



**Department of Science & Technology
(International Co-operation Division)**

Result

**India-Serbia Bilateral Scientific and Technological Cooperation
Joint Projects for Indian-Serbia scientific cooperation
2022–2024**

Based on the Agreement between the Government of the Republic of India and the Government of the Republic of Serbia on Scientific and Technological Cooperation, the call for proposals for joint research projects, announced by the Department of Science and Technology (DST), Ministry of Science and Technology of the Republic of India and the Ministry of Education, Science and Technological Development of the Republic of Serbia respectively.

A total of 149 joint projects were received and evaluated independently on both sides. After the extensive evaluation process, the following 18 projects were recommended for support in principle after getting mutual consent from both sides. The individual letters will be sent to the respective Principal Investigators.

| Project Number | Project Heading | Indian Institution | Serbian Institution |
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| 1 | Study of the local structure of Zirconium based Laves phases for batteries applications | Dr. Debashis Banerjee Variable Energy Cyclotron Centre | Dr. Ana Umicevic Institute of Nuclear Sciences "Vinča" |
| 2 | Multiferroic Perovskite-Based Nanostructures for EMI Shielding and Photovoltaic Applications | Dr. Nandakumar Kalarikkal School of Nanoscience and Nanotechnology Mahatma Gandhi University, Priyadarsini Hills P O, Kottayam, Kerala | Dr. Dejan M Djokic Institute of Physics Belgrade |
| 3 | Scalable Convolution Neural Network CNN fused with hand crafted descriptors for detection of COVID-19 infection based on Lung Congestion using X-Ray images | Dr. Soumendu Chakraborty Department of Information Technology, Indian Institute of Information Technology, Lucknow | Dr. Dubravko Culibrk University of Novi Sad, Faculty of Technical Sciences |
| 4 | Development of Secure and Spectral Efficient Simultaneous Wireless Information and Power | Dr. Devendra Singh Gurjar | Dr. Dragana Krstic University of Nis, |

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| | Transfer Systems for Large-Scale Wireless Networks | Department of Electronics and Communication Engineering National Institute of Technology, Silchar | Faculty of Electronic Engineering (FEE) |
| 5 | Design of metamaterials for biosensing and ICT applications | Dr. Pinku Ranjan Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior | Dr. Jelena Radovanovic University of Belgrade School of Electrical Engineering |
| 6 | Targeting two diseases with one stone Inhibition of enzyme modulators of androgen receptor function in prostate cancer and COVID-19 | Dr. Md Imtaiyaz Hassan Jamia Milia Islamia Jamia Nagar Delhi | Dr. Edward T Petri University of Novi Sad Department of Biology and Ecology Faculty of Sciences |
| 7 | Machine-learning based PV power forecast and grid support solutions for PV integration in diverse climatic zones across Serbia and India | Dr. Rhythm Singh Department of Hydro and Renewable Energy (Formerly, AHEC) Indian Institute of Technology Roorkee | Dr. Ilija Batas Bjelic Institute of Technical Sciences of SASA |
| 8 | Session Types Applications, Foundations and Flow Security STAFFS | Prof. Sanjiva Prasad Department of Computer Science and Engineering, Indian Institute of Technology Delhi | Prof. Silvia Ghilezan Mathematical Institute, Serbian Academy of Science & Art, |
| 9 | Long cycle life all-solid-state lithium metal batteries encompassing polymer ceramic composite electrolytes | Dr. A. Manuel Stephan Central Electrochemical Research Institute (CSIR–CECRI) Karaikudi Tamilnadu | Dr. Dragana Jugovic Institute of Technical Sciences of SASA |
| 10 | Computation driven design of entropy stabilized fluorite structured ceramics and nanocrystalline coatings | Prof K C Hari Kumar & Metallurgical Materials Engineering Indian Institute of Technology Madras | Dr Branko Matovic Vinca Institute of Nuclear Science, Center for the synthesis, processing and characterization of materials for use in extreme conditions |
| 11 | Development of Zero Backlash Power Transmission Mechanism for Anthropomorphic Robots | Dr. Vineet Sahoo Dept. of Mechanical Engineering National Institute of Technology Jamshedpur (NIT Jamshedpur) Jharkhand | Dr Milan Rackov University of Novi Sad, Faculty of Technical Sciences |

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| 12 | Development of self-healing composite material | Dr. Deepak Kumar National Institute of Technology Jamshedpur (NIT Jamshedpur) Jharkhand | Dr. Milena Marinovic Cincovic Vinca Institute of Nuclear Science |
| 13 | Development of real-time traffic control algorithms for unconventional intersection designs using artificial intelligence methods | Dr. Ketan Kotecha Symbiosis Institute of Technology Symbiosis International University, Pune | Dr. Aleksandar Jovanovic University of Kragujevac |
| 14 | Development of State of Health Monitoring Device for Battery Management Systems in Electric Vehicles | Dr. Akhil Garg Centre for Automotive Research and Tribology (CART) Indian Institute of Technology Delhi | Dr. Milica Vujkovic University of Belgrade, Faculty of Physical Chemistry |
| 15 | Recycling of valuable metals from discarded printed circuit boards | Dr. Nikhil Dhawan Department of Metallurgical Materials Engineering Indian Institute of Technology Roorkee | Dr. Silvana Dimitrijevic Mining and Metallurgy Institute Bor |
| 16 | Fault detection and localization in a hybrid AC/DC microgrid | Dr. Bhavesh Kumar R.Bhalja Department of Electrical Engineering Indian Institute of Technology Roorkee | Prof. Dr. Darko Susic University of Belgrade School of Electrical Engineering |
| 17 | Adaptive methods for channel and RF front-end equalization in NOMA systems | Dr. Asutosh Kar Indian Institute of Information Technology, Design & Manufacturing (IIITD&M) Chennai | Prof. Dr. Vladimir Mladenovic University of Kragujevac, Faculty of Technical Sciences Cacak |
| 18 | Design and Development of Replicable and Scalable Cyber Physical Micro Grid System | Dr. Vaithilingam C Vellore Institute of Technology - VIT Chennai | Dr. Zoran Stojanovic University of Belgrade School of Electrical Engineering |