

2019-20

Biomedical Device and Technology Development (BDTD)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Development of inexpensive Surface Plasmon Resonance (SPR) based biosensor for the detection of cardiovascular diseases.	Dr. Rajeev Kumar Sinha, Associate Professor	Manipal Academy of Higher Education, Dept. of Atomic and Molecular Physics, LG- 1, Academic Block 5, MIT Campus, Manipal Academy of Higher Education, Manipal- 576104, Karnataka.	3 Years	2497000
2.	Simple Screening Aid for Estimating Kidney Function Category: Late Stage Prototype.	Dr. R. Kalpana, Dean	Dept. of Biomedical Engineering Institution: Rajalakshmi Engineering College, Chennai, Thandalam, Chennai- 602105	1 Year	1370336
3.	A novel non-invasive electronics for early diagnosis of Arthritis.	Dr. M. Subramoniam, Professor	Sathyabama Institute of Science and Technology, Jeppiaar Nagar, Rajeev Gandhi Salai, Chennai- 6000119	3 Years	2462196
4.	Development of a Vascular Anastomosis Device for Arteriovenous Fistula Creation.	Prof. P. M. Padole	Mechanical Engineering, Visvesvaraya National Institute of Technology Nagpur, Maharashtra- 440 010	2 Years	1939344

5.	Immunological Capturing of Circulating Tumor Cells (CTCs) by Novel lab-on-Chip Microfluidic Devices.	Prof. Mahaveer Kurkuri	Centre for Nano and Materials Sciences, Jain University, Karnataka- 562 112	3 Years	2467696
6.	Development of Cost Effective Wearable Semi-Automatic Insulin Delivery Smart Micro System.	Dr. Sreeja B S, Associate Professor	Sri Siva Subramaniya Nadar College of Engg. Kalavakkam, Chennai 603110	3 Years	3503500
7.	Technology enablement from management to solution for hearing impaired.	Prof.(Dr.) Nitin M Nagarkar, Director	All India Institute of Medical Sciences (AIIMS), Tatibandh, GE Road, Raipur- 492099, Chhattisgarh	6 Months	2162644
8.	Speech assistive gloves for post traumatic care of people with compromised ability to vocally communicate.	Dr. Varadhan SKM, Assistant Professor	IIT Madras, Chennai 600036	2 Years	4057524
9.	Real time lab based absolute physiological electrochemical sensing device based on released RNS/ROS integrated with multi micro electrode arrays MEAs detecting Helicobacter pylori, a stomach gastric cancer causing pathogen.	Dr. Nidhi, Assistant Professor	Amity University, Nodia, Uttar Pradesh 201 313	2 Years	3139950

10.	Development of Paired Neck Chamber Device for Assessment of Baroreflex Sensitivity.	Dr. Kaushal A Desai, Assistant Professor	Dept. of Mechanical Engineering, Indian Institute of Technology, Jodhpur Karwad, Jodhpur- 342037, Rajasthan.	2 Years	2632344
11.	Development of High temperature resistant Geopolymeric composites.	Dr. Amit Agrawal, Professor	Dept. of Mechanical Engineering, Indian Institute of Technology (IIT) Bombay, Powai Mumbai 400076	2 Years	4557071
12.	Development of Microfluidic platform for point of care diagnosis of sickle cell anemia of Chhattisgarh.	Dr. Arindam Bit, Assistant Professor	Dept. of Biomedical Engineering, National Institute of Technology, Raipur, CG, Raipur- 492010	2 Years	2995344
13.	Five Fingered Bionic Prosthetic Hand.	Prof. Shyamanta M. Hazarika, Professor	Mechanical Engineering, Indian Institute of Technology Guwahati, North Guwahati- 781039	2 Years	2600422
14.	Development of Electro Thrombogram (Etg) A Point of Care Electronics Device to Assess the Blood Coagulation Status.	Dr. Srinivasa Murthy D, Professor in Pediatrics	JSS Medical college and hospital, Mysuru- 570015	2 Years	2802800
15.	Microfluidic device- based instrument for screening breast cancer using miRNA detection.	Prof. Bindu Salim, Professor	NRIIC, PSG Institute of Advanced Studies, PSG College of technology, Avinshi Road, Peelamedu, Coimbatore- 641004, Tamil	2 Years	4652258

