Externally funded research projects

Sl. No.	Title and Scope of the Project	Sponsoring Agency	Principal & Co-investigators	Year in which started	Duration in months	Capital (Lakhs in ₹)
1	New Methods for Production of Nanostructured Thermoelectric Materials	The Royal Society, UK	Dr. Chitra Gurnani	2015	36	18
2	Detailed Analysis and Optimization of running network assets in a Smart Grid Framework	Tech Mahindra	Prof. Arya K. Bhattacharya, Prof. J.L. Bhattacharya, Dr. Sayantan Hazra	2016	18	8.4
3	Missile launch improvements using Evolutionary and Multi-Objective Optimization techniques	DRDO	Prof. Arya K. Bhattacharya	2016	18	9.2
4	Electromagnetic Metamaterials based ultra-thin film sensors	DST	Prof. Dibakar Roy Chowdhury, Prof. Bishnu Pal	2016	36	37.9
5	A simplex network - cell approach to study failure mechanisms in granular materials	DST	Dr. Jagan Mohan Padbidri	2016	36	28.9
6	Green **T**ransmission **E**fficiency **A**lgorithm (Project GreenTEA)	European Eurostars	Dr. S. S. Krishna Chaitanya BULUSU	2016	24	15.5
7	Distributed Brillouin Fiber Optic Sensor	DST through CEFIPRA	Prof. Bishnu Pal, Bernard Dussardier and Sterlite Technologies Ltd (Aurangabad)	2016	36	97
9	Query Processing over Encrypted Data with Strong Security Protection for Two-tiered Sensor Networks	Chinese National Science Foundation	Prof. Bruhadeswar Bezwada	2017	36	24.5
10	Hydrodynamics of Bubbles/ Drops/ Soft Particles in Porous Media- Volume Averaging Approach	DST	Dr. Jai Prakash	2018	36	6.6

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11	Numerical analysis and simulation of state constrained optimization for multiscale problems	DST-MATRICS	Dr. Nagaiah Chamakuri	2018	36	6.6
12	Complex Dielectric Structures as Tunable Metamaterials	DST	Dr. Jayasri Dontabhaktuni, Prof. Dibakar Roy Chowdhury	2018	36	28
13	Development of Real-time, Adaptive, Intelligent Mechanisms for monitoring and control of complex industrial processes within Industrial IoT frameworks	DST	Prof. Arya K. Bhattacharya	2018	36	23
14	Development of IOT devices for upgrading existing SCADA systems to Smart Grids	DST	Dr. Gopala Rao, Dr. Bharghava Rajaram	2018	36	23
15	Metamaterials for Phase control of THz resonant tunneling diode oscillators	DST (Indo-Austrian Collaboration)	Prof. Dibakar Roy Chowdhury	2018	24	8.2
16	Mathematical analysis for an optimal control of reaction-diffusion equations in cardiac defibrillation	DST-EMR(CRG)	Dr. Nagaiah Chamakuri	2018	36	26.3
17	Sevak: A Chatbot in Hindi Language	DST-IMPRINT	Dr. Amitava Das	2018	36	120
18	Ferroelectric $BiFeO_3$ Materials for Solar Energy Conversion using Enhance Light Absorption	DST (Indo-Taiwan Collaboration)	Dr. Murtaza Bohra, Prof. Dibakar Roy Chowdhury	2018	36	24.8
19	Development of Optimization Techniques and FPGA-based platform accelerators for Warehouse Operations	GROUND Inc.	Dr. Bharghava Rajaram, Prof. Arya K. Bhattacharya	2019	6	14
20	Exploiting the Zn-ferrite thin films material: an assortment of spintronics devices	DST (Indo-Bulgaria Collaboration)	Dr. Murtaza Bohra	2019	24	15
21	Development of Terahertz Meta grating	BRNS (DAE)	Prof. Dibakar Roy Chowdhury, Prof. Bishnu Pal and Dr. Murtaza Bohra	2019	36	30

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22	Harnessing nonlinearity in metamaterials for realizing a high-power room temperature Terahertz Source	SERB -CRG	Prof. Dibakar Roy Chowdhury, Prof. Bishnu Pal	2019	36	30
23	Role of antiplane slip waves in rupture dynamics	SERB -CRG	Prof. Ranjith Kunnath	2019	36	40
24	Development of Resource Allocation System for Warehouse	GROUND Inc. Japan	Prof. Arya K. Bhattacharya	2020	6	5.2
25	Structural Health Assessment and Monitoring of Structures using Wireless Sensors and Artificial Intelligence	KDM Engineers (India) Pvt. Ltd.	Dr. Venkata Dilip Kumar Pasupuleti and Prafulla Kalapatapu	2020	36	24.48