

9. Ongoing projects with funding above 5 Lakhs in respect of evaluation period - 131

SI No	Department	Title of the Project	Funding Agency	Duration	Total Grant Sanctioned in Rs.
1	Atmospheric Science	Studies on the Troposphere features and stratosphere troposphere coupling processes over the monsoon region using stratosphere troposphere Radar at Cochin	DST	7 years	24,88,18,206
2	Electronics	UGC-SAP at the level of DSA-III	UGC	5 years	1,85,00,000
3	Physics	Inspire Faculty Award	DST	5 years	35,00,000
4	National Centre for Aquatic Animal Health	DST INSPIRE Faculty Award	DST	5 yearS	83,00,000
5	School of Industrial Fisheries	Temporal and spacial distribution of larval form of mactribrachium spp in Vembanad lake with special reference to change in Lacustrine ecology	KSCSTE	3 years	23,71,600
6	Polymer Science & Rubber Technology	UGC-SAP-DRS-II	UGC	5 years	1,24,00,000
7	Civil Engg	Strength and durability of quarry dust cold bonded aggregate concrete subjected to elevated temperature	KSCSTE	2 years	11,00,000
8	International School of Photonics	Chalcogenide nanomaterials for Photonic Device Applications	KSCSTE	3 years	30,65,600
9	Applied Chemistry	Development of fluorescent Sensors for Pharmaceutical and Clinical Analysis	KSCSTE	3 years	30,89,400
10	Applied Chemistry	SAP at the level of DRS-III	UGC	5 years	1,32,00,000
11	Environmental Studies	UGC-SAP-DRS PHASE-II AT SCHOOL OF ENVIRONMENTAL STUDIES	UGC	5 Years	1,35,00,000
12	Physics	KSCSTE Emeritus Fellowship	KSCSTE	3 years	18,44,400
13	Statistics	UGC-SAP at the level of DRS-III	UGC	5 year	37,00,000
14	National Centre for Acquatic Animal Health	Evaluating costs and benefits of prophylactic health products and novel alternatives on smallholder aquaculture farmers in Asia and Africa (IMAQualate)	DBT	3 years	55,23,200
15	Physics	DST-INSPIRE FACULTY AWARD	DST	5 year	86,00,000
16	Biotechnology	DST-INSPIRE FACULTY AWARD	DST	5 year	86,00,000
17	Biotechnology	INSA Senior Scientist Programme in respect of Dr.K P JOY	INSA	3 years	13,80,000
18	Physics	Core-shell nanostructure based on ferrites by plasma polymerization for enhanced magnetization and giant dielectric permittivity	DST-DAAD	2 years	6,82,000
19	Statistics	DST-FIST Program	DST	5 year	52,50,000

20	International School of Photonics	Investigation of doped copperoxide for p-channel thin film transistor application	DST	3 years	27,60,000
21	Polymer Science & Rubber Technology	Development of green polymer systems as adhesive and coating for space applications	ISRO-respond	3 years	25,23,000
22	Electronics	Optimizations for virtualized mobile computing	DST-SERB	3 years	17,12,350
23	Electronics	UGC BSR Faculty Fellowship	UGC	3 years	25,74,000
24	ACARR	Impact of the Indian Monsoon Convection on the tropical tropopause layer and climate	IFCPAR	3 years	46,95,305
25	Physical Oceanography	Modelling Coastal Sediment Transport and its impact on Coastal Environment	SAC	5 years	26,15,000
26	Department of Marine Biology, MicroBiology and BioChemistry	Modelling biogeochemical cycles in coastal oceans	SAC	5 years	52,42,000
27	Polymer Science & Rubber Technology	Development of magnetically modulated therapeutically active layered double hydroxide (LDH) as a Nanomedicine with hyperthermia potential for cancer theranostics	DST-SERB	3 years	28,29,893
28	Polymer Science & Rubber Technology	KSCSTE Emeritus Fellowship	KSCSTE	3 years	18,44,400
29	Department of Electronics	KSCSTE Emeritus Fellowship	KSCSTE	3 years	18,44,400
30	Atmospheric Science	Understanding the physical process associated with Tropical Intra-seasonal Oscillations and Cyclogenesis over Indian Ocean region using SCATSAT-1 Data	Space Application Centre(SAC)	3 years	32,43,000
31	Atmospheric Science	Features of Indian Ocean SST during the recent decades and their impact on Indian summer monsoon rainfall and circulation pattern	DST-SERB	3 years	24,80,200
32	Applied Chemistry	Energetic Propellant Binders based on Polyphosphazenes	ISRO-respond	3 years	21,28,000
33	Atmospheric Science	Diurnal Variation of Deep Convective clouds over Indian Region and its association with monsoon Rainfall	DST-SERB	3 years	36,91,400
34	Polymer Science & Rubber Technology	Preparation and Characterization of Cissus Quadrangularis Linn plant extract incorporated chitosan-collagen scaffold for bone regeneration	KSCSTE	3 years	20,07,655

