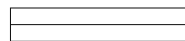


Sponsored Projects

Sl. No.	Title of the project	Principal Investigator	Sponsoring Agency	Duration	Total Budget (INR)
1	Non-equilibrium quantum dynamics and decoherence	Dr. Uma Divakaran	DST INSPIRE Fellowship	2013 - 2019	₹1,505,208.00
2	Design of heterogeneous catalysts to improve the selectivity of high-temperature, gas- phase reactions	Dr. Dinesh Jagadeesan	SERB Ramanujan Fellowship	2013 - 2018	₹1,365,654.00
3	Graphene and other 2D materials base spintronics and topological insulators	Dr. Jayakumar Balakrishnan	DST INSPIRE Fellowship	2014 - 2019	₹1,031,488.00
4	Improving water availability in hilly rain shadow regions through conservation measures	Dr. Athira P.	DST INSPIRE Fellowship	2015 - 2021	₹1,248,598.00
5	On positive solutions for classes of nonlinear elliptic boundary value problems	Dr. Lakshmi Sankar K.	DST INSPIRE Fellowship	2016 - 2021	₹1,691,680.00
6	On the Role of Proton Transfer in Triggering Disulfide Bond Reductions in Biological Systems- A Computational Approach	Dr. Padmesh Anjukandi	SERB Start Up Research Grant	2016 - 2019	₹1,101,613.00
7	Spin transport in 2D material(graphene)/ perovskites(LSMO) heterostructures	Dr. Jayakumar Balakrishnan	DST-NanoMission	2016 - 2019	₹540,361.00
8	Performance evaluation of a cryogenic coolant through a modified tool holder in machining of Inconel 625 super alloy	Dr. Dupadu Chakradhar	SERB ECRA	06 November 2017 - 05 November 2020	₹1,483,160.00
9	Structural design of Crash Guard Fencing	Dr. Anil Kumar M. V.	Vigilance and Forest Intelligence, Thiruvananthapuram	08 August 2018 - 08 October 2018	₹84,960.00
10	Study of approximation theoretic properties of the space of compact operators on Banach spaces	Dr. Jayanarayanan C. R.	SERB MATRICS	10 July 2018 - 09 October 2021	₹660,000.00
11	Energy positive microbial osmotic- electro desalination cell for wastewater treatment and high- quality water recovery	Dr. Praveena Gangadharan	SERB- EMEQ (Empowerment and Equity Opportunities for Excellence in Science)	02 March 2019 - 01 March 2022	₹3,994,500.00
12	Reversible Diradical Mediated Self-Assembly Formation of Discrete Organic Cages for the Construction of Stimuli-Responsive Supramolecular Functional Materials	Dr. Shanmugaraju Sankarasekaran	SERB- EMEQ (Empowerment and Equity Opportunities for Excellence in Science)	16 March 2019 - 15 March 2022	₹3,763,000.00
13	Design and Development of RF Front-end (RFFE) Passive Components for Indian Fifth Generation (5G) Cellular Mobile Network Applications from Microwave to Millimeterwave	Dr. Sukomal Dey	SERB- ECRA (Early Career Research Award)	14 May 2019 - 13 May 2022	₹4,211,530.00
14	Behaviour and Design of CFS Channel compression members with partial LIP Stiffened Flanges	Dr. Anil Kumar M. V.	SERB- CRG (Core Research Grant)	15 May 2019 - 14 May 2022	₹3,426,691.00
15	Soot Modelling and measurements in a counterflow diffusion flame	Dr. Krishna Seshu Giri	SERB- ECRA (Early Career Research Award)	16 May 2019 - 15 May 2022	₹4,655,040.00
16	Identification of the Substrates of DHHC Palmitoyl Acyltransferases by Rational Design of Trifunctional Probe and Exploration of Protein S- Palmitoylation	Dr. Sushabhan Sadhukhan	SERB- ECR (Early Career Research)	15 December 2018 - 14 June 2021	₹3,312,452.00
17	Synthesis, characterization and evaluation of TiO ₂ - polymer nanocomposite for photocatalytic oxidation of ethylene	Dr. Dinesh Jagadeesan	Defence Food Research Laboratory (DFRL)	06 September 2019 - 05 September 2021	₹945,000.00
