

External Funded Projects

S.No	Investigators	Department	Project Title	Funding Agency	Sanction Date & Duration	Amount sanctioned (in Lakhs)	Remarks
1	Dr.K.Ramajeyathilagam Distinguished Professor – AERO Dr. T. Manikandan, Associate Professoor Ms. T. Sivagangai, Assistant Professor - AERO	AERO	Fatigue Spectrum Analysis of ADC-150 Container Due to Repeated Shock and Vibratory Loads	Naval Science & Technological Laboratory	24.3.2026 1 year	26.08	Ongoing
2	Dr. Puspamitra Panigrahi Scientist – F, CENCON Partner : Dr. Mrutyunjaya Sahu Managing Partner Bariflo-labs Private Limited, Bhubaneswar Collaborators: Dr. Akshya Panigrahi Principal Scientist ICAR – Central Institute of Brackish water Aquaculture, Chennai	CENCON	Integrated automated biofloc and recycling system for indoor crustacean farming	Biotechnology Industry Research Assistance Council	21.4.2026 2 years	168.56	Ongoing
3	Dr G Muthukumaran Professor – ECE Dr AL Vallikannu Associate Dean – Sponsored Research	ECE	Design and development of prototype for measuring hand kinetics, kinematics and pressure profile using camera vision system.	Defence Institute of Physiology and Allied Sciences, Defence Research and Development Organization	4.5.2026 9 months	9.97	Ongoing

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4	Dr S Mariyappan Professor - Physics Dr N Manoharan Director - Projects	Physics	Hexagonal Boron Nitride (h-BN) Barrier coating on underwater vehicles	IIT Guwahati Technology Innovation and Development Foundation	29.1.2025 2 years	20.00	Ongoing
5	Dr T Ponmudi Selvan Asst. Professor (SG) - Physics Dr Tejaswi Ashok Hegde Asst. Professor (SG) - Physics	Physics	Development of antimony chalcogenide thin film photodetectors for underwater optical wireless communication	IIT Guwahati Technology Innovation and Development Foundation	29.1.2025 2 years	20.00	Ongoing
6	Dr S Mariyappan Professor - Physics Dr N Manoharan Director - Projects	Physics	2D Quantum materials enabled solar driven electrolysis assisted nano bubble technology for sustainable agriculture and water treatment	IIT Ropar Technology and innovation foundation for Agriculture and water technology development hub (AWaDH)	21.2.2025 2 years	108.96	Ongoing
7	Dr Indrajit Shown Professor – Chemistry Dr Subrata Das Principal Scientist – CSIR-NIIST Dr. Yatendra Singh Chaudhary, CSIR-IMMT	Chemistry	Recovery of silica from the end-of-life silicon PV panels and laboratory e-wastes for advanced lighting and storage applications	Department of Science & Technology	8.8.2025 3 years	87.34	Ongoing
8	Dr R Sundararajan R Professor - Mathematics Mentor – Dr N Sadagopan Associate Professor and Dean (Academic affairs), IIITDM Kancheepuram	Mathematics	Distance-based parameters in embedding and its applications in the system of parallel processors.	Science and Engineering Research Board	9.1.2024 3years	18.30	Ongoing

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9	Dr Indrajit Shown Professor – Chemistry Dr G Muthukumaran Professor – ECE Industry Partner : Smint TIQ Private Limited, Chennai	CENSE	Development of purification process technology for the preparation of 5N purity aluminium for electronic and other speciality applications..	Ministry of Mines	24.6.2024 2 years	44.12	Ongoing
10	Dr.P Maneesh Asst. Professor (S.G) Economics Dr Mallesh Ummalla Assistant Professor Centre for Economics Studies and Policy Institute for Social and Economic Change Bengaluru Dr Raghutla Chandrashekar Assistant Professor Department of Humanities and Social Sciences Indian Institute of Science Education and Research Andra Pradesh Dr K P Rajula Helan Assistant Professor Department of Economics University of Calicut Kerala.	Economics	Integration of digital technologies for transforming rural occupational and livelihood diversification strategies in South India	Indian Council of Social Science Research	20.9.2024 1 year	12.00	Ongoing