35	Atmospheric Science	Radiative Impact of clouds:Assessment of intra seasonal and interannual variability during Indian Summer monsoon season	ISRO-respond	3 years	25,85,000
36	Civil	Liquefaction Studies on sand deposits in Kerala	KSCSTE	3 years	26,74,000
37	Biotechnology	Investigating the role of Hypoxia Inducible Factors Alpha in Neuronal Hhomeostasis under Normoxia using Primary Cortical Neuronal culture	UGC-BSR	2 years	10,00,000
38	Atmospheric Science	Development of an improved Cyclogenesis using a multi model Ensemble Prediction System	UGC-BSR	2 years	10,00,000
39	Mathematics	Study of spectral properties of infinite dimensional using linear algebra techniques	UGC-BSR	2 years	10,00,000
40	International School of Photonics	Development of Laser Bio Speckle technique for monitoring biological activities of plants,vegetables and fruits.	KSCSTE	3 years	15,99,600
41	Polymer Science & Rubber Technology	Development of Super hydrophilic graphene/semiconductor oxide Nanohybrids for self-cleaning Applications	DST- SERB	3 years	30,38,420
42	Physics	Nanophosphors for security printing and bio sensing applications	UGC-BSR	2 years	10,00,000
43	Biotechnology	Characterization of gonadotropin -releasing hormone and Kisspeptin systems in the cat fish,Heteropneustes fossils:Crosstalksand interactions in the control of gonadotropin secretion	DST- SERB	3 years	49,85,000
44	Environmental Studies	Fireworks accident at Puttingal Devi Temple,Paravur,Kollam, Kerala on 10 th April,2016 and subsequent ground water contamination:A study of Groundwater Quality,Abatement and Mitigation	DOECC- Directorate of Environment & Climate Change	3 years	25,00,000
45	Marine Geology & Geophysics	Magnetic and Gravity studies to understand the crustal structure and tectonic evolution of the Sahyadri mountain ranges(in north Kerala-Nilgiri and Southern Coorg segments)and adjoining areas of the South Indian High Grade Domain	DST- SERB	3 years	30,56,000
46	Atmospheric Science	High Resolution climate modeling for southern peninsular India	DST	3 years	99,02,800
47	Physics	Inspire Faculty Award	DST	5 years	35,80,000
48	Physics	KSCSTE Emeritus scientist scheme	KSCSTE	3 years	18,44,400
49	Atmospheric Science	UGC-BSR Faculty Fellowship	UGC-BSR	3 years	25,74,000

