

F.No.13-52/2018-ICC
Government of India
Department of Higher Education
International Cooperation Cell

Shastri Bhawan, New Delhi
Dated the 29th May, 2024

OFFICE MEMORANDUM

Subject: Minutes of the Apex Committee Meeting of SPARC.

The undersigned is directed to forward herewith a copy of the Record of Discussion of the Apex Committee Meeting of SPARC held on 26th March, 2024 under the Chairmanship of Secretary, Higher Education (HE) for information and necessary action.

2. This issues with the approval of Secretary, HE.


29/5/2024

(Rajeev Kumar Sinha)
Under Secretary (ICC)
Email: rajeevk.sinha@nic.in

To:

1. Shri Vinay Mohan Kwatra, Foreign Secretary (psfs@mea.gov.in)
2. Prof. Abhay Karandikar, Secretary, DST (dstsec@nic.in)
3. Dr Rajesh S Gokhale, Secretary, DBT (secy.dbt@nic.in)
4. Shri Govind Mohan, Secretary, Ministry of Culture (secy-culture@nic.in)
5. Prof M Jagadesh Kumar, Chairman UGC (cm.ugc@nic.in)
6. Prof T G Sitharam, Chairman AICTE (chairman@aicte-india.org)
7. Ms. Saumya Gupta, Joint Secretary (TE), MoE (saumya.gupta@ias.nic.in)
8. Shri Sanjog Kapoor, Joint Secretary & Financial Advisor, MoE (jsfa-moe@gov.in)
9. Prof. V.K.Tiwari, Director, IIT Kharagpur (director@iitkgp.ac.in)
10. Prof. Rabibrata Mukherjee, Joint Coordinator (SPARC), IIT Kharagpur (rabibrata@che.iitkgp.ac.in)
11. Prof. Indranil Manna, Professor, IIT Kharagpur (on lien as VC, BIT, Mesra) (vc@bitmesra.ac.in, imanna@metal.iitkgp.ernet.in)
12. Prof. Virander S. Chauhan (viranderschauhan@gmail.com)
13. Dr. S. Vaidhyasubramaniam, Dean, Planning & Development, SASTRA University (vaidhya@sastra.edu)

Copy to:

14. PPS to Secretary (Higher Education), MoE
15. PPS to JS (ICC), MoE
16. Prof. Budaraju Srinivasa Murty, Director, IIT Hyderabad (director@iith.ac.in)

Minutes of the Apex Committee Meeting of SPARC

The Apex Committee meeting for the Scheme for Promotion of Academic and Research Collaboration (SPARC) was held on 26.03.2024 at 3:00 P.M. in Hybrid mode under the chairmanship of Secretary (HE). The list of participants is at **Annexure-I**.

2. During the meeting, the following decisions were taken:

- **SPARC Phase III:**

- A total of **133 SPARC projects** have been approved for funding.
- Of these, **99 projects** (totalling 95.5 Crores) are from non-UK proposals. [List attached]*
- **34 projects** (totalling 16.93 Crores) will be jointly funded by SPARC & UKIERI. [List attached]*

- **SPARC Phase II:**

- 199 projects under SPARC Phase II which were not reviewed earlier, have now been reviewed by the expert committees and out of them **30 Projects** (totalling Rs. 22.21 Crores) have been approved. [List attached]
- Of the earlier approved 266 proposals in Phase II, **8 PIs have conveyed their desire to withdraw** the projects and **26 PIs have not submitted the revised budget** even after repeated follow-up. These **34 projects (26+8=34) will be withdrawn** and no further projects will be approved for these PIs in the subsequent phases of SPARC.

[It may be noted that the total Budget Outlay for SPARC as per SFC for FY 2021-26 is Rs 452.2 Crores. Under Phase I, projects approved were provided a no-cost extension till September 2023; thus, no additional funds were required; Under Phase II, projects worth Rs 158.48 Crores were sanctioned out of which Rs 77.75 Crores have been utilised i.e Rs 68.75 Crores (FY2022-23) + Rs 9 Crores (FY2023-24). Funds currently available for sanctioning as per SFC = Rs (452.2 – 158.48) Crores = Rs 293.72 Crores.]

- **Overhead and Contingency Expenses:**

- From now on, Overhead and contingency will be paid separately. Contingency will be included in the project value.
- Overhead will be 20% of project value up to a limit of 12.0 L for projects upto Rs 3.0 Cr.