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11	Dr.K.Ramajeyathilagam Distinguished Professor – AERO Ms.T.Sivagangai Asst. Professor (SS) -AERO	AERO	Development of shock standards and guidelines for two different marine vessels through numerical analysis	Naval Science & Technological Laboratory	30.5.2023 2 years	114.07	Ongoing
12	Dr.Sabarisakthi Asst. Professor - Economics Dr. Rajendran S The Gandhigram Rural Institute, Tamil Nadu; Dr. Thomas Felix K Institute for Social and Economic Change, Bengaluru; Dr. Durga A R Kerala Agricultural University, Thrissur Dr. Suresh G KREA University, Andhra Pradesh	Economics	Impact of PM Krishi Sinchai Yojana on water productivity in paddy cultivation: Empirical insights from diverse agro-climatic regions in South Indian States	Indian Council of Social Science Research	4.10.2023 6 Months	14.50	Completed
13	Dr.K Ramajeyathilagam Distinguished Professor – AERO Ms.T.Sivagangai Asst. Professor - AERO	AERO	Experimental and numerical investigations on the failures of metallic and composite structures to hail-ice impact	Grants-in-Aid Scheme of Aeronautics R&D Board , Ministry of Defence	7.12.2022 3 years	52.58	Ongoing
14	Dr. Indrajit Shown Professor - Chemistry Dr.Li-Chyong Chen National Taiwan University	Chemistry	Probing the dynamic photo catalytic CO2 reduction activity and interface carrier transport of direct Z-scheme hetero structure based on in-situ spectroscopy	DST - GITA India - Taiwan NTU, Taiwan	28.12.2022 3 years	44.47	Ongoing

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15	Dr. Srimathi Associate Professor & Scientist D - CENCON Mentor: Dr Sathyanarayana N Gummadi Professor – Department of Biotechnology Indian Institute of Technology, Chennai	CENCON	Carbon based materials with high antibacterial activity for face mask application to combat COVID-19	Science and Engineering Research Board	3.12.2021 3 years	18.30	Completed
16	Dr. Indrajit Shown Professor – Chemistry	Chemistry	Development of Highly Efficient Direct Z-Scheme Heterostructure Photocatalyst based on 2D metal sulfide for CO2 reduction.	Science and Engineering Research Board	22.12.2021 3 years	49.41	Ongoing
17	Dr. G. Muthukumaran Professor – ECE Dr S Janaki Raman Assistant Professor(SG) - Mechatronics Dr R S Nakandhrakumar Associate Professor- Mechatronics	ECE	Development of an on-line measurement system for Hydrogen concentration in Steam Environment	Atomic Energy Regulatory Board, Department of Atomic Energy	4.2.2020 3 years	45.36	Ongoing
18	Mr.Vijay Samuel G Assistant Professor(SG) - Chemical Dr.B.Abirami Assistant Professor(SG) - Biotech	Chemical	Carbon Zero Challenge 2022	IIT Madras	9.12.2022 6 Months	5.00	Completed
19	Dr. P. Selvi Rajendran Professor - CSE	CSE	Development of Anti-cancer drug response prediction model using ensemble learning for clinical application	ICMR New Scheme - Indian council of medical research	13.1.2021 3 years	17.06	Completed

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20	Dr. RM. Kuppan Chetty Associate Professor Mechatronics Dr. M.M. Ramya Professor Ms. N. Seenu Assistant Professor	Mechatronics	Development of Autonomous Heterogeneous Robotic Swarm Simulator for Faster Disaster Reconnaissance and Mitigation	Royal Academy of Engineering, U.K, Partners : University of Leicester, Siva Subramaniya Nadar (SSN) College of Engineering, Menzel Vision and Robotics Pvt. Ltd, Yagen Robotics	25.4.2021 2 years	53.67	Completed
21	Dr. Jai Kumar Professor Mr.T.Shanmuganathan Assistant Professor(SS)	AUTO	German Indian R & D study on innovative concepts for traffic and vehicle safety	German Academy of Exchange, DAAD, Germany	1.1.2019 4 years	397.25	Completed
22	Dr. D. Dinakaran Professor - Mechatronics Dr. M.M. Ramya Professor Dr. R.M. Kuppan Chetty Associate Professor	Mechatronics	Development of a mobile wall climbing robot for the internal non-destructive testing (NDT) of storage tanks and for project based learning on mechatronics programs	Royal Academy of Engineering U.K, Partners : London South Bank University, U.K National Institute of Technology Nagaland, Industry Partner : Nugenix	3.4.2019 2 years	49.86	Completed
23	Dr. G. Muthukumaran Professor - ECE Dr C Prasad Assistant Professor (SG) - AUTO	ECE	Development of Wall Climbing Robot with reduced sound levels using Active Noise Control	Defence Research and Development Organization	28.6.2019 3 years	60.62	Completed
24	Dr. Uppu Ramachandraiah Professor - EEE Dr. G. Muthukumaran, Professor - ECE	EEE	Development of position control system	Gas Turbine Research Establishment, Defence Research and Development Organization	6.9.2019 1 year	9.75	Completed