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16.	Design and Development of Virtual Reality based Rehabilitation Device for Upper Extremity Stroke Survivors.	Dr. L. Ashok Kumar, Professor	Dept. of Electrical & Electronics Engg., PSG College of Technology, Peelemedu, Coimbatore- 641 004, Tamil Nadu	3 Years	5357528
17.	Design and Development of Virtual Comprehensive Neonatal Monitoring System (VICONEMS).	Dr. N. Sriraam	Dept. of Medical Electronics, M.S. Ramaiah Institute of Technology, Bangalore 560054	2 Years	2388760
18.	C3 fields: Head mount portable device for Visual Field Perimetry.	Dr. P. Arulmozhiarman, Professor and Dean.	Vellore Institute of Technology (VIT), Vellore(TN)- 632014	2 years	4447872
19.	Development of Non- Invasive and Affordable Liver-Stiffness Imaging Device & Clinical Evaluation of its Utility for Metabolic Disorders.	Dr. Arun K. Thittai	Indian Institute of Technology, Chennai- 600036	3 years	5921770
20.	Cardio Watch: A Cuff-less, Low-Cost BP Monitoring Solution.	Dr. Sujay Deb	IIT Delhi, Okhla Phase 3, New Delhi 110020	6 Months	594000

21.	Fabrication of the portable low cost point-of-care optical device for the screening of thalassemic carrier.	Dr. Jaydeep Bhattacharya, Assistant Professor	1. Jawaharlal Nehru University, South West Delhi, New Delhi-110067	2 years	3471600
			2. Amity University, Haryana Manesar, gurgaon- 122 413		
22.	Cardiac-Organ-on-Chip: Integrated Microfluidic Cardiac Platform for Drug Screening and Toxicity Detection.	Dr. Sanket Goel, Associate Professor	Birla Institute of Technology & Science, Pilani, Hyderabad Campus, Jawahar Nagar Shameerpet, Hyderabad-500078	3 years	4375800
23.	Prototype for Electronic Mass Screening Device for Point-of-Care Diagnostic of Sickle Cell Diseases.	Dr. Gautam Vivek Soni, Associate Professor	Raman Research Institute, C.V.Raman Avenue, Bangalore-560080	2 years	4649632
24.	Design and Development of Nanomaterials based Point of Care Device for Head and Neck Cancer Biomarkers Detection.	Dr. Partima R. Solanki, Assistant Professor	1. Jawaharlal Nehru University, New Delhi-110067	1 year	2505800
			2. GuruGubind Singh Indraprastha University, Dwarka Sector 16-C, Delhi-110078		

25.	Liquid Biopsy for Oral Cancer Screening using Superhydrophobic Surface Enhanced Raman Plasmonic Droplet Assay.	Prof. Sajan Daniel George, Professor	Manipal Academy of Higher Education, Karnataka- 576 104	3 years	5106257
26.	Development of a Microfluidics Based Point-of-Care Device for Intra-Operative Detection of Metastatic Lymph Nodes in Oral Cancer.	Dr. Hardik Pandya, Assistant Professor	Indian Institute of Science (IISc), Bangalore- 560012	3 years	7178760
27.	Hemiplegia and Finger Rehabilitation Therapy Device for Stroke patients.	Dr. M Maran, Assistant Professor	Velammal College of Engineering & Technology, Tamil Nadu	2 years	3403444
28.	Non-invasive transdermal collagen and perfusion sensor for cosmetic and diagnostic applications.	Dr. N. Sujatha, Professor	IIT- Madras, Chennai, 600036	2 years	4344364
29.	Development of portable low-cost Disposable defibrillator for cardiac Arrest management.	Dr. S. Manikandan, Professor and Incharge	Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum- 695029	2 years	1295844
30.	Indigenous apex locator for root canal treatment.	Dr. Ranjan Jha, Scientist	Biomedical Instrumentation Division, CSIR-Central Scientific Instruments Organization (CSIO), Sector-30, Chandigarh	2 years	2672352