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- Overhead will be 25.0 L for projects with value between 3 Cr and 8 Cr.
- Overhead will be 40.0L for projects with value higher than 8.0 Cr
- **SPARC Awareness Generation:**
 - IITKGP along with UGC and AICTE to plan online workshops in the next 2 months to enhance awareness about SPARC amongst Universities, Deemed to be Universities, Colleges and Smaller Universities. IITKGP. Secretary (HE) directed that learnings from SPARC projects should be jotted down and experiences be shared during the workshops.
- **Bilateral Mechanisms:**
 - MoE will explore bilateral mechanisms like UKIERI with other countries like Germany, Australia, Japan and Israel, etc.
- **Interest of Industry in SPARC:**
 - IITKGP will consult industry partners and ascertain the interest of industry in the SPARC projects

The meeting ended with thanks to the chair and participants.


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List of Participants

S.No.	Participants
1.	Shri K Sanjay Murthy, Secretary (HE), Ministry of Education, Chairman
2.	Ms. Neeta Prasad, Joint Secretary (ICC), Ministry of Education, Member Secretary
3.	Shri Sanjog Kapoor, JS & FA, Ministry of Education, Member
4.	Ms. Pratibha Parkar, JS (Parl & Coord), Nominee of Secretary MEA, Member
5.	Dr. Praveen Kumar Somasundaram, Head of Scientific Divisions (HOD), Department: Technology Missions Division (Nano Mission & Supercomputing Mission), Nominee of Secretary DST, Member
6.	Shri Anil Kumar, Director (IFD), Ministry of Education
7.	Dr. Shalia Shah, Deputy Secretary (ICC), Ministry of Education
8.	Prof. M Jagadesh Kumar, Chairman UGC, Member
9.	Prof. T G Sitharam, Chairman, AICTE, Member
10.	Prof. V.K. Tewari, Director, Director, National Coordinating (NC) Institution, Member
11.	Dr. S. Vaidhyasubramaniam, Dean - Planning and Development, SASTRA University, Thanjavur, Nominated Member (Reputed Academician from Private Sector)
12.	Prof. Rabibrata Mukherjee, Joint National Coordinator (SPARC), IIT Kharagpur (Special Invitee)
13.	Prof. Siva Rama Krishna Vanjari, IIT Hyderabad (Special Invitee)
14.	Shri Rajeev Kumar Sinha, Under Secretary (ICC), Department of Higher Education, Ministry of Education.
15.	Shri Aayush Verma, Section Officer, Department of Higher Education, Ministry of Education.
16.	Shri Atul Juyal, Liaison Officer (SPARC), Department of Higher Education, Ministry of Education.



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SPARC Phase - III Projects.

Project ID	Project Title	Indian Institute	Indian PI	Total Project Values
3079	Practice of Semiconductor Packaging and Testing - Hands-on Training at Taiwan	Shanmugha Arts Science Technology & Research Academy	Dr. John Bosco Balaguru Rayappan	7626000
3084	NAMO-PI4: Nexus for Advanced Modeling and Optimization: AI driven modeling in Process Industry 4.0	Indian Institute of Technology Kharagpur	Prof. Arnab Atta	7728000
3099	Unlocking the Potential of Metal Chalcogenides for Memristive Device Applications	Indian Institute of Technology Kharagpur	Dr. Ayan Roy Chaudhuri	6606000
3106	Production of rare earth permanent magnets from spent magnets and primary rare earth oxides	Indian Institute of Technology Kharagpur	Dr. Chenna Rao Borra	7524000
3110	Utilizing Emergent Percolation Phenomena towards Flexible Electronics	Indian Institute of Technology Kharagpur	Dr. Titash Mondal	5280000
3117	Safe System perspective on vulnerable road users in India	National Institute of Technology Warangal	Dr. Ravi Shankar K.V.R	7116000
3122	Use of AI and multichannel, non-invasive sensing for affordable diagnosis of heart diseases	Indian Institute of Technology Kharagpur	Prof. Goutam Saha	7728000
3140	Development of Nanocluster Framework Materials as Next-Generation Antiviral Solutions	Indian Institute of Technology Kharagpur	Dr. Indranath Chakraborty	7728000
3146	Smart-Net: Smarter cities and improved pedestrian safety using LiDAR-Camera fusion	Indian Institute of Technology Kanpur	Prof. Saili Goel	7728000
3155	Unravelling the Difference in Reward Circuitry between Autistic & Normal Addicts	Panjab University	Dr. Anurag Kuhad	7728000

