

70 Research Projects with a total outlay of Rs. 27.50 Crores have been sanctioned to the Faculty Members of SRM University-AP during 2017 – till date

S. No.	Title of the R&D project	Name of the PI and CO-PI	Department	Funding Agency	Sanction Number	Sanctioned Amount (in Rs. Lakhs)	Duration
1	Direct removal of multidrug resistance bacteria out of blood	Dr Anil K Suresh	Department of Biological sciences	DBT-Ramalingaswamy Fellowship	DBT/RLF/2012	102.00	2013-19
2	Metal-catalyzed new cross-coupling reactions via C-H bond activation and Metallacycle formation	Dr. S. Mannathan	Department of Chemistry	DST-INSPIRE	DST/INSPIRE/04/2015/002987	60.00	2016-21
3	Elucidating the role of NHRs in C elegans aging and reproduction	Dr. Manjunatha Thondamal	Department of Biological sciences	DST- INSPIRE	DST/INSPIRE/04/2015/002416	96.00	2016-21
4	Mechanistic of CO Oxidation on Metal Free Catalyst and Property Package	Prof. Ranjit Thapa	Department of Physics	DST-SERB	SERB/EMR/2016/004689	35.45	2017-21
5	Theoretical Insights on the critical factors that influence the performance of non-fullereneorganic solar cells	Dr. Mahesh Kumar Ravva	Department of Chemistry	DST- INSPIRE	DST/INSPIRE/04/2017/001393	107.00	2018-23
6	Studies upon Modification of High Entropy alloy for Thermal Barrier Coating Applications	Dr Sheela Singh	Department of Mechanical Engineering	DST- SERB	EMR/2016/001066	52.20	2017-21
7	Development of liquid metal processing route for closed cell magnesium foam	Prof. G.S. Vinod Kumar	Department of Mechanical Engineering	DST- SERB	EMR/2016/006207	66.00	2017-21

8	Microbiome mediated fate and transformation of man released nano-pollutants	Dr Anil K Suresh	Department of Biological sciences	DST- SERB	SERB/ECRA/2018/0000339	46.73	2018-21
9	Probing Charge Transport in Molecular Junctions with Impedance Spectroscopy and Transition Voltage Spectroscopy Approach	Dr Sabyasachi Mukhopadhyay	Department of Physics	DST- SERB	SERB/ECR/2017/001937	48.30	2018-21
10	Elucidating the role of FATP family of fatty acid transporters in C. elegans aging	Dr. Manjunatha	Department of Biological sciences	DST- SERB-ECR	ECR/2017/000213	44.53	2017-20
11	Tailoring of catalytic surfaces for CO2 reduction	Dr. Mallikarjuna Rao Motapothula	Department of Physics	DST- INSPIRE	DST/INSPIRE/04/2017/001392	102.00	2018-23
12	Evaluation of intrinsic piezoelectric coefficients and strain engineering near the morphotropic phase boundary in Pb-free oxides	Dr. Pranab Mandal	Department of Physics	DST- SERB	ECR/2018/001252	48.80	2019-23
13	First principles identification of descriptor for carbon based catalyst	Prof. Ranjit Thapa	Department of Physics	DAE-BRNS (YSRA)	37(2)/20/14/2018-BRNS/37144	28.15	2018-21
14	Development of Nano- Engineered Blue-Emitting Blinking Suppressed 'Giant' Quantum Dots	Dr. Nimai Mishra	Department of Chemistry	DST-TARE	TAR/2018/000732	18.30	2018-20
15	Ion Beam Modification of Two Dimensional(2D) Layered Materials Heterostructures: Defect Engineering and Device Performances	Dr. Jatis Kumar Dash	Department of Physics	UGC-DAE	UGC-DAE-CSR-KC/CRS/19/IBMS04/1005/1036	25.00	2019-23

