

2020-21

Biomedical Device and Technology Development (BDTD)

S. No	Project Title	PI Details	Institute	Duration	Total Amt.
1.	Development of a Miniaturized Affordable Single Detector based Multiple Fluorescence Analyzer for Clinical Diagnostic, Including Monitoring"	Dr. Taslimarif Saiyed, PI, DIA Group, CEO & Director	Centre for Cellular and Molecular Platforms (CCAMP), GKVK, NCBS-TIFR campus, Bellary Road, Bangalore 650065.	2 years	4831968
2.	"Implantable Closed -loop Diabetes Management System"	Dr. Mirza Khalid Baig, Assistant professor	Biotechnology and Medical Engineering ,National Institute of Technology, Rourkela, Orissa-769008	2 YEARS	3243800
3.	Fabrication and characterization of a compact prototype Ion Detector as a Non Invasive Device for early Detection of Respiratory diseases.	Dr. (Mrs.) C.S. Sureka Assistant professor and head .	Department of Medical physics Bharathiar University, Coimbatore Tamil Nadu	2 YEARS	4004424
4.	Development of Device for Non Invasive continuous Measurement of Jugular venous Saturation.	Shri , Manoj G.S Engineering -C	Sree Chitra Tirunal Institute For Medical Sciences & Technology, Thiruvananthapuram, Kerala- 695011	2 YEARS	1789866
5.	Design and Development of 16 Channel Functional Near Infrared Spectroscopy System for Measuring Hemodynamic in Brain Prefrontal Cortex.	Dr. S. Arun Karthick, Associate professor.	Department of Biomedical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Tamilnadu	2 YEARS	2533872
6.	Smart TVNS: A Device That Uses Closed loop Technology and Machine learning to Optimize non Non invasive Transcutaneous Vagal nerve Stimulation (TVNS) for Refractory epilepsy monitoring and Treatment.	Dr. Ravindranadh Chowdary Mundlamuri, Associate professor .	Department Of Neurology, National Institute of Mental Health and Neuro Science (NIMHANS) -Bengaluru.	2 YEARS	2784764
7.	Development of a Device For the Detection of the <i>Mycobacterium Tuberculosis</i> , causal agent of Extra pulmonary Tuberculosis.	Dr. Sumana K ,	JASS Academy of Higher Education and Research, Mysore-	2 YEARS	3027728
8.	Development of low-Cost indigenous High Flow Nasal Canula (HFNC) Device for Non-Invasive Ventilation Amid COVID-19 Pandemic.	Dr. Goverdhan Dutta Puri,	Post Graduate Institute of Medical Education and Research Chandigarh	2 YEARS	5844034
9.	Postoperative noninvasive Monitoring Device for MicroVascular free flaps in Microsurgical Reconstruction in Head and Neck tumors.	Dr. Nitin M. Nagarkar, Director.	All India Institute of Medical Sciences (AIIMS), Tatibandh, GE Road, Raipur-492099, Chhattisgarh	2 YEARS	5496160
10.	Pnoi-phone-A device for Diagnosis and Monitoring of Obstructive lung Diseases Using Simultaneous Vocal and Lung Breath Sounds.	Prof. Prasanta Kumar Ghosh Associate professor	Electrical Engineering Indian Institute of Science, Bangalore ,Karnataka	2 YEARS 6 MONTHS	5042207
11.	Point of care AI Technology based X-ray Imaging Device for Automated Early Diagnosis of Viral Respiratory Diseases	Prof. Mukul Shukla .	Department of Mechanical Engineering Motile Nehru National Institute of Technology Allahabad	2 year, 6 months	5159918
12.	Non Invasive Diagnosis of Breast Cancer using Ultrasound Based liquid biopsy in a point of care Setting .	Dr. Avinash Eranki, Assistant professor,	Department of Biomedical Engineering, Indian Institute of Technology, Hyderabad, Telangana.	1 Year	3757560
13.	Development and testing of a wearable device for the early detection of a cartilage damage in a knee stepping towards an osteoarthritis condition using acoustic emission.	Poonam kumari Associate professor	Department of Mechanical Engineering, Indian Institute of Technology. Guwahati	2 YEARS	2976738
14.	Indigenous, cost effective, noninvasive device for patient specific respiratory motion management in high precision image guided radiotherapy	Dr. Saikat Das , Associate professor .	Department of Radiation Oncology, All Indian Institute of Medical Science (AIIMS) Bhopal Madhya Pradesh	2 YEARS ,,6 months	4894240

