

List of schemes/ projects/ programme underway since Inception to Till Date as Per Records Available in R&D Section

Sl No.	Title of the Project	Principal Investigator	Agency Type	Sponsoring Agency	Project Start Date	Project Closed Date	Sanctioned Amount	Dept.	Remarks
1	Application and development of Isotope techniques to evaluate human impact on water balance and nutrient dynamics of Large River Basins	Prof. Prasanta Sanyal	International	IAEA (International Atomic Energy Agency)	29 May 2014	31 March 2025	7,16,836	DES	Ongoing
2	FIST Program-2017	DBS, Head	National	DST	01 October 2018	30 September 2023	1,12,00,000	DBS	Ongoing
3	Estimation of evaporation loss in domestic water supply and evaluation of urbanization of hydrology: A case study from New Delhi, India	Prof. Prasanta Sanyal	International	IAEA (International Atomic Energy Agency)	29 May 2018	31 March 2025	15,50,000	CCES	Ongoing
4	Porous Covalent Organic frameworks with Exceptional Chemical Stability for CO ₂ Capture	Prof. Rahul Banerjee	National	Tata Steel	09 October 2019	31 March 2025	7,50,000	DCS	Ongoing
5	Computational modeling of collective cell motion to explore its mechanical features and roles in development	Dr. Dipjyoti Das	National	DBT	01 July 2019	30 June 2024	42,50,000	DBS	Ongoing
6	Profiling of bromodomain specific interacting partners using unnatural amino acid mutagenesis	Dr. Babu Sudhamalla	National	DBT	01 July 2019	30 June 2024	42,50,000	DBS	Ongoing
7	FIST PROGRAM	DMS, Head	National	DST	05 June 2020	04 June 2025	44,00,000	DMS	Ongoing
8	Unravelling the role of Phytochrome B in temperature-mediated regulation of growth and defense responses in Rice (<i>Oryza sativa</i> L.)	Dr. Sreeramaiah N. Gangappa	National	MHRD-STARs	10 June 2020	09 June 2024	49,92,000	DBS	Ongoing
9	Photoredox/Transition-Metal Dual Catalysis: Applications in Visible-Light-Mediated Carbon-Carbon Bond Formations and Asymmetric Transformations	Dr. Biplab Maji	National	SERB	17 February 2020	16 February 2023	58,96,000	DCS	Ongoing
10	Functional Characterization of the Novel Actin-Interacting Protein Kaptin and Its Regulation of Cytoskeleton Dynamics in Neurons	Dr. Sankar Maiti	National	SERB	19 February 2020	18 February 2023	27,22,500	DBS	Ongoing
11	Dynamical signatures of transcriptional noise sources	Dr. Anandamohan Ghosh	National	SERB	21 February 2020	20 February 2023	6,60,000	DPS	Ongoing
12	Role of Membrane Fluctuations and Cell Mechanics in myogenesis	Dr. Bidisha Sinha	National	SERB	06 March 2020	05 March 2023	40,72,319	DBS	Ongoing
13	Gravitational Wave Production During and After Inflation: A Complimentary Goal	Dr. Koushik Dutta	National	SERB	01 May 2020	30 April 2023	6,60,000	DPS	Ongoing
14	Structural studies on Mycobacterium Ribosome-CgtA complexes by cryo-EM towards identifying potential drug target(s)	Dr. Partha Pratim Datta	National	MHRD-STARs	15 May 2020	14 May 2024	49,49,000	DBS	Ongoing
15	All-optical probing of caveolac-mediated local membrane tension regulation in 2D and 3D-like microenvironment	Dr. Bidisha Sinha	International	CEFIPRA	01 August 2020	31 July 2024	67,07,649	DBS	Ongoing
16	Sustained Autonomy in Out of Equilibrium Supramolecular materials (Swarajanti Fellowship)	Dr. Dibyendu Das	National	SERB	09 December 2020	08 December 2025	3,75,96,800	DCS	Ongoing
17	Monitoring Freshwater Fish Population in Selected Indian Landscapes with Reference to the Changing Climatic Variables	Dr. Anuradha Bhat	National	MoEFCC	01 October 2020	30 September 2025	30,00,000	DBS	Ongoing
18	Understanding the impact of variation in plant defenses with edaphic factors on tri-trophic interactions using brassica plants from NER as study system	Dr. Radhika Venkatesan	National	DBT	31 March 2021	03 January 1900	35,92,800	DBS	Ongoing
19	Development of Synthetic Methodologies by Photoredox catalysis based on Non-covalent Interactions and Cooperative Catalysis	Dr. Suman De Sarkar	National	CSIR	01 August 2021	31 July 2024	32,42,000	DCS	Ongoing
20	Development of Homogeneous manganese Catalysts: Application in Hydrogenations, Carbon-Carbon and Carbon-Heteroatom Bond Formations, Asymmetric Transformations	Dr. Biplab Maji	National	CSIR	02 September 2021	01 September 2024	18,50,000	DCS	Ongoing