16	Vector Vortex Beams and their Scattering for Communication Applications	Dr. Gangi Reddy Salla	Department of Physics	DST-SRG	SERB/SRG/2019/000857	26.17	2019-20
17	Development of Fast Fluoride Ion Conducting Solid Electrolytes for Rechargeable Solid State Fluoride Ion Batteries	Dr Laxminarayana Patro	Department of Physics	DST-SRG	SRG/2019/000767	31.60	2019-22
18	Characterization of graphs by spectra of its distance and resistance matrix and some problems related to matrix theory and graph theory	Dr. Fouzul Atik	Department of Mathematics	DST-SRG	SRG/2019/000839	10.00	2019-21
19	Methane Emission from Tropical Aquatic Networks: Elucidating the underpinning mechanisms and landscape-level drivers	Dr. Shoji D. Thottathil	Department of Environmental Science	DST-SRG	SRG/2019/000539	30.22	2019-22
20	Design and Development of 'Fast Charging' Next-Generation Battery System and its Advanced Electronic Diagnostics	Dr. Sujith Kalluri	Department of Electronics and Communication Engineering	DST-SRG	SRG/2019/000194	30.00	2019-22
21	A scalable Secure Architecture Model for Privacy and Performance in IoT	Dr. Ashok Kumar Pradhan	Department of Computer Science	DST-TARE	TAR/2019/000286	18.30	2019-23
22	Development of novel methods for deconvolution and denoising of seismic reflection data	Dr. Karthikeyan	Department of Electronics and Communication Engineering	DST-SERB	CRG/2019/001234	25.00	2019-23
23	SRM-Amara Raja Center for Energy Storage Devices	Dr. Pardha Saradhi Maram (Chemistry), Dr. Laxminarayana Patro (Physics), Dr. Surfarazhussain S Halkarni (Mechanical Engg.), Dr. Tousif Khan N (Electrical Engg.)	Chemistry/ Physics/Mech/ Electrical	Amara Raja Center	-	162.75	2020-25

24	Jumbo-phage as a model for ancient cell organization	Dr. Sutharsan Govindarajan	Department of Biological sciences	DBT-Wellcome Trust	IA/E/19/1/504958	124.00	2021-25
25	Mathematical analysis and Adjoint Based Stability for a Coupled Convection-Diffusion equation in Miscible Displacement	Dr. Tapan Kumar Hota	Department of Mathematics	DST-SRG	SRG/2020/000713	13.67	2021-23
26	Chemical modulator based microalgal biorefinery for the production of biofuels and bioproducts	Dr. Imran Y Pancha	Department of Biological sciences	DST-SRG	SRG/2020/000165	25.99	2021-23
27	Targeting Kennedy pathway of cellular phosphatidylethanolamine biosynthesis as a common therapeutic strategy against protozoan parasites like Leishmania donovani, Trypanosoma brucei and Entamoeba histolytica	Dr. Writoban Basu	Department of Biological sciences	DST-SRG	SRG/2020/001421	26.10	2021-23
28	Intelligent Disturbance Observer based Adaptive Control of DC-DC Power Converter for Nonlinear Loads	Dr Tousif Khan	Department of EEE	DST-TARE	TAR_2020_000386	18.30	2021-23
29	Mechanistic understanding of bacterial cytoskeleton inhibition by antibiotics and novel bacteriophage proteins	Dr. Sutharsan Govindarajan	Department of Biological sciences	DST-CRG	CRG_2020_003295	52.00	2021-23
30	Wall effects in Shock wave boundary layer interactions	Dr Satya Pramod Jammy	Department of Mechanical Engineering	DST-CRG	CRG/2020/003859	39.00	2021-24
31	Understanding the molecular basis for the extreme differential level of expression of genes from human and animal rotaviruses in gene-transfected cells: Implications for	Prof. Durga Rao	Department of Biological sciences	DBT	BT/PR32884/MED/29/1474/2019	110.52	2021-24