3160	Data-driven Resilient Transportation Analytics accounting for Climate Change Impacts	Indian Institute of Technology Roorkee	Prof. Indrajit Ghosh	7320000
3179	Novel Beamforming and MIMO Antenna Design for 5G/6G Application Employing Time-Modulation Techniques	National Institute of Technology Warangal	Dr. Gopi Ram	5892000
3183	Multiagent AI for Controlled Sensing and Communications	Birla Institute of Technology & Science	Prof. Syed Mohammad	8340000
3196	DHARANI: 4D Developing Human brain Atlas as a Resource to Advance Neuroscience Internationally	Indian Institute of Technology Madras	Prof. Mohanasankar Sivaprakasam	8850000
3203	Impact response of additively manufactured Ti-6Al-4V lattice structures	National Institute of Technology Warangal	Dr. Manjaiah Mallaiah	8544000
3213	Deciphering complex-liquid retention on flexible surfaces for greener pesticide spray management	Jadavpur University	Prof. Ranjan Ganguly	7728000
3223	Autonomous Metasurface Enhanced Electronically Reconfigurable mmWave Leaky-Wave Antennas for 5G Beamforming	National Institute of Technology Tiruchirappalli	Dr. Pandeewari R	6810000
3235	More Electric and All Electric aircrafts towards Resilient Decarbonized Communities	Indian Institute of Technology Goa	Dr. Shakthi Prasad Dakappa	7320000
3239	[EEE] Electrochemical-transport in ion Exchange membrane Electrolyser for green hydrogen production	Indian Institute of Technology Kharagpur	Dr. Sourav Mondal	7932000
3260	India-Taiwan Collaborative Workforce Development Program in Semiconductor Manufacturing	Indian Institute of Technology Hyderabad	Dr. Naresh Kumar Emani	80100000

3267	Development of an Integrated Biorefinery System: Synergizing Microalgae Biofuel Production, Wastewater Treatment, and Biogas Generation in a Bioelectrochemical System Platform	National Institute of Technology Warangal	Dr. Surajbhan Sevda	4668000
3282	Studies on Wear and Corrosion Mechanisms of Mg-based Compositionally Complex Alloys (CCAs) and its Tailoring through Laser Surface Engineering	Indian Institute of Technology Kharagpur	Prof. Jyotsna Dutta Majumdar	7728000
3292	Linking PM characteristics with its toxicity via oxidative potential, in-vitro ROS generation, and cell viability	Indian Institute of Technology Gandhinagar	Dr. Sameer Patel	7728000
3295	Studies of charged and neutral radiation in space, its variations and potential impact on human presence in space	Manipal Academy of Higher Education	Prof. Sreekumar P	11160000
3303	Resilience and Cybersecurity Enhancement for an Optimized Distribution System Using Blockchain	Indian Institute of Technology Kanpur	Prof. Gururaj MV	7728000
3311	Formulation-based strategy to design membrane targeting antimicrobial peptide-based therapeutics for cancer and eye infections	Birla Institute of Technology & Science	Prof. Swati Biswas	7116000
3312	International Clinical Trial and Process Evaluation of RoboExo SMART : An Upper Limb Rehabilitation Exoskeleton Device Developed by IIT Delhi	Indian Institute of Technology Delhi	Prof. Amit Mehndiratta	7116000
3314	Encapsulated PCM-based Magnetic Nanoparticles and AI Applications for Optimising Separation of Carcinogenic Industrial Solvents Using Solar Energy: Shaping Towards Sustainable Development	Birla Institute of Technology & Science	Dr. Suvarjan Bhattacharyya	7320000

