

List of New Projects supported during F.Y. 2016-17: Water Technology Initiative

| S.No. | File No. and sanction date | Title | PI Name & Institution Address | Duration (in months) | Total Cost (in Rs.) |
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| 1. | DST/TM/WTI/2K15/35 22.04.2016 | Development of sustainable water treatment system based on Microbial Desalination Process for Salt Removal. | Dr. S Venkata Mohan CSIR-Indian Institute of Chemical Technology Hyderabad. | 36 months | 41,35,000 |
| 2. | DST/TM/WTI/2K15/101 22.04.2016 | Removal of Micropollutants from Water using TiO ₂ Nanocomposites | Dr. SuparnaMukherji Indian Institute of Technology Bombay | 36 months | 34,85,020 |
| 3. | DST/TM/WTI/2K15/219 25.04.2016 | Solar Powered High Recovery Desalination (SPHRD) to provide clean water | Dr. Anurag Mudgal Pandit Deendayal Petroleum University (PDU) Gujarat. | 36 months | 62,73,200 |
| 4. | DST/TM/WTI/2K15/22 26.04.2016 | Use of chemically treated carbonized bone meal for fluoride mitigation from drinking water | Dr. Sirshendu De Indian Institute of Technology- IIT Kharagpur West Bengal. | 36 months | 26,95,000 |
| 5. | DST/TM/WTI/2K15/58 10.05.2016 | Development of Fouling and bacterial resistant PVDF hybrid Membrane for water treatment | Dr. SmitaMohanty CIPET LARPM Bhubaneswar Odisha. | 36 months | 32,46,400 |
| 6. | DST/TM/WTI/2K15/168 06.06.2016 | Carbon-Alumina composites for defluoridation of water | Dr K.S. Rama Rao CSIR-Indian Institute of Chemical Technology Hyderabad Telangana. | 24 months | 25,02,500 |
| 7. | DST/TM/WTI/2K15/75 07.06.2016 | Development of Solar-Photocatalytic Process for Concurrent Decontamination of Antibiotics and Bacteria from Hospital Effluent | Dr Suraj Kumar Tripathy KIIT University Bhubaneswar Odisha. | 36 months | 34,23,200 |
| 8. | DST/TM/WTI/2K15/164 08.6.2016 | Extraction of residual synthetic dyes from textile dyebath effluent using solvents in multistage centrifugal extractor | Dr. P. Ramalingam Kumaraguru College of Technology (KCT) Coimbatore. | 24 months | 27,85,400 |
| 9. | DST/TM/WTI/2K15/174 08.06.2016 | Nanocellulose based composites for chromium decontamination and speciation in aqueous system | Dr Abhishek Kardam Amity University Noida. | 36 months | 30,81,800 |
| 10. | DST/TM/WTI/2K15/46 08.06.2016 | Engineering of interlayer spacing in grapheme oxide stack and defects in graphene for selective molecular sieving | Dr. Chandan Srivastava Indian Institute of Science (IISc) Bangalore. | 36 months | 19,80,000 |