31.	Fabrication and Multi-centric trial of Indigenous Dental Implants of titanium designed and developed at BHU for its validation.	Prof. Rajesh Bansal, Professor	Banaras Hindu University, Varanasi- 221005	2 years	5600880
32.	MEMS Programmable High Resolution Transducer for Ultrasound Imaging.	Puneet Aggrawal	DIT University Dehradun, Mussoorie Diversion Road, Dehradun- 248 009	18 Months	2158112
33.	Endocavitary microwave applicator for integrated hyperthermia and radiotherapy treatment of locally advanced cervical cancer.	Dr. Kavitha Arunachalam Associate professor.	Department of Engineering design, Indian of Technology Madras Chennai- 600 036.	3 years	10352380
34.	Development of a miniaturized affordable single laser- Single detector based multiple fluorescence analyser for clinical diagnostics, including HIV infection monitoring .	Dr. Taaslimarif Saiyed	Centre for Cellular and molecular platforms (CCAMP) GKVK, NCBS-TIFR campus, Bellary Road Bengaluru 650065	-	1035000

Advanced Manufacturing Technologies (AMT)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Development of joining process for industrial components through electromagnetic forming.	Mr. Meraj Ahmed, Scientist	CSIR-Advanced Materials and Processes Research, Institute, Hoshangabad Road, Bhopal 462026	2 Years	4940352
2.	Development of an Integrated Metal Additive and Formative Manufacturing System to Enhance Product Complexity and Properties.	Dr. Suryakumar S, Associate Professor	Dept. of Mechanical & Aerospace Engineering, Indian Institute of Technology, Hyderabad, Kandi, Sangareddy 502285	3 Years	4850928
3.	A Smart factory test bed for Assessment of Certification worthiness for Design Transfer and changes in Medical Electronic SMEs.	Dr. Manish Arora, Assistant Professor	Centre for Product Design and Manufacturing Indian Institute of Science, Bangalore	2 Years	5271696
4.	Laser Scanning System for Inspection of Tyres.	Dr. Deepa Radhakrishna, Scientist-C	Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka, 560 022.	3 Years	5906600
5.	Multi Material Deposition Technology Development for Complex geometries of Aircraft Engine Components by Additive Manufacturing.	A. R. Vinod, Scientist C	Central Manufacturing Technology Institute (CMTI), Tumkur Road, Bengaluru- 560 022	2 Years	4546760

6.	Micromachining of Biomedical Materials shape memory Alloys using Acidithibacillus Ferrooxidans and Thiooxidans Microorganism.	Dr. S. Rajesh, Associate Professor	Kalasalingam University Kalasalingam of Academy of Research & Education Anandnagar, Krishnankoil, Tamil Nadu, 626126	3 Years	2572400
7.	Net shape manufacturing of high temperature components of WC and ZrB ₂ .	Dr. V. Seshu Bai, Professor	School of Physics, University of Hyderabad, Hyderabad-500046	3 Years	16916288
8.	Near Net Shape Processing of Ceramic Parts through Layered Manufacturing.	Dr. U. Chandrasekhar, Professor	Er Perumal Manimekalai, College of Engineering, HOSUR- 635 117	2 Years	5309372
9.	Development of cryogenic micromachining for fabrication of soft and stretchable polymer based artificial skin with multi-modal sensing capability.	Dr. Karali Patra, Associate Professor	Dept. of Mechanical Engineering, Indian Institute of Technology Bihta, Patna.	2 Years	5366920
10.	Proof of concept towards scale up production of nano-gold coating on liposomes for the manufacture liposome-gold nanoparticles (commercial grade) used in photothermal therapy.	Dr. Aravind Kumar Rengan	Indian Institute of Technology, Hyderabad.	2 Years	4857840

11.	Development and Efficient Characterization of Floating Body (FB) and Dynamic Threshold (DT) CMOS Partially Depleted Silicon-On-Insulator (PDSOI) Standard Cell Libraries.	Dr. Anand Bulusu, Associate Professor	Electronics and Computer Engineering, IIT Roorkee.	2 Years	5981645
12.	Design and Fabrication of Indigenous Powder Fed Metal Additive Manufacturing Machine.	Dr. K. R. Ravi	1. Indian Institute of Technology, Jodhpur	3 Years	73492800
			2. PSG College of Technology, Coimbatore, Tamil Nadu		
13.	Metal Additive Manufacturing by Laser Cladding Process.	Dr. T V K Gupta, Assistant Professor	Visvesvaraya National Institute of Technology, Nagpur- 440 010, Maharashtra	2 years	6682166
14.	Development of an ultra-precision XYZ positioning stage with real-time compensation of volumetric errors.	Mr. Abhijit Mahapatra, Senior Scientist	1. CSIR- CMERI, Durgapur, West Bengal.	2 Years	4995842
			2. IIT Delhi		

