

2017-18**Instrumentation Development Programme (IDP)**

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Development of optical Tomography platforms for clinical applications.	Renu John, Associate Professor & Head	Indian Institute of Technology, Hyderabad, Telangana	3 years	8996255
2.	An electrochemical Sensor Based Handheld Potentiostat to Measures Urea/Creatinine Ratio in Blood and Urine.	Dr. Karabi Biswas, Associate Professor	Indian Institute of Technology, Kharagpur, Kharagpur-721302	2 years	3810386
3.	Handheld chemical-diagnostic device with replaceable cartridge for the estimation of creatinine and pH.	Dr. Sai Siva Gorthi, Assistant Professor	Indian Institute of Science, Bangalore, Karnataka	18 months	2510200
4.	Development of field portable high-resolution fluorescence and Raman based fiber optic micro-endoscopy for in vivo imaging and diagnosis of breast and oral cancer.	Dr. Dalip Singh Mehta, Professor	Indian Institute of Technology, Hauz Khas, New Delhi-110016.	3 years	9079860

5.	Point of care diagnostic devices and applicable research for further development.	Dr. Prasanta Kumar Ghosh	Indian Institute of Science, Bangalore, Karnataka	3 years	3608000
6.	Development of a non-invasive optical instrument based on skin reflectance technique for monitoring jaundice in neonates.	Dr. R. Periyasamy, Assistant Professor	National Institute of Technology, Raipur, Chhattisgarh	2 years	1863914
7.	Low cost bench-top fluorescence microscope with integrated diagnostic algorithm for early cervical cancer risk prediction.	Dr. Ananya Barui, Assistant Professor	1. Centre for Healthcare Science and Technology, IIST Shibpur Howrah-711103, West Bengal	3 years	4037000
			2. National Institute of technology (NIT), Rourkela-769 008, Odisha		
8.	Lab on Chip for Blood Plasma Separation and Detection of Antigens Using SPR.	Dr. Ashis Kumar Sen, Assistant Professor	Indian Institute of Technology, Madras, Chennai	2 years	4911840
9.	Micro Fluidic Digital Holographic Microscopy Platform for Live Cell Imaging and Diagnostic.	Dr. Kedar Khare, Assistant Professor	Indian Institute of Technology, Hauz Khas, New Delhi	2 years	5782744

10.	Low Cost High Resolution X-Ray Imaging System with Image Intensifier Augmentation.	Dr. Ganapathy Krishnamurthi, Ass. Professor	Indian Institute of Technology, Madras, Chennai	2 years	8345752
11.	Organ- Low Cost Bio Mechatronic Rehabilitative Solutions For Children with Congenital Hemiparesis.	Dr. Neelesh Kumar, Institute Chair Prof.	Indian Institute of Technology, Mumbai, Maharashtra	2 years	4480000
12.	Indigenous Development of Biomedical Equipment and Devices.	Dr. G Sripathy	Defence Research & Development Organization, DEBEL Campus, Bangalore, Karnataka		40000000
13.	Designing and Testing the Functioning of Innovative Instruments.	Dr. Syed Shariq Naeem, Assistant Professor	Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh	2 years	2402000
14.	Development of Optical Vein Visualisation Aid and an Optical Bilirubin Measurement Device.	Dr. Harshwardhan Wanare, Professor	Indian Institute of Technology, Kanpur, Uttar Pradesh	2 years	3149000
15.	Design and Development of Novel Instrument Retrieval Equipment for Removal of Separated Instruments During Endodontic Therapy.	Dr. Sangeeta Talwar, Professor	1. Maulana Azad Institute of dental sciences (MAIDS), New Delhi, Delhi	3 years	8306800

			2. Ambedkar Institute of Advanced Communication Technologies and Research (AIACTR)		
16.	Surface Plasmon-Coupled Emission Based Compact Diagnostic Devices (Benchtop & Hand-Held) For Cardiac Troponin T Quantification.	Dr. Sai Sathish Ramamurthy, Assistant Professor	Sri Sathya sai Institute of Higher Learning Prasanthi Nilayam Campus, Anantapur, Andhra Pradesh	2 years	4567950
17.	Development of Indigenous Membrane Cartridges For Hemodialysis.	Prof. K. Sankaran	NHHID, Anna University, Chennai, Tamil Nadu	1 years	4009400

Waste Management Technologies (WMT)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Processing of vegetable oil refinery and oleochemical waste streams for regeneration of value added nutraceuticals and specialty chemicals.	Prof. R.D. Kulkarni, Professor & Head	Institute of Chemical Technology, Mumbai, Maharashtra	1 years	2118528