3320	Development of Digital Twin of underground utilities for Smart cities	National Institute of Technology Warangal	Dr. Aneetha Vilventhan	7116000
3328	Networked Marine Robotic Systems for Ocean Exploration	Birla Institute of Technology & Science	Dr. Sarang Chandrashekhar Dhongdi	8442000
3341	Point-of-Care Devices in Healthcare Technologies	Indian Institute of Technology Kanpur	Prof. Sandeep Verma	32775000
3344	Hydropower sustainability: Pioneering health monitoring for hydraulic turbines in the face of climate change	Indian Institute of Technology Roorkee	Prof. Chandra Shekhar Pant	7728000
3385	AI-based framework for Personalized Smart Healthcare using Edge-Cloud Platform	Indian Institute of Technology Bhubaneswar	Dr. Shreya Ghosh	6810000
3394	Distributed Quantum Computing	National Institute of Technology Rourkela	Prof. Shyamapada Mukherjee	7524000
3395	Surakshit-Jal/ Safe-Water: A Decision Support Tool Facilitating Chlorination in Water Distribution Systems	Indian Institute of Technology Kanpur	Dr. G R Abhijith	6912000
3424	Talkative-Power-Conversion-based Networking by means of Next-generation Communication and new GaN-based multilevel power converters	National Institute of Technology Warangal	Dr. Kirubakaran A	5280000
3427	Dual functionalized ionic liquids assisted CO ₂ photocatalytic reduction to C1-C2 alcohols using transition metal catalysts	Indian Institute of Technology Delhi	Prof. Sreedevi Upadhyayula	7728000
3444	A New Class of Blood-Brain-Barrier Crossing Fluorescence-based Nanotheranostics for Neurodegenerative Diseases	National Institute of Technology Warangal	Dr. Raghu Chitta	4464000

3451	Two Dimensional Graphitic Carbon Nitride Hybrids based Solid State Flexible Supercapacitors: Synthesis, Simulation, Characterization and Fabrication of High Energy and Power Density Devices	Atal Bihari Vajpayee Indian Institute of Information Technology and Management	Prof. Anurag Srivastava	7932000
3464	LIFE - Leveraging Integrated systems for Future Energy: Triboelectric Nanogenerators-powered Electrocatalytic Hydrogen Production and Health Monitoring	Cochin University of Science and Technology	Prof. Honey John	7320000
3497	Illuminating the Dark Sector of the Cosmos in the SKA Era	Indian Institute of Technology Indore	Dr. Suman Majumdar	7116000
3501	NVM (Non-Volatile Memory)-based In-Memory Computing to Accelerate Neuromorphic Design for ECG/EEG Data Analysis	Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram	Prof. Binsu J Kailath	7320000
3510	Enabling National & Regional Transitions to a Circular Carbon Economy: Hydrogen and CCUS Value Chain Integration using AI and Systems Methodologies	Indian Institute of Technology Madras	Prof. Rajagopalan Srinivasan	7932000
3518	Characterization of triple junction distributions in nanocrystalline metals for determination of mechanical properties	Indian Institute of Technology Kharagpur	Dr. Somjeet Biswas	7728000
3524	UAV Assisted and Reconfigurable Intelligent Surface Supported B5G Communication	National Institute of Technology Tiruchirappalli	Dr. MUTHU CHIDAMBARANATHA N P	6810000
3541	Framework to deploy UAV-based monitoring system for civil infrastructure projects using deep learning models	Indian Institute of Technology Delhi	Prof. Sahil Garg	11400000
3549	Mathematical modelling and Simulation of Temperature dependent nanofluid flows through porous boundaries	Defence Institute of Advanced Technology	Dr. Odelu Ojela	6504000

3559	Design and Analysis of Diplexer Integrated Rectenna system for powering cardiac pacemaker devices wirelessly.	M.S.Ramaiah Institute of Technology	Dr. Rosaline S Imaculate	4668000
3566	Development of Next Generation Nanostructured 2D Material based Uncooled Mid-Infrared Detectors and Focal Plane Arrays for Space and Defense Applications	Indian Institute of Technology Kharagpur	Prof. PRASANTA KUMAR DATTA	12650000
3571	Exploration of Unique Bi-Dimensional Architectures: Unveiling Structural, Mechanical, and Transport Characteristics Beyond the Scope of van der Waals solids	Indian Institute of Science	Prof. Abhishek K Singh	6402000
3591	Deciphering the molecular circuits of seed weight regulation for improved plant productivity	Birla Institute of Technology & Science	Prof. Rajesh Mehrotra	7320000
3599	Particles and Transport in Oceanic and Atmospheric Flows	Indian Institute of Technology Madras	Dr. Anubhab Roy	7116000
3603	High Performance and Scalable Runtime for HPC and AI.	Indian Institute of Technology Bhubaneswar	Dr. Ashwini Nanda	7116000
3606	Real-time Automated Pest Monitoring of Horticultural Crops of Sub-Himalayan Region of Uttarakhand, India	G. B. Pant University of Agriculture and Technology	Prof. Ranjan KUMAR Srivastava	7524000
3616	Exploiting Mechanistic Studies of the Development of Low-Cost Sensors for Long Term Water Quality Monitoring	Indian Institute of Technology Ropar	Dr. Kailash Chandra Jena	6708000
3620	Smart mobility plan for differently abled individuals in a smart city in India	National Institute of Technology Rourkela	Prof. Soumi Muhuri	9360000
3631	Tracing Microplastics: A Cross-country Perspective of Indian and German Rivers	Indian Institute of Technology Indore	Prof. Kiran Bala	5484000