	treatment .				
15.	Iota enabled wearable nasal cap for air filter, viral guard and sensors for early detection of covid-19 symptoms.	Dr. Satish Kumar Dubey, Assistant Professor,	Department of Mechanical Engineering , Birla Institute of Technology and science (BITS), Pilani Hyderabad Campus, Jawahar Nagar Shameerpet, Hyderabad	1 Years	2015345
16.	Technology development for a novel combination of neuro feedback and closed -loop auditory neuro-modulation (closed loop Assisted Brain Training)and its pilot scale testing as an add-on therapy patients with Chronic pain"	Dr. Arun Sasidharan, Scientist -C	Centre for Consciousness Studies, Department of Neurophysiology NIMHANS, Bengaluru, Karnataka	2 Years	2097656
17.	Paper based colorimetric device to detect pathogen for the diagnosis of urinary tract infection .UTI	Dr. K. P. Bhuvana	Central Institute of of Plastic Engineering Technology Chennai, Tamilnadu	2 Years	3918039
18.	Design and Development of a micro dialysis set up for cerebral application.	Dr. Chavi Gupta ,	Sree Chitra Tinal Institute For Medical Sciences & Technology, Thrivananthaouram, Kerala- 695011	2 Years	4791930
19.	An IoT enabled portable device for OND/ONSD based automated detection of Intracranial pressure (ICP) through ocular USG Imaging.	Dr. Basant Kumar Associate professor.	Electronics and Communication Engineering Motilal Nehru National Institute of Technology (MNNIT) Allahabad, Prayagraj, Uttar Pradesh .	3 Years	4495288
20.	Cervi Tester : A Smart and portable Screening Device for AI Assisted Automated Diagnosis of Cervical Cancer in Low Resource Settings.	Dr. Swati V, Shinde, Professor	Computer Engineering Department, Pimpri Chinchwad College of Engineering (PCCOE) Pune Maharashtra	1. Years	3900576
21.	Development of early breast cancer detection system with microwave imaging technique	Prof.Dharmendra Singh,Prof.and head	Department of Computer Science and Engineering IIT Roorkee	3 year	13575890
22.	SWASTHYA- Development cost effective affordable cervical cancer screening unit based on smart phone technology for rural population.	Dr.Kumudha Raimond,Prof.	Department of Computer Science and Engineering Karunya Institute of Technology and Science,Coimbatore Tamil Nadu	1 year	1853153
23.	Non Invasive sonometer along with clinically practiced DEXA images for estimating bone mineral density for osteoporosis detection in elderly human	Dr.pallikonda Rajasankaral M Prof.	Department of Electronics and Communication Engineering, Kalasalingam Academy of Research and Education,Tamilnadu	2 Years	2906200
24.	To Develop Diagnostic tool for the most common uro-genital infection in women	Prof. Utpal Tatu	Department of Biochemistry ,Indian Institute of Science, Bangalore, Karnataka	2 Years	4583334
25.	Pilot scale testing of smartphone based fluorescence spectroscopic device for point of care diagnosis of early cervical cancer	Prof. Asima Pradhan	Department of Physics, SL-111, Academic Area,IIT Kanpur, UP	2 Years	7233760
26.	Portable device for preliminary diagnosis of preeclampsia	Dr. Tripti S Warriar , Assistant professor	Department of Electronics Cochin University of Science and Technology Kochi Kerala.	1 Years	2441083
27.	Development of a multi- parametric device for detection of sepsis in patients with cirrhosis.	Dr. Savneet kaur , Assistant professor .	Institute of Liver and Biliary Sciences (ILBS) D-1 Vasant Kunj New Delhi	1 Years	5131125
28.	Ankle rehabilitation Device.	Dr. T Kamatchi Associate professor Mechanical .	Velammal college of Engineering and Technology Viraganoor Madurai, Tamil Nadu	2 Years	1629302
29.	Bimodal Intra -operative probe for Brain Tumor Delineation ,	Dr. Karla P. Mercado -Shekhar ,Assistant Professor ,	Indian Institue of Technology Gandhinagar , Palaj Andhinagar ,Gujarat .	1 year ,6 months	4197680

		Dr. Anita Mahadevan , Professor ,			
30.	Development of force plate sensor cum kinematic sensor node comprehensive gait profiling for early detection of locomotive syndrome.	Prof. A Thirugnaman	National Institute of Technology Roukela Orissa Sundargarh RourkelaNITOrissa	3 years	4470420
31.	Design and development of nanoscale integrated system along with conformal antenna as capsule prototype for wireless capsule endoscopy	Prof. Binod Kumar Kanaujia .	School of Computational and Integrative Science Jawaharlal Nehru University Delhi.	3 years	7383915
32.	Design and development of wearable biofeedback device for postnatal <i>diastasis recti abdominis</i> patients	Dr. R. Menaka , professor and director	Centre for Cyber Physical System Vellore Institute of TechnologyChennai Tamil Nadu	2 years	3921632
33.	Design and development of wearable electro-larynx with minimal human intervention and speech enhancer.	Dr. Madhushankaran M Associate professor	Manipal School of information Sciences ,AB 05 LG 02 . MIT Campus Manipal Karnataka	1 years	1190496
34.	Development of portable dental smart phone pulse oximeter	Dr. Kanamarlapubi Venkata Sai Kiran	Sri Venkata sai Institute of Dental science Mahabubnagar Telangana	2 years	2474796
35.	Development of Immuno-fluorescent Nanodiagnostic Assay as a point of care detection of Dengue virus.	Dr, Praveen Rai , Associate professor	NITTE University Centre for Science Education and Research (NUCSER) NITTE (Deemed to be University) Paneer Campus Deralakatte Mangalore Karnataka	2 years	2186834
36.	Smart wear for monitoring and treatment of gait disorder in parkinsonism.	Dr. Uttama lahari Associate professor	Department of Electrical engineering IIT Gandhi Nagar Gujarat	2 years	5006100
37.	Fabrication of a wash free electrochemical lab on a chip for point of care early diagnostics simultaneous detection of multiple protein markers in women with rheumatoid arthritis	Dr. Gorachand Dutta , Assistant professor	School of science and technology , Indian Institute of Technology Kharagpur	2 Years	3451680
38.	Commercialization of Indigenous Hemodialysis Cartridges for veterinary application and testing for human Hemodialysis	Dr K Sankaran	National Networking Consultant NHHID Anna university Chennai	2 Years	8412870
39.	A wearable system for quantitative assessment and recovery predication during gait restoration in parkinson's and cerebral ataxia patients	Dr. Deepak Joshi, Assistant Prof.	Department of Biomedical Engineering ,IIT Delhi,HAUZ KHAS ,New Delhi	2 Years	5406630
40.	Identification and Characterization of Genetic Biomarkers in Circulating Tumor Cells (CTCs) to Develop New Device for Early Detection of Primary and Metastatic Breast Cancer Patients.	Dr. Ajit Kumar Saxena (Ph.D., MNAMS), Professor and Head,	Department of Surgery, All India Institute of Medical Sciences-Patna-801507.	3 years	9775986

Advanced Manufacturing Technologies (AMT)

