

Kerala State Council for Science, Technology & Environment

Engineering & Technology Programme

List of Proposals Shortlisted for Presentation before the PAC

SL. NO.	TITLE OF THE PROJECT	DETAILS OF PI
1	Strategic valorization of Starchy waste from appam (Rice & Coconut Hoppers) and dosa batter making process for poly (3-hydroxybutyrate-co-3-hydroxyvalerate) and its bio-composite films for sustainable application	Dr. Pinaki Dey Senior Scientist, CSIR –NIIST, Trivandrum
2	Development of a novel bioactive and anti-bacterial composite coating methodology on titanium based medical implants through electro-chemical route: Metallurgical, Nano-Mechanical and in vitro investigations	Dr. Basil Kuriachen Assistant Professor, Department Of Mechanical Engg, NIT Calicut
3	Investigations on the degradation pathways and transport of micro plastics in the environment and its removal technologies	Dr. Sumi S. Assistant Professor, Department Of Civil Engineering, College Of Engineering Trivandrum
4	Development of piezoresistive sensors from pyrolyzed coconut fibre	Prof. C. N. Shyam Kumar Assistant Professor, School Of Materials Science And Engineering, NIT Calicut
5	Real-Time disease identification in coconut plants through Drones using lightweight deep learning techniques	Dr. J. V. Bibal Benifa Assistant Professor, Department Of CSE, IIIT Kottayam
6	Computer Aided Diagnostic System for Detection and Classification of Leukemia	Dr. Anilkumar K K Associate Professor In Ece Cochin University College Of Engineering, Kuttanad
7	Contamination Detection Using Milli-Meter Wave	Dr. Gladwin Jos K. T. Assistant Professor, Department Of Ae

	Radars Based On Machine Learning Algorithms	&Instrumentation, Govt. Engineering College, Kozhikode
8	Design and development of efficient ventilation strategies for hospital environments	Dr. Harikrishnan S. Assistant Professor, Division Of Mechanical Engineering, School Of Engineering, CUSAT
9	Assessment of coliform removal with travel distance for different soil types of Kerala and development of copper-tube disinfection system to handle the residual coliform count	Dr. Anantha Singh T S Assistant Professor, Department Of Civil Engineering, NIT Calicut
10	Development of a new, cost-effective, real-time sensor for estimating the dissolved moisture concentration in transformer oil that causes insulation failure.	Dr. Mithun Muthiah Sakthivel Asst. Professor, Electrical Engineering Dept., NIT Calicut
11	Novel Design of Ultrahigh Conductive Heat Sink	Dr. Venkitaraj K P Assistant Professor, Department Of ME, College Of Engineering, Adoor
12	Development of functionally graded electrospun membrane for periodontal tissue regeneration therapy	Dr. P. Ramesh Scientist G, Biomedical Technology Wing, SCTIMST, Trivandrum
13	Characterizing the abundance and diversity of bio aerosols in Indoor environments to assess the potential exposure to human pathogens and allergens.	Dr. Aswathy E.V Assistant Professor, Civil Engineering Department, NIT Calicut
14	Mitigation strategies for enhancing the life time of a micro pem fuel cell based portable power source	Dr. Ramesh P Associate Professor, College Of Engineering Munnar
15	Optimal design and development of 3D Printed Boluses for high conformal radiotherapy techniques.	Dr. Amit Kumar Singh Associate Professor, Department Of Mechanical Engg, Nit Calicut
16	A UHF Based Partial Discharge Detection System for Online Monitoring of Dry Type Transformers	Dr. Nasirul Haque Assistant Professor, Electrical Engineering Department, NIT Calicut
17	Deep Learning Enabled Brain Atlas for Automated Detection and Diagnosis of Alzheimer's Disease	Dr. John Eric Steephen Assistant Professor, Digital University Of Kerala, Thiruvananthapuram

18	Design, Fabrication and Characterization of Piezoresistive based force sensors for soft robotics based medical devices	Dr. Lintu Rajan Assistant Professor, Department Of Electronics And Communication, NIT Calicut
19	Implementation of an efficient switched reluctance motor drive train considering the vehicle dynamics for EV applications	Dr. Vinita Chellappan Associate Professor, Department Of Electrical Engg, Govt. Engineering College, Palakkad
20	AI-Based Light-Weight Mobile App to Monitor, Assist and Alert Alzheimer Patients and Caretakers	Dr. Vengadeswaran S Assistant Professor, Department Of Computer Science And Engineering, IIT Kottayam
21	Real Time Driver Behavior analysis using Naturalistic Driving Study (NDS) under Mixed Traffic Conditions - A Machine Learning Approach	Dr. Anusha S.P. Associate Professor, Department Of Civil Engineering, College Of Engineering Trivandrum
22	Static and Dynamic Condition Assessment of Existing Concrete Dams Employing Non-Contact Sensing Technique	Dr. Prateek Negi Assistant Professor, Department Of Civil Engineering, NIT Calicut
23	Sensitivity and Reliability Analysis of Negative Capacitance Silicon Nano tube Field-Effect-Transistor (NC SiNTFET)-based Biosensor	Dr. Gopi Krishna Saramekala Assistant Professor, ECED Block II, Nit Calicut
24	Morphodynamic Modelling of Rivers and Floodplains of Chalakudi River Basin, Kerala	Dr. Arunkumar R Assistant Professor Department Of Civil Engineering, NIT Calicut
25	Dual Arm Smart Fruit And Vegetable Harvesting Robot	Dr. Mija S J Associate Professor, Electrical Engineering Department, NIT Calicut
26	WESAT - Women Engineered Satellite: Development of a Payload for the Comparison of Solar Radiation Intensity and UV Index Measurements in Space with respect to the Monitoring Station at the LBSITW Campus in Thiruvananthapuram City	Dr. Lizy Abraham Assistant Professor, Department Of ECE, Lbs Institute Of Technology For Women, Poojappura, Trivandrum
27	Developing a sustainable hybrid chemical-bio-coagulant (HCBC) for the removal of micro/nanoplastics from water/wastewater treatment plants	Dr. Priya K L Assistant Professor, Department Of Civil Engineering, TKM College Of Engineering, Kollam

28	Design and development of metal matrix composite based heat sink for thermal management of electric vehicle battery packs.	Dr. Samarjeet Chanda Assistant Professor, Department Of Mechanical Engg, IIT Palakkad
29	Morphological Assessment of River Stability in Chaliyar, Kerala	Dr. Resmi S R Assistant Professor, Department Of Civil Engineering, NIT Calicut