18	ZIGBEE based wireless sensor network for landslide	Dr. Albert Sunny	ISRO RESPOND Programme, Department of Space	21 March 2020 - 20 March 2022	₹1,552,000.00
19	Feedback control of stochastic hybrid systems with state-dependent noise	Dr. Shaikshavali Chitraganti	SERB MATRICS	22 March 2019 - 21 March 2022	₹660,000.00
20	Ultra-precision machining of brittle materials - Material micro-structural perspective and cutting edge radius effect	Dr. Afzaal Ahmed	SERB SRG	03 December 2019 - 02 June 2022	₹3,165,190.00
21	Sustainable and resilient environment friendly solutions for hill road design through a pilot study on Mannarkkad - Chinnathadagam Road	Prof. Tom V. Mathew	Kerala PWD	12 February 2020 - 11 March 2021	₹2,498,760.00
22	Mechanistic correlation between homeostatic pressure and metastatic competence in cancer cells	Dr. Bibhu Ranjan Sarangi	SERB ECRA	15 July 2017 - 14 January 2021	₹537,147.00
23	BPCL Cross Country Pipeline: Study on Ground Improvement for the Development of Cochin Seaport- Airport Road Phase-II	Dr. Sarmistha Singh	SERB SRG	03 December 2019 - 02 June 2022	₹1,973,180.00
24	Linkage of Large Scale Ocean-Atmospheric Phenomena on Hydroclimatic Extremes in India	Dr. Sarmistha Singh	SERB SRG	03 December 2019 - 02 December 2021	₹1,973,180.00
25	Analytical and Experimental Investigation on Frequency Dependent Linear Control Algorithm for Performance Enhancement of Real Life Civil Structures under Random Excitation	Dr. Sanjukta Chakraborty	SERB SRG	18 December 2019 - 17 December 2021	₹2,156,240.00
26	Low voltage MEMS actuation using Negative Capacitance	Dr. Arvind Ajoy	SERB SRG	21 December 2019 - 20 June 2022	₹2,773,690.00
27	Design and Development of a Composite Heat Sink based Battery Thermal Management System for Indian Electric Vehicle Industry	Dr. Samarjeet Chanda	SERB SRG	26 December 2019 - 25 December 2021	₹3,070,370.00
28	Multi-functional optically-sensitive devices with high efficiencies using perovskites	Dr. Revathy Padmanabhan	SERB SRG	02 January 2020 - 01 January 2022	₹3,087,770.00
29	Deep learning and Reinforcement learning: New algorithms with improved interpretability, scalability, reliability and efficiency	Dr. Chandra Shekar Lakshminarayanan	SERB SRG	30 December 2019 - 29 December 2021	₹1,566,200.00
30	Drought preparedness in Kerala: A comprehensive assessment with respect to climate change	Dr. Subhasis Mitra	Kerala State Council for Science, Technology & Environment	18 December 2019 - 17 December 2021	₹1,288,000.00
31	Bayesian Deep Models for Efficient Privacy - Aware Learning in the Era of Big Data and Personalization	Dr. Mrinal Kanti Das	SERB SRG	04 February 2020 - 03 February 2022	₹1,780,900.00
32	Low-cost Medical Ventilator - Mechanical	Dr. Afzaal Ahmed	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹600,000.00
33	Low-cost Medical Ventilator - Electrical	Dr. Sreenath V.	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹600,000.00
34	Pulse Plethysmograph for ICUs	Prof. Vinod A. Prasad	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹600,000.00
35	Automated Lung Ultrasound for COVID-19 Screening and Monitoring	Dr. Mahesh R. Panicker	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹600,000.00
36	Low-cost Test Kit for Fast Screening of COVID-19 Patients	Dr. Shanmugaraju Sankarasekaran	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹500,000.00
37	Real-time Crowd Sensing using Mobile Phone tracking	Dr. Lakshmi Narasimhan Theagarajan	Covid 19 Project funded by Federal Bank	April 2020 - August 2020	₹600,000.00