S. No	Project Title	PI Details	Institute	Duration	Total Amt.
1.	Self- aligned Double Poly silicon Emitter Bipolar Technology For RF Application	Dr. Nihar Ranjan Mohapatra, Associate Professor	IIT, Gandhi nagar Indian Institute of Technology, Palaj, Gujarat 382355	3 years	5053968
2.	Development of prototype of metal 3D suitable for orthopedic and knee implants	Dr. R. Thayagrajan, Sr. Project engineering	NFTDC P.O. Kanchanbagh, Hyderabad, Telangana 500058	3 years	47384000
3.	Design and Development of Manufacturing equipment and Technology Development for Production of Special Metal/ Alloy Powder for Additive Manufacturing	Dr. K Ramachandran	Coimbatore , Department of Physics Bharathiar University Coimbatore.	2 years	4656441
4.	HFCVD DIAMOND COATING FOR WEAR RESISTANCE AND TRIBOLOGICAL APPLICATIONS	Dr. N Arunachalam	IIT Madras, Indian Institute Of Technology, Chennai, Tamil Nadu 600036	2 years	4904928
5.	Development of Manufacturing Technology for Microfluidic Devices and Field Testing of On-Chip Blood Plasma Separation Microdevice	Dr. Amit Agrawal .	IIT-Bombay Main Gate Rd, IIT Area, Powai, Mumbai, Maharashtra 400076	3 years	4904928

Waste Management Technologies (WMT)

S. No	Project Title	PI Details	Institute	Duration	Total Amt.
1.	Development of valuable products from stubble waste/ agricultural straw by bio refinery approach and field trials	Dr. B. Satyavati, senior Principal Scientist. Dr. Rinku Verma, Assistant professor Dr. Sachin A. Mandavange, Associate Professor	IICT, Hyderabad, GKVK Bangalore, VNIT Nagpur, Maharashtra	6 months	600000
2.	Development and Optimization of Performance and Emission Characteristics of CI, SI and Stirling Engine Using Hydrogen Enriched Bio-CNG Produced From Anaerobic Co-Digestion with Food waste, Tannery waste Stubble Waste and STP Sludge	Dr. E Propatham, Professor, Dr. P. Shanmugam, Senior Principal Scientist, Dr. Rajeev Kumar, Associate Professor	VIT, Vellore CSIR, Chennai BITS, Mesara, Bihar	6 months	499950
3.	Conversion of Urban solid waste at distributed level into value added products	Dr. Abhishek Sharma, Associate Professor.	Manipal University Jaipur, Rajasthan Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007	3 years	8294528
4.	Scale up of technology of laboratory waste with simultaneous generation of Bioenergy	Dr. Anil Shripatro Bhuktar, Vivekanand Arts, Sardar Dalip Singh Commerce and Science College, Aurangabad	Sardar Dalip Singh Commerce and Science College, Aurangabad, Maharashtra	1 year	1974672
5.	Segregation and management of laboratory wastes for resources recovery and value addition	Dr. Viniti Vaidya, Assistant Professor	Dr. D.Y. Patil Biotechnology and Bioinformatics Institute, Tathawade, Pune, Maharashtra	3 years	5018800
6.	Hazardous/Municipal Solid Waste (MSW) land fill leachate Treatment using AdvancedOxidation Process (AOP's) coupled with Electrochemical-Biological Techniques	Dr. V. Himabindu, Professor & HOD, Centre for Environment, Institute of Science & Technology	Jawaharlal Nehru Technological University Hyderabad, Telangana	3 Years	8928120
7.	Co- Digestion of STP Secondary sludge With Organic Wastes in Urban/ Peri-Urban Areas: Process Optimization Scale up and Field Demonstration	Dr. Srikanth Mutunri, Professor	K K Birla Goa Campus. NH 17B, Bypass, Road, Zuarinagar, Sancoale, Goa 403726	6 Months	500000
8.	Biomass Meditated Value Addition to Fertilizer Industries Waste	Dr. Manish Kumar, Sr. Scientist	CSIR, Bhubaneswar-751013, Odhisa, India	3 years	10510157
9.	Solarpre- heated Thermochemical Conversion of municipal mixed solid waste to high quality plasto - fuels for transportation and industrial heating applications"	Dr, Venkateswarlu chintala,	NRTI (National Rail & Transportation Institute) National Rail and Transportation Institute, Vadodara.	3 years	261885536
10.	Utilization of Paddy Straw for making Composites	Dr. S. Sathya Murthi, Professor and Head Prof. Shivangi Viral Thakker	Easwari Engineering College, Bharathi Salai, Chennai K J Somaya College Engineering, Vidhya Vihar East, Mumbai	3 years	11363392
11.	Hot stage Engineering of Copper Smelter Slag for Recovery of Iron and Subsequent use of Resulting Slag in Blended Cement	Dr. Susanta Kumar Nath, Sr. Scientist	CSIR- Jamshedpur Railway Station, near Jamshedpur, Burma Mines Market, Burma Mines, Jamshedpur, Jharkhand 831007	3 Years	8390639
12.	Grinding Waste from Automobile Industry as Sustainable Construction Material	Dr. S. Geetha, Professor, Civil Engineering Department, Rajalakshmi Engineering College, Thandalam,	Rajalakshmi Engineering College, Thandalam, Chennai	3 Years	4882290

