

**DECISION DOCUMENT**  
**on the selection of projects for Slovenian-Indian scientific cooperation**  
**2022–2024**

Based on the Agreement between the Government of the Republic of Slovenia and the Government of the Republic of India on Scientific and Technological Cooperation, signed in New Delhi on 31<sup>st</sup> January 1995, on the Programme of Cooperation in the fields of Science and Technology for the period 2020–2022, signed in Ljubljana on 16<sup>th</sup> September 2019 and on the call for proposals for joint research projects, announced by the Slovenian Research Agency and the Department of Science and Technology, Ministry of Science and Technology of the Republic of India respectively in June 2020, the two sides realize that:

The Slovenian side received 112 proposals for joint research projects among which two proposals were not eligible and 3 projects were not submitted on the Indian side. The Indian received 112 proposals for joint research projects among which 02 proposals were not submitted on the Slovenian side. Thus 107 matching project proposals were considered for joint selection.

The project proposals have been peer reviewed by both sides and the sides have come to the agreement to select 20 proposals for joint funding. The approved projects are listed in Annex 1.

The approved projects will be funded for the period from 1<sup>st</sup> January 2022 to 31<sup>st</sup> December 2024. The start of projects initially announced in the call has been postponed because, due to COVID-19 pandemic, the implementation of projects consisting of visits to both countries would be very limited in 2021.

On the Slovenian side the projects will be funded in the amount of max. 7500 EUR per project. On the Indian side, the projects will be funded for two exchange visits/ year (including logistics and other related expenses), consumables @50,000 and overhead charges.

The next meeting of the Joint Working Group for Scientific and Technological Cooperation, established according to the above mentioned Agreement will be held in Ljubljana. The new Programme of Cooperation in the fields of Science and Technology for the period 2025–2027 shall be prepared in the beginning of 2024.

Done in Ljubljana and New Delhi in two original copies in English language.

FOR THE SLOVENIAN SIDE

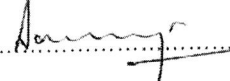


Tina Vuga, co-chair of the JWG  
Head of Unit for International Cooperation  
Ministry Education, Science and Sport  
Government of the Republic of Slovenia

Ljubljana, .....

25.10.2021

FOR THE INDIAN SIDE



S. K. Varshney, co-chair of the JWG  
Head and Advisor  
International Cooperation Division  
Department of Science and Technology  
Ministry of Science and Technology  
Government of India

New Delhi, .....