3653	"Electromagnetotaxis: A Paradigm Shift from Chemotaxis in Nanorobot Intelligence for Medical Therapeutics"	Indian Institute of Technology Kharagpur	Prof. Tarun Kanti Bhattacharyya	7932000
3672	Concurrent Brain Stimulation and Imaging to Unravel Functional Brain Networks in Parkinsons Disease	Indian Institute of Technology Bombay	Prof. Nivethida Thirugnanasambandam	7728000
3684	Development of Resilient Technologies for Sustainable Distributed Energy Resources in Smart Grid Systems	Indian Institute of Technology Bhubaneswar	Dr. Srinivas Bhaskar Karanki	7116000
3689	Solid Polymer Membranes for Fuel cell, Battery separator, and Water purification Applications	Indian Institute of Technology Kharagpur	Prof. Susanta Banerjee	4872000
3709	Development of a new integrated milling and separation process for efficient dry fractionation of chickpeas	Indian Institute of Technology Kharagpur	Prof. Pavuluri Srinivasa Rao	8340000
3727	Designing social robot interactions to support learning in collaborative making tasks	Indian Institute of Technology Gandhinagar	Dr. Aditi Kothiyal	7014000
3732	Development of Green Syngas (CO/H ₂) technology via solar dry reforming reaction at low temperature	Central University of Rajasthan	Dr. Rajendra Charandeo Pawar	4872000
3733	Monolithically integrated Vertical GaN JFET with JBS diode for kilovolt class power converters	Indian Institute of Technology Roorkee	Dr. Biplab Sarkar	5688000
3737	Iron biofortification in mungbean through understanding iron homeostasis & CRISPR-Cas gene editing.	Central University of Rajasthan	Prof. SANJIB KUMAR PANDA	8544000
3750	Design and Implementation of a Real Time Digital Twin of Kidney: Establishing Next generation Smart Diagnosis in Sustainable Health Care.	Indian Institute of Technology Madras	Prof. Samuel G L	6402000

3753	Assessing environmental influences on the seed quality, tannin and antioxidant properties of Moringa oleifera	Chaudhary Charan Singh Haryana Agricultural University	Dr. Jayanti Tokas	7320000
3755	Development of Machine-Learning-Based Hybrid Operational Matrix Algorithm for Some Nonlinear Fractional Models in Ocean Engineering	Shanmugha Arts Science Technology & Research Academy	Dr. Hariharan G	7932000
3761	Potential Failure Mode Approach and Vibration Based Condition Assessment for Dam Safety Evaluation	Malaviya National Institute of Technology	Prof. S. D. Bharti	7728000
3764	IREM: Informative and Robust Explanation Generation of Deep Multi-modal Models	Indian Institute of Technology Kharagpur	Prof. Niloy Ganguly	6606000
3800	A Framework of Net-Zero Energy Building Design in Composite Climate of India	Malaviya National Institute of Technology	Dr. Ravita Lamba	7728000
3811	Enabling Sustainable Hydrogen Storage, Transportation, and Refuelling via Electrochemical Ammonia Formation and Decomposition	Indian Institute of Technology Roorkee	Prof. Vimal Chandra Srivastava	5484000
3817	Mathematical modelling of bubble dynamics	Indian Institute of Technology Kharagpur	Dr. Swapnadip De Chowdhury	5484000
3818	AI-Enhanced Cloud-Based Lightweight Framework for Flash Flood Risk Assessment and Hazard Mapping in Steep Mountain Channels	Dr. B.R.Ambedkar National Institute of Technology Jalandhar	Dr. Mahesh Patel	7932000
3821	Deciphering Immune Aging Signatures for personalized disease tracking in Indian Populations	NITTE	Prof. Anirban Chakraborty	5994000