21	Enantioselective arrays of binding pockets in cross β amyloid assemblies	Dr. Dibyendu Das	National	CSIR	01 April 2021	31 March 2024	18,00,000	DCS	Ongoing
22	Understanding the Catchment Hydrology of eastern Himalayan River: A stable isotopic approach	Prof. Prasanta Sanyal	National	BRNS -DAE	09 July 2021	08 July 2024	24,85,100	DES	Ongoing

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23	Nature vs Nature: Exploring Behavioural Syndromes in free ranging Dogs	Dr. Anindita Bhadra	National	DBT	25 August 2021	24 August 2026	26,00,000	DBS	Ongoing
24	JC Bose Fellowship	Prof. Soumitro Banerjee	National	DST	01 February 2021	31 October 2025	90,25,000	DPS	Ongoing
25	Campylobacter Jejuni Outer Membrane Vesicles: Role in Host Pathogen Interaction and vaccine perspectives	Dr. Amirul Islam Mallick	National	DBT	29 September 2021	28 March 2025	39,57,800	DBS	Ongoing
26	Assessing the immuno-therapeutic potential of type III interferons-IFNs (IFN- λ) against Avian Influenza virus (AIV) infections in murine and chickens models	Dr. Amirul Islam Mallick	National	DBT	29 September 2021	28 September 2024	43,55,200	DBS	Ongoing
27	ORGANOMETALLIC MULTINUCLEAR D6/D8 METAL COMPLEXES FOR THE THERANOSTIC APPLICATION CELLULAR IMAGING TO METALLO-DRUGS	Dr. Parna Gupta	National	CSIR	01 August 2021	31 July 2024	13,00,000	DCS	Ongoing
28	Investigation on the role of bulk trap states on the resistive state switching in organic semiconductor devices	Dr. Ratheesh K Vijayaraghavan	National	SERB	13 December 2021	12 December 2024	31,27,696	DCS	Ongoing
29	Exploring Atomic and Molecular Electronic Excitation in Strong Magnetic Fields	Dr. Sangita Sen	National	SERB	13 December 2021	12 June 2024	22,67,278	DCS	Ongoing
30	Co-creating Sustainable Agri-Water Use in the Hindon sub-basin –A Multi Scale Participatory Approach	Prof. Prasanta Sanyal	National	DST-NWO	07 February 2022	06 February 2027	2,61,36,385	CCES	Ongoing
31	Understanding the role of Target of Rapamycin TOR signaling in mediating cell shape transition during epithelial morphogenesis using the fly oogenesis model	Prof. Mohit Prasad	National	SERB	30 December 2021	29 June 2025	47,44,872	DBS	Ongoing
32	Understanding the trafficking regulation of human Copper ATPases	Dr. Arnab Gupta	National	SERB	21 January 2022	20 January 2025	41,83,080	DBS	Ongoing
33	Developing a nature-inspired, general approach for enzymatic synthesis of hybrid biopolymer peptide oligonucleotide conjugates	Dr. Purba Mukherjee	National	DBT	18 August 2021	17 August 2024	46,00,000	DBS	Ongoing
34	Up-scalable self-assembled lipid nanoparticles for in vivo targeting of SARS-CoV-2 antigen encoded mRNA vaccines to dendritic cells	Prof. Arabinda Chaudhuri	National	BBIL	01 January 2022	30 April 2023	35,00,000	DCS	Ongoing
35	Stereoselective cationic (co)polymerization of sutiable polar and non polar monoments and teir kinetic studies	Prof. Priyadarshi De	International	Exxon Mobil Chemical Company	21 February 2022	31 March 2025	33,55,040	DCS	Ongoing
36	Effects of gravitational time dilation on neutron star equation of states	Dr. Golam Mortuza Hossain	National	SERB	21 February 2022	20 February 2025	6,60,000	DPS	Ongoing
37	Holographic Geometry of Quantum Matter	Dr. Siddhartha Lal	National	SERB	23 February 2022	22 February 2025	6,60,000	DPS	Ongoing
38	DBT-BUILDER-IISER Kolkata Interdisciplinary Life Science Programme for Advance Research and Education	Prof. Jayasri Das Sarma	National	DBT	24 February 2022	23 February 2027	7,89,05,349	DBS	Ongoing
39	Exploring the many -particle entanglement and quantum criticality of quantum matter	Dr. Siddhartha Lal	National	SERB	28 February 2022	27 August 2025	31,27,696	DPS	Ongoing
40	Control and Inverse Problems for the Compressible Navier-Stokes Equations?	Dr. Shirshendu Chowdhury	National	SERB	18 February 2022	17 February 2025	6,60,000	DMS	Ongoing
41	Some nonparametric methods for discretely observed functional data?	Dr. Anirvan Chakraborty	National	SERB	18 February 2022	17 February 2025	6,60,000	DMS	Ongoing
42	High Pressure Studies on Pb-free Halide Perovskites and double-Perovskites: A search for improved optoelectronic behavior	Prof. Goutam Dev Mukherjee	National	SERB	19 March 2022	18 March 2025	46,65,287	DPS	Ongoing