	improving the growth of human vaccine strains						
32	Imprints of Physics Beyond the Standard Model at the LHC and Future Colliders	Dr Amit Chakraborty	Department of Physics	DST-INSPIRE	DST/INSPIRE/04/2018/002972	110.00	2019-24
33	Developing Structure- Morphology- Performance Relationships in Organic Solar Cells	Dr Mahesh Kumar Ravva	Department of Chemistry	DST-NSM	DST/NSM/R&D_HPC_Applications/2021/ 16	19.92	2021-23
34	Catalysts for CO2 Reduction to C2 Product: Descriptor to Database	Prof Ranjit Thapa and Dr S. Biswas	Department of Physics	DST-NSM	DST/NSM/R&D_HPC_Applications/2021/ 19.02	48.02	2021-23
35	Development of Closed Cell Gold Foam for Jewellery Applications	Prof. G S Vinod Kumar	Department of Mechanical Engineering	Tanishq Jewellers (TITAN Company Ltd)	IN- KA01404072207184T	29.60	2021-23
36	A Halide Perovskite Based Photoanode For Oxygen Evolution Reaction Using A Molecular Diode in a Hybrid Nanometer Scale Protection Layer	Dr. Sabyasachi Mukhopadhyay (Co-PI)	Department of Physics	DST- Bilateral Project with Israel and IIT Bhilai	DST/INT/ISR/P-28/2020(G)	24.19	2021-24
37	Targetted Delivery of Cobiation drugs using exosome RNA nanotechnology for cancer treatment	Dr Sateesh Ellipilli	Department of Chemistry	DST-Ramanujan Fellow	RJF/2021/000066	119.00	2021-26
38	Photoredox and Nickel Dual Catalyst for Reductive Coupling Reactions of Alkynes: An Atom- and Step-Economic Route to Functionalized Alkenes Synthesis	Dr. S Mannathan	Department of Chemistry	CRG-SERB-DST	CRG/2021/007699	44.11	2021-24

39	Transparent, conducting, self-cleaning rGO (reduced Graphene Oxide) surface: large area and single step growth using Pulsed Laser Deposition	Dr Siddhardha Ghosh	Department of Physics	SRG-SERB-DST	SRG/2021/001465	25.99	2021-23
40	Design and development of “smart” and “hybrid” parallel microchannel cooling system to address the cooling challenges of electronic components	Dr. Lakshmi Sirisha Maganti	Department of Mechanical Engineering	SRG-SERB-DST	SRG/2021/000639	28.97	2021-23
41	Production of low-cost and high-performance fly ash based light weight block	Dr G V P Bhagath Singh	Department of Civil Engineering	SRG-SERB-DST	SRG/2021/000540	18.85	2021-23
42	Sensing in the dark: An automated off-focused points detection and removal from the photons starved 3D volumetric dataset	Dr Inbarasan Muniraj	Department of Electronics and Communication Engineering	SRG-SERB-DST	SRG/2021/001464	19.54	2021-23
43	Pilot-scale ultra-efficient fixative sewage dye-degradation by "3D mega catalyst" generated using intact eggshell-waste	Dr. Anil K. Suresh	Department of Biological Sciences	ATGC-DBT	BT/PR42263/PBD/26/831/2022	26.72	2022-24
44	Efficient Algorithms for Dualization Problem for Subclasses of Boolean Functions	Dr. Murali Krishna Enduri	Department of Computer Sciences	TARE-SERB	TAR/2021/000342	18.30	2022-25
45	Data driven Mechanism for design Mechanism	Dr Udaya Sankar	Department of Electronics and Communication Engineering	TARE-SERB	TAR/2021/000114	18.30	2022-25
46	Ethics of Tobacco Industry	Dr Aqsa Agha	Department of History	Institute of Public Health	-	4.66	2021-22

47	Tenancy and Credit: Exploring Facts below the Crust in AP	Dr Ganshyam Pandey	Department of Economics	NABARD	R & D Project /711/P-357/2021-22	14.85	2022-23
48	Design Principle of Single Atom Catalyst for Nitrogen Fixation over HER: Energy Parameter, Electronic Descriptor and Database	Prof. Ranjit Thapa	Department of Physics	CRG-SERB	CRG/2021/000620	30.91	2022-25
49	Department of Chemistry	Dr S Mannathan	Department of Chemistry	DST-FIST	SR/FST/CS-1/2021/219	220.00	2022-27
50	Synthesis of High Indexed Faceted, Near Infra-Red (NIR) Active Hybrid Nanomaterials for (Photo)Catalysis	Dr Sabyasachi Chakraborty	Department of Chemistry	UGC-DAE CSR	CRS/2021-22/02/513	1.35	2022-25
51	Development of Breast Cancer Detecting System Based on Microwave - Antenna - Array - Sensors and Implementation of Internet of Medical Things (IoMT)	Dr K M Divya Chaturvedi	Department of Electronics and Communication Engineering	SERB-POWER	SPG/2021/002829	26.62	2022-25
52	Neutron diffraction studies on novel magnetoelectric oxides at the morphotropic phase boundary	Dr Pranab Mandal	Department of Physics	UGC-DAE CSR	CRS/2021-22/03/562	1.35	2022-25
53	Center for Pioneering Studies in Gold & Silver	Dr G S Vinod Kumar	Department of Mechanical Engineering	Waman Hari Pethe Sons Pvt Ltd	-	17.00	2022-23
54	Comparative Study of Pavement Design Approaches Suitable to Maine Conditions	DR.UMA MAHESWAR	Department of Civil	Maine Department of Transportation, Maine, USA	UMS1370	5.50	2022-23
55	The Electronic Project Proposal Management System	Dr. Raviteja KVNS	Department of Civil	SIR-SERB	SIR/2022/000374	19.23	2022-23