15.	Design and Development of Smart Wireless Sensor Network System for Structural Vibration Monitoring Application and Performance Evaluation on Different Structures.	Dr. Kalyan Kumar Mistry, Senior Scientist	CSIR- Central Mechnaical Engineering Research Institute, Durgapur- 713209	2 Years	4848400
16.	Development of hermetic encapsulation technique for wafer-level packaging of MEMS sensors.	Dr. Pradeep Dixit, Assistant Professor	Indian Institute of Technology, Bombay	2 Years	4363200
17.	Design and Development of Laser Decal Transfer based micro 3D Printer for Printing Micro Devices.	Dr. I.A. Palani, Associate Professor	Indian Institute of Technology, Indore.	2 Years	3423960
18.	Development of Portable Digital Fringe Projection Scanner for 3-D Imaging.	Dr. Madhusudhan Rao R, Scientist-B.... (dr. Vindoh venkatesh gumaste)	Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka, 560 022.	2 Years	7795200
19.	Auto Component Quality Improvement through Digital Manufacturing using Robotic Automated Defect Recognition based NDT.	Krishnan Balasubramaniam, Chair Professor	Indian Institute of Technology- Madras, Chennai	2 Years	50970320

20.	Process development for effective utilization of lignocellulosic natural fibres based thermoplastics hybrid composites for high end structural applications.	Dr. Smita Mohanty, Sr. Scientist	Laboratory for Advanced Research in Polymeric Materials (LARPM), Central Institute of Plastics Engineering & Technology (CIPET), B/25, CNI Complex, Patia, Bhubaneswar, Odisha.	2 Years	4655966
21.	Design, development and manufacturing of hybrid active and passive noise cancelling heat sinks.	Dr. Sripriya Ramamoorthy, Assistant Professor	Indian Institute of Technology, Bombay	2 Years	2265364
22.	Development of dieless digital friction stir incremental forming process based on layer manufacture.	D Rajenthirakumar, Associate Professor	PSG College of Technology, Peelamedu Coimbatore, Tamil Nadu	2 Years	2423280
23.	Design and Development of Smart Robotic Based Magnetically Impelled Arc Butt Welding Equipment for Joining Ferrous and Non Ferrous Tubes.	Dr. S. Arungalai Vendan, Associate Professor	Dayananda Sagar University, Bangalore	3 Years	4788720
24.	Development of a versatile casting unit for light weighting: metal foams and composites.	Dr. Shyamprasad Karagadde, Assistant Professor	CSIR- Central Leather Research Institute, Adyar, Chennai		4708109

25.	Development of Iron Aluminide Coated High Performance Steels.	Dr. Mayadhar Debata, Senior Scientist	CSIR- Institute of Minerals and Materials Technology (IMMT), Bhubaneswar	2 years	4957891
26.	Physical Unclonable Function (PUF) for Electronic and Communication Security.	Dr. Udayan Ganguly	Indian Institute of Technology- Bombay, Powai Mumbai 400076	3 years	73436231
27.	Design and development of forced cooling mechanism for technology upgradation in laser precision forming.	Dr. Ravi Kant, Assistant Professor	Indian Institute of Technology Ropar, Rupnagar, Punjab	2 years	4970376
28.	Design Enablement of self Aligned double poly-silicon Emitter Silicon Bipolar Transistors for RF Application.	Dr. Amitava Das Gupta Professor	Department of Electrical Engineering, IIT Madras, Chennai.	1 YEAR	4840560
29.	Hybrid Layered Manufacturing using Electron Beam Cladding (EB-HLM)	K.P. karunakaran Institute chair Professor.	Rapid Manufacturing Laboratory Indian Institute of Technology Bombay Powai, Mumbai.	3YEAR	55784890

Waste Management Technologies (WMT)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Sequential Production of Bio Fuel, glycerol, and Protein using Pre- Tanned Leather Solid Waste.	Dr. P. Shanmugam, Senior Principal Scientist	CSIR- Central Leather Research Institute, Adyar, Chennai	3 years	7737292