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| 11. | DST/TM/WTI/2K15/182 08.06.2016 | Microbiology of arsenic contaminated groundwater of Bengal delta plain: deciphering the role of subsurface microorganism in as release and prospect for in situ remediation | Dr. Pinaki Sar Indian Institute of Technology Kharagpur. | 36 months | 41,25,521 |
| 12. | DST/TM/WTI/2K15/12 08.06.2016 | Development of organic-inorganic beaded polymeric network for the defluoridation of water | Dr Saroj Sharma CSIR-Central Salt & Marine Chemicals Research Institute Bhavnagar Gujarat. | 36 months | 20,11,020 |
| 13. | DST/TM/WTI/2K15/105 15.06.2016 | Development and evaluation of ceramic membranes for removal of recalcitrant organics like PPCPs in polluted water | Dr. Sourja Ghosh CSIR-Central Glass & Ceramic Research Institute Kolkata. | 24 months | 27,33,500 |
| 14. | DST/TM/WTI/2K15/196 15.06.2016 | Monitoring of Water-borne Protozoan Parasites (Cryptosporidium) using a Bacterial Surrogate and its Validation using a scale-up model | Dr. Sandhya Shrivastava Bhavan's College Mumbai. | 36 months | 39,24,966 |
| 15. | DST/TM/WTI/2K15/210 17.06.2016 | Process optimization studies on removal of heavy metals from waste water using mixed adsorbents | Dr D. Krishna MVGR College of Engineering Vizianagaram A.P. | 36 months | 26,58,000 |
| 16. | DST/TM/WTI/2K15/63 06.07.2016 | Removal of Pharmaceutical and personal care products (PPCPs) from contaminated water using pine needle based Activated Carbon/Biological Activated Carbon | Dr. Vasudha Agnihotri G.B. Pant Institute of Himalayan Environment and Development Uttarakhand | 36 months | 35,76,000 |
| 17. | DST/TM/WTI/2K15/01 06.07.2016 | Development of nonwoven fabric based water filtration system to provide safe drinking water in rural area | Prof. Apurba Das Indian Institute of Technology Delhi. | 36 months | 29,40,000 |
| 18. | DST/TM/WTI/2K15/109 11.07.2016 | Geochemical processes governing in situ remediation of fluoride-bearing groundwater using suitable chemical amendments | Dr. Abhas Singh IIT Kanpur Uttar Pradesh. | 36 months | 44,84,154 |
| 19. | DST/TM/WTI/2K16/72 14.09.2016 | Integrated Domestic Wastewater Treatment System with Multi-species and Dual Media Constructed Wetland | Dr. Guru. Ramchandra Munavalli Walch and College of Engineering Sangli Maharashtra | 36 months | 43,21,800 |
| 20. | DST/TM/WTI/2K16/126 19.09.2016 | Decentralized domestic wastewater treatment using hybrid system constructed wetland for efficient nutrients and organic waste removal | Dr Lalsangzela Sailo Mizoram University. | 36 months | 38,29,000 |

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| 21. | DST/TM/WTI/2K15/121 19.09.2016 | Removal and Recovery of Pharmaceuticals from water using sustainable magnetic and nonmagnetic biochars | Prof. Dinesh Mohan Jawaharlal Nehru University New Delhi | 36 months | 41,72,000 |
| 22. | DST/TM/WTI/2K16/229 23.09.2016 | Intervention of artificial glacier technology to solve water crises due to climate change in Ladakh Trans-Himalayan region | Mr. Chhering Tandup Institute of Mountain Environment University of Jammu Bhadarwah. | 24 months | 47,52,000 |
| 23. | DST/TM/WTI/2K15/195 28.09.2016 | Arsenic free South 24 Parganas district using Indian technologies and design of an appropriate solution by large implementation in the field | Dr. T. Pradeep Indian Institute of Technology Madras. | 36 months | 3,74,88,000 (DST share only) |
| 24. | DST/TM/WTI/2K16/204 28.09 .2016 | Conjunctive use of Rainwater and Groundwater to provide safe drinking water with intervention of Advanced Technology | Dr. Rajiv Gupta BITS Pilani. | 36 months | 1,26,43,000 (DST share only) |
| 25. | DST/TM/WTI/2K16/45 27.09.2016 | Development of a Smart Control System for a Water Distribution Network | Dr. Indrajit Banerjee Indian Institute of Engineering Science and Technology West Bengal | 36 months | 76,04,000 |
| 26. | DST/TM/WTI/2K16/190 28.09. 2016 | INNOWATER: Assessment and Evolvment of Novel and Rapid Water Quality Monitoring Sensors in Rural Settings of Bihar India | Dr. Ashok Ghosh A.N.College Patna | 24 months | 1,38,92,000 (DST share only) |
| 27. | DST/TM/WTI/2K16/168 29.09.2016 | Ensuring A safe Environment- Treatment of Emerging Contaminants (EASE-TEC) | Dr. Shaik Ziauddin Ahammad Indian Institute of Technology Delhi New Delhi. | 24 months | 1,40,00,800 |
| 28. | DST/TM/WTI/2K16/240 21.10.2016 | Development of electro-deionization unit for continuous production of demineralized water (resistivity: 1-10 MΩ/cm) with zero discharge without any resin regeneration | Dr. Vinod K. Shahi CSIR- Central Salt & Marine Chemicals Research Institute Bhavnagar | 36 months | 43,64,200 |
| 29. | DST/TM/WTI/2K16/21 27.10.2016 | 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 the effluent of CETP Jodhpur as | Dr. Shantanu Bhattacharya Indian Institute of Technology Kanpur | 36 months | 1,19,03,000 (DST Share only) |

