

Sponsored Projects - Underway

Sl. No.	Title of the project	Principal Investigator	Sponsoring Agency	Total Budget (INR)	Duration
1	CSR Funds from M/s. Redpine Signals India Pvt. Ltd., Hyderabad - 2022	Dr. M. Sabarimalai Manikandan & Dr. Subrahmanyam Mula	Redpine Signals India Pvt. Ltd., Hyderabad	1064745	September 2022 - September 2024
2	TECHIN Project	Dr. Praveena Gangadharan	HDFC CSR	207108278	01 January 2022 - 31 March 2025
3	Design and Fabrication of an LED-based solar simulator with integrated electrical and optical measurement capability	Dr. Arvind Ajoy	DST (SERD 2019 - Solar Energy Research & Development)	6540601	15 April 2021 - 14 April 2024
4	Study of the interaction between synthetic sequence-defined macromolecules and lipid-membrane towards developing antibacterial and anticancer drug	Dr. Mintu Porel	Scheme for Transformational and Advanced Research in Sciences (STARS) - Ministry of Human Resource Development	9968000	15 May 2020 - 14 May 2024
5	DHR-GIA Proposal: Development of an Affordable Wearable IoT-GPS Enabled Intelligent Vital Signs Monitor for Smart Health Monitoring Services	Dr. Ram Bilas Pachori, Professor, IIT Indore	Indian Council of Medical Research (ICMR)	3035990	20 June 2022 - 19 June 2024
6	MoU with Kerala Highway Research Institute	Dr. Sudheesh T. K. (till 11.09.2022) & Dr. B. K. Bhavathrathan (from 12.09.2022)	Kerala Highway Research Institute (KHRI)	6000000	13 July 2021 - 12 July 2024
7	Studies on the performance of coir geotextile reinforced embankments	Dr. Divya P. V.	Central Coir Research Institute	2532000	24 July 2021 - 23 July 2024
8	Design and Development of Cost-Effective Floating-Solar Energy Generation Technologies and Infrastructure for Achieving Nearly Zero-Energy Villages	Dr. Srinivasa Bhaskar Karanki, IIT Bhubaneswar	DST (SERD 2019 - Solar Energy Research & Development)	4521200	14 September 2021 - 13 September 2024
9	Recycling C&D waste including non-concrete parts for geotechnical engineering applications	Dr. Divya P. V.	DST - WMT (Waste Management Technology Programme)	6618440	15 September 2021 - 14 September 2024
10	Dispersion Controlled in Silico Catalyst Design for the Selective Hydroarylation Reaction	Dr. Rositha Kuniyil	SERB SRG	3133844	26 September 2022 - 25 September 2024
11	A Molecular Dynamics Perspective on the Mechanism of Dioxygen Activation	Dr. Shyama Ramakrishnan (Mentored by Dr. Padmesh A.)	KSCSTE Back-to-Lab Post Doctoral Fellowship	1338000	01 November 2022 - 31 October 2024
12	Design and Development of Planar Tuneable RF Filters for 5G Communication Systems	Dr. Mary Rani Abraham (Mentored by Dr. Sukomal Dey)	KSCSTE Back-to-Lab Post Doctoral Fellowship	1338000	01 November 2022 - 31 October 2024
13	Towards Building Quantity-Rich Knowledge Bases	Dr. Koninika Pal	SERB SRG	2071870	09 November 2022 - 08 November 2024
14	Securing Deep Neural Networks against Adversarial Attacks in Medical Imaging	Dr. Vivek Chaturvedi	IHUB NTIHAC Foundation, IIT Kanpur	1303520	07 December 2021 - 06 December 2024
15	Sugar tailored NIR emitting fluorescent probes for biomedical applications	Dr. Shimi M. (mentored by Dr. Mintu Porel)	SERB National Post- Doctoral Fellowship	2025600	12 December 2022 - 11 December 2024