2.	Anaerobic co-digestion of FOG (Fats, Oils & Grease) containing sludge from dairy industry using novel pre-treatment and integration with membrane bioreactor for zero discharge.	Dr. Sandeep Mudliar, Principal Scientist	Plant Cell Biotechnology Department, CSIR-CFTRI, Mysore, Karnataka	3 years	14464224
3.	Use of Dal Lake Weeds as a source of nutrient medium for the growth and yield of Gladiolus, Tulip and Lilium.	Dr. Zahoor Ahmad Bhat, Assistant Professor	Sher-e-Kashmir University of Agricultural, Sciences & Technology of Kashmir Shalimar, Srinagar, Jammu & Kashmir	3 years	5301560
4.	Environmentally safe disposal of refinery sludges via catalytic conversion to value-added Hydrocarbons.	Prof. Dr. Parimal A. Parikh, Professor	SV National Institute of Technology, Surat, Gujarat	1 years	671000
5.	Development of anode from petroleum pitch for high temperature electrolysis.	Dr. N. Balasubramanian, Professor	Dept. of Chemical Engineering, A C Tech., Anna University, Chennai, Tamil Nadu	1 years	902000
6.	Feasibility study on safe disposal of industrial spent solvents and chemical waste using thermal plasma technology.	Dr. Subarna Maiti, Senior Scientist	CSIR- Central Salt and Marine Chemicals, Research Institute, Bhavnagar, Gujarat	1 years	2246330
7.	Utilization of curcumin industry waste (oleoresin) to produce value added products.	Dr. V.K. Rathod, Professor	Institute of Chemical Technology, Mumbai, Maharashtra	1 years	1515456

8.	Utilization of Marble Slurry Waste for Desulfurization of Flue and Vent Gases leading to Production of Plaster of Paris (PoP) or by direct injection and for manufacture of cement.	Dr. S.K. Jana, Associate Professor	Malviya national Institute of Technology, Jaipur, Rajasthan	1 years	919600
9.	Microwave assisted chemical recycling of Polymer Waste for value added applications.	Dr. Anagha S. Sabnis, Assistant Professor	Institute of Chemical Technology, Nathalal Parekh Marg, Opp. VJTI College, Matunga, Mumbai- 400019, Maharashtra	1 years	841500
10.	Integrated and Sustainable sewage and organic solid waste treatment for decentralized applications.	Dr. A. Gangagni Rao, Senior Principal Scientist	Enivironmental Engineering and Fossil Fuel (EEFF) Division, CSIR- Indian Institute of Chemical Technology (IICT), Hyderabad- 500007, Telangana	3 years	5652288
11.	Pilot scale studies on rotary drum composting and Anaerobic biphased baffled reactor (ABBR) technology for Biomethanation of industrial sludges and aquatic weeds.	Dr. Ajay Kalamdhad, Associate Professor	Dept. of Civil Engineering, Indian Institute of Technology, Guwahati- 781039, Assam	3 years	10367832
12.	Upscaling (to 10 tons per day) of Red mud containing Geopolymer paving blocks process.	Dr. Thomas C Alex, Principal Scientist	CSIR- National Metallurgical Laboratory, Jameshedpur, Jharkhand	3 years	11648352

13.	Sustainable processes for the development of Keratin hydrolysate for the use as fertilizer, animal feed and pet food.	Professor A.B. Pandit	Chemical Engineering Department, Institute of Chemical Technology, N P Marg, Matunga, Mumbai-400019, Maharashtra	3 years	7083600
14.	Development of fused filament deposition based 3D printer and green filament from recycled e-wastes and plastic wastes.	Dr. P. Thirumal, Associate professor & Head	Government college of Engineering, Bargur, Tamil Nadu	2 years	3658336
15.	Microbial aided Vermistabilization of textile industry sludges: A low-cost sustainable technology over conventional systems with potential for decentralization in the textile valley of Tamil Nadu.	Dr. S. Senthil Kumar, Associate Professor	Dept. of Biotechnology, National College, Tiruchirapalli, Tamil Nadu	1 years	1078400
16.	Recycling of chrome shavings, a solid waste from leather industry, for production of dehairing protease by Bacillus cereus VITSN04: A scale-up standardization for industrial use.	Dr. C. Shanthi, Professor	Vellore Institute of Technology, Vellore, Tamil Nadu	1 years	2257000
17.	Investigation on Sustainable Degradation of Municipal Solid Waste.	Dr. D.N. Singh, Institute chair Professor	Indian Institute of Technology (IIT-Bombay), Powai-400076, Mumbai, Maharashtra	3 years	9734079

18.	Field Demonstration of Geopolymerisation of Fly ash and GGSB in the manufacturing process of precast building products for construction of Utility buildings.	Dr. N.P Rajamane	SRM Research Institute, SRM University, Kattankulathur- 603 203, Tamil Nadu	3 years	10518600
19.	Utilization of Polyvinyl Butyryl (PVB) recovered from of Automobile Windshield Waste for making Protective primer and strippable coating.	Dr. R.K. Singh, Scientist	Shriram Institute for Industrial Research, University Road 110007, New Delhi	2 years	4510000

