

Department of Science & Technology
International Division

An India-Russia Joint call for proposals with the Russian Foundation for Basic Research (RFBR) in the areas of (i) Mathematics, Mechanics and Informatics; (ii) Physics and Astronomy; (iii) Chemistry; (iv) Biology and Medical Sciences; (v) Earth Sciences; (vi) Telecommunications and Computer Sciences and (vii) Fundamental of Engineering Sciences was advertised in February 2019. In total, 240 common proposals were received against the joint call for which last date was 15th March 2019. 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 Russian Foundation for Basic Research (RFBR) have jointly decided to support following 43 proposals. Project coordinators are being informed separately to complete administrative formalities for release of DST grant.

SI No	Title	Indian Coordinator	Russian Coordinator
1	Development and pilot implementation of dynamic strain and displacement measurements system based on fiber optic distributed line to decipher the structure and dynamics of Andaman subduction zone	Dr. Maheswar Ojha, CSIR National Geophysical Research Institute, Hyderabad	Dr. Ilinskiy Dmitry P.P. Shirsov Institute of Oceanology, Russian Academy of Science Moscow
2	Development of Heat Transfer Enhancement Methods at Boiling and Evaporation on Horizontal Tube Bundles for Falling Films and Forced Flow of Liquids	Dr. Mihir Kumar Das, Indian Institute of Technology Bhubaneswar	Dr. Nikolay Ivanovich Pecherkin, Kutateladze Institute of Thermophysics, Siberian Branch of the RAS, Novosibirsk
3	Evolution of ductility of bulk amorphous alloys Zr-based subjected to severe plastic deformation and other treatments	Prof. Jatin Bhatt , Visvesvaraya National Institute of Technology, Nagpur, Maharashtra	Dr. Dmitry Gunderov, Institute of Physics of Advanced Materials, Ufa
4	Development of composite thin films with simultaneous diffraction and magnetic properties	Dr. V N Lad, Sardar Vallabhbhai National Institute of Technology, Surat	Dr. Sergey O. Klimonsky, Lomonosov Moscow State University, Moscow

5	Quaternary paleoclimate and paleoecology via multiproxy analysis of paleosol sequences across the Russian Plain and Himalaya.	Prof. Pankaj Srivastava, University of Delhi, Delhi	Dr. Alekseev Andrey Institute of Physicochemical and Biological Problems in Soil Science, Pushchino, Moscow Region
6	Nonlinear Dynamics and Acoustics of Metamaterial Structures	Dr. K R Jayaprakash, Indian Institute of Technology, Gandhinagar	Dr. Margarita Kovaleva, Institute of Chemical Physics, Russian Academy of Sciences, Moscow
7	Synthesis of Novel Half-Sandwich Cobalt Complexes and their application in C-H Bond Functionalization Reactions	Dr. Basker Sundararaju, Indian Institute of Technology Kanpur	Dr. Dmitry Perekalin, Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences (INEOS RAS), Moscow,
8	Emergence of coherent structures in brain neural network during sensory information processing experiment and theoretical analysis	Dr. Dibakar Ghosh, Indian Statistical Institute, Kolkata	Dr. Nikita S. Frolov, Innopolis University, Tatarastan
9	Quasi-static and Dynamic Strength of Ultrahigh Performance Concrete	Dr. Mohd Ashraf Iqbal, Indian Institute of Technology Roorkee,	Prof. Nikita F. Morozov Saint Petersburg State University, Institute for Problems in Mechanical Engineering of the Russian Academy of Sciences St.Petersburg
10	Genomic and metagenomic studies of freshwater sponges (Porifera, Spongillida) in the two hot spots of speciation: Lake Baikal (Russia) and Western Ghats (India)	Prof. Joseph Selvin, Pondicherry University, Puducherry	Dr. Valeria Itskovich, Limnological Institute of SB RAS, Irkutsk