16	Study of skein algebras through quantization of Poisson algebras	Dr. Arpan Kabiraj	SERB SRG	1278662	09 January 2023 - 08 January 2025
17	Biomolecular characterization of a novel putative intracellular steroid	Dr. Suprabhat Mukherjee, Department	SERB CRG	108300	24 January 2022 - 23 January 2025
18	Multiscale Modeling of Ferroelectrics for Negative Capacitance	Dr. Arvind Ajoy	SERB MATRICS	660000	18 February 2022 - 17 February 2025
19	Factorizing Matrices Under Structural Constraints	Dr. Lakshmi Narasimhan Theagarajan	SERB MATRICS	660000	21 February 2022 - 20 February 2025
20	On exact results in generalized Sachdev-Ye-Kitaev models	Dr. Prithvi Narayan P	SERB MATRICS	660000	23 February 2022 - 22 February 2025
21	Development of High RAP Mixtures: Laboratory Investigation on the	Dr. C. V. Veena Venudharan	SERB POWER	5862032	28 June 2022 - 27 June 2025
22	Microphase Separation in the Bottlebrush Polymers under	Dr. Debarati Chatterjee	SERB POWER	1844832	28 June 2022- 27 June 2025
23	Eternal Vertex Cover Problem of Bipartite Graphs, Constant	Dr. Jasine Babu	SERB POWER	1745832	18 July 2022 - 17 July 2025
24	Multiplicities and graded algebras associated to filtrations of ideals	Dr. Parangama Sarkar	SERB POWER	1341840	18 July 2022 - 17 July 2025
25	Design and Evaluation of OTFS and OCDM Transceivers for	Dr. Jobin Francis	Naval Research Board	2136880	02 November 2022 - 01 November 2025
26	Seismic Fragility Analysis of Dams in the state of Kerala	Dr. Arun C. O.	KSCSTE ETP	1492800	21 November 2022 - 20 November 2025
27	Single crystal growth and investigation of topological materials.	Dr. Moumita Nandi	DST INSPIRE Fellowship	3500000	24 December 2020 - 23 December 2025
28	Stochastic Resonance based detectors using thin-film integrated	Dr. Arvind Ajoy	SERB CRG	7373630	26 December 2022 - 25 December 2025

29	Relevance of Protein Secondary Structure in Polypeptide-Enzyme	Dr. Padmesh A.	SERB Core Research Grant	3483832	07 January 2023 - 06 January 2026
30	The study of Turaev cobracket from a hyperbolic geometric	Dr. Arpan Kabiraj	SERB MATRICS	660000	07 January 2023 - 06 January 2026
31	Information Geometric Approach to Estimation Error Bounds	Dr. M. Ashok Kumar	SERB MATRICS	660000	10 January 2023 - 09 January 2026
32	Fix Point Computation of Herbrand Equivalence of Expressions in	Dr. Jasine Babu	SERB MATRICS	660000	10 January 2023 - 09 January 2026
33	Complexity of Graph Contraction Problems	Dr. Krithika Ramaswamy	SERB MATRICS	660000	12 January 2023 - 11 January 2026
34	Balance in Chaos - Searching for Equitable Patterns in Edge- Colored	Dr. Krithika Ramaswamy	SERB CRG	1919082	23 January 2023 - 22 January 2026
35	Semilinear Elliptic Boundary Value Problems on Unbounded	Dr. Lakshmi Sankar K.	SERB CRG	2675596	23 January 2023 - 22 January 2026
36	Design and development of an underwater cleaning robot for marine	Dr. Santhakumar Mohan	IITG TIDF	2360000	31 January 2023 - 30 January 2026
37	Compact, High-gain Ultrawideband Antennas for Real-time	Dr. Sukomal Dey	IITG TIDF	1180000	31 January 2023 - 30 January 2026
38	Fabrication of low cost sensor devices for early detection of	Dr. Abdul Rasheed P.	Department of Biotechnology	11360000	01 September 2021 - 31 August 2026