43	Developing Rapid-Scan Optical Delay based Ultra Broadband Terahertz Spectroscopy	Dr. Kamaraju Natarajan	National	SERB	14 March 2022	13 March 2025	31,21,294	DPS	Ongoing
44	Discovery of Covalent-Organic Nanotubes (CONTs): A Possible Carbon Nanotube (CNT) Alternative	Prof. Rahul Banerjee	National	SERB	19 March 2022	18 March 2025	79,20,000	DCS	Ongoing
45	Design of fibre-like cross linked high stable polymeric material to remediation of textile generated waste management	Prof. Raja Shunmugam	National	MOT	25 March 2022	24 March 2026	79,54,000	DCS	Ongoing

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46	The plastic pandemic: The fate of weathered-single-used PPE kits and other related products during Covid-19 in the aquatic environments	Dr. Gopala Krishna Dharbha	National	SERB	27 June 2022	26 June 2025	55,55,000	DES	Ongoing
47	Effect of impurities on the isotope geochemistry of some important rock forming minerals: A combined theoretical and experimental study	Dr. Swastika Chatterjee	National	SERB	22 June 2022	21 June 2025	35,34,696	DES	Ongoing
48	Analysis of genetic variants of human hemoglobin and its effect on the assessment of glycated hemoglobin	Dr. Amit Kumar Mandal	National	ICMR	02 August 2022	01 August 2025	27,04,780	DBS	Ongoing
49	Quantum Simulations of Flat band Moire Superlattices	Dr. Bheemalingam Chittari	National	SERB	07 October 2022	06 October 2024	28,60,000	DPS	Ongoing
50	Charge Density wave state in correlated quantum matter: Frustration and lattice coupling (CEFIPRA)	Prof. Amit Amal Ghosal	International	CEFIPRA	17 August 2022	16 August 2025	78,54,995	DPS	Ongoing
51	Development of Reagentless Oxidative [4+2]-Cycloaddition of Quinols: Total Syntheses of Naturally Occurring Bioactive Taiwaniadducts	Prof. Alakesh Bisai	National	SERB	04 November 2022	03 November 2025	61,60,000	DCS	Ongoing
52	FRET-Based Optical Response and Sensing by Molecular Rotor Components in Soil and Water Samples	Prof. Amitava Das	National	DRDO	20 October 2022	19 October 2025	43,22,000	DCS	Ongoing
53	Study the risk of Arsenic contamination in the food chain and methods of risk reduction in our project implementation areas of west bengal, India	Prof. Punyasloke Bhadury	National	Bandhan-Konnagar	01 September 2022	28 February 2023	9,90,000	CCES	Ongoing
54	Inspire Faculty Award	Dr. Arjun Pal	National	DST	19 July 2021	18 July 2026	35,00,000	DMS	Ongoing
55	Evaluation of a novel microbial consortia for effective management of fecal coliform and biological oxygen demand (BOD) levels in septic tank and sewage treatment plant (STP)	Prof. Punyasloke Bhadury	National	WBPCB	20 December 2022	19 March 2023	6,68,000	CCES	Ongoing
56	Vigyan Pratibha Regional Centre	Dr. Anindita Bhadra	National	TIFR HBCSE	11 November 2022	10 November 2026	15,65,000	DBS	Ongoing
57	Design and Development of 2D Layered Materials-based Catalysts for Light-Mediated CO2 Fixation	Dr. Venkataramanan Mahalingam	National	SERB	26 December 2022	25 December 2025	57,97,000	DCS	Ongoing
58	FRET/FLIM-FRET technique to investigate the role of hydrophobic and hydrophilic gold nanoclusters in modulating vesicle fusion and determination of the thickness of lipid bilayer	Prof. Pradipta Purkayastha	National	SERB	26 December 2022	25 December 2025	67,13,696	DCS	Ongoing
59	Chemical Synthesis of the Oligosaccharides Related to the Capsular Polysaccharides from Acinetobacter baumannii Strains for Potential Vaccine Development	Prof. Balaram Mukhopadhyay	National	SERB	26 December 2022	25 December 2025	61,79,888	DCS	Ongoing
60	Catalytic Activation and Functionalization of Sulfur Dioxide (SO2) and Nitrous Oxide (N2O) using Reactive Main-group Compounds	Prof. Swadhin K. Mandal	National	SERB	26 December 2022	25 December 2025	60,64,696	DCS	Ongoing
61	Taking nutrition-sensitive carp-SIS polyculture technology to scale	Prof. Punyasloke Bhadury	International	WORLD FISH	06 October 2022	05 October 2025	16,80,572	CCES	Ongoing
62	Design and Synthesis of Membrane Fusion Inhibitors to Develop Antiviral Compounds	Dr. Pradip Kumar Tarafdar	National	SERB	27 December 2022	26 December 2025	36,52,000	DCS	Ongoing