Device Development Programme (DDP)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	MEMS 3-axis accelerometer for orientation and vibration measurements.	Dr. R. Sundar and Dr. L Sujatha	Dept. of ECE, Rajalakshmi College of Engineering, Chennai	3 Years	8027200
2.	Design and development of an electrostatically actuated null sensor to measure coefficient of friction of soft samples.	Prof M S Bobji, Professor	Dept. of Mechanical Engineering, Indian Institute of Science, Bangalore- 560012	2 Years	7478200
3.	Cost Effective dot-blot TAS ELISA based diagnostic kit for simultaneous screening of multiple viruses in banana plants.	Prof. P Rani, Professor	1. Director, ICAR-National Research Centre for Banana, Tiruchirapalli, Tamil Nadu	1 Year and 6 Months	2047280
4.			2. PSG College of Technology, Coimbatore- 641004		
5.	Development of a miniaturized and portable Laser-Induced Breakdown Spectroscopy LIBS set-up for fast identification and sorting of different plastic classes.	Dr. Unnikrishnan V K, Associate Professor	1. Manipal Academy of higher education, Udupi, Karnataka- 576104	2 Years	4818435
			2. CSIR- National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram.		

6.	Tensiometer based automated IoT system for irrigation.	Dr. Shubhankar Majumdar, Associate Professor	National Institute of Technology, Bijni Complex, Shillong, Meghalaya	2 Years	1684941
7.	Development of scanning Shack-Hartmann wave-front sensor for in-situ measurement of aspheric and freeform optical surface.	Dr. Gufran Sayeed Khan, Associate Professor	Dept. of Instruments Design Development Centre, Indian Institute of Technology Delhi, New Delhi	2 Years	4538633
8.	Designing a low-cost real time food colour monitoring system.	Dr. Kunal Pal, Assistant Professor	National Institute of Technology, Rourkela, Orissa- 769008	2 Years	3832872
9.	'OptMe'- An opto-electronic sensing system for the detection of freshness in meat products.	Dr. A Balaji Ganesh, Professor	Velammal College of Engineering & Technology, Tamil Nadu	1 year and 6 Months	2400130
10.	Solar Assisted Liquid Desiccant Cooling System using Single Storage Tank.	Dr. Sudhakar Subudhi, Associate Professor	Indian Institute of Technology- Roorkee	2 Years	3186000
11.	Development of Heavy Metal Ion Sensor for Food and Water Analysis.	Dr. Nagaraju D H, Associate Professor	Jain University, Karnataka, Bangalore- 562112	2 Years	2883706

12	Hand Held Advanced Moisture Meter for Made Tea.	Dr. V. D. Shivling, Principal Scientist	Agri-Electronic Instruments Division, CSIR-CSIO, Chandigarh- 160030	2 Years	2878590
13	Design and Development of Communicating device as a Teaching Aid for Hard Hearing Community.	Dr. Anandha Mala G S, Professor	Easwari Engineering College, Tiruvallur, Chennai- 600089, Tamil Nadu	2 Years	1648739
14	Development of a low cost multi-stage platform for microbial analysis of solid food samples.	Dr. Siddhartha Singha, Assistant Professor	Centre for Rural Technology, Indian Institute of Technology (IIT-G), Assam- 781039	1 year	1252040
15	Development of Digital Formwork pressure monitoring system using sensors.	Dr. Binu Sukumar, Professor	R.M.K Engineering College, Tiruvallur, Chennai- 601206, Tamil Nadu	3 years	2720696
16	Development of low cost Arsenic sensor	Dr. Meitram Niraj Luwang, Scientist	Department of Chemical Engineering & Process Development Division, CSIR National Chemical Laboratory, Maharashtra-411008	1 year	1888695
17	Development of a reliable low cost portable, IOT-enabled, Optical Devices for measuring PM2.5 concentration in air.	Dr. Aakash Chand Rai Assistant Professor	Birla Institute of Technology & Science BITS-Pilani Rajasthan- 333031	2 Years	3596045