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25	Dr R Veena Associate Professor & Scientist D - CENCON Mentor: Dr Sudakar Chandran Professor - Physics Indian Institute of Technology Madras,, Chennai	CENCON	Sn integrated 3D, porous carbon based Scaffolds as high capacity anode for Sodium-ion batteries	Science and Engineering Research Board	6.11.2019 3 years	18.30	Completed
26	Dr. D. Dinakaran Professor-Mechatronics	Mechatronics	Adaptive control of robotic fettling for asymmetric geometry and close tolerance cast components	Science and Engineering Research Board	16.12.2019 2 years	38.70	Completed
27	Dr.R.Sundara Rajan Associate Professor - Mathematics	Mathematics	Distance based topological indices problems in cheminformatics and its applications.	Science and Engineering Research Board	12.3.2018 3 years	16.88	Completed
28	Dr. A.K. Parvathy Professor & HoD – EEE Dr. K.R. Devabalaji Associate Professor – EEE Dr. Deiva Sundari Professor - ECE (KCG Tech)	EEE	Optional Dispatch of Virtual Power Plant using Cyber – Physical controller for Realtime EMS	Royal Academy of Engineering, U.K.	8.4.2018 2.5 years	45.12	Completed
29	Dr. M.M. Ramya Professor - Mechatronics Dr.D.Dinakaran Professor	Mechatronics	Low cost assistive robot for elderly	Royal Academy of Engineering, U.K, Partners : University of Leeds, U.K. Industry Partner Axis Global Automation.	8.4.2018 2 years	44.99	Completed
30	Dr. Uppu Ramachandraiah Professor EEE Dr. G. Muthukumaran Professor - ECE	EEE	Development of see through wall passive eddy current sensor for blade detection	Gas Turbine Research Establishment , Defence Research and Development Organization	1.6.2018 18 months	9.85	Completed
31	Dr.K.Ramajeyathilagam, Distinguished Professor – AERO Mr.Stanley Samlal, Asst. Professor	AERO	Estimation of shock levels and its impact on the underwater axi-symmetric bodies due to water entry and pyro shock	Naval Science and Technology Laboratory, Defence Research and Development Organization	11.7.2018 6 Months	6.65	Completed

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32	Dr. Puspamitra Panghiri Professor & Scientist F CENCON	CENCON	Edge saturated Si ₂ BN nano-ribbon as high capacity anode materials for next generation Mg Ion batteries	Science and Engineering Research Board	29.11.2018 3 years	18.30	Completed
33	Dr. Uppu Ramachandraiah Professor - EEE Dr. G. Muthukumaran Professor - ECE	EEE	Design, Development and characterization of electrostatic sensor with digital electronic system for debris monitoring in gas turbines.	Gas Turbine Research Establishment , Defence Research and Development Organization	14.12.2018 18 months	9.98	Completed
34	Dr.D.Dinakaran Professor - Mechatronics Dr. M.M. Ramya Professor Dr.D.G.Harris Samuel Associate Professor	Mechatronics	Application of NDT for Foundry Products and improving skill of Indian foundry men.	Royal Academy of Engineering, U.K Partners: University of Northampton, INDSAT Corporation	13.4.2017 2.5 years	49.37	Completed
35	Dr.M. Ramakrishnan Professor- Mechanical	Mechanical	Development of Composites Track guard Fuel Tanks with Polyuria Coating on the Striking Face for Futuristic AFV	Combat Vehicles Research and Development Establishment, Defence Research and Development Organization	8.5.2017 3 years	25.37	Completed
36	Dr.K. Ramajeyathilagam Distinguished Professor – AERO Mr. C. Suresh Asst.Professor	AERO	Coupled fluid-structure interaction studies due to underwater explosion around submerged composite pressure hull	Naval Research Board, Defence Research and Development Organization	24.8.2017 3 years	39.60	Completed
37	Dr.D.G.Harris Samuel Associate Professor Mechanical Dr.D.Dinakaran Professor	Mechanical	Developing Technologies to manufacture specific grades of austempered ductile iron for automotive components.	Royal Academy of Engineering, U.K Partners: Warwick Manufacturing Group, Nelcast Ltd.	17.3.2016 2 years	49.07	Completed
38	Dr. V. Preethi Professor - Civil	Civil	Recovery of hydrogen from sulphide waste streams	Science and Engineering Research Board	22.3.2016 3 years	10.50	Completed