63	In Situ Bioremediation approach at Two Drains Leading to Noai Khal (Falling on the River Bidydhari) and Khardah Khal (falling on the river Hooghly)	Prof. Punyasloke Bhadury	National	WBPCB	02 January 2023	01 July 2023	21,10,000	CCES	Ongoing
64	Light-driven reversible modulation of electrical conductance with organic photochromic materials	Prof. Subhajit Bandyopadhyay	National	SERB	10 January 2023	09 January 2026	62,29,696	DCS	Ongoing
65	Classification of graph C*-algebras as S^1 principal bundles	Dr. Soumalya Joardar	National	SERB	09 January 2023	08 January 2026	6,60,000	DMS	Ongoing
66	Monitoring Biodiversity and Ecosystem Services for Ecosystem Enhancement under the green India Mission : Phase-2	Dr. Robert John Chandran	National	MPSBB	11 January 2023	15 July 2025	64,71,000	DBS	Ongoing
67	Development of Selective Fluorination Strategies via Visible-Light-Photoredox Catalysis and Electrocatalysis Towards Late-Stage Diversifications of Drug Molecules	Dr. Biplab Maji	National	SERB	12 January 2023	11 January 2026	62,67,888	DCS	Ongoing

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68	Orbit spaces of Unimodular rows over smooth affine algebras and Efficient generation of ideals	Dr. Md. Ali Zinna	National	SERB	12 January 2023	11 January 2026	6,60,000	DMS	Ongoing
69	Promiscuous Catalytic Repertoire of Cross β Amyloids as Designer Enzymes	Dr. Dibyendu Das	National	SERB	12 January 2023	11 January 2026	65,92,380	DCS	Ongoing
70	Next generation porous conducting polymers/frameworks for efficient reverse electrochemical desalination	Prof. Rahul Banerjee	International	Khalifa University	06 January 2023	05 January 2026	40,97,046	DCS	Ongoing
71	Anderson localization in interaction driven correlated metals: Role of the multifractality of electronic wavefunctions	Prof. Amit Amal Ghosal	National	SERB	18 January 2023	17 January 2026	6,60,000	DPS	Ongoing
72	Approximation of biholomorphic maps and the Loewner theory in several complex variables	Dr. Sushil Gorai	National	SERB	23 January 2023	22 January 2026	30,11,888	DMS	Ongoing
73	Upcycling of Commodity Polymers via Solvent-free Fe-mediated Catalytic Hydroxylation	Prof. Sayam Sen Gupta	National	SERB	31 January 2023	30 January 2026	57,44,400	DCS	Ongoing
74	Prioritisation of Freshwater ecosystems (Bhima Phase-II)	Prof. Punyasloke Bhadury	National	The Nature Conservancy India	02 February 2023	31 March 2024	16,00,000	CCES	Ongoing
75	Ultrafast and polarization-resolved optical study of the carrier, spin, and valley dynamics in two-dimensional layered materials and van der Waals heterostructures	Prof. Bipul Pal	National	SERB	13 February 2023	12 February 2026	42,02,000	DPS	Ongoing
76	Synthesis of Viscosity Modifiers	Prof. Raja Shunmugam	National	Unilever	01 December 2022	31 March 2024	36,00,000	DCS	Ongoing
77	Understanding the Molecular basis of Wilson disease pathology	Dr. Arnab Gupta	National	ICMR	16 February 2023	15 February 2026	32,90,000	DBS	Ongoing
78	Application of water Isotopes in Disentangling the Impact of of Macroscale Climatic Controls and Microscale Hydrological Process in ground water-wetland Ecosystems form the Lower Ganga-Brahmaputra Basin, Indo- Bangladesh Peninsula	Prof. Prasanta Sanyal	International	IAEA (International Atomic Energy Agency)	20 September 2022	19 February 2026	19,99,151	DES	Ongoing
79	Using Machine learning to understand the impacts of water quality and habit disturbances on fish community structure and patterns in lower East_himalayan strams of India and in La Moselle straem in france	Dr. Anuradha Bhat	International	CEFIPRA	23 January 2023	22 January 2026	41,53,874	DBS	Ongoing
80	Biocompatible PolymericNanocarries for Theranostic Cancer Drug Delivery	Prof. Raja Shunmugam	National	DBT	13 March 2023	12 March 2026	83,36,440	DCS	Ongoing
81	Micro-Mat: Light- and Bio-Sensitive Soft Micro-Materials	Dr. Supratim Banerjee	International	CEFIPRA	17 August 2022	16 August 2025	52,33,318	DCS	Ongoing
82	Emulating neuromorphie synapse via resistive state switching in Non-equilibrium Asdsemblies of Amyloid Peptides	Dr. Dibyendu Das	National	DBT	10 March 2023	09 March 2026	61,72,800	DCS	Ongoing
83	Centre for Marine Therapeutics	Prof. Punyasloke Bhadury Dr. Rituparna Sinha Roy	National	NIPER Kolkata	31 March 2023	30 March 2028	57,22,000	CCES	Ongoing
