



Government of India

Ministry of Science and Technology

Department of Science and Technology

International cooperation

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New Delhi – 110016

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An Indo-Korean call for Joint Research Proposals under the Programme of Cooperation with the Ministry of Science and ICT of the Republic of Korea was advertised in April 2023 in the areas of (i) Materials Science & Technology (ii) Quantum Technologies (iii) Information and Communication Technologies (iv) Renewable Energy (v) Green Mobility and (vi) Robotics & Manufacturing. In total, 198 common proposals were received against the joint call for which last date was 31st May 2023. Based on scientific merit, complementarities of the project objectives, scientific strengths of the project coordinators, national priorities of both the countries and availability of fund, Department of Science & Technology, India and Ministry of Science and ICT of the Republic of Korea have jointly decided to support following 10 proposals. The duration of the project would be for 3 years. Project coordinators are being informed separately to complete administrative formalities for release of DST grant.

SI No	Title	Indian Coordinator	Korean Coordinator
1.	Ultralow-power negative capacitance field effect transistors with amorphous oxide semiconductors for display backplane	Prof. Pavan Nukala, Indian Institute of Science, Bangalore	Prof. Sunkook Kim, Sungkyunkwan University, Gyeonggi-do, Korea

2.	Development of Biodegradable Electronic Devices for Sustainable ICT	Dr. Shree Prakash Tiwari, Indian Institute of Technology Jodhpur	Dr. Felix Sunjoo Kim, Chung-Ang University, Seoul
3.	Topological Quantum Materials for Thermoelectric Energy Conversion	Dr. Kanishka Biswas, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore	Dr. In Chung, Seoul National University, Seoul
4.	Quantum Enhanced Nonlinear Optical Microscopy for Biological Sample and Nanostructure Imaging	Dr. Varun Raghunathan, Indian Institute of Science, Bangalore	Dr. Hyunmin Kim, Daegu Gyeongbuk Institute of Science and Technology -DGIST, Daegu
5.	Neuromorphic Computing and Neuro-optimizer Platforms Utilizing High-yield Passive RRAM Crossbar Arrays	Dr. Shubham Sahay, Indian Institute of Technology Kanpur	Dr. Hyungjin Kim, Inha University, Incheon
6.	Integrated Sensing and Communication Systems ISAC Empowered by Machine Learning Techniques for 6G	Prof. Neelesh B Mehta, Indian Institute of Science, Bangalore, Bangalore	Prof. Wan Choi, Seoul National University, Seoul
7.	Generating Hydrogen Fuel from Anion Exchange Membrane Water Electrolyzer Powered by Renewable Energy Sources	Prof. Kaushik Pal, Indian Institute of Technology Roorkee	Prof. Se Hun Kwon, Pusan National University, Busan
8.	Synergistic water and energy for green hydrogen production	Dr. Jaichander Swaminathan, Indian Institute of Science, Bangalore	Prof. Seongpil Jeong, Korea Institute of Science Technology and Korea University of Science and Technology, Seoul
9.	Development of Reconfigurable Ultra-Compact Bidirectional On-Board-Charger for 400/800-V Battery Architectures	Dr. L. Padmavathi, CSIR – CEERI, Pilani	Dr. Minsung Kim, Dongguk University, Seoul
10.	All Organic Sodium-Ion Batteries for Sustainable Green-Mobility	Dr. Dhamodaran Santhanagopalan, Amrita Vishwa Vidyapeetham, Kochi	Prof. Nathaniel Suk Yeon Hwang, Seoul National University, Seoul

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