22-10-21

## Slovenian-Indian scientific cooperation 01/01/2022-31/12/2024: List of approved projects

Nr.	Slovenian PI	Slovenian Institution	Indian PI	Indian Institution	Project Title
1	Mitjan Kalin	University of Ljubljana, Faculty of Mechanical Engineering	B. Venkata Manoj Kumar	Indian Institute of Technology (IIT), Roorkee, India, Roorkee	Wear resistant self-lubricating Cu-based materials for electrical sliding contact applications
2	Tomaž Urbič	University of Ljubljana, Faculty of Chemistry and Chemical Technology	Pradipta Bandyopadhyay	Jawaharal Nehru University, New Delhi	Path toward an ultrafast model of solvation of molecules and its connection to complex processes in biology
3	Simona Šternad Zabukovšek	University of Maribor, Faculty of Economics and Business	Abhishek Vaish	Indian Institute of Information Technology, Allahabad, Prayagraj-211015, U.	A Hybrid Platform for real time intrusion detection framework based on Cyber Security Intelligence monitoring system
4	Darko Makovec	Jožef Stefan Institute	Surender Kumar Sharma	Dept. of Physics, Central University of Punjab, India, Bathinda, Punjab	Investigation of ferrimagnetic vortex iron oxide (FVIO) based nanoparticles for magnetic hyperthermia applications
5	Hana Uršič Nemevšek	Jožef Stefan Institute	Satyendra Singh	Special Centre for Nanoscience, Jawaharal Nehru University, New Delhi	ABO3-type perovskite structured ferroelectric ceramics for future sensors, actuators and solid-state refrigerators
6	Gregor Žerjav	National Institute of Chemistry	Nitin Labhsetwar	CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	Methane-CO2 Dry-reforming over Nano-shaped Bimetallic CeO2 and Ni based Catalysts with In-situ/Operando of their Working States
7	Gašper Tavčar	Jožef Stefan Institute	Sakya Singha Sen	CSIR-national Chemical Laboratory, Pune 411008 (India)	Silicon and Fluorine: A Swiss-Army-Knife Combination for New Mixed Polymerization Blocks, Protection of Ozone Layer and CF3 transfer
8	Vrtič Peter	University of Maribor, Faculty of energy technology	P. Satish Kumar	Department of Electrical Engineering, University College of Engineering, Osmania University, Hyderabad	Performance Enhancement of Grid Connected Multilevel Inverter based Wind Energy Conversion System with Low Voltage Ride Through Capability using Power Conditioners
9	Franc Solina	University of Ljubljana, Faculty of Computer and Information Science	Satish Kumar Singh	Indian Institute of Information Technology Allahabad, Prayagraj-211015 (UP)	Thermo-Visible Deep Multimodal Ocular Biometric Recognition and Facial Thermal Profiling in COVID-19 Reality
10	Miran Mozetič	Jožef Stefan Institute	Josmin P. Jose	Department of Chemistry, Mar Thoma College, Tiruvalla	Facile Preparation of Superhydrophobic Cellulose nanofibers and Compounding with PLA for Packaging Applications
11	Matevž Dular	University of Ljubljana, Faculty of Mechanical Engineering	Dhiman Chatterjee	Indian Institute of Technology, Madras, INDIA 6000	On the role of ultrasound contrast agents in detecting early stages of atherosclerosis
12	Zlatko Matjačić	University Rehabilitation Institute, Republic of Slovenia	Vineet Vashista	Indian Institute of Technology Gandhinagar, Gujarat	Swing Phase Gait Training and Assistance of Stroke Patients using a Cable Driven Robot
13	Nataša Poklar Ulrih	University of Ljubljana, Biotechnical Faculty	Kunal Pal	National Institute of Technology Department of Biotechnology and Medical Engineering, Rourkela, Odisha-769	Developing biphasic nutraceutical candy formulations enriched with folate, vitamin D, and vitamin C for the expecting mothers

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14	Robert Zorec	University of Ljubljana, Faculty of Medicine	Amal Kanti Bera	Dept. of Biotechnology, Indian Institute of Technology Madras, Chennai	Effect of SARS-COV-2 proteins on calcium signaling, vesicle dynamics and secretion in neuron and astrocytes
15	Marko Robnik Šikonja	University of Ljubljana, Faculty of Computer and Information Science	Basant Agarwal	Indian Institute of Information Technology (IIIT Kota), Jaipur-302017, India	Cross-lingual knowledge transfer for social media analysis in less-resourced languages during COVID-19 epidemy
16	Henri Orbanic	University of Ljubljana, Faculty of Mechanical Engineering	Vijayan Krishnaraj	PSG College of Technology, Coimbatore 641004	Process chains for high volume manufacturing of microreactor systems
17	Roman Šturm	University of Ljubljana, Faculty of Mechanical Engineering	Asit Kumar Khandra	National Institute of Technology (NIT) Warangal, Dt-Warangal	Development of Al-Ni-RE Alloys for High Temperature and Tribological Applications
18	Vesna Zalar Serjun	Slovenian National Building and Civil Engineering Institute	Bendadi Hanumantha Rao	School of Infrastructure, Bhubaneswar, Odisha	Green and Sustainable Construction Materials from waste Industrial By-products - Red Mud and Waste Gypsum
19	Blaž Likozar	National Institute of Chemistry	Rakesh K Sharma	Indian Institute of Technology Jodhpur, Jodhpur	Solid Acid Catalyst for Biomass Conversion to Fuel and Fine Chemicals
20	Matej Bračič	University ob Maribor, Faculty of mechanical engineering	R. Arockia Kumar	Dept. of Metallurgical and Materials Engineering National Institute of Technology Warangal, Warangal	Development and characterization of novel bioresorbable zinc alloys for biomedical applications