39	Bills & Melinda Gates Foundation	Dr. Vivek Chathurvedi	Bills & Melinda Gates Foundation	\$2,528,935.00	24 March 2022 - 31 March 2027
40	Wearable/Portable Biomimetic Nanosensors for On-site Detection of	Dr. Yugender Goud Kotagiri	SERB Ramanujan Fellowship	3800000	09 May 2022 - 08 May 2027
41	Coding for Low-Latency Communication	Dr. Nikhil Krishnan M.	DST INSPIRE	3500000	19 September 2022 - 18 September 2027
42	A novel chemical proteomics approach to elucidate the mechanism of	Dr. Sushabhan Sadhukhan	Council of Scientific and Industrial	1100000	02 September 2021 to 01 September 2024
43	Study of Impact of Biodiversity in the pest control management of	Dr. Merlin Lopez	DST Women Scientist A	2962272	30 September 2022 - 31 January 2025
44	Formal Analysis and Verification of Redundancy Management Logic	Dr. Jasine Babu	ISRO RESPOND	1884520	23 March 2023 - 22 March 2025
45	CSR Funds from M/s. Redpine Signals India Pvt. Ltd., Hyderabad -	Dr. M. Sabarimalai Manikandan	Redpine Signals India Pvt. Ltd.,	810704	23 March 2023 - 22 March 2025
46	Engineering porous silicon for capacitive deionization	Dr. Revathy Padmanabhan	SERB POWER	5815832	28 June 2022 - 27 June 2025
47	Synthesis of layered transition metal oxides and oxysulfides for	Dr. Tanushree Holme Choudhury,	SERB POWER	0	14 September 2022 - 13 September 2025
48	Study for improved estimation as well as understanding of deep cloud	Dr. Swaroop Sahoo	SERB CRG	1800120	07 February 2023 - 06 February 2026
49	Performance evaluation of tunnel and slope support systems against	Dr. Ankesh Kumar	SERB EMEQ	4457332	28 February 2023 - 27 February 2026
50	Two Dimensional Covalent Organic Frameworks: Design Principles	Dr. Umadevi D.	DST Women Scientist A	3224247	14 March 2023 - 13 March 2026
51	Remote controlled colloidal robots for micro-manipulation and cargo	Dr. Mayarani M.	DST INSPIRE	3500000	02 January 2023 - 01 January 2028
52	Tribal languages in Palakkad: Moving Beyond Documentation to	Dr. Reenu Punnoose	ICSSR	1177500	28 March 2023 - 27 March 2025
53	Deep learning-based inversion for geosteering and novel	Dr. Arijit Hazra	SERB Ramanujan Fellowship	11900000	22 February 2023 - 21 February 2028
54	Design of a Cyber-Physical System for Supporting Decision Making	Dr. Senthilkumar V.	DST GITA	3562476	12 May 2023 - 11 May 2026
55	Investigations on the Rebinder effect and associated process	Dr. Afzaal Ahmed	Mikrotools Pte. Ltd., Singapore	0	08 June 2023 - 07 June 2026
56	Establishment of facilities for Micro/Nano Fabrication, Surface	Dr. Samarjeet Chanda	DST FIST	16800000	07 March 2023 - 06 March 2028
57	Experimental and numerical studies on ammonia combustion in a	Dr. Krishna Sesha Giri	SERB CRG	5254832	31 May 2023 - 30 May 2026
58	Design and development of high stiffness gradient substrate for	Dr. Bibhu Ranjan Sarangi	ERG	1250000	19 June 2023 - 18 June 2025
59	Improvement of surface and tribological properties of Laser Powder	Dr. D Kesavan	ERG	500000	19 June 2023 - 18 June 2025
60	Pumped thermal energy storage system for IIT Palakkad: Study on	Dr. Pramod Kuntikana & Dr. Anand	SGP	1900000	19 June 2023 - 18 June 2025