84	Insa Honorary Scientist	Prof. Somdatta Sinha	National	INSA	22 March 2022	21 March 2023	3,00,000	DBS	Ongoing
85	Studies on stochastic micro-engines in complex fluids	Prof. Ayan Banerjee	National	SERB	31 May 2023	30 May 2026	49,85,241	DPS	Ongoing
86	Exploring the role of tandem epigenetic readers in regulating gene expression using an expanded genetic code	Dr. Babu Sudhamalla	National	SERB	26 June 2023	25 June 2026	43,54,799	DBS	Ongoing
87	Bioengineering Bacterial Extracellular Vesicles (BEVs) as a multifunctional oral delivery platform for biomedical applications	Dr. Amirul Islam Mallick	National	SERB	13 July 2023	12 July 2026	44,77,960	DBS	Ongoing
88	Assessing the Climate sensitivity of geomorphic process in the Himalaya	Dr. Sanjay Kumar Mandal	National	CSIR			21,00,000	DES	Ongoing
89	Hierarchical Porous MOF-Polymer Coating for CO ₂ Capture and Sequestration	Prof. Rahul Banerjee	National	Tata Steel	01 September 2023	01 March 2026	30,00,000	DCS	Ongoing
90	Criticality and metastability in zeroth-order abrupt phase transitions in solid-state materials	Dr. Bhavtosh Bansal	National	SERB	11 September 2023	10 September 2026	73,70,000	DPS	Ongoing

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91	Screening of Polymorphs, salts, cocrystals using different crystallization technique, solvent condition and other variable factors	Prof. C. Malla Reddy	National	TCG Lifesciences PVT. LTD.	18 August 2023	31 March 2025	34,00,000	DCS	Ongoing
92	Understanding the Mobilization of Nitrate in Groundwater of the North-Western Ganga Plain, India With Water Isotopes, Radiative Tracers and Microbiological Approach	Prof. Punyasloke Bhadury	International	IAEA (International Atomic Energy Agency)	20 September 2023	19 September 2028	16,79,905	CCES	Ongoing
93	A Novel approach of targeting Leishmania by Liposome Encapsulated Carbonic Anhydrase Inhibitors	Prof. Rupak Datta	National	ICMR	03 October 2023	02 October 2026	34,82,304	DBS	Ongoing
94	Investigating The role of ADAMTS13 in regulating angiogenesis of human MSCs under various physiological stress conditions	Dr. Malancha Ta	National	DBT	06 September 2023	05 September 2025	31,53,000	DBS	Ongoing
95	Functional Polymers in the Context to Deodorants and Antiperspirants in Beauty and Personal Care Category	Prof. Priyadarshi De	National	Unilever	27 October 2023	26 October 2025	36,00,000	DCS	Ongoing
96	Crust and upper mantle shear velocity anisotropic structure in the Indo Burma Ranges and its geodynamic implication	Dr. Kajalijoti Borah	National	MoE-STARs	03 October 2023	02 October 2026	48,96,000	DES	Ongoing
97	Multimodal Photocatalytic Therapy Based on NIR-Active Perovskite Peptide Nanocomposites for Hard-To-Treat Lung Biofilm Infections	Dr. Amirul Islam Mallick	National	MoE-STARs	03 October 2023	02 October 2026	48,96,000	DBS	Ongoing
98	Microplastic assessment, plastisphere microbiome metagenomics, and sensitization of local communities in Chilika Lagoon, Odisha, India	Prof. Punyasloke Bhadury	National	DBT	09 November 2023	08 November 2027	4,51,000	CCES	Ongoing
99	Investigating adaptive strategies of forest trees to temperature and water stress to inform climate-resilient forestation in central India	Dr. Robert John Chandran	National	MoE-STARs	03 October 2023	02 October 2026	44,90,000	DBS	Ongoing
100	Total Syntheses of Antiviral Natural Products Isolated from Marine Sources: Dimeric Indolosesquiterpene Alkaloids Showcasing Rare N-N and C-N Atropoisomerism	Prof. Alakesh Bisai	National	MoE-STARs	03 October 2023	02 October 2026	40,00,000	DCS	Ongoing
101	Live vector-based multivalent vaccine against cecal colonisation of Campylobacter jejuni in commercial chickens	Dr. Amirul Islam Mallick	International	BactiVac	01 November 2023	31 July 2024	36,63,848	DBS	Ongoing
102	Identifying the TRP Channels Involved in Mediating Proliferation and Migration of Human Mesenchymal Stem Cells under Different Temperature Stress Conditions	Dr. Malancha Ta	National	SERB	06 December 2023	05 December 2026	38,48,890	DBS	Ongoing