38	Performance of mechanically stabilised reinforced soil structures with locally available marginal lateritic backfills	Dr. Divya P. V.	Techfab India Industries Ltd., Mumbai	01 June 2020 - 01 January 2022	₹1,105,046.00
39	Raaz: A cryptographic library with formal guarantees	Dr. Piyush P. Kurur	DST ICPS	26 July 2019 - 25 July 2022	₹2,268,000.00
40	Pulse Oximeter Design and Development	Prof. Vinod A. Prasad	ITI Limited Palakkad	May - June 2021	₹275,000.00
41	Regional Road Resilience using Landslide Susceptibility model	Dr. Rakesh J. Pillai	Coalition for Disaster Resilience Infrastructure (CDRI)	10 May 2021 - 09 May 2022	₹732,000.00
42	Learn at Home	Dr. Dinesh Setti	Western India KINFRA Ltd - CSR	01 February 2022 - 31 March 2022	₹322,926.00
43	Creation of selected geo-spatial open data set for Pudukkottai Grama Panchayat using Community Participatory Mapping	Dr. Athira P.	Western India KINFRA Ltd - CSR	01 February 2022 - 31 March 2022	₹242,927.00
44	Porous transition metal doped TiO ₂ catalysts for the thermal oxidation of volatile organic compounds	Dr. Dinesh Jagadeesan	Western India KINFRA Ltd - CSR	01 February 2022 - 31 March 2022	₹352,926.00
45	Diagnosis tool for Breast Cancer Detection using Novel Microwave Medical Imaging (MMI) Techniques followed by Method Validations on the Concealed Object Detections - a Prototype	Dr. Sukomal Dey	Western India KINFRA Ltd - CSR	01 February 2022 - 31 March 2022	₹322,926.00



Consultancy Projects - Completed

Sl. No.	Title of the project	Principal Investigator	Sponsoring Agency	Total Budget (INR)	Duration
1	Mix design for grade M15 Dry Lean Concrete mix	Dr. Madhu Karthik M.	Garrison Engineer (P) AF Sulur, MES, Sulur	₹46,550.00	30 October 2017 - 15 December 2017
2	Vetting of Structural Design of Bus Terminal (AMRUT Urban Transport) for Palakkad Municipality	Dr. Anil Kumar M. V.	Palakkad Municipality	₹77,880.00	30 July 2018 - 28 September 2018
3	Review of lateral capacity of pile	Dr. Sudheesh T. K.	Furnace Fabrica India Ltd.	₹28,320.00	21 August 2018 - 07 September 2018
4	Soil Investigation for Permanent Campus of IIT Palakkad	Dr. Sudheesh T. K. & Dr. Divya P. V.	Central PWD	₹525,336.00	August 2018 - September 2018
5	Brainwave-based Driver Drowsiness Detection System	Prof. Vinod A. Prasad	UVJ Technologies Pvt. Ltd.	₹1,200,000.00	01 January 2019 - 30 June 2020
6	Vetting of Design submitted by Duraflor Concrete Solutions for Fibre Reinforced Flooring	Dr. Sunitha K. Nayar	Duraflor Concrete Solutions LLP	₹155,760.00	14 January 2019 - 28 January 2019
7	Vetting of Structural Design (Improved Design of Eranholi Bridge)	Dr. Anil Kumar	Ernad Engineering Enterprises	₹113,280.00	28 March 2019 - 28 May 2019
8	Vetting of Structural Drawings (Flyover at Edappal Junction)	Dr. Anil Kumar	Ernad Engineering Enterprises	₹283,200.00	08 April 2019 - 08 June 2019
9	Proof Checking of 40m Girder and Deck Slab: Flyover at Vytilla	Dr. Anil Kumar M. V.	PWD, Kerala Government	₹106,200.00	June 2019 - July 2019
10	Review of Soil Report	Dr. Sudheesh T. K.	Furnace Fabrica India Limited	₹25,488.00	28 January 2019 - 11 February 2019
11	Vetting of Detailed Design of Viaduct from I+786 to 2+013 along Thiruvalla Bypass	Dr. Anil Kumar M. V.	E K K Infrastructure Limited	₹141,600.00	03 July 2019 - 03 September 2019
12	Checking and Vetting of Design Solution of Reinforced Flooring, done by Flatworx Consulting LLP	Dr. Sunitha K. Nayar	Flatworx Consulting LLP	₹155,760.00	03 September 2019 - 10 September 2019