		Chennai			
13.	Development of remunerative organic waste management systems for colder regions of India with the intervention of psychrophilic aerobic and anaerobic microbial consortia	. Dr. Rakshak Kumar .Dr. Zahoor Ahmad Baba. . Dr. A Gangangni Rao	Institute of Himalayan Bioresource Technology. .Division of Basic science and Humanity, Faculty of Agriculture Shre-e-Kashmir University of Agriculture Science and Technology of Kashmir, Wadura Campus sopre. .CSIR Indian Institute of Chemical Technology, Hyderabad Telangana.	3 Years	19 475336
14.	Utilization of black powder generated during E-waste recycling at Moradabad in making radiation shielding materials.	Dr. Pawan Kumar Bharti	Shri Ram Institute Industrial ,19,University road Delhi	18 months	1606112
15.	Recovery of value added materials from non-hazardous wastes of silkworm Industries.	Dr. S. Vasanth Kumar	Department of chemistry Karunya Institute of Technology and Sciences Coimbatore	3 years	6947144
16.	Recycling of sugar factory ash to ceramic filters for application in sewage treatment.	Dr. Malini Balakrishnan	The energy and resources institute (TERI) India Habitat centre Lodhi Road New Delhi	3 years	79 67312
17.	Potential application of spent microalgal biomass for eco-friendly reclamation and reuse of chromium in tanning	Dr.V. Shashirekha, Scientist. Dr. V. Sivakuma	.Shri AMM Murugappa Chettiar Research Centre Taramani, Chennai. .CSIR-Central Leather Research Institute, Adyar, Chennai.	2 years	6373938
18.	"Setting up a zero discharge pilot plant to process 100 kg of PCB to recover lead, tin and copper"	Dr. Pushpavanam Subramaniam	Department of Chemical Engineering, Indian Institute of Technology, Madras.	3 years	47950178
19.	"Utilization of sludge from common effluent treatment plant for extraction of poly hydroxyalk anoates (PHA)	Dr Alok Gautam,	Department of Chemical Engineering, Shroff S R Rotary Institute of Chemical Technology, Ankleshwar, Gujarat.	2 years	5633872
20.	Design of 2 TPD Rotary Kiln Gasification Pilot Plant with high CV syngas production	Dr. Madhu Ganesh	Karunya University Coimbatore, Tamil Nadu	3 years	61225000
21.	Applying mobile Modular solutions to Rejuvenate the Indian landscape by Treating plastic wAste. (AMRITA)	Prof. Suresh Gosavi,Department of Physics	Savitribai Phule Pune University,Ganeshkind, Pune Ganeshkhind Rd, Ganeshkhind, Pune, Maharashtra 411007	2 years	4971152
22.	Pilot-Scale Demonstration of ICT-Poly Urja Technology on Vehicle Mounted Mobile Plant to Convert Plastic Waste into Fuel	Prof. Aniruddha B Pandit	Institute of Chemical Technology Matunga Nathalal Parekh Marg, near Khalsa College, Matunga, Mumbai, Maharashtra 400019	2 years	43157760
23.	Environment friendly recycling technology and value addition of medical waste plastics obtained from PPE kit used during COVID19 situation A sustainable approach towards healthy environment	DR. SMITA MOHANTY	CIPET-Bhubaneshwar CIPET Head Office, T.V.K. Industrial Estate, Guindy, Chennai - 600 032.	2 years	19136924
24.	Processing of waste placental tissue	Dr. Atharva	IIT Ropar	2 years	3974501

	from maternity wards into regenerative tissue grafts for non-healing wounds and other clinical applications	Poundarik, Assistant Professor	Nangal Rd, Hussainpur, Rupnagar, Punjab 140001		
25.	Conversion of fouled end-of-life Reverse Osmosis and Ultrafiltration membranes into the membranes for zero liquid discharge plants and resource recovery applications	Dr. HIREN DINKARRAY RAVAL	CSIR- CENTRAL SALT AND MARINE CHEMICALS RESEARCH INSTITUTE, Bhavnagar, Gujarat	3 years	18264800
26.	Automation of Nano hydroxyapatite production from eggshell waste using continuous flow microwave reactor suitable for industrial scale production for various biomedical and industrial applications.	.Dr. E.K. Girija .Dr. Vivekanand Kattimani	1. Periyar University Periyar University, Periyar, Palkalai Nagar, Tamil Nadu 636011 2.Sibar Institute of Dental Sciences Sibar dental college, Takkellapadu, Guntur, Andhra Pradesh 522509	3 years	18369734
27.	Process Development for Sustainable Production of Chemicals from Biomass.	Dr Pavuluri Srinivasu	CSIR-Indian Institute of Chemical Technology, Hyderabad	3 years	16604800
28.	Processing and development of hybrid eco friendly raw material for manufacturing indoor lightweight wall panel	Dr. D. Suji	PSG Institute of Technology and Applied Research, Coimbatore Coimbatore Tamil Nadu	3 years	5397040
29.	Self-Sustained single step activation in situ (s-Sustains) process for activated carbon synthesis from agro residues	Dr. Varunkumar S, Assistant Professor	Indian Institute of Technology Madras	2.5 years	7309756
30.	Stubble management using decentralized torrefaction systems for biochar-based fertilizers	Prof.Sonal K. Thengane Assistant Professor	Indian Institute of Technology (IIT) Roorkee Roorkee, Uttrakhand	3 years	3517690
31.	Value Addition to Agricultural Waste of Wheat Straw, Rice Straw and Rice Husk by Biochar Production using Intermediate Pyrolysis	Dr. Amit Rajnikant Patel	The Maharaja Sayajirao University of Baroda	3 years	3535340
32.	Tractor mounted integrated retrofit (MOKSH 2.0) for on-field conversion of straw to value added powder	Dr. Nitin K Saluja	Chitkara University, Punjab	3 years	3998040
33.	Production of phenolic monomers and functional polymers from agricultural waste	Dr Saurabh C. Patankar	Institute of Chemical Technology- IndianOil Odisha	2 years	1573344
34.	Farm waste to feedstock chemical & polyfunctional reaction dyes	Dr. Vikas Patil,	KBC-North Maharashtra University Maharashtra	3 years	7675390

Device Development Programme (DDP/ AGRO)