103	Understanding the Molecular basis of phenotypic overlap in MEDNIK syndrome and diseases of copper metabolism	Dr. Arnab Gupta	National	MoE-STARs	03 October 2023	02 October 2026	47,00,000	DBS	Ongoing
104	Study of Coastal carbon dynamics of Sundarbans Estuary	Dr. Gopala Krishna Dharbha	National	ISRO	22 November 2023	21 November 2026	59,54,000	DES	Ongoing
105	Active Matter for Water Cleaning and Directed Green Synthesis	Prof. Soumyajit Roy	National	CSIR	15 November 2023	14 November 2026	9,00,000	DCS	Ongoing
106	Establishment of Nodal Center for Key Starting materials and Intermediates under Therapeutic Chemicals Program	Prof. Punyasloke Bhadury	National	DST (CMT01)	08 November 2023	07 November 2024	48,79,000	CCES	Ongoing
107	Petrochemical investigation along two N-S transects in the granulite Terrane of Southern India: Reconstructing the crustal architecture and the thermotectonic events during the late archaean /early Palaeoproterozoic and Neoproterozoic time	Dr. Tapabrato Sarkar	National	MoES	26 December 2023	25 December 2026	15,15,000	DES	Ongoing
108	Restoration of two urban waterbodies under Bidhannagar Municipal Corporation, Salt Lake, Kolkata using bio-engineering approaches	Prof. Punyasloke Bhadury	National	WBPCB	13 December 2023	12 December 2024	15,75,000	CCES	Ongoing

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109	Towards Accelerated robotic Discovery of Layer Grafted Porous Crystalline Covalent Organic Framework (LG-COF) Thin films for selective Molecular	Prof. Rahul Banerjee	National	CSIR	16 November 2023	15 November 2026	15,00,000	DCS	Ongoing
110	Defining the role of viral and host factors in Natural killer (NK) cell and T cell immunity to Dengue (DENV) and Zika (ZIKV) virus infection	Dr. Sumit Sen Santra	National	SERB	12 February 2024	11 February 2026	28,71,000	DBS	Ongoing
111	Studying the impact of population fluctuation in microbial eco-evolutionary processes by combining theory and experiment	Dr. Dipjyoti Das	National	SERB	14 February 2024	13 February 2027	50,18,794	DBS	Ongoing
112	Blackhole Perturbation Framework in Horizon Penetrating Coordinate System	Prof. Rajesh Kumble Nayak	National	SERB	17 February 2024	16 February 2027	6,60,000	CESSI	Ongoing
113	National Network Project of University of Kalyani and IISER Kolkata	Dr. Rituparna Sinha Roy Dr. Susmita Roy	National	DBT	19 December 2023	18 December 2028	37,38,916	CCES	Ongoing
114	Conjugated polymeric materials for Photocatalytic hydrogen peroxide generation	Prof. Sanjio S. Zade	National	SERB	21 February 2024	20 February 2027	41,84,224	DCS	Ongoing
115	Ultra-Bright and Colour-Pure Pb-Free Double-Perovskites: Energetics, Exciton Dynamics and Singlet Exciton Fission	Prof. Prasun K. Mandal	National	SERB	02 March 2024	1 March 2027	57,95,900	DCS	Ongoing
116	Fluctuation-based local control and coupling of endocytosis in cholesterol-dependent and independent pathways.	Dr. Bidisha Sinha	National	SERB	02 March 2024	1 March 2027	56,53,864	DBS	Ongoing
117	Nature-Inspired Asymmetric Total Syntheses of Bioactive Fungal Metabolites: reverse-PrenylatedIndole alkaloids with Bicyclo[2,2,2] diazaoctane Ring System	Prof. Alakesh Bisai	National	SERB	15 March 2024	14 March 2027	67,32,000	DCS	Ongoing
118	Development of Visible-Light Energy-Transfer Catalysis for Dearomative Cycloaddition and Bond Formation Reactions in Accessing sp ³ -Rich Rigid 3D Molecular Scaffolds	Dr. Biplab Maji	National	SERB	16 March 2024	15 March 2027	58,52,000	DCS	Ongoing
119	Synthetic self-regulated microbial consortia for the production of cellulase cocktail towards the synthesis of lignocellulose-based products	Prof. Supratim Datta	National	SERB	16 March 2024	15 March 2027	59,68,688	DBS	Ongoing
120	Development of DFT methods in constrained atom/molecule/solid with range-separated functionals: benefits of Hookium	Prof. Amlan Kusum Roy	National	SERB	13 March 2024	12 March 2027	22,50,688	DCS	Ongoing
121	X-ray microscopy of understanding the mechanism of the deposition of environmentally relevant microplastics in saturated porous media-Towards understanding plastic accumulation in soils	Dr. Gopala Krishna Dharbha	National	DST-DAAD	21 March 2024	20 March 2026	8,40,000	CCES	Ongoing