Science and Heritage Research Initiative SHRI

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Nadi Pariksha- Resurrection Using Advancement in Signal Processing Techniques.	Dr. S Vasuki, Professor and Head	Electronics & Communication Engineering, Velammal College of Engineering & Technology, Tamil Nadu	1	8027200
2.	Digitalization of Tribes of Punjab with reference to their Art, Culture and heritage (Especially Bazigar, Bauria, Sansi, Marasi, Sikligar, Gujjar and Bangala).	Dr. Mohan Singh Tyagi, Assistant Professor	Punjabi Literary Studies, Punjabi University, Patiala	-	7478200
3.	Web Technology Development for Heritage Tai Ahom manuscript.	Dhrubajyoti Baruah, Assistant Professor	Dept. of Computer Application, Jorhat Engineering College, Assam- 785007	1	2047280
4.	Achromatic study of technology of archeological pottery from the pre and early Harappan settlement at Kunal, Haryana	Dr. Satish C Pandey, Associate Professor	Department of Art Conservation, National Museum Institute of History and Art.	2	
5.	Digital Acquisition, Character Recognition and Conservation of Heritage content from Ancient Stone Inscriptions.	Dr. P. Uma Maheshwari, Associate Professor	Anna University, Chennai-25, Tamil Nadu	3	4818435

6.	Unlocking the Treasures of Sanskrit to promote Art and Culture of Sambhar Region using Science and Technology.	Dr. Anita Jain, Professor	Banasthali Vidyapith, Banasthali, Rajasthan- 304022	2	
7.	An AR based Immersive experience of Indian Heritage Sites.	Mr. Balaji Hariharan, Associate Professor	Dept. of Amrita Center for Wireless Networks, Amrita School of Engineering, Amritapuri, Kollam, Kerala- 690525	4	1684941
8.	Revitalization, Upgradation and Preservation of Traditional Tribal Metal, Alloy Heritage Crafts and Artisanal Skills of Arunachal Pradesh.	Dr. Debajit Mahanta, Joint Director	Arunachal Pradesh State Council for Science, Arunachal Pradesh.	5	4538633
9.	Scientific phenomenon behind the degradation and conservation of Warak printed textiles of Rajasthan.	Dr. Simmi Bhagat, Associate Professor	1. Lady Irwin College, Prasad nagar, New Delhi- 110005	1	3832872
			2. Indian Institute of Technology, New Delhi- 110016		2400130
10.	Socio-scientific approach to conservation of Bidri Art with special reference to soil analysis.	Dr. Krishna Priya Rolla	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad- 431004	3	3186000

11.	Evolutionary studies of sculptures in cultural heritage with non-destructive microwave spectroscopy.	Dr. Varinder Kanwar, Vice Chancellor	Chitkara University, Solan, Himachal Pradesh-174103	1	2883706
12.	Technical study of 18th Century polychrome wooden sculpture in the collection of Museum of Christian Art, Goa.	Ms. Merrin Anil, Conservator	Art and Material Heritage Conservation Division, Indian National Trust for Art and Cultural Heritage (ICI), New Delhi	1	2878590
13.	Bioremediation and Digital Documentation Towards the Conservation of Cultural Heritage.	Dr. Srikanth Mutnuri, Associate Professor	Birla Institute of Technology and Science Pilani, K K Birla Goa campus-403726	3	1648739
14.	Indian Beliefs: Analysis in context of Vedic and Modern science.	Dr. Samriti Khosla, Associate Professor	DAV University Jalandhar- 144012	3	1252040
15.	Development of customized material for maintenance and repair of heritage structures by using additive manufacturing.	Prof. Rupinder Singh, Professor	Dept. of Production Engineering, Guru Nanak Dev Engineering College, Ludhiana-141006	1	2720696
16.	Tangible and Intangible Heritage of Telangana a Visual Documentation and Design Intervention.	D. John Mathew	Indian Institute of Technology, Hyderabad, Telangana 502285	1	1888695
17.	New Generation Multifunctional Green Nanocomposite Coatings for the control of	Siddhartha Das	1. Indian Institute of Technology, Kharagpur, West Bengal-721302	3	3596045

	Biodeterioration of Cultural Heritage.	Dr. Jhuma Ganguly	2. IEST Shibur, Howrah-711103		8027200
18.	Investigation and Analysis of the Degradation of the Natural and Cultural Heritage of Lonar Crater.	Dr. Rajesh Ragde, Associate Professor	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004	2	7478200
19.	Algal flora of Monuments and Caves of Western Odisha- A Perspective of Conservation and Restoration Strategy.	Dr. Binata Nayak, Associate Professor	Sambalpur University, Odisha-768019	1	2047280
20.	Characterization of Epilithic microbes in Bio-films deteriorating ancient monument in Odisha.	Dr. Debadas Sahoo, Assistant Professor	S.C.S College, Puri, Odisha-752001	1	
21.	Natural Ageing Investigation and Microanalysis of Ajanta Cave Paintings.	Dr. Madhuri Sawant Assistant Professor	Department of Tourism Administration, Dr. Babasaheb Ambedkar Marathwada University Aurangabad, Maharashtra-431004	1	4818435