Technology Development Programmes (TDP)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Technology Development to Prevent Moisture Damage Susceptibility of Recycled Mixes for Bituminous Pavement.	Prof. Dharamveer Singh, Assistant Professor	Indian Institute of Technology (IIT-B), Mumbai, Maharashtra	3 years	8268480
2.	Development of a device for monitoring sub bandage pressure of compression bandages under static and dynamic conditions.	Prof. R. Alagirusamy	Indian Institute of Technology (IIT-D), Hauz Khas, New Delhi-110016	3 years	2759000
3.	Design and Development of crack detection system in steel bridges using acoustic emission technique.	Dr. Pijush Todpar, Assistant Professor	1. Dept. Of Civil Engineering, National Institute of Technology, Durgapur-713209	2 years	8864410
		Dr. Arpita Mukherjee, Senior Scientist	2. Electronics & Instrumentation Group CSIR-CMERI, Durgapur 713 209, West Bengal		
4.	Development of pulp extraction machine for Jamun.	Pramod H. Bakane, Associate Professor,	Dr. Panjabrao Deshmukh Krishi Vidhyapeeth, Akola 444 104, Maharashtra	1 years	1106600
5.	Shape Memory Technology for Smart Textiles.	Dr. Bipin Kumar, Assistant Professor	Indian Institute of Technology (IIT-D), Hauz Khas, New Delhi- 110016	3 years	7119800

6.	Air Purification Device for Harmful Pollutant and VOC Sequestration: Economical and Reusable.	Dr. Vivek Bagchi, Scientist C	Institute of Nano Science and Technology, Mohali, Punjab	2 years	3597000
7.	Performance Enhancement of Vapor Compression Refrigeration System of Small Capacity using Ejector as an Expansion Device.	Dr. Gulshan Sachdeva, Assistant Professor	National Institute of Technology, Kurukshetra, Haryana	3 years	1432278
8.	Process development of potato bio refinery.	Dr. Sachin A. Mandavgane, Associate Professor	Department of Chemical Engineering, VNIT, South Ambazari Road, Nagpur 440010 Maharashtra	3 years	6691833
9.	Development of Fluorine Doped Graphene Based Titania Photocatalytic Membranes for Water treatment applications.	Dr. T. Sivakumar, Associate Professor	Dept. of Applied Science & Technology, Anna University, Chennai-600025, Tamil Nadu	3 years	6429480
10.	Development and Demonstration of enhanced performance of the Commercial Automotive Vehicle with Alternative Transportation Fuel.	Prof. K. A Subramanian	Indian Institute of Technology (IIT-D), Hauz Khas, New Delhi- 110016	3 years	20026440
11.	Development of Value Added Geopolymer Aggregated using Iron Ore Mine Tailings- A Sustainable Solution.	Dr. Bibhuti Bhusan Das, Assistant Professor	National Institute of Technology, Mangaluru, Karnataka	3 years	3236000

12.	Multi-Functional High Range Electrostatic Sprayer.	Manoj Kumar Patel, Scientist	Central Scientific Instruments Organisation, Chandigarh-160 030 Punjab	2 years	2309000
13.	Development of Three Layer Geomembrane using Plasma Technology for Adverse Environment Applications.		Central Institute of Plastics Engineering and Technology, Vatva, Ahmedabad 382 445, Gujarat	3 years	8940691
14.	Development of High Performance Adsorbents for Petrochemical Applications.	Dr. Paritosh Mohanty, Associate Professor	Indian Institute of Technology, Roorkee, Uttarakhand	3 years	16025115
15.	Compact Plasmon-based Bio-sensor and Imager.	Prof. R. Vijaya	Indian Institute of Technology (IIT-K), Kanpur 208016, Uttar Pradesh	3 years	7760876
16.	IoT Enabled Cordial Analyzer for Farmers: A spot Analyzer with Agile Sensing Technologies for Smart Irrigation.	Prof. Dr. A. Lenin Fred, Principal	Mar Ephraem College of Engineering and Technology, Elavuvilai, Tamil Nadu	3 years	5447609
17.	Development of an Explosive Detection System using Surface Enhanced Raman Scattering (SERS) Process.	Dr. Satish Kumar Dubey, Assistant Professor	Indian Institute of Technology (IIT-D), Hauz Khas, New Delhi	3 years	7529680

18.	Development of Technology to Replicate Soil System-Structure Interaction under Broad Band Excitations.	Dr. S. Suresh Babu, Professor	Adhiyamaan College of Engineering, Hosur, Tamil Nadu	3 years	12777600
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