNE; Delhi Air Pollution Health And Effects (DBT)
30. Indo-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 (DST)
31. A hybrid nano particle viral vector system for targeted gene transfer in Acute Myeloid leukemia (DST)
32. Bioactive molecule (TGF β 1 and Wnt/ β -catenin Inhibitor) presenting injectable double network hydrogels for cartilage re- generation (DBT)
33. Regional Hub And Technical Centre (Technology Submission of Pradhan Mantri Awas Yojna, Ministry of Housing and Poverty Alleviation) (MHPA)
34. Indo-UK Center for education and research in clean energy (DST)
35. Characterization and Fluidic Thrust Vector Control of GHATAK elliptic nozzle model fitted to miniature gas turbine engine (ADA)
36. Bifunctional Catalysts for Cooperative C-H Bond Cleavage via Intramolecular Deprotonation toward Direct Functionalizations of Alkanes (CEFIPRA)
37. Loop Heat Pipes for Avionics and Terrestrial Applications (IFCPAR)
38. Development of National Block chain and demonstrate for two strategic applications (NSCS)
39. Enhanced Coal-Bed-Methane and Shale-Gas recovery from underground reservoirs aided by permeability enhancement and CO₂ sequestration-an experimental approach (ONGC)
40. Indigenous 5g Test Bed Design (DOT).
41. Developing Bone Active Molecule Functionalized Biomaterials For Prevention/ Treatment Of Osteoporotic Fractures (DBT)

42. Design & Retrofitment for developing Methanol fuelled large bore engine (EMD 710: 4500hp) for Locomotive marine & Power generation Applications (DST)
43. Design & Development of Aquatic Autonomous Observatory (Niracara SvayamsasitaVedhshala-NSVS) for In-situ Monitoring, Real Time Data Transmission & Web Based Visualization (IUSSTF)
44. Streaming Analytics Over Temporal Variables From Air Quality Monitoring (SATVAM) (IUSSTF)
45. Bio NEST - (BIRAC)
46. UI-ASSIST: US India collABorative for smart diStribution System wIth STorage (IUSSTF)
47. ICME National Hub (TCS)
48. Development of nano-bio-platforms for early diagnostics of chronic diseases (DST)
49. Dynamics of subduction interface and its implication for earthquake generating frictional sliding to volcano feeding partial melting in convergent plate tectonic boundaries (DST)
50. UK India Clean Energy Research Institute (DST)
51. Design and Development of Adoptive Intelligent PHMR for Fuel Transportation Systems (GAIL)
52. Focus Incubation Centre (Technical Textile) (MOT)
53. Re-synchronizable Grid Interactive Inverters for Indian Roof- top Solar PV Systems (DST)
54. Development of a highly efficient and immunologically inert adeno associated virus based vector system for retinal gene therapy (WT)

Labs/ Facilities developed

1. Established a protein crystallization unit as part of the FIST scheme (BSBE).
2. Dark-Field Scattering Microspectroscopy (SERB) (CHM)
3. Energy Analytics Lab (EAL): Five-year CSR supported funding for setting up of EAL. Agency: Indian Energy Exchange Ltd. PI: Dr. Anoop Singh (IME).
4. Centre for Energy Regulation (CER) Agency: Government of United Kingdom through Department for International Development (DFID). PI: Dr. Anoop Singh (IME).

Software developed

1. Tread Will: automated delivery of cognitive behavioral therapy for depression (BSBE).

Technologies developed

1. Fully autonomous rotary-winged unmanned aerial vehicle (RUAV) of 10 kg class has been developed at IIT Kanpur, and the onboard autopilot software developed for autonomous control and navigation to this class of RUVAs has been transferred to HAL RWR&DC Bangalore (AE).
2. General purpose multi-platform / vehicle autopilot NAAVIK (Navigation for Autonomous Aerial Vehicles by IIT Kanpur) for autonomous control and navigation of fixed and rotary wing UAVs (AE).
3. A new high-efficiency helicopter design has been developed which employs a novel method for anti-torque balancing of the helicopter by employing dissimilar coaxial rotors (AE).
4. Innovative internal combustion engine powered high endurance variable pitch quad rotor

- Unmanned Air Vehicle has been developed and demonstrated (AE).
5. Variable pitch quad rotor tail sitter UAV for payload delivery a proof of concept prototype has been developed and flight tested, a proposal has been submitted to HAL RWR&DC Ban- galore (AE).
 6. A novel low-cost high-efficiency Vertical Axis Wind Turbine (VAWT) with dynamic blade pitching (resulting in low start-up speed and high power coefficient) suitable for low wind areas have been developed and demonstrated (AE).
 7. Developed physics based helicopter comprehensive analysis software called CARMA (AE).
 8. Physics-based software for flight dynamic analysis of helicopters has been developed with blade model having full flap-lag-torsion degrees of freedom, unsteady aerodynamics and dynamic inflow. This software has been transferred to Aeronautical Development Establishment (ADE) for its application in Naval Rotary Unmanned Aerial Vehicle Project (NRUAV)(AE).
 9. Developed and demonstrated the flight of world's first Remote Controlled Boomerang UAV called "Sudarshan"; a patent has been filed on this design (AE).
 10. Autopilot Development for Fixed-wing and Rotary-Wing Unmanned Vehicles (AE).
 11. Designed a prototype development of hand launched (10 kg class) fixed-wing UAV for Tata Advisory Systems Limited (TASL) (AE).
 12. Solar UAV fixed wing; the design has been taken over by VTOL Aviation (AE).
 13. Design and developed as flight tested a scale model of ADA, Stealth aircraft (AE).
 14. Design and developed code to analyse stability aspects of supercavitating projectile (underwater) NSTL Vishakhapatnam (AE).
 15. Sulfated polysaccharide mediated growth factor presentation in scaffolds for cartilage tissue engineering (BSBE).
 16. A non-invasive nano particle-based drug delivery system for the treatment of posterior eye diseases (BSBE).
 17. The SPICE model (Titled: ASM-HEMT) developed jointly by Dr. Yogesh Chauhan (EE) has been selected the world's first industry standard model for Gallium Nitride High Electron Mobility Transistor (GaN HEMT) by Silicon Integration Initiative's Compact Model Coalition (CMC).
 18. Developed Solar PV driven refrigerated cart for vendors by Akhil Singh Charak (ME).