

OFFICE OF THE DEAN (R&C)
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT
Faculty Research Seed Grant (FRG) Proposals

Sl. No.	Project Number	Name & Dept.	Title of the Project Proposal
	Architecture and Planning		
1	FRG/2019/ARCHI/01	Dr. Anjana Bhagyanathan, Archi	Impact of Landuse Landcover changes on Hydrology of South Western Ghats
2	FRG/2019/ARCHI/02	Dr. Deepthi Bendi, Archi	Roadmap for Adoption of Off-Site Construction Technologies in the Housing Sector, India
	Chemical Engg		
3	FRG/2019/CHED/03	Dr. Chandra Shekar Bestha, CHED	Chemical Process Control
4	FRG/2109/CHED/04	Dr. Dhanya Ram V, CHED	Identification and Control of Liner Multi Input Multi Output Systems
5	FRG/2019/CHED/05	Dr. Noel Jacob Kaleekkal, CHED	Membrane based technology
6	FRG/2019/CHED/06	Dr. Panneerselvam Ranganathan, CHED	Reactor Development for Hydrothermal Liquefaction of Microalgae
7	FRG/2019/CHED/07	Dr. Prasanna Kumar S Mural, CHED	Electrospun Nanofibers
8	FRG/2019/CHED/08	Dr. Sudev Das, CHED	Fabrication, Synthesis and Performance Analysis of Nano-engineered Surface for Cooling of Nano Electric Device Application
9	FRG/2019/CHED/09	Dr. Susmitha Das, CHED	Nanotechnology-Microfluidic Photocatalytic Degradation of Dyes Exploiting ZnO.CuO Nanocomposite
10	FRG/2019/CHED/10	Dr. Vakamalla Tejaswi Sreeram Kumar Reddy, CHED	Classification of Iron ore slimes using Hydrocyclones
	Chemistry		
11	FRG/2019/CHEM/11	Dr. Janardhan Banothu, Chemistry	Novel Fused Imidazole – Coumarin Hybrids: Synthesis, Characterisation, Antimicrobial Investigation and Structural – Activity Relationship Studies
12	FRG/2019/CHEM/12	Dr. Mini Mol Menampambath, Chemistry	Development of Nanomaterials for Neurotransmitter Dopamine Detection in Human Body

13	FRG/2019/CHEM/13	Dr. Muniyandi Sankaralinkam, Chemistry	One-Step Selective Hydroxylation of Benzene to Phenol with Hydrogen Peroxide Catalyzed by Nickel(II) Complexes of Pentadentate Ligands
14	FRG/2019/CHEM/14	Dr. Raju Dey, Chemistry	Organic and Organometallic Chemistry - Synthesis and Characterization of Transition Metal Pincer Catalysts and their Application in Carbon-Carbon and Carbon-Heteroatom bond Formation Reactions
		Civil Engg	
15	FRG/2019/CED/15	Dr. Agilan V, CED	Hydroclimatology - Development of a Web-based Expert System for Updating Rainfall Intensity-Duration-Frequency Curves over Kerala
16	FRG/2019/CED/16	Dr. Anjana Bhasi, CED	Geocel Supported Embankments
17	FRG/2019/CED/17	Dr. Arunkumar R, CED	Surface Water Resources Systems - Real Time Reservoir Operation for Flood Control: A System Dynamics Approach
18	FRG/2019/CED/18	Dr. Aswathi E.V, CED	Wastewater Treatment - Photocatalytic Removal of Pharmaceutical Compounds under Visible Light by Green Synthesized Zinc Oxide-Graphene Oxide Nanocomposite
19	FRG/2019/CED/19	Dr. K.V Anand, CED	Coastal Protection – an Alternative to Hard Protective Structure
20	FRG/2019/CED/20	Dr. Renjitha Mary Varghese, CED	Geosynthetic Reinforced Soil Retaining Wall - Analysis on the Effect of Compaction of Geosynthetic Induced Stresses on the Performance of Geosynthetic Reinforced Soil Walls
21	FRG/2019/CED/21	Dr. Robin Davis P	Experimental Study on the Behaviour of Cold Formed Sections under Flexure and Axial Compression
		Computer Science and Engg	
22	FRG/2019/CSED/22	Dr. Arun Raj Kumar P, CSED	Congestion Control and Data Offloading in Heterogeneous Networks
23	FRG/2019/CSED/23	Dr. Hiran V Nath, CSED	Critical Infrastructure Threat Detection & Forensic Analysis
24	FRG/2019/CSED/24	Dr. Jay Prakash, CSED	Text Mining - Design and Development of a Social Networks Monitoring System to Prevent and Recognize Cyber Crime through Multiple Aliases Detection
25	FRG/2019/CSED/25	Dr. M Prabhu, CSED	Monitoring Health and Behaviour Analysis of Cows
26	FRG/2019/CSED/26	Dr. T Veni, CSED	Resource Management in Fog Computing
27	FRG/2019/CSED/27	Dr. Vasudenanavan A.R, CSED	Network Intrusion Detection System, Penetration Testing
		Electrical Engg	
28	FRG/2019/EED/28	Dr. Gopakumar Pathirikkat, EED	Composite Power System Model