3823	Unifying Goals in Smart EV Charging through Game Theory and Multi-Objective Optimization	Atal Bihari Vajpayee Indian Institute of Information Technology and Management	Prof. Pramod Kumar Singh	8952000
3824	Space weathering on Mercury, Moon and Carbon-rich asteroids: Experimental simulations and nanoscale study	National Institute of Science Education and Research Bhubaneswar	Dr. Surya Snata Rout	7728000
3827	Neuromorphic Computing with Fast and Energy Efficient Spintronic Device	Indian Institute of Technology Roorkee	Prof. Brajesh Kumar Kaushik	6912000
3829	Design of Catalytic Materials and Solvent Environment to Produce Biorenewable Chemicals	Indian Institute of Technology Delhi	Prof. Haider Ali	7728000
3831	Development of Process informatics for the Quality Improvement of Various Technological Important Crystals	Sri Sivasubramaniya Nadar College of Engineering	Dr. Srinivasan M	7932000
3837	Bacterial Cellulose: an advanced material with multiple applications	Indian Institute of Technology Kharagpur	Prof. Rintu Banerjee	7116000
3839	India-US Collaborative Workforce Development Program in Semiconductor Manufacturing	Indian Institute of Technology Hyderabad	Prof. Shiv Govind Singh	71600000
3840	Metasurfaces for THz and Quantum Technologies	Indian Institute of Technology Kharagpur	Prof. Shailendra K. Varshney	13980000
3847	Association of air pollutants, to protein aggregation disorders	Cochin University of Science and Technology	Prof. Usha K Aravind	7932000
3864	Assessing vulnerability to flood and drought hazards using machine learning	Kerala Agricultural University	Dr. Archana Raghavan Sathyan	7524000
3865	Extraction and encapsulation of phenolics and carotenoids from millet processing waste through Biorefinery approach	National Institute of Technology Warangal	Dr. Dr. Jerold Manuel	7116000

3869	Addressable Wearable Continuous Monitoring of Fetal Physiological Development: A Multidisciplinary Approach	Indian Institute of Technology Madras	Prof. Manivannan Muniyandi	7932000
3871	Role of genetic and environmental factors in the onset of congenital cataract	Central University of Rajasthan	Dr. Jay Kant Yadav	7116000
3872	Development of personalized, focal and deep transcranial magnetic stimulation (TMS) coils using metal additive manufacturing	Indian Institute of Technology Dharwad	Dr. Somashekara M A	5280000
3878	Development of a microfluidics-based diagnostic device for detection of major multi-drug resistant bacteria in diabetic foot ulcers	Manipal Academy of Higher Education	Dr. Murali Thokur Sreepathy	7728000
3883	Functionalized hybrid materials based on polymer and sulfur for lithium-sulfur batteries	Indian Institute of Technology Delhi	Prof. Leena Nebhani	7728000
3893	Understanding the mechanism of histone methyltransferase, G9a mediated role in autophagy during Non-alcoholic fatty liver disease (NAFLD)	University of Kashmir	Dr. Altaf Bhat	7932000
3903	Developing Human Bone mimetic 3D Bio-printed Organoid Models for Drug / Toxicology Screening: Characterizing it with Advanced Imaging	Indian Institute of Technology Kharagpur	Dr. Shivendu Ranjan	7320000
3914	Privacy enabled data management for zero touch network management	Indian Institute of Technology Roorkee	Dr. Pradumn Kumar Pandey	7422000
3917	An Automated XAI-Guided Framework for Rapid and Explainable Designing of Efficient Edge/IoT Systems	Indian Institute of Engineering Science and Technology, Shibpur	Prof. Hafizur Rahaman	7932000

3941	Synergizing Excellence: Fostering a Bilateral Critical Minerals Research Hub between India and Australia	Indian Institute of Technology Hyderabad	Prof. B S Murty	66700000
3950	The Effects of Digital Mediation of Urban Labour Markets: Insights from the New Gig Economies in India	Indian Institute of Science Education & Research Mohali	Dr. Debdulal Saha	7932000
3966	Time-Dependent Seismic Performance, Risk and Loss Assessment of Multistorey Buildings with RC Shear Walls Under Mainshock-Aftershock Sequences	Indian Institute of Technology Guwahati	Dr. Kaustubh Dasgupta	7320000
Total:				954959000