122	Investigating N-acetyl cysteine as an antisickling agent in sickle cell disease	Dr. Amit Kumar Mandal	National	ICMR	15 April 2024	14 April 2025	1,35,37,912	DBS	Ongoing
123	Luminescent Crystalline Porous Covalent Organic Framework for Detecting Heavy Metals in Water	Prof. Rahul Banerjee	National	BRNS	04 May 2024	03 May 2027	37,95,000	DCS	Ongoing
124	How did early continental crust formed on Earth? Petrological, geochemical and geochronological investigations of the granitoids of the south-western part of the Bastar Craton	Dr. Sukanta Dey	National	SERB	01 June 2024	31 May 2027	38,67,680	DES	Ongoing
125	Isotopic and microbial approach to elucidate the anthropogenic influence on hydrology and nutrient cycles in the lower Ganga plain and estuary	Prof. Prasanta Sanyal	National	MoE-STARS	29 May 2024	28 May 2027	1,00,00,000	CCES	Ongoing
126	Understanding the regulation of gap junction protein Connexin 43 in Murine-β-Coronavirus, MHV induced acute and chronic phase inflammation by combining TNF-α, IL-10 and TGF-β signalling triad.	Prof. Jayasri Das Sarma	National	SERB	16 May 2024	15 May 2027	47,32,400	DBS	Ongoing

List of schemes/ projects/ programme underway since Inception to Till Date as Per Records Available in R& D Section

Sl No.	Title of the Project	Principal Investigator	Agency Type	Sponsoring Agency	Project Start Date	Project Closed Date	Sanctioned Amount	Dept.	Remarks
127	Engineering of an novel enzymatic pathway to enable conversion of PET (Polyethylene terephthate) to bioethanol and its integration with cellulose hydrolysis	Prof. Supratim Datta	National	DBT	24 May 2024	23 May 2027	61,38,680	DBS	Ongoing
128	Balancing Act: The Impact of Community Feeders on Free-Ranging Dog Populations	Dr. Anindita Bhadra	National	ASAB	01 July 2024	30 June 2025	10,31,095	DBS	Ongoing
129	NyayKosh: Multilingual Resources for AI-based Legal Analytics	Dr. Kripabandhu Ghosh	National	IIT KhargapurAI4ICPS	29 May 2024	28 May 2027	12,12,816	DCDS	Ongoing
130	Peptide Nanotubes based Micro-Nanomotors for advanced Functions via Complex Navigational Behaviour	Dr. Dibyendu Das	National	MoE-STARs	29 May 2024	28 May 2027	45,00,000	DCS	Ongoing
131	Understanding Ultrafast and Ultrasensitive Exciton Dynamics (Ensemble to Single Particle, Femtoseconds to Seconds) in Toxic Metal Free Quantum Dots and Perovskites Towards Colour Pure Highly Stable and Bright LEDs.	Prof. Prasun K. Mandal	National	MoE-STARs	29 May 2024	28 May 2027	2,20,000	DCS	Ongoing
132	Microplastics from sewage treatment plants along lower Ganga River basin: Abundance, associated co-contaminants and post effects of disposing of sludge in aqueous and terrestrial environments	Dr. Gopala Krishna Dharbha	National	DBT	03 July 2024	02 July 2027	25,37,440	CCES	Ongoing
133	Quantification of biopolymer-surfactant interaction in aqueous media by isothermal titration calorimetry	Prof. Priyadarshi De	National	Unilever	01 August 2024	31 March 2025	6,09,500	DCS	Ongoing
134	Catalytic methods for the recycling commercial polyolefins using HAT-based process	Prof. Sayam Sen Gupta	National	MoE-STARs	29 May 2024	28 May 2027	40,00,000	DCS	Ongoing
135	Investigating the role of novel ubiquitin ligases in warm ambient temperature-mediated suppression of disease resistance in Arabidopsis thaliana	Dr. Sreeramaiah N. Gangappa	National	CRG	15 June 2024	14 June 2027	41,34,058	DBS	Ongoing
136	Development of engineered Natural Killer (NK) cells for adoptive therapy to achieve in vivo persistent and efficient killing of target cells-an innovative and indigenous approach to treat cancer	Dr. Sumit Sen Santra	National	DBT	15 July 2024	14 July 2027	60,00,000	DBS	Ongoing
137	Restoring mangroves in non-protected areas of Sundarbans	Prof. Punyasloke Bhadury	International	TNC	18 July 2024	17 July 2027	2,56,28,240	DBS	Ongoing
138	Understanding the role of Natural Resistance Associate Macrophage Protein 1(Nramp) in regulating Intracellular Leishmania survival and exploiting it as a host-directed antileishmanial drug target	Prof. Rupak Datta	National	WBSTBD	04 July 2024	03 July 2027	15,90,000	DBS	Ongoing
139	Investigating Gap junction Function in Phagoptosis; Lessons from Drosophila egg	Prof. Mohit Prasad	National	DBT	26 July 2024	25 July 2027	48,62,796	DBS	Ongoing