S. No	Project Title	PI Details	Institute	Duration	Total Amt.
1.	Designing of Portable Device for Determination of Heavy Metals in Water	Dr. Nagaswarupa HP, Associate Professor Dr. Shashi Shekar T R, Associate Professor	East West Institute of Technology, Bangalore 560091, Karnataka	2 years	3557975
2.	An Intelligent IoT based System for Sensing Hazardous Gases in Manhole	Dr. Sakuntala, Department of ETC	Trident Academy of Technology, Bhubaneswar, Odisha 751024	2 years	1596844
3.	Smart Neonatal Incubator for Rural India	Miss. Priti V Bhagat , Assistant Professor	Datta Meghe Institute of Engineering Technology and Research Wardha Sawangi Maharashtra	2 years	1900640
4.	Design and Development of an Intelligent Extrusion Device for 3D Printing of Concrete Structures .	Dr. Biranchi Narayan panda , Assistant professor	Indian Institute of Technology Guwahati ,Assam .	3 Years	4344222
5.	Low Cost Extensometer Based landslide Monitoring and Early Warning Device.	Dr. Kala Venkatra Uday , Assistant Professor	IIT Mandi, Kamandi , Himachal Pradesh . Parashar Road, Tehsil Sadar, Near Kataula, Kamand, Himachal Pradesh 175005	3 Years	4487288
6.	Mercury free for UV-C (222 nm) Excimer Radiation Source for in Activation of Pathogens	Dr. Udit Narayan pal	CSIR Central Electronic Engineering Research Institute of Pilani	3 Years	6905280
7.	A smart weather monitoring system.	Dr. Nitin Kumar Saluja , Mr. Debarashi Ghosh , Assistant professor Reasearch ,	School of Electronics and Electrical Engineering, Chitkara University , Jhansla, Patiala, Punjab.	3 Years	4935240
8.	Development of low Cost Indigenous Diagnostic Device for Testing New Generation Monostable/Bistable Magnetic Actuated Medium Voltage Vacuum Circuit Breakers for Railways and substations applications .	Dr. S . Chandrasekar .	Sona College of Technology, Salem, Tamil Nadu .	2 Years	4883730
9.	Mxene Graphene Nanocomposite Sensor Embedded warm Clothing/apparel for Soldiers, Design and development Fabrication and Proto Fabrication .	Prof. Prosenjit Sen,	CeNSE, Indian Institute of Science , Bengaluru , Karnataka	3 Years	7404526
10.	Design and Development of MEMS- based Capacitive Micromachined Ultrasonic Transducer (CMUT) for Milk Quality Analyzer.	Dr. Ravindra Mukhiya,	CSIR-CEERI Pilani Rajasthan Central Electronics Engineering Research Institute, Pilani, Rajasthan 333031	3 Years	8601999
11.	Designing of AC and DC Net Meter for Electric Vehicle application.	Dr. Mukesh Singh, Associate professor .	Department of Electrical and Instrumentation , Thapar Institute of Engineering and Technology Patiala Punjab	2 years ,6 months	5530640
12.	Design and Development of a Bulk Material handling Device for Metering , Mixing and Delivery of Powder Feedstock .	Dr. Sajan Kapil .	Indian Institute of Technology Guwahati, Assam	3 Years	5275240
13.	Indigenous Development of controlled Interferometry Based High Temperature Industrial flow Measurement Device.	Prof, Rajan Jha , Associate professor .	Department of Physics School of basic sciences Indian Institute of Technology Bhubaneswar , Orissa .	3 Years	7746753
14.	Development of Wearable Electronic Skin Patch for Real Time Monitoring of Human Health Parameters and Tactile Sensing ,	Dr. Achu Chandran , Scientist .	Department of Materials Science and Technology , CSIR-NIIST, Thiruvananthapuram Kerala	3 Years	7050240