Project Number	Project Title	PI Name	Institute Name	Total Value
3927	Decentralized learning and decision-making	Prof. Parimal Parag	Indian Institute of Science	5532000
3673	Development of Next Generation of Spatio-Temporal Multimode Broadband Amplifiers for Fiber Optic Communication	Dr. Nithyanandan Kanagaraj	Indian Institute of Technology Hyderabad	4428000
3918	Tunable One-Dimensional Molecular Ribbons and Two-Dimensional Conjugated Organic Frameworks as Advanced Organic Semiconductors	Prof. BASKER SUNDARARAJU	Indian Institute of Technology Kanpur	4872000
3787	AI-Driven Resilient Semiconductor Supply Chain	Dr. Akhilesh Kumar	Indian Institute of Technology Kharagpur	5772000
3895	Development of amorphous silicon flexible alpha radiation detectors for nuclear decommissioning	Prof. Rajiv Dusane	Indian Institute of Technology Bombay	3816000
3212	Development of AI based framework for the prediction of Hydrogen Embrittlement failure on welded and 3D printed parts	Dr. Margret Anuncia S	Vellore Institute of Technology	5838000
3345	Artificial Intelligence-Assisted Glycopolymer-Based Mucoadhesive Nanogel for Targeting Cervical Tumor Microenvironment	Prof. Mahitosh Mandal	Indian Institute of Technology Kharagpur	5940000
3975	Perovskite Inspired Chalcogenide Semiconductors for Efficient Optoelectronics	Dr. Aditya Sadhanala	Indian Institute of Science	5124000
3373	Integrated Optical and Radio Frequency Sensing and Communication for Sustainable Development	Prof. Vimal Bhatia	Indian Institute of Technology Indore	5484000
3228	Environmental Monitoring and Evaluation via Remote Advanced LoRa-Driven Detectors (EMERALD) for Heavy Metal Contamination	Dr. Siva Rama Krishnan S	Vellore Institute of Technology	5970000
3799	Integrating Artificial Intelligence into Dental Education: Addressing a critical global oral health challenge through transformative capacity building	Prof. Mahesh Verma	Guru Gobind Singh Indraprastha University	3036000

3357	Wireless earbuds for postlaryngectomy silent speech interface	Dr. Sunita Mehta	Chitkara University	4056000
3118	Self-Powered Wearable Biosensor Integrated with Nanopore and Triboelectric Nanogenerator for Non-Invasive Health Monitoring	Dr. Gaurav Sapra	Panjab University	6228000
3912	A smart city geospatial data catalogue representing complex urban mobility challenges in India	Dr. Nand Kumar	Malaviya National Institute of Technology	4056000
3342	IRS-Aided OTFS Framework for Integrated Terrestrial and Non-Terrestrial Networks for Seamless Connectivity	Dr. Sanjeev Sharma	Indian Institute of Technology (Banaras Hindu University) Varanasi	4392000
3086	Functionalizing the next generation 2D semiconductors for optoelectronic and catalytic applications via ion irradiation	Prof. Joy Mitra	Indian Institute of Science Education & Research Thiruvananthapuram	5280000
3701	UAV-enabled ultra-reliable low-latency communication for energy efficiency and latency reduction in 6G networks	Prof. Manoj B S	Indian Institute of Space Science and Technology	4752000
3808	Layered Nanocomposite Composed of Graphene Carbon Quantum Dots and Mxene Coated with Calcium Oxide Nanoparticles for Large Scale Carbon Dioxide Capture and Translation into Nano-Fertilizer	Dr. Santosh Kumar Tiwari	NITTE	3648000
3221	Advancing Healthcare through Predictive Analytics: A Machine Learning Approach	Prof. Dr. Gurinder Singh	Amity University	2220000
3953	Development of UG/PG research themes in Energy and Sustainability within Renewable Energy Taught Courses in India and UK	Prof. MAHENDIRAN RAMASAMY	Tamil Nadu Agricultural University	6288000
3573	Open RAN for Next-Gen 6G Communications Using AI-based Quantum Computing	Dr. Sudip Biswas	Indian Institute of Information Technology Guwahati	5940000
3418	Multiple Access Techniques for improved Rural & Remote connectivity in Aerospace Integrated Networks	Prof. Vivek Ashok Bohara	Indraprastha Institute of Information Technology Delhi	4668000