56	Nalanda and Bodhgaya: Understanding the Past Environment and Transnational Networks of the World Heritage Sights	Dr Sharmistha Chatterjee	Department of History	Indian National Science Academy (INSA)	-	5.00	2022-24
57	Assessment and modelling of carbon and nitrogen dynamics in tropical forests of Eastern Ghats, Andhra Pradesh in response to climate change	Dr Javid Ahmad Dhar	Department of Environmental Science	DST - SERB	SRG/2022/002286	28.54	2022-24
58	Request for industrial consultancy on the feasibility of Biogas up gradation in salem Region	Dr Kartik Rajendran	Department of Environmental Science	NIRT RENEWABLE ENERGY PVT LTD	-	1.00	2022-23
59	Synergizing Sustainable Development Index (SDI) and Happiness Index (HI) – A New Paradigm for India	Dr. Tiny S Palathara	Department of Economics	Malcolm and Elizabeth Adishesiah Trust	-	1.00	2022-23
60	Design and implementation of High Capacity Reversible Data Hiding Schemes for Medical Image Transmission	Dr V M Manikandan	Department of Computer Science	DST-TARE	TAR/2022/000121	18.30	2022-25
61	Design & Development of Noninvasive Continuous Blood Glucose Monitoring SoC Based on Photoacoustic Spectroscopy	Dr. Pradyut Kumar Sanki	Department of Electronics and Communication Engineering	DST-SERB CRG	CRG/2022/007866	29.00	2022-25
62	Targeted Delivery Of Combinational Gene Therapeutics Using RNAi Nanoparticles To Treat Hepatocellular Carcinoma	Dr. Satish Ellipilli	Department of Chemistry	CRG-SERB	CRG/2022/002814	50.16	2022-25
63	General descriptor of catalysts to find the activity towards OER using Quantum Mechanics/Machine Learning approach	Prof. Ranjit Thapa	Department of Physics	CRG-SERB	CRG/2022/005423	20.41	2023-26



64	Set up a Pilot-scale plant of Continuous/Discontinuous/Prototyping casting of Non-Ferrous Material	Prof. G.S. Vinod Kumar	Department of Mechanical Engineering	INDSAT Corporation	-	2.00	2021-23
65	Developing Structure- Morphology- Performance Relationships in Organic Solar Cells, Phase II	Dr Mahesh Kumar Ravva	Department of Chemistry	DST-NSM	DST/NSM/R&D_HPC_Applications/2021/ 16	9.46	2023-24
66	Catalysts for CO2 Reduction to C2 Product: Descriptor to Database, Phase II	Prof Ranjit Thapa and Dr S. Biswas	Department of Physics	DST-NSM	DST/NSM/R&D_HPC_Applications/2021/ 19.02	23.00	2023-24

SL NO	Name of The Conference Project	Convenor	Funding Agency	Funding Amount (in lakhs)	Conference Date	Status
67	ACCMS: International Conference on Materials Genome (ICMG-2020)	Prof. Ranjit Thapa	CSIR	1.00	5-7 Feb 2020	Completed
	ACCMS: International Conference on Materials Genome (ICMG-2020)	Prof. Ranjit Thapa	SERB	1.50	5-7 Feb 2020	Completed
68	DST/INSPIRE MEETING	Prof. Ranjit Thapa	DST-INSPIRE	6.06	16-06-2022	Completed
69	88th Annual meeting of Indian academy of sciences	Prof. Ranjit Thapa	Indian academy of sciences	31.00	3-6 Nov 2022	Completed
70	Workshop on Computational Design of Electrocatalyst	Prof. Ranjit Thapa	National Supercomputing Mission	7.00	2023	Sanctioned