15.	Instruments for Real Time Measurement of Anode Current Distribution of Aluminium Electrolysis Cell.	Sh. Rajendra J Sharma, senior Principal Scientist.	Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), Nagpur Maharashtra.	2 YEARS	4344222
16.	Development of portable Raman spectrometer for early Diagnosis of Kidney Disease using urea and Creatinine Concentrations.	Dr. Kamalraj Subramaniam	Karpagam Academy of Higher Education Coimbatore , Tamil Nadu	2 Years	4647569
17.	Rotorcraft for Scout Operation at high Altitudes and low air Density Region .	Prof. Ranjith Mohan, Assistant professor	Department of Aerospace, IIT Madras Tamil Nadu	3 YEARS	12645721
18.	Higher Endurance Relocatable Crewless Aircraft on Reconnaissance Aerostat .	Prof. Rajkumar S. Pant	Department of Aerospace Engineering, Indian Institute of Technology Bombay	3 YEARS	10714156
19.	Department of an Atomic Layer Deposition System .	Dr. K. B. Jinesh , Associate professor	Department of Physics Indian Institute of space Science and Technology (IIST) Thiruvananthapuram, Kerala.	3 YEARS	11308720
20.	Development of a Sliding Bearing for Earthquake Protection of Structures .	Dr. Manish kumar Assistant professor	Department of Civil Engineering, Indian Institute of Technology, Gandhi agar, Gujarat.	3 YEARS	6377941
21.	Development of Spectroscopic Soil Health Analyzer Using Chemometric Analysis and Cloud Service.	Mr sai Krishna Baddadi Senior Scientist	Central Electronics Engineering Research Institute Pilani . Rajasthan	3 years	6102247
22.	Design and Development Raised bed Pneumatic Precision Multi-crop Planter	Dr. P. K Sahoo,	ICAR Indian Aggricultural Research Institute Pusa New Delhi	2 Years	4382400
23.	Instrument for Instantaneous and on Site Measurement of Aluminium Electrolysis Bath Parameters	Dr. Manoj T. Nimje	Jawaharlal Nehru Aluminium Research Development and Design Centre Nagpur Maharashtra	2 Years	7889957
24.	Design and Development of a multi purpose taste Instrument for Analyzing Performance of Thermal Protective Clothing and Determining Second Degree Burn Time for Skin at Different Orientations	Prof. Apurba Das ,	Department of Textile and Fiber Engineering Indian Institute of Technology , IIT Campus, Indian Institute of Technology Delhi, Hauz Khas, New Delhi, Delhi 110016	3 Years	4567392
25.	Development of Otoacoustic Emission Sensing System Medical Application	Dr. Nachiketa Tiwari	Department of Mechanical Engineering IIT Kanpur UP	2 Years , 6 months	6223997
26.	Development of Dispersion Coating and Performing Device for Biomedical Composites	Prof. Alagirusamoi	Department of Textile and Fiber Engineering Indian Institute of Technology Delhi	2 Years	4567392
27.	Design and Fabrication of low Cost Analytical Devices for Rapid Detection of Hazardous Ions in Portable Water.	Prof. Mahaveer Kurkuri , Professor	Centre of Nano and Material Science Jain University Bangalore Karnataka	2 year	2695120
28.	NON Invasive Measurements and Monitoring of Pulmonary Congestion.	Dr. Anup Aprem Assistant professor	National Institute of Technology Kalicut. Calicut Mulkam Road, Kattangal, Kerala 673601	2 year	3727396
29.	Tribological Devices by Ultrashot laser Pulse Texturing High Through Put and Precision	Prof. Shiv Rama Krishnan	IIT , Madras Indian Institute Of Technology, Chennai, Tamil Nadu 600036	3 year	8914755
30.	Development of Reflection Fiber Based Interferometer for Residual Stress Measurement	Dr. Manas Mohan Mahapatra	IIT Bhubaneswar , Argul - Jatni Rd, Kansapada, Odisha 752050	3 year	5020440
31.	IC engine driven Quadrotor Biplane tailsitter	Prof. P. A Rama Krishnan	IIT Madras, Chennai-600036, Tamil Nadu	3 years	26194680

32.	To Study The Progress Impact and Challenges Faced by Project Beneficiaries of Device Development Program (DDP) in Deploying Innovative Solutions and Way Foreword	Prof. Unnat P pandit	Atalbihari Bajpayee School of Management Entrepreneurship (ABVSME) Jawaharlal Nehru University Delhi	1 year 6 months	3902565
33.	Utilization of rural Bio-Mass Waste Into Bio-CNG for integrated Rural Development	Dr. Mukesh Chand Saxena, Professor	Department of Chemistry, Dr M C Saxena College of Engineering and Technology, 171, Barawankala, IIM Dubagga Bye Pass, Utter Pradesh, Lucknow-226101	2 years	16946456
34.	Development of a fully Mechanized Plant for the Production of Syrup from Sweet Sorghum	Dr. Anil K. Rajvanshi, Director	Nimbkar Agricultural Research Institute, Tambmal, Phaltan-Lonand Road, Phaltan, Maharashtra-415523	2 Years	2067000
35.	Development of High Protection Net for Agriculture/ Horticulture Application	Mr. Premnath Ram Surwase, Scientist C	Department of Mechanical Chemical Processing the Synthetic And Art Silk Mills Research Association, Sasmira Marg, Worli, Mumbai-400030	2 years	3823544
36.	Development of Solar-Powered Variable Swath Herbicide Applicator Robot for High-Value Vegetable Crop	Mr. Dilip Kumar Kushwaha, Scientist	Department of Division of Agricultural Engineering, Indian Agricultural Research Institute ICAR-IARI, Pusa New Delhi-110012	2 years	4560380
37.	Development of Deep Learning based Unmanned Animal Intrusion Monitoring and Deterrent System for Agricultural Lands	Dr. Ashok Kumar, Professor	Department of EEE, PSG College of Technology, Coimbatore, Tamil Nadu-641004	2 Years	1298450
38.	Modernization of Jaggery Production Unit- Initiative Towards Energy Efficient Hygienic Jaggery Production	Mr. Venkatesh, Scientist,	Agro Processing And Technology Division, CSIR National Institute for Inter Disciplinary, Science And Technology (NIIST), Thiruvananthapuram, Kerala-695019	2 Years	3380830
39.	Multifunctional Colloidal Sulfur Particles A Promising Green Pesticide for Practical Agriculture Applications	Dr. K Jagajjanani Rao, Assistant Professor	Department of Biotechnology, Veltech Rangarajan Dr. Sagunthala R&D Institute of Science & Technology, Tamil Nadu	2 years	2719114
40.	Design and Development of An Efficient Biomad cook-Stove for Simultaneous Production of Clean Fuel and Its Utilization in Cook-Stove	Dr. Priyanka Kaushal, Professor	Centre for Rural Development & Technology, IIT Delhi, Hauz Khas, New Delhi	2 Years	7677760
41.	Design and Development of Standalone Aeroponic Chamber with High Light-quality Factor and Climate Control	Prof. Sreenivas KR, Chairman	Engineering Mechanics Unit, Jawaharlal Nehru Centre for Advance Scientific Research, Jakkur Post Bangalore-560064, Karnataka	2 Years	2595060
42.	Design and Development of Autonomous Robot for Crop-Monitoring and Localized Pest Neutralization	Prof. Bishakh Bhattacharya, Professor	Department of Mechanical Engineering, Indian Institute of Technology Kanpur, UP-208016	2 Years	8674955
43.	Audio Electronics System for Matured Coconut Identification	Dr. Seldev Christopher C, Electronics and Communication Department	St. Xavier's Catholic College of Engineering, Nagercoil, Kanyakumari, Tamilnadu-629201	2 Years	1793303
44.	Bio softening of bananapseudo stem fiber for industrial application, preparation and bio preservation of nutraceuticals	Dr. W A Manjusha Head,	Biotechnology, Malankara Catholic College, Kanyakumari, Tamilnadu.	2 Year	3271870