13	BPCL Cross Country Pipeline: Study on Ground Improvement for the Development of Cochin Seaport- Airport Road Phase-II	Dr. Divya P. V.	BPCL	₹236,000.00	22 November 2019 - 20 December 2019
14	Structural stability check of flag mast for Naval Academy, Ezhimala	Dr. Anil Kumar M. V.	Garrison Engineer (Main) Ezhimala	₹283,200.00	04 January 2020 - 31 March 2020
15	RWSS to Pudukkad, Parappurkara and Adjoining Panchayaths - Implementation of pipe line near Railway bridge at Kurumali, Rapal by HDD Method	Dr. Sudheesh T. K.	Kerala Water Authority	₹30,090.00	February 2020 - March 2020
16	Optimization of Production & Transmission - WSS to Pavaratty & Mullaseery Panchayaths in Chavakad Thaluk - Supplying, Laying & Commissioning of 300/250/200 mm DI K9 gravity main - Railway crossing at Brahmakulam - Soil exploration by taking 2 nos. trial bores	Dr. Sudheesh T. K.	Kerala Water Authority	₹30,090.00	February 2020 - March 2020
17	Consultancy for Design and Vetting of Fibre reinforced concrete (FRC) and Mesh reinforced concrete (RC) Flooring	Dr. Sunitha K. Nayar	IIT Madras	₹240,720.00	17 March 2020 - 17 April 2020
18	Soil investigation and structural stability for Sebastian indoor stadium, Edava, Thiruvananthapuram	Dr. Madhu Karthik M.	Kerala Infrastructure Investment Fund Board	₹708,000.00	01 April 2020 - 30 May 2020
19	Soil Investigation for existing soil at Runway Basic Strip - Calicut International Airport (Phase 1)	Dr. Sudheesh T. K.	Airports Authority of India	₹455,126.00	18 August 2020 - 19 September 2020
20	Soil Investigation for existing soil at Runway Basic Strip - Calicut International Airport (Phase 2)	Dr. Sudheesh T. K.	Airports Authority of India	₹195,408.00	08 September 2020 - 07 October 2020
21	Upgradation of coastal roads - Construction of Retaining wall and Upgradation of Road at Vettikkunnuvula Road in Paravoor Municipality in Chathannoor Legislative Assembly Constituency	Dr. Rakesh J. Pillai	Harbour Engineering Department, Govt. of Kerala	₹300,000.00	01 October 2020 - 31 December 2020
22	Vetting of Cold In-place Recycling on NH 66	Dr. C. V. Veena Venudharan	PMR Construction Company	₹184,080.00	08 October 2020 - 08 July 2021
23	Checking/ Vetting the Structural Design/ Drawings proof of the proposed 300 bedded hostel building of SAI - LNCPE, Trivandrum	Dr. Madhu Karthik M.	Biju P. Daniel & Co.	₹566,400.00	16 November 2020 - 14 December 2020
24	Soil Investigation for Laying 500 mm MS pipe across railway line at Ponnuruni by Push-through method	Dr. Sudheesh T. K.	Kerala Water Authority	₹154,580.00	18 December 2020 - 18 February 2021
25	STP Water Testing	Dr. Praveena Gangadharan	Builttech Avenue Apartment Owner's Association	₹4,000.00	13 February 2020 - 04 March 2020
26	Design and development of a multi-purpose ground based mobile manipulator	Dr. Santhakumar Mohan	Autodesk Inc.	₹88,500.00	November 2020 - December 2020
27	Soil Investigation Report - AMRUT-2017-18-WSS to Guruvayur Municipality in Thirissur District - Distribution network for Thaikad Zone - Railway line crossing at Paluvai by push through method	Dr. Sudheesh T. K.	Tony P. Thekkiniyath (Contractor KWA)	₹32,568.00	21 January 2021 - 21 February 2021
28	Technical review of the counter claims by IOCL and CoPT for arbitration of the case in connection with Construction of Multi- User liquid Terminal at Puthuvypen, Cochin port	Dr. Sunitha K. Nayar	Indian Oil Corporation Limited	₹632,952.00	04 January 2021 - 28 February 2021