61	An Acoustic Study of the Nasal Consonants in Malayalam	Dr Reenu Punnoose	ERG	722000	19 June 2023 - 18 June 2025
62	Fatigue performance improvement of additive manufactured	Dr. Afzaal Ahmed	ERG	1100000	19 June 2023 - 18 June 2025
63	Physics aware AI/ML based spatio-temporal root zone soil moisture	Dr. Sarmistha Singh	ERG	1150000	19 June 2023 - 18 June 2025
64	Plasma electropolishing (PeP) for metal additive manufacturing	Dr. Dinesh Setti	SGP	3500000	19 June 2023 - 18 June 2025
65	Self-assembly Formation of "Amino-1,8-Naphthalimide-Tröger's	Dr. Shanmugaraju Sankarasekaran	ERG	1500000	19 June 2023 - 18 June 2025
66	Sound attenuation by line and annular mass membrane acoustic	Dr. Anoop Aloorath Mana	ERG/ FSG	2450000	19 June 2023 - 18 June 2025
67	Guiding active particles through complex environments	Dr. Vishwas V	ERG	472000	19 June 2023 - 18 June 2025
68	Development of a Prototype and Portable Imaging System for	Dr. Sukomal Dey	ERG	1450000	19 June 2023 - 18 June 2025
69	High Temperature Superconductivity	Dr. Jayakumar Balakrishnan	ERG	1050000	19 June 2023 - 18 June 2025
70	Method and System of for detecting an object using Microwave	Dr. Sukomal Dey	TETRA	3010000	07 June 2023 - 06 June 2025
71	Sustainable Slope Stabilization in Unsaturated Laterite Soil using	Dr. S. Smitha (Mentored by Dr. Rakesh	CMNPF (Chief Minister's	2200000	20 June 2023 - 19 June 2025
72	Study on Pull-Out Resistance of Soil Nails for Climate- Resilient	Dr. Sudheesh T K	Kerala Highway Research Institute	3498000	August 2023 - August 2025
73	Development of Real-time Compact AI-Enabled UWB Radar Based	Dr. Subrahmanyam Mula	MeitY C2S	8521000	16 August 2023 - 15 August 2028

74	Paper-Based Lateral Flow Assay-Based Electrochemical Sensor for	Dr. Jeethu Raveendran (Mentored by	CMNPF (Chief Minister's	2200000	18 September 2023 - 17 September 2025
75	A comprehensive approach to disentangle climate and land cover	Dr. Athira P.	DST DAAD	1480000	11 September 2023 - 10 September 2025
76	A mul'targeted polypharmaceu'cal approach to simultaneously	Prof. Jagadeesh Bayry	ERG	2000000	01 October 2023 - 30 September 2025
77	Physics Aware AI/ML Tool for Spatiotemporal Root Zone Soil	Dr. Sarmistha Singh	IDEAS-TIH, ISI, Kolkata	410000	09 October 2023 - 08 October 2025
78	Exploring many body effects in quantum machines	Dr. Uma Divakaran	SERB POWER	1734832	15 September 2023 - 14 September 2026
79	Development of Cost-Effective 2.5kW PEM Fuel Cell Stack based on	Dr. Dinesh Jagadeesan	Centre for High Technology	1754000	31 January 2024 - 30 January 2026
80	Optimization for an Image Reconstruction Mechanism for Breast	Dr. Sukomal Dey	IIT Mandi iHub & HCI Foundation	3791535	September 2023 - September 2025
81	Near net shape manufacturing of difficult to 3D print and fusion weld	Dr. Buchibabu Vicharapu	SGP	3500000	21 November 2023 - 20 November 2024
82	Effectiveness of a Proposed Dynamic Warning System: A Pilot Study	Dr. B. K. Bhavathrathan	Kerala Highway Research Institute	2477000	November 2023 - November 2025
83	Dispersion Controlled in Silico Catalyst Design for the Chemical	Dr. Rositha Kuniyil	MoE STARS	3500000	03 October 2023 - 02 October 2026