	from banana pseudo stem in Tamilnadu.				
45.	Technologies innovation and transfer of technologies for poverty alleviation via mechanized formulation of poultry feed for tribal backyard poultry framers bye use of agricultural cum food residues	Dr. Showkeen Muzamil, Assistant Professor	Sher-e-Kashmir University of Agriculutral Science Technology, Srinagar, jammu Kashmir	2 Years	3224752
46.	'Development of Smart Solutions For Managing Biotic and Abiotic Stresses in Cassava, Sweet Potato and Taro Through Artificial Intelligence	Dr.V SanthoshMithra, S	Indian Council of Agricultural Research, ICAR Central Tuber Crops Research Institute, Thiruvanananthapuram, Kerala	2 Years	3543192
47.	'Nutri-Cycle Waste-Derived Biodegradable Polymeric Hybrid Fertilizer BPHF For Recycling Nutrients From Treated Wastewater to Agricultural Fields	Dr.Sudipta Sarkar,	Civil Engineering, IIT Roorkee, Haridwar, Uttarakhand	2 Years	3754838
48.	Analysis Design and Development of low Cost Cold Storage for Selected Agricultural Products Based Fully on Solar and Geothermal Energy	Prof. Mani Sankar Dasgupta, Prof.Mechanical Engineering,	Birla Institute of Technology and Science. Pilani, Rajasthan.	2 Years	4703400
49.	Aflatoxin Management in Spices: Development of Preventive Methods and Novel Detection Device	Dr Anees K, Scientist, ICAR	Indian Institute of Spices Research, Kozhikode, Kerala- 673012	2 Years	5252166
50.	Design and Development of "In-Situ Indigenous Soil Analysis system for effective Fertigation in Precision Farming	Mr. Anish Sathyan, Principal Engineer Scientist D,	Centre for Development of Advanced Computing, Thiruvanthampuram, Kerela	2 Years	5688024
51.	"Doubling the Income of Farmers Through theProduction of a High Quality Jaggery, shakkar and Its Value-Added Products& Improvisation in Machinery & Process"	Mr. S R Dixit Director,	Jan Sewa Ashram, With the Technology Part IARI, Vill-Sant Nagar, Post-Dhakauli, Distt- Fatehpur, Pin-212601 (U.P.). India	2 Years	6537800
52.	Development of Nano Based smart Pesticide Formulations for high Agricultural Productivity	Prof. Ruckmani kandasamy, Prof. Head,	University College of Engineering, Tiruchirappalli, Tamil Nadu	2 years	5574259
53.	Design, Development and Demonstration of Struvite Recovery by Electro Coagulation from Urinal Systems for Fertilizer Applications.	Dr. P Balasubramanian, Assistant Professor	Biotechnology Medical Engineering, National Institute of Technology, Rourkela,	2 Years	4195832
54.	Design and Development of Novel Submersible Line start Permanent Magnet Assisted Synchronous Reluctance Motor for Agricultural Water Pumping.	Dr. Senthilnathan N,professor.	Electrical and Electronics Engineering, kongu Engineering College. Erode, Tamilnadu.	2 Years	679100
55.	Development of Self Sustained Modular Solar Photovoltaic-Thermal PV-T based Forced Convection Dryer for Agro-Crops.	Dr. punyadarshini punam Tripathy, Assistnce professor.	Aggricultural and food Engineering, Indian Institute of Technology Kharagpur, Paschim Medinipur, West Bengal.	2 Years	3165475
56.	Design and Development of Compact semi- Automatic Parboiling Machine With Dryer for Marginal	Dr. Ashok Kumar Mandal, Assistant Professor	National Institute of Technology, Jamshedpur, Jharkhand	2 Years	1298450
57.	Development and Testing of Mechanical Harvester for Mehandi	Prof. D P Darmora, Dean of Agricultural	Agriculture Vivekananda Global University, Jaipur, Rajasthan	2 Years	1419878
58.	Development of	Dr. PK Pranav,Dr.	Department of Farm	2 Years	2092677