50	National Centre for Aquatic Animal Health	Development of Induced Pluripotent Stem Cells(iPSC) from Daphnia pulex and neural tissue engineering for the identification of genetic and epigenetic factors responsible for differentiation and neural degeneration	DBT-IYBA	3 years	69,23,200
51	Applied Chemistry	"Development of an electrochemical biosensor for detection of breast cancer" under DST-WOS Scheme	DST	3 years	27,80,500
52	Applied Chemistry	Development of sensors for Compounds important for clinical analysis and food safety	DST	2 years	12,36,000
53	Polymer Science & Rubber Technology	development of antibacterial catheters for preventing nosocomial infections from the rapeutically modulated natural rubber latex formulations	DBT	3 years	47,77,545
54	Marine Biology, MicroBiology and BioChemistry	Development and standardization of enrichment protocol of live feed for larval rearing of giant mud crab, Scylla serrata (Forsskal, 1755)	DST	3 years	28,40,000
55	National Centre for Aquatic Animal Health	Molecular screening, cell culture based isolation and characterization of finfish and shellfish viruses and establishment of national repository	DBT	3 years	1,18,66,300
56	Electronics	Design and Development of new generation RFID tags using chipless technology	AICTE	3 years	17,04,706
57	Biotechnology	Search for Novel Anticancer Secondary Metabolites from Endophytic fungi of selected Marine Algae and Evalution of their Mechanism of Action	DBT ,New Delhi	3 years	30,73,200
58	electronics engg	Design and Development of Compact Planar Lowpass Filter with Sharp Roll-Off and High Suppression Level for RF and Wireless Communication Systems	KSCSTE	3 years	16,32,400
59	C-SIS	A Two-in-One project for the benefit of School children and their teachers to develop scientific awareness and passion for knowledge through impressive and innovative learning process	KSCSTE	1 year	25,00,000
60	Statistics	Modelling and analysis of lifetime data using quantile function	KSCSTE	3 years	11,32,000
61	Applied Chemistry	Inspire Faculty Award	DST	6 years	35,00,000
62	Marine Biology, MicroBiology and BioChemistry	Benthic Harmful Algal Blooms(BHABs) and distribution of harmful benthic dinoflagellates along the coastal waters of South Eastern Arabian Sea	UGC	2 years	10,00,000
63	Applied Chemistry	Catalysis by polymer supported dendrimers, their	KSCSTE	3 years	28.82.000

64	Electronics	Algorithm for Underwater Image Enhancement, Object Detection and cable tracking	Naval Research Board(NRB), New Delhi	2 years	30,60,000
65	IUCIPRS	IPR Chair	DIPP		51,40,000
66	Biotechnology	The role of gp130-associated cytokines in the regulation of adult Neural Stem Cell (NSC) proliferation and differentiation	KSCSTE	2 years	10,66,560
67	Atmospheric Science	FIST	DST	5 Years	1,65,00,000
68	International School of Photonics	FIST	DST	5 years	91,00,000
69	PS & RT	DST- FIST Programme	DST, New Delhi	5 years	55,00,000
70	ACARR	Study of Land Use/Land cover Pattern and a Synergistic Analysis of Temperature and precipitation of the Indian Subcontinent since 1975	DST	3 years	18,25,500
71	Atmospheric Science	Influence of microphysical and boundary layer processes on stable isotopic ratios of monsoon rainfall	ISRO	2 years	23,17,000
72	Civil	Use of coir fibre as reinforcing material in cement mortar	NCRMI,Thiruvananthapuram	18 months	18,08,000
73	National Centre for Aquatic Animal Health	Marine Synthetic Biology: building national capacity and human resource	DBT	3 years	51,49,884
74	Applied Chemistry	Graphene Quantum Dot-imprinted Nanopolymer Composite based Electrodes for the sensing of toxic heavy metals	DST- SERB	3 years	22,39,600
75	International School of Photonics	Deposition of Two Dimensional MoS2 and WS2 by RF Magnetron sputtering and development of two dimensional MoS2 and WS2 thin film transistors	SERB	3 years	36,18,796
76	Physical Oceanography	A coupled physical-ecosystem model based on Mom5-COBALT for the Indian Ocean	INCOIS	2 years	22,50,000
77	Marine Biology, MicroBiology and BioChemistry	isolated and functional analysis of protease inhibitors from mangroves in Kerala for Therapeutic applications	KSCSTE	3 years	21,57,200
78	School of Management Studies	Antecedents and Magnitude of influence of Informal Sources of Finance among Rural Households in Kerala	ICSSR	2 years	6,50,000
79	National Centre for Aquatic	Nutritional evaluation, segregation and production optimization of novel marine microalgae for establishment as live feeds in fish and shellfish	DBT	3 years	70,91,200