29	Preparation of Counter Argument Report for IOCL's Arbitration case in connection with Construction of Multi- User Liquid Terminal at Puthuvypen, Cochin Port	Dr. Senthilkumar V.	Indian Oil Corporation Limited	₹446,040.00	09 January 2021 - 28 February 2021
30	Preparation of Cross Examination Arguments and Analysis against the detailed delay and escalation report of the Contractor against IOCL's Arbitration case in connection with MULT at Puthuvypen, Cochin Port	Dr. Senthilkumar V.	Indian Oil Corporation Limited	₹446,040.00	05 February 2021 - 28 February 2021
31	Four Lining of Thalassery - Mahe Bypass section of NH-17 from km 170+600 (Design Chainage 170+600) to km 188+000 (Design Chainage 189+200) in the State of Kerala under NHDP Phase-III on EPC Mode	Dr. Anil Kumar M. V.	EKK Infrastructure Ltd.	₹254,880.00	08 March 2021 - 08 April 2021
32	Consultancy for Remedial Measures for Distressed Culvert, Runway and Embankment of Calicut International Airport	Dr. Sudheesh T. K.	Airports Authority of India	₹3,497,520.00	25 March 2021 - 24 September 2021
33	To establish the process methods for manufacturing MSI alloy through powder bed fusion technique and its characterization	Dr. D. Kesavan	EOS GmbH India	₹443,208.00	06 April 2021 - 05 May 2021
34	Checking and Vetting of Design Solution for FRC Flooring of the proposed project at Chennai Submitted by ACS Technologies, Chennai.	Dr. Sunitha K. Nayar	K C Contech	₹177,000.00	22 June 2021 - 01 July 2021
35	Checking and Vetting of Design Solution for Warehousing Project at Aarush Logistics Park at Vallam, Oragadam submitted by Aarush (Phase II) Logistics Park Pvt. Limited	Dr. Sunitha K. Nayar	M/s Aarush (Phase II) Logistics Park Pvt. Limited, Chennai	₹155,760.00	30 June 2021 - 07 July 2021
36	Site visit and RE wall inspection report- Mukkola project	Dr. Divya P. V.	Larsen & Toubro Limited (L&T)	₹514,008.00	01 July 2021 - 30 July 2021
37	Checking and Vetting of Design Solution for flooring of Power of one logistics park at Chakan, Talegaon submitted by Power of One Logistics Park Pvt. Limited	Dr. Sunitha K. Nayar	Power of One Logistics Park Pvt. Limited, Mumbai	₹155,760.00	30 July 2021 - 07 July 2021
38	Payment design for roads in Kottor Elephant Rehabilitation Centre	Dr. C V Veena Venudharan	Kerala Infrastructure Investment Fund Board (KIIFB)	₹212,400.00	01 July 2021 - 15 August 2021
39	Recommendations on slope protection works for Mattanur-trikkur road, Kannur	Dr. Divya P. V.	Kerala Infrastructure Investment Fund Board (KIIFB)	₹900,576.00	10 August 2021 - 10 October 2021
40	Checking and vetting of design solutions for FRC flooring of the proposed project at T01 at Topline Logistics Park Pvt Ltd, Palwal Haryana, for Indusfloors.	Dr. Sunitha K. Nayar	Indus Floors India Pvt Ltd	₹177,000.00	05 September 2021 - 15 September 2021
41	Conduct hydrological modelling for Jharkhand State covering all major river basins using the Soil and Water Assessment Tool (SWAT) model for CRISP-M	Dr. Athira P.	International Institute for Environment & Development	GBP 20000	01 December 2021 - 31 March 2022
42	Testing and Analysis of different samples of FRP laminates for their microwave transmission properties	Dr. Sukomal Dey	Pelican Thermogenics Pvt. Ltd., Chertkala	₹65,136.00	15 January 2022 - 14 February 2022
43	Site Visit report for visual assessment of dislodged panel of MSE wall at GH 28 - 4665	Dr. Divya P. V.	Larsen & Toubro Limited (L&T)	₹594,720.00	27 February 2022 - 10 March 2022
44	Kochi Salem LPG Pipeline Project	Dr. Senthilkumar V	Kochi Salem Pipeline Pvt Ltd	₹177,000.00	01 March 2022 - 30 April 2022