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| | | a replacement of their secondary treatment unit and development of an alternative low cost process for dye adsorption on acid modified soil. | | | |
| 30. | DST/TM/WTI/2K16/144 27.10.2016 | Development of an alternative methodology to existing industrial wastewater treatment practices using hydrodynamic cavitation for effective removal of COD and ammoniacal nitrogen with reduced cost | Dr. Vinay M. Bhandari CSIR-National Chemical Laboratory Pune | 36 Months | 60,82,000 |
| 31. | DST/TM/WTI/2K16/277 27.10.2016 | Low level fluoride detection by cost effective chemosensor along with the mitigation of excess fluoride from different water resources by using naturally abundant indigenous adsorption material | Dr. Priyabrata Banerjee CSIR - Central Mechanical Engineering Research Institute (CMERI) Durgapur | 36 Months | 48,23,000 (DST Share only) |
| 32. | DST/TM/WTI/2K16/73 02.11.2016 | Membrane based efficient energy storage clean energy generation and waste water treatment system | Dr. S. Senthilmurugan Indian Institute of Technology Guwahati. | 36 months | 1,29,19,200 |
| 33. | DST/TM/WTI/2K16/23 15.12.2016 | Carbon bead-supported carbon nanofibers immobilized with photocatalysts for the treatment of the effluent water from pharmaceutical industries | Dr. Raju Kumar Gupta Indian Institute of Technology Kanpur Kanpur | 36 months | 34,80,000 |
| 34. | DST/TM/WTI/2K16/02 16.12.2016 | Nanotechnology based selective detection of endocrine disrupting chemicals in contaminated water | Dr. Nikhil Ranjan Jana Indian Association for the Cultivation of Science Kolkata | 36 months | 20,90,000 |
| 35. | DST/TM/WTI/2K16/226 29.12.2016 | Development of mixed metal(hydro)oxide material for adsorptive removal of fluoride from ground water at circumneutral conditions | Dr. Atul Vishnupant Maldhure CSIR-National Environmental Engineering Research Institute Nehru Marg Nagpur | 36 months | 28,18,400 |
| 36. | DST/TM/WTI/2K16/82 21.02.2017 | Treatment of Tannery Effluents: Custom Designed Membrane Separation Approach to Reduce the Pollution and Power Load | Dr. Nishad Fathima CSIR-Central Leather Research Institute Adyar Chennai. | 36 Months | 41,62,840 |

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| 37. | DST/TM/WTI/2K16/113 27.02.2016 | Design and development of lab scale prototype water purification system using modified hydroxyapatite based nanocomposites for removal of strontium in ground water | Dr. R. Selvakumar PSG Institute of Advanced Studies Coimbatore. | 36 Months | 21,37,520 |
| 38. | DST/TM/WTI/2K16/254 28.02.2017 | Strategies to harness Runoff Rundown from mountainous watersheds by rejuvenation of tanks and artificial recharge to increase utilizable water: A case of Thiruvannamalai Hills Tamil Nadu | Dr. Marykuty Abraham Sathyabama University Chennai. | 36 Months | 10,34,440 |
| 39. | DST/TM/WTI/ 2K16/309 | Collaboration Research on river water and Air Quality Monitoring | Dr. Rajiv Tayal Executive Director IUSSTF, New Delhi | 60 Month | 16,42,70,000 |
| 40. | DST/TM/WTI/2K16/219 01.03.2017 | Identification of Arsenic and Fluoride and Arsenic vulnerability zones in the rural central Gangetic plain and southern regions of India and remediation of drinking water using environmental friendly nanomaterials | Dr. S. Narayana Kalkura Anna University Chennai & Jawaharlal Nehru University New Delhi | 36 Months | 48,43,960 |
| 41. | DST/TM/WTI/2K16/215 03.03.2017 | Real-time sensing and nitrogen removal from the wastewaters | Dr. P. Suresh Kumar SASTRA University Thanjavur Tamilnadu. | 36 Months | 36,09,700 |
| 42. | DST/TM/WTI/2K16/42 9.03.2017 | Development of ternary nanocomposite hydrogel derived from functionalized biopolymer amylose /TiO ₂ -Ag NPs and its potential application towards treatment of wastewater | Dr. Sagar Pal Indian Institute of Technology (Indian School of Mines) Dhanbad. | 36 months | 23,90,520 |
| 43. | DST/TM/WTI/2K16/220 15.03.2017 | Cost effective and novel treatment method development for the remediation and reuse of pesticide industrial wastewater | Dr. V. Himabindu Jawaharlal Nehru Technological University Hyderabad. | 24 Months | 21,07,600 (DST Share only) |