80	Ship Technology	Optimization of Viscoelastic interleaves and composite laminate thickness for high stiffness and Damping	NPOL, Kakkanad	10 Months	9,59,974
81	Physics	Thin film solar cells using eco-friendly and earth abundant semiconductors employing vacuum-free technique	SERB	3 years	29,95,520
82	Instrumentation	Metal oxide Nanostructures for chemo resistive gas sensors for breath analysis	SERB	3 years	25,78,048
83	International School of Photonics	Design and development of Au/Ag doped polymer optical fibre with enhanced photo stability	SERB	3 years	44,25,520
84	Atmospheric Science	Bias-corrected high resolution future projections of the distribution of rainfall over peninsular India in response to warming climate	SERB	3 years	30,51,000
85	Marine Biology, MicroBiology and BioChemistry	Exploring the Microbial Diversity of Aquaculture Systems: A Metagenomic Approach	UGC	2 years	10,00,000
86	Marine Biology, MicroBiology and BioChemistry	Molecular Diversity and Phylogenetic Relationship of Benthic Epifauna of the Southwest Coast of India with special Reference of Echinodems	UGC	2 years	10,00,000
87	Marine Biology, MicroBiology and BioChemistry	UGC -SAP-DRS-II	UGC	5 years	88,00,000
88	Biotechnology	Repressor element-I silencing transcription factor (REST) in Epstein-Barr virus (EBV) biology and pathogenesis	SERB, New Delhi	3 years	47,53,200
89	Atmospheric Science	Monitoring of extremes over Indian Region on short, extended and seasonal scale: Identification of key physical processes and its representation in Models	IITM	3 years	40,71,560
90	Physics	Reconfigurable magnetic vortices on curved surface	SERB	3 years	54,26,520
91	International School of Photonics	Inspire Faculty Award	DST	5 year	35,00,000
92	Biotechnology	Metagenomic Analysis of Soil Microbia; diversity in post flood mangroves	KSBB, Tvm	3 Months	6,95,000
93	National Centre for Aquatic Animal Health	High density fish culture under RAS mode integrated with vegetable culture	NFDB	2 years	48,51,00,000

94	Applied Chemistry	Novel composites of natural rubber and Rice husk nano silica for green tyres: Syntheses, Characterization and property evaluation	DOECC- Directorate of Environment & Climate Change	2 years	23,72,151
95	Physics	Preventing contagious dynamic processes on complex networks	UGC	2 years	10,00,000
96	National Centre for Aquatic Animal Health	Aqua Clinics & Aquapreneurship development Programme (AC & ADP)	MANAGE & NFDB	1 Month	9,00,000
97	Marine Biology, MicroBiology and BioChemistry	Fragilaria Oceanica : Is it a true indicator of high Indian Oil Sardine stock along the southwest (Kerala) coast of India	KSCSTE	3 years	14,17,200
98	Marine Biology, MicroBiology and BioChemistry	Impact of Climate variability on the Indian ocean : Role of gelatinous zooplankton structuring food web structure and community assemblages		5 year	
99	Applied Chemistry	Development of porphyrin based Metal Organic Framework materials as catalyst for water splitting – Synthesis and Activity Study	UGC	2 years	10,00,000
100	Physics	Development of thin film solar cells using eco-friendly and earth abundant p-CZTS and n-SnS thin films employing chemical spray pyrolysis	KSCSTE	3 years	20,82,000
101	Electronics	Design, Modeling and Implementation of Convolutional Neural Networks	KSCSTE	3 years	9,70,800
102	Physics	Environment friendly quantum dot sensitized hierarchical metal oxide nanostructures for photovoltaic applications	UGC	2 years	8,00,000
103	Physics	Laser Induced Breakdown Spectroscopy (LIBS) : A Versatile Tool for Material Elemental Analysis	UGC	2 years	10,00,000
104	Computer Application	Visual Enhancement of Underwater Optical Images and Accuracy Improvement of Target Detection in SONAR Images Using Empirical Mode Decomposition Techniques	DST	3 years	25,00,500
105	National Centre for Aquatic Animal Health	Bioprospecting for Neuroprotective compounds from an endosymbiotic fungi Aaspergillus sp. MCCF 102 isolated form a marine sponge as potential drug candidates against neurodegenerative disorders	DBT	3 years	53,88,600
106	Chemical Oceanography	Microbial remediation of contaminated Kole Wetlands : Sustainability for cultivation and agricultural practices	DST	3 years	21,47,000