	Microcontroller Based Automatic Depth Control System for Mounted Implements"	Rajendra Prasad	Machinery and Power Samastipur,Bihar		
59.	Vehicle based Electromagnetic and Electrochemical soil Sensors for Increased Productivity	Dr. Isha Malhotra,	Engineering,Dronacharya College of Engineering, Khentawas, Gurugram, Haryana	2 Years	4374969
60.	Automatic Handy and Portable Nutmeg Harvesting Machine	Dr. Jerusalin Carol, Assistant Professor,	Electronics and Communication Engineering,Mar Epharem College of Engineering and Technology,Kanyakumari, Tamilnadu-	2 Years	2812572
61.	Design and Development of Low Cost Nutrient Sensors and Smart solar Powered Fertigation System	Dr. Perumalraja Rengaraju, Professor.	Department of IT, Velammal College of Engineering and Technology, Madurai-625009.	2 Years	1994829
62.	Design and Development of Pilot Plant for Extraction of Protein From De Oiled Cotton Cake and by Products Utilization	Dr. Dattatreya M Kadam	Department of ICAR Central Institute of Research of Cotton Technology (ICAR-CIRCOT) Adenwala road Matunga , Mumbai	2 years	5502985
63.	Technology Development of Agri-Residue Management Using Advanced AnaerobicReactor	Dr. Yadvika Assistant scientist	CCS Haryana Agriculture University Hisar Haryana	2 years	4483470
64.	Agro Biomass Derived lignin Based low Cost , Water Resistant, Self Cleaning Nanofilms	Dr. jayeeta Bhaumik	Centre of Inovative and Applied by Bio Processing (CIAB) Mohali Punjab	2 years	5502985
65.	Solar Powered onion Dryer using Induction Heating	Dr. Atul N Kemkar, professor	Electronics and Telecommunication SIES GST, Mumbai city Maharashtra.	2 Years	392700
66.	Audio Electronics System for Matured Coconut Identification	Dr. Seldev Christopher C, Electronics and Communication Department	Electronic and Communication Department, St. XAVIERS Catholic College of Engineering, Nagercoil, Kanyakumari Tamil Nadu	2 Years	1793303
67.	Development of a Fully Mechanized Plant for The Production of Syrup From Sweet Sorghum	Dr. Anil K. Rajvanshi, Director	Nimbkar Agricultural Research Institute, Tambmal, Phaltan-Lonand Road, Phaltan, Maharashtra-415523	2 Years	2067000
68.	Application of Induction Heating in Soymilk Extraction for its quality Improvement	Dr. Akash Pare, Asst. Professor	Indian Institute of Food Processing Technoogy IIFT, Tamil Nadu	2 Years	3098976
69.	Multifunctional Colloidal Sulfur Particles A Promising Green Pesticide for Practical Agriculture Applications	Dr. K Jagajjanani Rao, Assistant Professor	Indian Institue of Science and Technology, Tamil Nadu	2 Years	2719114
70.	Design and Development of Standalone Aeroponic Chamber With High Light-Quaility Factor and Climatic Control	Prof Srenivas KR	Jawaharlal Nehru Centre of Advanced Scientific Research, Jakkur Post, Banglore, Karnataka	2 Years	2595060
71.	Development of solar-Powered Variable Swath Herbicide Applicator Robot for High-Value Vegetable Crop	Mr. Dilip Kumar Kushwaha, Scientist	Department of Division of Agricultural Engineering, Indian Agricultural Research Institute ICAR-IARI,PUSa New Delhi-110012	2 Years	4560380
72.	Modernization of Jaggery Production Unit- Initiative TowardsEnergy Efficient Hygienic Jaggery Production	Dr., Venkatesh, Scientist.	CSIR National Institute for Inter disciplinary, Science and Technology (NIIST) Thiruvananthapuram. Kerala-695019	1 Year	3380830
73.	Instrument for Rapid Detection of Aflatoxin-B1 in	Dr. Subir kumar Chakraborty, Senior	Agro produce processing Division, ICAR Central	2 Year	6181245

	Cereal Grains and Oil Seeds Hyper Alfa.	Scientist,	Institute of Agricultural Engineering Bhopal, Madhya pradesh .		
74.	Development of Deep Learning based Unmanned Animal Intrusion Monitoring and Deterrent System for Agricultural Lands	Dr. Ashok Kumar, Professor	PAG, college of Technology, Coimbatore, Tamil Nadu.	2 Year	2990125
75.	Sustainable processing of agro -residual waste to produce acoustic materials bio-renewable chemical using green solvents .	Dr. Shahab Fatima, Asst. Prof	IIT Delhi	2 Year	1163171
76.	Development of High Protection Net for Agriculture/ Horticulture Application	Dr. P K Pranav	Farm Machinery &Power Engineering Agricultural University Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu 641003	2 Year	2092677

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S. No	Project Title	PI Details	Institute	Duration	Total Amt.
1.	Technology Interventions for Indigenous Handicraft Products of Tamilnadu	Dr. R. Kalaiselvi, Professor	Centre for Sponsored Research and Consultancy. REC, Chennai, Rajalakshmi Nagar, Thandalam, Tamil Nadu-602105	1 year	21250520
2.	Centre for Excellence in Inclusive Technology Interventions for Tribal Heritage Resilience of Kerala	Prof. M Radhakrishna Pillai, Director	Rajiv Gandhi Centre for Biotechnology-641032	1 year	26948515
3.	Restoration And Conservation of Natural Silk Dyeing Technique And Ethnic Design of Silk Cultural Heritage of Manipur By	Dr.T. Shantibala,	Central Agricultural University Iroisemba, Imphal, Manipur 795004	2 Year	4444040
4.	Design and Implementation of Novel Hybrid Watermarking Algorithms, for Copyrights Protection of Culture Artifacts, with Special Reference to IRP protection of Kashmiri Folk songs and Heritage Imagery"	Dr. Shabir Ahmad Parah, Associate professor,	Department of Electronics and IT, University of Kashmir, Sringar, Jammu and Kashmir-190006	3 years	5868164
5.	Archaeo- Genetic Research and cultural Resource Management at Rakhigarhi	Prof. Vasant Shinde, Former Vice Chancellor	Bharati Vidyapeeth Deemed University Deemed University, Pune-411006Maharashtra.	3 years	49569264
6.	Creation of Excellence on Conservation of Indian Heritage Structures at CSIR- CHRI, Roorkee	Dr. N. Gopala krishnan Scientist,	Structural Engineering Group, CSIR- Central Building Research Institute, Roorkee-247667 Uttarakhand	3 Years	49826000
7.	Ajanta Educational Research &Restoration project"	Mr. Prasad pawar, Director	Art, History&Restoration, Prasad Pawar Foundation, Nashik Maharashtra	1year 8 months	9425006
8.	Digital Preservation and Online Portal for Encyclopedic Sanskrit Dictionary"	Dr. Dinesh Katre, Senior Director	Host Institute 1: CDAC PUNE , Human-Centred Design & Computing Group HCDC, Centre for Development of Advanced Computing (C-DAC), pune	3 Years	68344377
9.	Technological Intervention for Preservation of Tribal food Processing Technologies and Heritage	Dr. A Lennin Fred principal	Marfephraem College of Engineering and Technology Malankara Hills Elavuvilai Marthandam Tamil Nadu	1 year	16533040