3415	DigiIT (DigiT - Digital Twin Modelling of Integrated Transportation Platform)	Dr. Deepak Gangadharan	International Institute of Information Technology Hyderabad	5448000
3884	Digital analysis of flow processes in porous materials for geo-energy applications (Digi-GeoEnergy)	Prof. Swarup Kumar Mahapatra	Indian Institute of Technology Bhubaneswar	5136000
3265	Research Capacity Building in Green Hydrogen - The Fuel of the Future	Dr. SAKTHIVADIVEL D	Vellore Institute of Technology	4392000
3217	Building transformative research capabilities of masters students in sustainability	Prof. Debananda Misra	Indian Institute of Technology Delhi	5022000
3789	Distributed wind energy for urban and rural requirements, integration and energy conversion	Dr. Nithya Venkatesan	Vellore Institute of Technology	4482000
3186	Inspiring the researchers of tomorrow in sustainable concrete construction	Prof. Sandeep Chaudhary	Indian Institute of Technology Indore	4920000
3900	Capacity Building in Built Environment Sustainability Research (CAPABLE)	Prof. Bakul Rao	Indian Institute of Technology Bombay	5196000
3405	Clean Energy Research and Innovation through Student Exchange - UK and India (ENERGISE)	Dr. Ravi Kumar Kandasamy	Indian Institute of Technology Delhi	5268000
3625	An interdisciplinary approach to Sustainable Energy Transition to Equitable Systems: The Role of Solar Energy and Thermal Storage within the UK-India contexts	Dr. Chirodeep Bakli	Indian Institute of Technology Kharagpur	7668000
3650	Towards a Circular Economy: Exploring Nanotechnology, Plastics, and Additive Manufacturing for Development of Sustainable Concrete	Dr. Kaustav Sarkar	Indian Institute of Technology Mandi	4416000
3545	Socio-Technical Research Capabilities for Autonomous Electric Vehicles' Critical Safety, Security and Adoption	Prof. Husain Kanchwala	Indian Institute of Technology Delhi	4926000
3094	Advancing Sustainable Building Practices: A Comprehensive Investigation into Estimation Techniques for Thermal Load of Buildings	Prof. Dr Dibakar Rakshit	Indian Institute of Technology Delhi	5124000
Total:				169338000

SPARC Phase - II (2024-2026)



Project ID	Project Title	Indian Institute	Indian PI	Total Project Values
1716	Ligand Targeted Theranostics for PSMA+ Metastatic Castration Resistant Prostate Cancer using the Principle of Boron Neutron Capture Therapy	Indian Institute of Technology Indore	Prof. Venkatesh Chelvam	7404000
1750	Intrinsic Convection and Magnetism inside the Earth, Planets and Fast Rotating Stars: New Similarity Criteria, Scaling Laws and Simplest models	National Institute of Technology Warangal	Dr. Rani Ponnamma Hari	7404000
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1899	EXOSKINGRAFT: High Expansion Skin Grafting using Auxetic Patterns for Severe Burn Injury Mitigation	Indian Institute of Technology Delhi	Dr. Arnab Chanda	7404000
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2183	Development and Application of a Multiscale Dual Grid Eulerian-Lagrangian Solver to Study Atomization of a Simplex Atomizer	Indian Institute of Technology Hyderabad	Prof. Raja Banerjee	7404000
2205	Low-Cost GPU and AI based Computational Tool-Suite for Cancer Diagnosis and Radiotherapy Treatment	National Institute of Technology Calicut	Dr. Jayaraj P Balakrishnan	7404000
2229	The Kerala Maritime Communities Project	Mahatma Gandhi University	Prof. Sanal Mohan	7404000
2230	Self-charging Technologies and Advanced Roadways for Transporting Electric Vehicles (START-EV)	Indian Institute of Technology Tirupati	Dr. Krishna Prapoorna Billigiri	7404000

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2485	Hindu Worldview vis-a-vis UNDP-SDGs in the context of Fourth Industrial Revolution: a study of VUCA-coping cultural mechanisms of Hindus in Varanasi and the Netherlands	Indian Institute of Technology (Banaras Hindu University) Varanasi	Dr. Swasti Mishra	7404000
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2906	Interweaving social perception in the estimation of air quality indices among the particulates	University of Hyderabad	Dr. Nagender Kumar Suryadevara	7404000
2976	We C.A.R.E: Training for nonverbally Communicating Attentiveness, Respect and Empathy	Sri Ramachandra Institute of Higher Education and Research	Dr. Latha Ravichandran	7404000
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