

**Department of Science & Technology**  
**International Division**

An India-Belarus Joint call for proposals with the State Committee of Scientific Research of Belarus in the areas of (1) **Information and Communication Technologies with focus on Artificial Intelligence, Internet of Things, Machine Learning, Cloud Services**; (2) **Biotechnology including Medicine and Pharmacy** and (3) **New Materials with particular focus on (i) Additive Manufacturing (AM) (ii) Powder production for AM and Powder Metallurgy Components (iii) Nanostructured Materials (iv) Ceramic Materials (v) Functional coatings and thin films for various applications** was advertised in July 2022. In total, 44 common proposals were received against the joint call for which last date was 15<sup>th</sup> September 2022. Based on scientific merit, complementarities of the project objectives, scientific strengths of the project coordinators and national priorities, the Department of Science & Technology, India and State Committee of Scientific Research of Belarus have jointly decided to support following 14 proposals. Project coordinators are being informed separately to complete administrative formalities for release of DST grant.

SI	Area	Title	Indian PI	Belarus PI
1	New Materials	Development and investigation of manufacturing processes for precision and small-sized products of complex shape from oxide ceramics by injection molding	Dr. Prosenjit Das, Indian Institute of Science Bangalore, Karnataka	Dr. Baray Sergey, O.V. Roman Powder Metallurgy Institute, Minsk
2	New Materials	Development of well-defined block copolymers for application in functional coatings via a combination of living cationic polymerization and photoRDRP technique	Dr. Sanjib Banerjee, Indian Institute of Technology Bhilai, Raipur, Chhattisgarh	Prof. Sergei V Kostjuk, Belarusian State University, Minsk

3	Biotechnology & Medicince	Exploration of aptamer Gint4.T based dendrimeric carrier for the brain delivery of anticancer drug temozolomide	Dr. Umesh Gupta, Central University of Rajasthan, Ajmer, Rajasthan	Dr. Dzmitry Shcharbin, National Academy of Science of Belarus, Minsk
4	ICT	Cloud and AI enabled Low Power GNSS Framework with enhanced ubiquitous positioning accuracy for connected devices in IoT ecosystem targeting improved outdoor localization of Smart City applications	Dr. Saikat Kumar Shome, CSIR Central Mechanical Engineering Research Institute, Durgapur, West Bengal	Dr. Halina A. Vlasava, Joint Institute for Informatics Problems of the National Academy of Sciences of Belarus, Minsk
5	ICT	Research Prototype of a Remote Screening System for Diabetic Retinopathy	Prof. Raju G, Christ University, Bengaluru	Dr. Starovoitov V, National Academy of Sciences Belarus, Minsk
6	New Materials	Electrical and magnetic transport characterizations of M/CdIn <sub>2</sub> Se <sub>4</sub> /S sandwiched device (M: Pt, Au; S: Pyrographite, PbZr <sub>0.52</sub> Ti <sub>0.48</sub> O <sub>3</sub> , Ba <sub>0.4</sub> Sr <sub>0.6</sub> TiO <sub>3</sub> ) for resistive memory switching applications	Dr. Dhananjay Dhruv, Natubhai V. Patel College of Pure and Applied Sciences, Charutar Vidya Mandal University, Gujarat	Dr. Sergei Alexandrovich Sharko, Scientific-Practical Materials Research Centre of National Academy of Sciences of Belarus, Minsk
7	New Materials	Study of materials, technologies and equipment for 3D printing of polymeric medical devices on the example of a bone plate with improved mechanical	Dr. Vishal Gupta, Thapar Institute Of Engineering and Technology, Patiala, Punjab	Prof. Kheifetz Mikhail Lvovich, National Academy of Sciences of Belarus, Minsk

8	ICT	System for monitoring and intellectual analysis of web "Safe web space	Dr. Basant Agarwal, Indian Institute of Information Technology Kota (IIIT Kota) Jaipur, Rajasthan	Dr. Andrey Govin, JSV GIPROSVJAZ, Minsk
9	New Materials	Functionalised graphene-oxide nanocomposites with enhanced thermoelectric properties for clean energy applications	Dr. Anuradha M Ashok, PSG Institute of Advanced Studies, Coimbatore, Tamilnadu	Dr. Uladzimir Novikau, National Academy of Sciences of Belarus, Minsk
10	New Materials	Combined HVOF – PVD technology in coating manufacturing alternate to hard chrome	Dr. Ramesh M R, National Institute of Technology, Surathkal, Karnataka	Dr. Mikalai Chekan, Physical Technical Institute of the NAS of Belarus, Minsk
11	New Materials	Formation of nano-structured W-Cu thin films for nuclear and energy applications	Prof. K Asokan, University of Petroleum And Energy Studies, Dehradun, Uttarakhand	Prof. Uglov Vladimir Vasilievich, Belarusian State University, Minsk
12	New Materials	Fabrication of multibore hollow fiber ultrafiltration and nanofiltration membranes enabled by nanostructured nanomaterials for water treatment	Dr. G Arthanareeswaran, National Institute of Technology, Tiruchirappalli, Tamilnadu	Prof. Alexandr Bilyukevich, Academician of the National Academy of Sciences of Belarus, Minsk
13	New Materials	Fabrication of 2-D Layered Nanosheets Strengthened Multifunctional Coatings for Bone Tissue Regeneration	Dr. Selvakumar Murugesan, National Institute of Technology, Mangalore Karnataka	Prof. Vasilenko Irina, Belarusian State University, Minsk
14	New Materials	Development of a promising material for electrical engineering based on powdered copper alloys with nanocrystalline dispersed tungsten inclusions	Dr. Debdas Roy, National Institute of Foundry & Forge Technology, Ranchi, Jharkhand	Dr. Andrey I Letsko, OV Roman powder Metallurgy Institute of the National Academy of Science, Minsk, Belarus