11	Basic Approaches for the Development of Biochar and Rhizobacteria Based Bioformulation and Its Effects on Crop Growth and Productivity in Heavy Metal Contaminated Arid/Semi-Arid Regions in India and Russia	Prof. Mani Rajkumar, Bharathiar University, Coimbatore, Tamil Nadu	Dr. Tripti, Institute of Natural Sciences and Mathematics, Ural Federal University, Ekaterinburg
12	Phylogeography and Population Genetics Structure of Snow Leopards (<i>Panthera uncia</i>) in Asia (Russia, Mongolia, Kyrgyzstan, Tajikistan, Kazakhstan and India): Implications for Conservation and Wildlife Forensics	Dr. Vinita Sharma, Central University of Jammu, Jammu & Kashmir	Dr. Miroslav Korablev, A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow
13	Theory and practice of fine system monitoring usage to enhance supercomputer applications	Mr. Sanjay Wandhekar, Centre for Development of Advanced Computing, Pune	Dr. Vladimir Voevodin, Lomonosov Moscow State University, Moscow
14	Estimation of heat content and its variability depending on the determining factors in the Arctic seas from multi-mission satellite and in-situ observation data	Prof. P Shanmugam, Indian Institute of Technology Madras, Chennai	Dr. O. V Kopelevich, P.P. Shirshov Institute of Oceanology, Moscow
15	Development of novel mechanical characterization method for bio-polymeric nanomaterials using newly fabricated micro and nano-mechanical tools.	Dr. Ramesh Subramani, PSGR Krishnammal College for Women, Peelamedu Coimbatore	Prof. Vladimir Grigorievich Shavrov, Kotelnikov Institute of Radioengineering and Electronics of RAS, Moscow
16	Geochemistry, detailed mineral chemistry and ore potential of Amba Dongar and Newania carbonatite complexes	Dr. Arundhuti Ghatak, Indian Institute of Science Education and Research Bhopal	Dr. Natalia Kononkova, Institute of Biophysics, Krasnoyarsk

17	Surface Active Additives for Enhanced Flow Boiling in Microchannels	Dr. Rishi Raj, Indian Institute of Technology, Patna	Dr. Dmitry Zaitsev, Kutateladze Institute of Thermophysics, Siberian Branch of the Russian Academy of Sciences Novosibirsk
18	Distinct Phase stabilisation and its structural impact on magnetoelectric coupling in pyrochlore $\text{Bi}_{2-x}\text{M}_x\text{WO}_6$ (M= Mn, Fe, Co) for induced multiferroicity	Prof. Balakumar, University of Madras, Chepauk, Chennai	Dr. Kichanov Sergey Joint Institute for Nuclear Research, Dubna
19	Studies on translesion DNA synthesis by human PrimPol across N2-dG adducts	Prof. Pradeep Kumar, Indian Institute of Technology Bombay, Mumbai	Dr. N. Miropolskaya, Institute of Molecular Genetics, Russian Academy of Science Russia , Moscow
20	Development of Novel Hybrid Materials Based on mesoporous MOFs and Encapsulated Au/Ag Nanoparticles for Catalytic Conversion of Acetylenic Molecules and Sensing Applications	Dr. Kamal Kumar Bisht, RCU Government Post Graduate College Uttarkashi, Uttarakhand	Prof. Vera Isaeva, ND Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow
21	Radical based homo and heterometallic 4f and 3d/4f assemblies Design, structure and physicochemical properties	Dr. Abhishake Mondal, Indian Institute of Science Bengaluru	Dr. Mikhail Kiskin, N. S. Kurnakov Institute of General and Inorganic Chemistry, Russian Academy of Sciences, Moscow
22	Design and investigation of new multicomponent crystalline forms of nonsteroidal antiandrogen drugs.	Dr. B Sridhar, CSIR-Indian Institute of Chemical Technology, Hyderabad	Dr. Artem O. Surov, Institute of Solution Chemistry of Russian Academy of Sciences, RAS, Ivanovo
23	Preparation and properties of self-healing polymer based nanohybrid materials for energy harvesting application	Prof. Bal Chandra Yadav, Babasaheb Bhimrao Ambedkar University, Lucknow	Prof. Dr. Dzhardimalieva GulzhianIskakovna, Institute of Problems of Chemical Physics, Moscow

24	Technology of nanocomposite materials with discotic liquid crystals and nanoparticles for electrooptic devices with enhanced performances	Prof. Sandeep Kumar, Raman Research Institute, Bengaluru	Dr. Victor Belyaev, Moscow Region State University, Moscow
25	Performance Evaluation of Stochastic Models for High Performance, Distributed and Ubiquitous Computing Systems and Automatic Repeated Request with Error Control Systems by Matrix Analytic and Regenerative Approaches	Dr. B Krishna Kumar, Anna University, Chennai	Dr. Alexander Rumyantsev, Institute of Applied Mathematical Research, Karelian Research Center of the Russian Academy of Sciences. Petrozavodsk.
26	Phase sensitive amplifiers with novel dispersion-tailored fibers	Dr. Deepa Venkitesh, Indian Institute of Technology Madras	Dr. Andrey Konyukhov, Saratov State University, Saratov
27	Magnetic and spectral properties of novel Mn-based Heusler alloys for magnetoelectronics applications	Dr. Ajit Kumar Patra, Central University of Rajasthan, Ajmer	Dr. Elena I. Shreder, M. N. Miheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Yekaterinburg
28	Development of theranostic targeted magnetic nanoparticles for diagnostics and treatment of tuberculosis	Dr. Avinash Sonawane, Indian Institute of Technology Indore	Dr. Maxim Shevtsov, Institute of Cytology of the Russian Academy of Science, St. Petersburg
29	Investigation of ion-focusing mechanism based sheet beam driven sub-THz source for high power NDE application	Dr. Niraj Kumar, Central Electronics Engineering Research Institute, CSIR-CEERI, Pilani	Dr. Andrey Victorovich Starodubov, Saratov State University, Saratov
30	Emotion Classification in Children's Speech By Humans and Machines Cross-Cultural Study	Dr. Ruban N, Vellore Institute of Technology, Vellore	Dr. Elena E. Lyakso, St. Petersburg State University, St. Petersburg