84	Resonance as a Phonetic Resource in Language Cognition: A Cross-	Dr. Reenu Punnoose & Dr. Ghada	Scheme for Promotion of	3457450	08 December 2023 - 07 December 2025
85	Design and Development of Advanced Forensics Data Analytics Tool	Dr. Vivek Chaturvedi	MeitY	1998000	14 December 2023 - 13 December 2025
86	Development of DSM based design rules for cold-formed steel	Dr. Hareesh M	SERB TARE	930000	22 January 2024 - 21 January 2027
87	Model Based Development of Domain ECU (DCU) and Validation	Dr. Albert Sunny	IPTIF - IMPACT	6000000	31 January 2024 - 30 January 2025
88	Swiss-roll fuel reformer	Dr. Krishna Sesha Giri	IPTIF - IMPACT	3100000	31 January 2024 - 30 July 2025
89	Compact and Efficient GaN-based Battery Pre-heater Module for	Dr. Naga Brahmendra Yadav Gorla	IPTIF - IMPACT	2000000	31 January 2024 - 30 January 2026
90	Catalytic overlayers for early detection of battery thermal	Dr. Dinesh Jagadeesan	IPTIF - IMPACT	2227000	31 January 2024 - 30 July 2025
91	Design and Development of 3-D printer for Fabricating Sustainable	Dr. S Kanmani Subbu	IPTIF - IMPACT	2200000	31 January 2024 - 30 July 2025
92	Design and development of a passive battery thermal management	Dr. Samarjeet Chanda	IPTIF - IMPACT	2017000	31 January 2024 - 30 July 2025
93	Optimal product configuration for SMT line	Dr. Narayanan C Krishnan	IPTIF - IMPACT	1350000	31 January 2024 - 30 January 2025
94	Methods to Improve the Reliability of the Wind Turbine GearBox	Dr. Kesavan D	IPTIF - IMPACT	2109000	31 January 2024 - 30 July 2025
95	Fabrication of low-cost sensor prototype device for the real-time	Dr Abdul Rasheed P	IPTIF - IMPACT	2400000	31 January 2024 - 30 July 2025
96	Macrocyclic - Derived Porous Organic Polymers for Task - Specific	Dr. Shanmugaraju Sankarasekaran	SERB EMEQ	3722461	10 January 2024 - 09 January 2027
97	Next Generation of Low Oxidation State and Low Coordinate Cations	Dr. Yuvaraj K	SERB SRG	3258873	19 December 2023 - 18 December 2025
98	Coloniality and other frameworks of power: How mental health	Dr. Sudarshan R. Kottai	Indian Institute of Technology	290000	08 February 2024 - 08 January 2026
99	Cooperative Bond Activation by Heterometallic Low Valent Group	Dr. Yuvaraj K.	Indian Institute of Technology	2500000	08 February 2024 - 31 January 2026
100	Tuning the structure and functional properties of "amino-1,8-	Dr. Shanmugaraju Sankarasekaran	SERB CRG	4374832	25 January 2024 - 24 January 2027
101	Unified Framework for Collaborative Intelligent Systems	Dr. Albert Sunny	IPTIF	677000	23 February 2024 - 07 June 2024
102	Real-time Monitoring and Control of Road Bridge Structure	Dr. Sanjukta Chakraborty	IPTIF	503000	23 February 2024 - 07 June 2024
103	High power density switched reluctance motor and drives	Dr. Vijay Muralidharan	IPTIF	571000	23 February 2024 - 07 June 2024
104	Development of Low-altitude Microsatellites Using Long-endurance	Dr. Vijay Muralidharan	IPTIF	817000	23 February 2024 - 07 June 2024
105	Energy Efficient Distributed Estimation and Control of Networked	Dr. Shaikshavali Chitranganti	IPTIF	782000	23 February 2024 - 07 June 2024
106	Design, Development and Control of a Multi-purpose Mobile	Prof. Santhakumar Mohan	IPTIF	395000	23 February 2024 - 07 June 2024