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39	Dr. Uppu Ramachandraiah Professor – EEE Dr. G. Muthukumaran Professor -ECE	EEE	Adaptive Controlled Suction Chamber and Cup based Wall Climbing Robot	Board of Research in Nuclear Sciences, Department of Atomic Energy	15.04.2016 3 years	21.80	Completed
40	Dr. Uppu Ramachandraiah Professor – EEE Dr. G. Muthukumaran Professor - ECE	EEE	Development of multi channel Adaptive Active Noise Control system for reduction of noise in a region adjacent to noisy equipment	Board of Research in Nuclear Sciences, Department of Atomic Energy	18.04.2016 3 years	23.45	Completed
41	Dr. N. Kavitha Associate Professor - Chemical	Chemical	Enhancement of heat transfer using silicon carbide nanoparticles and whiskers based Nano fluids	Science and Engineering Research Board	20.10.2016 3 years	27.36	Completed
42	Dr.R.Sundara Rajan Professor - Mathematics	Mathematics	Embedding problems in networks and applications	National Board for Higher Mathematics, Department of Atomic Energy	24.10.2016 3.6 years	17.96	Completed
43	Dr. M.M. Ramya Professor - Mechanical	Mechanical	Trainer for Tactical Warfare	Defence Research and Development Organization	22.4.2015 3 years	9.62	Completed
44	Dr. K. Ramajeyathilagam Distinguished Professor – AERO Mr. Stanley Samlal Assistant Professor	AERO	Evaluation of Numerical Bird Material Model Parameters through Dynamic Test of Bird Projectile	Gas Turbine Research Establishment , Defence Research and Development Organization	8.9.2015 1 year	9.66	Completed
45	Dr. P.S. Raghavan Professor - Chemistry	Chemistry	Development of CO2 Absorbent as IS-5321 Standard using Indigenous Raw Materials.	Defence Research and Development Organization	18.3.2014 3 years	18.84	Completed
46	Dr. A. Anitha Professor - Chemical	Chemical	Nanoparticles of TPA and CsTPA as catalysts for Biodiesel Production from used cooking Oils with high acid value.	Department of Science and Technology	19.8.2014 3 years	24..31	Completed

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47	Dr. M. Prabakaran Professor - Chemistry	Chemistry	Development of Multi-functional Nano Carriers for Cancer Theranostics	Department of Science and Technology	31.10.2014 3 years	46.82	Completed
48	Dr. A.K. Parvathy Professor - EEE	EEE	Hybrid Energy Management System using Cyber – Physical Controller for real time EMS of Micro grid Application	Ministry of New and Renewable Energy	22.12.2014 3 years	35.95	Completed
49	Dr. M. Premkumar Asst. Professor - Mechanical Dr. Uppu Ramachandraiah Professor	Mechanical	Design & Development of 1 KW Hybrid Vertical Axis Wind Turbine System for Low wind Speed Regimes.	Ministry of New and Renewable Energy	30.12.2014 3 years	28.61	Completed
50	Dr. M.M. Ramya Professor - Mechanical	Mechanical	Intelligent system for adaptive enhancement of underwater images for accurate object recognition	Defence Research and Development Organization	28.2.2013 3 years	20.01	Completed
51	Dr. Puspamitra Panghiri Professor & Scientist F CENCON	CENCON	Enhancement of photovoltaic efficiency by down conversion phosphors for Underwater solar panels towards Naval applications.	Defence Research and Development Organization	3.6.2013 3 years	24.46	Completed

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52	Dr.P.S.Joanna Professor - Civil	Civil	Development and characterization of high volume fly ash and concrete for structural application	Department of Atomic Energy	21.4.2011 3 years	23.91	Completed
53	Dr. D.G. Roychowdhury Professor - AERO	AERO	Numerical Simulations of hull propeller interaction of underwater vehicle with mounted propeller	Defence Research and Development Organization	9.1.2008 3 years	17.73	Completed