31	Multiple reversals of the Sun's polar-fields and their physical causes	Dr. Bidya Binay Karak, Indian Institute of Technology, Banaras Hindu University Varanasi	Dr. Alexander V. Mordvinov Institute of Solar Terrestrial Physics, Irkutsk
32	Development of bioactive yet antibacterial coatings with enhanced osseointegration and ability to fight infection	Dr. B Subramanian, CSIR-Central Electrochemical Research Institute, Karaikudi	Dr Dmitry Shtansky, National University of Science and Technology MISiS, Moscow
33	Study of bioelectrochemical properties of the PEDOT/thermally expanded graphite/biocatalyst composite for Microbial fuel cell	Dr. Ashok Kumar Sundramoorthy, SRM Institute of Science and Technology, Kattankulathur	Dr. Anatoly N. Reshetilov, Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences (PSCBR RAS), G.K. Skryabin Institute of Biochemistry and Physiology of Microorganisms. Pushchino
34	Cross-linked Heterostructures of h-BCN Nanowalls and Two-Dimensional Nanosheets	Dr. EswaraiahVarrla, SRM University, Potheri, Kattankulathur Chennai	Dr. Ivan S. Merenkov, Nikolaev Institute of Inorganic Chemistry SB RAS, Novosibirsk
35	Investigation of the influence of structural peculiarities of nuclei on the formation and decay of Hg and Pt isotopes in the heavy-ion reactions at energies around the Coulomb barrier	Prof. Moumita Maiti, Indian Institute of Technology, Roorkee	Dr. Kozulin Eduard Michailovich, Joint Institute for Nuclear Research, Dubna
36	Experimental and numerical research on contact friction in the process of plastic deformation by means of compression with torsion	Prof. Uday Shanker Dixit, Indian Institute of Technology, Guwahati	Dr. Pavel A. Petrov, Moscow Polytechnic University, Moscow

37	Design and optimization of biocompatible optical nanostructures for biomedical applications	Prof. Ramesh Chandra, University of Delhi, Delhi	Dr. Anton Konakov, Institute of Physics and Technology, Lobachevsky University, Nizhny Novgorod
38	Investigation of clay minerals for eco-friendly slow-release fertilizers	Prof. Santanu Banerjee, Indian Institute of Technology Bombay, Mumbai	Dr. Maxim Rudmin, School of Earth Sciences & Engineering, Tomsk Polytechnic University Tomsk
39	Dynamic remagnetization and heating effect in systems of ferro/ferrimagnetic nanoparticles	Prof. John Philip, Indira Gandhi Centre for Atomic Research, IGCAR Kalpakkam	Dr. Zubarev Andrey Yurievich, Urals State University, Ekaterinburg
40	Polysaccharide-based Activatable Vesicle for Programmed Delivery of Chemotherapeutics to the colon cancer	Prof. Sankarprasad Bhuniya, Amrita Vishwa Vidyapeetham, Amrita School of Engineering, Coimbatore	Dr. Tatiana S. Demina, Enikolopov Institute of Synthetic Polymeric Materials of Russian Academy of Sciences (ISPM RAS), Moscow
41	Hybrid Deep Learning for Indo-Russian Sign Language Recognition	Dr. R Elakkiya, SASTRA University, Thanjavur	Prof. Grif Mikhail Gennadievich, Novosibirsk State Technical University, Novosibirsk
42	Compact "Top-Top" Powerful Terahertz source by laser-matter interactions and some applications	Dr. Devki Nandan Gupta, University of Delhi, University Road, New Delhi, Delhi	Dr. Victor V. Kulagin, Astronomical Institute of Moscow State University, Moscow
43	Targeting c-FLIP-CaM interaction to resensitize tumor cells to death ligands for potential anti-cancer treatments	Dr. Kakoli Bose, Advanced Centre for Treatment Research and Education in Cancer, ACTREC, Mumbai	Prof. Dr. Inna Lavrik, Institute of Cytology and Genetics, Novosibirsk