29	FRG/2019/EED/29	Dr. Nikhil Sasidharan, EED	Solar Powered Community Grid - A Resilient DC Community Grid for the Provision of Ancillary Services to Local Grid
30	FRG/2019/EED/31	Dr. Sanjay M, EED	Neurophysiology of Stroke
31	FRG/2019/EED/32	Dr.V Karthikeyan, EED	Power Converters to EV drive and Fast-charging Infrastructure
	Electronics and Communication Engg		
32	FRG/2019/ECED/33	Dr. Gopi Krishna Saramekala, ECED	Modeling and Simulation of Semiconductor Devices
33	FRG/2019/ECED/34	Dr. Lintu Rajan, ECED	Flexible FET for Tactile Sensing in Medical prosthetics
34	FRG/2019/ECED/35	Dr. M Surya Prakash, ECED	VLSI Signal Processing - Design and Asic-chip Tapeout of Distributed Arithmetic based Adaptive Equalizers for Wireless Communications
35	FRG/2019/ECED/36	Dr. Sudeep P.V, ECED	Image Denoising using Deep Neural Networks
36	FRG/2019/ECED/37	Dr. Venu Anand, ECED	Thin film Transistors - Development of Zinc Oxy-Nitride based Thin Film Transistors for Photo-Sensing Applications
37	FRG/2019/ECED/38	Dr. Waquar Ahmad, ECED	Automatic Speaker Verification (ASV)
	Mechanical Engg		
38	FRG/2019/MED/39	Dr. Ashesh Saha, MED	Analysis of Instabilities in Jeffcott control
39	FRG/2019/MED/40	Dr. Deepak Lawrence K, MED	AP242 Model based 3D Engineering for the Automation of Downstream Manufacturing Functions
40	FRG/2019/MED/41	Dr. Murali K.P, MED	Materials for Electronics Applications - Development of Polymer/Ceramic Composite Substrates for Microwave Circuit/Device Application
41	FRG/2019/MED/42	Dr. Saleel Ismail, MED	Development of a Decentralized Solar Water Distillation System
42	FRG/2019/MED/43	Dr. Simon Peter, MED	Vortex- Induced Vibration (VIV)
43	FRG/2019/MED/44	Dr. Srinu Gangolu, MED	Deformation Mechanism in Crystalline Materials - Development of Processing Maps for Mg-Zn-Ca Alloy
44	FRG/2019/MED/45	Dr. Sujith Kumar C.S, MED	Film Boiling Heat Transfer Enhancement - Experimental Investigation on the Effect of Electro Assisted Quenching on Mechanical Properties of Ni-625 Superalloy Foams
45	FRG/2019/MED/46	Dr. Vineesh K.P, MED	Wheel Gauge Widening Failure of Wagon Wheels in India Railways
	Physics		
46	FRG/2019/PHY/47	Dr. Aswathi G, PHY	Synthesis of 2D transition metal dichalcogenides (TDM's) and layered double Hydroxides (LDH) through optimized ion intercalation and liquid exfoliation methods

47	FRG/2019/PHY/48	Dr. Goutham Kumar Chandra, PHY	Experimental Condensed Matter Physics, Spectroscopy - Study and Characterize the Metal-Molecule Interactions Using Spectroscopic Techniques for Potential Applications
48	FRG/2019/PHY/49	Dr. Maneesh Chandran, PHY	Thin Films
49	FRG/2019/PHY/50	Dr. Ram Ajor Maurya, PHY	Studies on the Interior Structure and Dynamics of Solar Active Region and their Associations with Explosive Events
50	FRG/2019/PHY/51	Dr. Saurabh Gupta, PHY	Quantum Field Theory and Supersymmetry
51	FRG/2019/PHY/52	Dr. Subramanyan Namboothiri Varanakkottu, PHY	Self-Healing Optofluidic Platform as a Fast Optical and Electrical Switch
52	FRG/2019/PHY/53	Dr. Suchand Sangeeth C.S, PHY	Effect of solvent Treatment on the Morphology and charge Transport in Conducting Polymers
	Biotechnology		
53	FRG/2019/SOBT/54	Dr. Baiju G Nair, SoBT	Non- Viral Reprogramming of Somatic Cells to Induce Pluripotency
54	FRG/2019/SOBT/55	Dr. Suresh P.S, SoBT	Non-coding RNA Mediated Regulation in Breast Cancer
	Management		
55	FRG/2019/SOMS/57	Dr. Sreejith S.S, SoMS	Organizational and Consumer Behavior
56	FRG/2019/SOMS/58	Dr. Althaf S	Patterns of Urban Change and its Political/Policy Determinants
57	FRG/2019/SOMS/59	Dr. Nithya M	Impact of social media on consumer perceptions towards brand