107	Marine Biology, MicroBiology and BioChemistry	Submarine Groundwater Discharge along the Indian Coastal Zone	MoES-NCESS	16 months	24,83,000
108	Physics	Indian Institutions – fermilab collaboration in neutrino physics	DST	5 year	1,14,48,000
109	Applied Chemistry	Boron Doped diamond (BDD) electrode and porphyrin modified BDD electrodes for the electrochemical determination of peptides	UGC	2 years	10,00,000
110	International School of Photonics	Photothermal and nonlinear optical characterization of rare earth doped nanoparticles for bioimaging applications	SERB	3 years	34,99,000
111	Physics	Development of all Solid State, lithium ion (Li ion) cells and stable lithium-sulfur (Li-S) cells with high energy density, improved safety and long life span for the next generation energy storage applications	KSCSTE	3 years	20,82,000
112	Physics	Femtosecond Laser – Induced Breakdown Spectroscopy (fs-LIBS) for Multielemental Compositional Analysis	SERB	3 years	7,25,000
113	Physics	Development of Ti-Nb-Ta-Zr alloys of novel mechanical properties for biomedical applications	UGC	2 years	10,00,000
114	Statistics	Stochastic Modelling of non-negative Time Series	SERB	3 years	6,60,000
115	Mathematics	KSCSTE Emeritus Scientist scheme	KSCSTE	3 years	6,94,000
116	National Centre for Aquatic Animal Health	KSCSTE Emeritus Scientist scheme	KSCSTE	3 years	6,94,000
117	Electronics	Energy efficient Cyber Security Implementation for Internet of Things	DST	3 years	25,00,000
118	Atmospheric Science	Investigating the Eco-Hydrological Separation in Indian Watersheds using stable Isotope Technique	DST	5 years	35,00,000
119	University	Funding for E governance Project	Kerala State Government		5,00,00,000
120	Deen Dayal Upadyay Kendra	Funding for Deen Dayal Upadyay Kendra	UGC		4,00,00,000
121	Centre for Innovation, Technology Transfer and Industrial Collaboration	Funding for Centre for Innovation, Technology Transfer and Industrial Collaboration	Kerala State Government		1,00,00,000

122	Centre for Techno Strategic Studies	Centre for Techno Strategic Studies	Indian Navy		20,00,000
123	Women's Studies Centre	Funding for Women's Studies Centre	UGC		33,70,740
124	University	Funding for RUSA Project Scheme	Rashtriya Uchchatar Shiksha Abiyan(RUSA)		20,00,00,000
125	University	Funding to develop CUSAT into an International Centre of Excellence in Academics & Research	KIIFB		2,40,90,00,000
126	Electronics	Techno Unnati: Revival of flood affected schools through Technology	IEEE USA	1 year	24,00,000
127	School of Legal Studies	UGC-SAP – At the level of DRS-II	UGC	5 year	70,00,000
128	National Centre for Aquatic Animal Health	Development of CRISPR/Cas9 Engineering platform for genome editing in Danio rerio and generation of mstn-knock-out Lines	UGC BSR	2 years	10,00,000
129	Physical Oceanography	Impact of physical process on the fisheries of the North Indian Ocean	DST - SERB	3 years	18,30,000
130	International School of Photonics	Magnetoplasmonic studies on cobalt and Nickel based nanostructures	DST	3 years	25,79,000
131	Physics	The Spatial clustering of dark matter halos and galaxy in the Universe	UGC	2 years	10,00,000