Agriculture(AGRO-TECH) Under the Scheme Technology Development Programme (AGRO)

S. No	Project Title	PI Details	Institute	Duration	Total Amount
1.	Development of eco-friendly-advanced Production technologies for extraction of high concentration of bio active Phycocolloids from indigenous sea weed at Ramanathapuram district Tamil Nadu.	Dr. S. suresh kumar, Professor (Research	Center for sPonsored research and consultancy, Rajalakshmi Engineeing college, Thandalam, Chennai 602105.	2 YEARS	12953475
2.	IoT based smart cattle farm with hydroponic feeder system.	Prof. Lenin fred	Department of computer science & Engineering mar Epharem collage of Engineeering and Technology Malankara Hills, Elavuvilai Marthandam,Tamil Nadu-629171	2 YEARS	7233668
3.	Development of low-Cost, energy - efficient, Solid state pulsed electric field system for non-thermal pasteurization applications of food processing industries.	Dr. Chandrasekar S	Department of Electrical and Electronics Engineering, sona collage of Technology, TPT Road, Sona Nagar, Salem-5, TN-636005	2 YEARS	6154236
4.	Laser Based Hydraulic Controlled Variable Length Land Leveler Cum Plough Device With Remote Monitoring System.	Dr.Parthasarathy, professor	Electrical and Electronics Engineering K.L.N. College of Engineering, Sivaganga, Tamil Nadu	2 YEARS	8535713

5.	Development of a disease Management Strategy against Phytophthora capsici utilizing an effective biocontrol agent and green synthesized silver nanoparticles from black pepper.	Dr. E.V. Soniya Scientist G	Rajiv Gandhi Centre for Biotechnology, Thycaud PO, Poojappura Thiruvananthapuram, Kerala-695 015	3 YEARS	10422651
6.	Fully Integrated Smartphone and IOT enabled Microfluidic sensor for Real-time Quantification of Soil Macronutrients Conductivity and pH.	Dr. Satish Kumar Dubey, Assistant Professor	Department Mechanical Engineering, Birla Institute of Technology & Science, Pilani, Hyderabad Campus.	1 YEAR	1871408
7.	Development of Smart Mobile E-Power Unit with Matching Implements for Small Farmers.	Dr. Shiv Pratap Singh, Principal Scientist	Division of Agricultural Engineering, ICAR-IARI, New Delhi-110012	2 YEARS	3046656
8.	A Novel, Low Cost Automated Agrobot for plant Disease Analysis and Control.	Prof. S. Baskar Assistant Professor	Department of Electronic and Communication Engineering Karpagam Academy of Higher Education Coimbatore, Tamil Nadu.	2 YEARS	8797537
9.	Solar Energy Operated Unmanned Liquid Chemical Application for Cereal Crops.	Prof. Hifjur Raheman	Agricultural and Food Engineering Department, Indian Institute of Technology-Kharagpur, west Bengal.	2 YEARS	3720829
10.	Development of Standardized restricted depth highway girders over railway track.	Dr. Girija K, Associate Professor	College of Engineering, Trivandrum, Thiruvananthapuram, Kerala	2 years	3076800
11.	Development of Sensor based Precision Seeding retrofit module for	Dr. H. L Kushwaha	Division of agricultural Research Institute Delhi-110012	2 years	2844628

	Cultivators.				
12.	Development of novel highly hydrophilic nanoclay composite with added microbial inputs for sustainable arid soil agricultural practices & management.	Prof. G Ranga Rao professor	(Department of Chemistry) Indian Institute of Technology Madras Chennai, Tamil Nadu-600036	2 years	3500582
13.	Development of IoT based custom hiring monitoring meter of agricultural machines.	Dr. Rajeev kumar Scientist	Division of agricultural Research Institute, ICAR- Indian Agricultural Research Institute, pusa, New Delhi-	2 years	4206056
14.	Development of smart nano-kit for rapid, automated and ultra-Sensitive detection of pesticide traces in agricultural samples.	Dr. Rohit Kumar Sharma, Assistant professor	Department of Chemistry Punjab University, sec-14 Chandigarh	2 years	4454398
			IIT Madras, Chennai		12953475