

OFFICE OF THE DEAN (R&C)
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT
Faculty Research Seed Grant (FRG) Funding Scheme Phase IV - 2023

Sl. No.	Project Id	Name of PI	Title of the Proposal	Sanctioned Amount
DEPARTMENT OF ELECTRICAL ENGINEERING				
1	FRG IV/2023/EED_02	Dr. Ranjith Ravindranathan Nair	Robust Guidance framework for enhancing social intelligence in human assistive robots.	4,85,000
2	FRG IV/2023/EED_03	Dr. M Raghuram	Renewable energy integration for rural electrification using high efficiency compact converters	5,00,000
3	FRG IV/2023/EED_05	Dr. Ashiq Muhammed P E	Development of high-frequency equivalent circuit model for planar magnetic components.	5,00,000
DEPARTMENT OF CHEMICAL ENGINEERING				
4	FRG IV/2023/CHED_01	Dr. Debashish Panda	Optimization of short term planning and scheduling of an integrated refinery with petrochemical plant	4,75,599
5	FRG IV/2023/CHED_02	Dr. Ashish Soren	Holistic and resilient optimization-based supply chain design for biochemical industry considering the impact of natural calamities	4,91,087
DEPARTMENT OF PHYSICS				
6	FRG IV/2023/PHY_01	Dr. Biswajith Mandal	Development of MOX-based CO and NOx Sensors for Vehicle Emission Quality Monitoring	5,00,000
7	FRG IV/2023/PHY_03	Dr. Shareef M	Nuclear fusion-fission dynamics studies leading to the synthesis of new elements using accelerators	3,00,000

DEPARTMENT OF MECHANICAL ENGINEERING				
8	FRG IV/2023/MED_01	Dr. Sangeeth K	Formation and evolution of compound jets from liquid-gas interfaces	4,99,990
9	FRG IV/2023/MED_02	Dr. Allen Anilkumar	Design and Development of an Experimental Setup to Investigate Parametric Excitation due to Angular Forcing	3,80,000
10	FRG IV/2023/MED_03	Dr. Pranay Vinayak Likhar	Design and development of a Lateral Force Controlled Tribo-System for Studying Transient Friction in Dry and Lubricated Contacts.	5,00,000
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING				
11	FRG IV/2023/CSSED_02	Dr. Santosh Kumar Behera	Interactive Learning Environment for Kids Powered by Augmented Reality	5,00,000
DEPARTMENT OF MANAGEMENT STUDIES				
12	FRG IV/2023/DMS_02	Dr. S Sararvana Kumar	Solving the Employee-Task Assignment Problem as Unrelated Parallel Machine Scheduling Problem with the objective of achieving better Throughput, Quick Completion of all tasks, and Maximum Uniformity in the Completion of adjacent tasks	3,65,000
DEPARTMENT OF BIOSCIENCE AND ENGINEERING				
13	FRG IV/2023/DBE_01	Dr. K Gopal Shankar	Endogeneous chondrogenesis stimulation through cartilage niche molecule magnetically released from 3D scaffold for articular tissue augmentation	5,00,000
14	FRG IV/2023/DBE_02	Dr. Shabina Ashraf	Capillary impregnation of microplastics in the vadose zone	5,00,000

15	FRG IV/2023/DBE_03	Dr. Indumathi Sathisaran	Unraveling the Mechanism of Co-precipitation of a Poorly Water-Soluble Drug with Calcium Supplements: Effects of Crystal Form/Polymorphism of Pharmaceutical Solids on Cellular Absorption	5,00,000
DEPARTMENT OF CIVIL ENGINEERING				
16	FRG IV/2023/CED_01	Dr. Ganaraj K	Decontamination of soil and sediments contaminated with micro-plastics (MPs)	5,00,000
17	FRG IV/2023/CED_03	Dr. Sanjay Singh	Treatment of Pharmaceutical compounds using a hybrid Sono-Photocatalytic Treatment Approach using Lead Free Perovskite.	5,00,000
18	FRG IV/2023/CED_04	Dr. Gaurav Misuriya	Experimental and numerical studies on flow and local scour under pressure flow conditions	5,00,000
DEPARTMENT OF ARCHITECTURE AND PLANNING				
19	FRG IV/2023/ARCH_01	Dr. Manoj A	Experimental investigation on bio-concrete incorporating mineral admixtures	5,00,000
20	FRG IV/2023/ARCH_02	Dr. Abhishek Kumar	Deciphering the role of eye tracking technology for sustainable development of heritage assets and historic precincts: a future discourse through insights from community perception.	5,00,000
21	FRG IV/2023/ARCH_03	Dr. Kuladeep K Sadevi	Impact of parasol roof shading on indoor thermal comfort in warm-humid climates of kerala	5,00,000
22	FRG IV/2023/ARCH_04	Dr. Chenna Vivek Kumar	Application of Artificial Intelligence in the field of Architectural Design	4,90,000