107	Design and Development of an Intervention-class Underwater	Prof. Santhakumar Mohan	IPTIF	290000	23 February 2024 - 07 June 2024
108	Aerial Dexterous Manipulators, Grasping and Transportation	Dr. Sneha Gajbhiye	IPTIF	378000	23 February 2024 - 07 June 2024
109	Design and development of indigenous, cost-effective Autonomous	Dr. Sneha Gajbhiye	Meity	4856000	07 February 2024 - 06 February 2027
110	Design, Synthesis and Pharmacological Evaluation of Novel Isoform-	Dr. Sushabhan Sadhukhan	SERB CRG	4521000	04 March 2024 - 03 March 2027
111	Condition Assessment & Management Plan (CAMP) for Periyar	Dr. Athira P.	Ministry of Jal Shakti	11500000	15 March 2024 - 14 March 2027
112	Cyber Physical Systems in Collaboration with Artificial Intelligence	Dr. Satyajit Das	IPTIF TDSP	606000	23 February 2024 - 07 June 2024

Total Budget	513913159
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Consultancy Projects - Underway

Sl. No.	Title of the project	Principal Investigator	Sponsoring Agency	Total Budget (INR)	Duration
1	Experimental and Numerical Evaluation of Gaseous Fuel Combustibility under BF raceway conditions	Dr. Krishna Sessa Giri	IIT Madras	708000	13 May 2021 - 12 May 2024
2	Crack Detection using Automated Magnetic Particle Inspection	Dr. Mrinal Kanti Das	Sansera Engineering Ltd.	2565497	05 July 2022 - 04 July 2024
3	Research Cluster for AI Acceleration	Dr. Satyajit Das	Multicoreware Inc., CA	5485920	01 April 2022 - 31 March 2025
4	Measurement and Modeling of Soil Organic Stocks	Dr. Deepak Jaiswal	Keystone Foundation	1915400	01 April 2023 - 31 March 2025
5	Imaging Software for Portable Ultrasound Scanner	Dr. Mahesh Raveendranatha Panicker	SAMSUNG R&D INSTITUTE INDIA-BANGALORE PRIVATE LIMITED	1217760	01 October 2023 - 30 June 2024
6	Design and Development of Wireless Power Transfer Unit for Blood Pressure Monitoring with Electromagnetic Signal - A Prototype	Dr. Sukomal Dey	NAADISENS MED TECH LLP	523920	08 January 2024 - 07 July 2024
7	Checking and Vetting of Design submitted by Bekaert concrete for SFRC flooring design for the warehouse projects A10, A1 and A14 at Aarush Logistics Park Pvt Ltd, Chennai, Tamil Nadu.	Dr. Sunitha K Nayar	Indus floors India Pvt. (Ltd.)	152928	30 January 2024 - 05 February 2024
8	Soil tests - Jal Jeevan Mission - Water Supply Scheme to Udayamperoor Grama Panchayat in Ernakulam- Soil investigation consultancy	Dr. Sudheesh T K	Kerala Water Authority	179124	25 September 2023 - 01 April 2024
9	Soil tests and design calculations - AMRUT -II- Water Supply Improvements to Pachalam Zone - Providing distribution mains from Pachalam OHSR-Phase 1	Dr. Sudheesh T K	Kerala Water Authority	197060	27 June 2023 - 01 May 2024
10	Conceptualize, design, plan and execute the construction of engineering field testing platform for performance assessment of sanitation technologies	Dr. Praveena Gangadharan (Project Director, GSCOE)	TECHIN- EFT	4956000	15 March 2024 - 30 September 2024
11	Construction of Lecture Hall Complex (Block - D) at NITK Campus, Suratkal, Mangalore	Dr. Arvind Ajoy	M/s. Sukhdevraj Sharma Engineers And Contractors Pvt. Ltd.	361080	02 April 2024 - 30 April 2024

Total Budget	18262689
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