140	(Micro) Biology of the Abyss: Equi-pressure sampling and bio-diversity quantification	Prof. Punyasloke Bhadury	National	MoES	01 August 2024	31 July 2026	42,91,880	CCES	Ongoing
141	Bioremediation and recycling of parboiled rice-mill waste effluent for sustainable hydroponics and indigenous fisheries by women	Prof. Punyasloke Bhadury	National	DST	20 August 2024	19 August 2027	67,32,296	CCES	Ongoing
142	In Vivo efficacy testing of Salmonella typhimurium (ST) vaccines in commercial chickens	Dr. Amirul Islam Mallick	National	NIPER-Kolkata	20 August 2024	18 November 2024	2,39,245	DBS	Ongoing
143	Investigating the therapeutic potential of small molecules for Management of wilson disease through targeted drug delivery	Dr. Arnab Gupta	National	DST	06 August 2024	05 August 2027	1,45,98,923	DBS	Ongoing
144	Comparative Nutrient and Contaminant Analysis of Hatchery-Reared and Wild Small Indigenous Fish Species	Prof. Punyasloke Bhadury	International	WORLD FISH	02 September 2024	01 November 2024	5,08,540	CCES	Ongoing
145	Unravelling the Regulatory Mechanism of FNBP4-Mediated FMN1 Regulation and Actin Cytoskeleton Remodeling during Cell Migration	Dr. Sankar Maiti	National	SERB	07 September 2024	06 September 2027	53,29,540	DBS	Ongoing
146	Bayesian Optimization-based Neural-Symbolic Artificial Intelligence (BONSAI) for Explainable Learning from Urban Data	Dr. Monideepa Das	National	SERB	19 December 2023	18 December 2025	24,45,340	DCDS	Ongoing

List of schemes/ projects/ programme underway since Inception to Till Date as Per Records Available in R& D Section

Sl No.	Title of the Project	Principal Investigator	Agency Type	Sponsoring Agency	Project Start Date	Project Closed Date	Sanctioned Amount	Dept.	Remarks
147	Constructing Chemically robust Covalent Organic Nanotubes CONTs Coated Zeolite for Metal Free CO ₂ Capture and Photocatalytic CO ₂ Conversion in Water	Prof. Rahul Banerjee	National	DST	26 September 2024	25 September 2027	90,44,326	DCS	Ongoing
148	Dispersion Polymerization Derived Macromolecular Hierarchy Nano-Architectures with Antioxidant Property	Prof. Priyadarshi De	International	DST-INT-RUS	02 December 2024	01 December 2027	91,33,548	DCS	Ongoing
149	Development of gradient and block copolymers for vibration damping applications effective in broad frequency and temperature range	Prof. Priyadarshi De	National	DRDO	31 January 2025	30 January 2028	60,57,590	DCS	Ongoing
150	Quantifying earthquake Hazard and enhancing resilience in India	Prof. Supriyo Mitra	National	MoES	26 February 2025	25 February 2029	82,02,160	CCES	Ongoing
151	Understanding geohazard processes and their impacts across India	Prof. Supriyo Mitra	International	NERC & MoES	26 February 2025	25 February 2029	10,93,780	CCES	Ongoing
152	Study of interaction of maltodextrin with representative formulation constituents through advanced thermal and spectroscopic analysis	Prof. Priyadarshi De	National	Unilever	01 March 2025	31 August 2026	35,90,378	DCS	Ongoing
153	Search Engine for legislative Indian Legal Documents	Dr. Kripabandhu Ghosh	National	WBNUJS	20 March 2025	19 March 2027	19,99,960	DCDS	Ongoing
154	Uncovering the novel histone and non-histone interactome of chromatin remodeling regulator CECR2 and its role in regulating gene expression in Various type of Cancer	Dr. Babu Sudhamalla	National	ANRF	24 March 2025	23 March 2028	57,60,000	DBS	Ongoing
155	Coastal Wetlands Conservation Action: public access data for education and conservation	Prof. Punyasloke Bhadury	International	Through Griffith University	17 March 2025	16 March 2027	98,97,210	CCES	Ongoing
156	Autonomous and Privacy-Preserving Learning for Online and Intelligent Analysis of Urban Data	Dr. Monidipa Das	National	DST-Inspire	22 June 2020	21 June 2025	35,00,000	DCDS	Ongoing
157	Recent decadal-scale changes in land use/land cover in the terai-Duar Savanna and Grasslands Ecoregion: Implications for terrestrial carbon cycling and plant biodiversity	Prof. Robert John Chandran	National	ANRF	31 March 2025	30 March 2028	54,24,013	DBS	Ongoing
158	Cationic Polymerization of Cyclic Olefins and Vinyl Ethers	Prof. Priyadarshi De	International	Exxon Mobil	15 April 2025	14 October 2026	43,00,555	DCS	Ongoing