



**Department of Science & Technology  
(International Bilateral Co-operation Division)  
India-Bulgaria Bilateral Scientific and Technological Cooperation  
Result of India-Bulgaria Joint Research Projects 2018**

An India-Bulgaria joint call 2018 under India-Bulgaria Bilateral Scientific and Technological Cooperation was issued by the Department of Science & Technology (DST) of the Indian Republic and the Ministry of Education and Science (MES) of the Republic of Bulgaria for inviting Indian and Bulgarian scientists to submit their joint proposals in the areas of information and communication technologies; materials and materials science; physics including laser science and technology, nuclear science, astronomy and space & technology research; chemical sciences; Renewable Energy; Earth science, geophysics, climate studies, oceanology and environmental protection, including waste management; Biotechnology, agriculture and food technology; Healthcare, biomedical appliances, bioethics, pharmacy and traditional medicine and Social studies related to science and technology.

Total 71 joint proposals were received against this Call. These projects were evaluated independently from both sides as per their national guidelines and conditions mentioned in joint call. After an exchange of individual evaluation results and further negotiations, both sides jointly approved a total of Sixteen (16) joint proposals for funding during the years 2019-2021. Indian PIs are being informed separately to complete administrative formalities to release the grant from DST.

List of recommended joint research projects are as follows:

<b>DST Reference Nos.</b>	<b>Title of the Project</b>	<b>Indian PI and Host Institute</b>	<b>Bulgarian PI and Host Institute</b>
INT/BLG/P-01/2019	Design and Analysis of Mathmaterial Based Antenna for Wearable Application.	NAVNEET GUPTA Faculty in Electrical and Electronics Engineering Birla Institute of Technology and Science, Pilani, Rajasthan 333031, India	PLAMEN DANKOV St. Kliment Ohridski, Faculty of Physics Sofia University Sofia, Bulgaria
INT/BLG/P-02/2019	Advanced coordinated control and projection of intelligent dc micro grids.	BHARAT SINGH RAJPUROHIT School of Computing and Electrical Engineering Indian Institute of Technology Mandi, H.P. Kamand 175005, India	DIMITAR BOGDANOV St. Kliment Ohridski, Faculty of Physics Sofia University Sofia, Bulgaria

INT/ BLG/P-03/2019	Polarization-sensitive auto-fluorescence spectroscopy and microscopy for cancer detection	NIRMAL MAZUMDER Department of Biophysics, School of life sciences, Manipal Academy of Higher Education, Planetarium Complex, Manipal, Karnataka 576104, India	EKATERINA GEORGIEVA BORISOVA Institute of Electronics Bulgarian Academy of Sciences Sofia, Bulgaria
INT/ BLG/P-04/2019	Phase change material based thermal energy accumulators in solar thermal and waste-heat recovery systems	SUBARNA MAITI Engineering Cell CSIR- Central Salt & Marine Chemicals Research Institute Gijubhai Badheka Marg Bhavnagar, Gujarat 364002, India	DANIELA BOYANOVA DJOKOVA-ATANASSOVA Institute of Chemical Engineering at the Bulgarian Academy of Sciences Sofia, Bulgaria
INT/ BLG/P-05/2019	FPGA based system for registration of diffraction pattern	AMITA NANDAL Computer and Communication Engineering Department Manipal University Jaipur 303007, India	KRISTINA_BLIZNAKOVA Technical University of Varna Varna, Bulgaria
INT/ BLG/P-06/2019	Exploring the natural diversity in tomato germplasm for phosphate starvation responses	RAHUL KUMAR University of Hyderabad C.R Rao Road, Gachibowli, Hyderabad, India	KIRIL_MISHEV Institute of Plant Physiology and Genetics Sofia University Sofia, Bulgaria
INT/ BLG/P-07/2019	Exploring ruthenium based metallodendrimers for improved anticancer activity and mode of action	SUMAN MUKHOPADHYAY Discipline of Biosciences & Biomedical Engineering Indian Institute of Technology Indore, Simroi 453552, India	IVO GRABCHEV St. Kliment Ohridski Sofia University Sofia, Bulgaria
INT/ BLG/P-08/2019	Purification of Hafnium metal sponge using Electron Beam melting and preparation of hafnium metal targets for electronic application	RATHEESH Centre for Material for Electronics Technology Ida, Phase III, Hcl Post, Cherlapalli, Hyderabad, Telangana 500057, India	KATIA VUTOBA Institute of Electronics, Bulgaria Academy of Science Sofia, Bulgaria
INT/ BLG/P-09/2019	Ultrahigh-Efficiency lead free Perovskite solar Cells	AJAYA KUMAR SINGH Department of Chemistry Govt V.Y.T P.G. Autonomous College Durg, Chhattisgarh, India	MARIYA ALEKSANDROVA Department of Microelectronics, Technical University of Sofia, Sofia, Bulgaria

INT/ BLG/P-10/2019	Stable and High Sensitive Low Dimensional Perovakite Photodetectors	HABIB M PATHAN Department of Physics Savitribai Phule Pune University Pune – 7, India	GEORGI DOBRIKOV Department of Microelectronics technical University of Sofia Sofia, Bulgaria
INT/ BLG/P-11/2019	Eruption flows and waves in solar atmosphere and their role in space weather.	RAMESH CHANDRA Department of Physics, DSB Campus, Nainital 263002, India	KOSTADINKA KOLEVA Institute of Astronomy with NAO, Bulgaria Academy of Science Sofia, Bulgaria
INT/ BLG/P-12/2019	Contemporary approaches for processing and analysis of multidimensional singles in telecommunications	PARVINDER SINGH Department of Computer Science and Engineering Deenbandhu Chhotu Ram University of Sci & Tech Murthal, Haryana 131039, India	RUMEN MIRONOV bulv. KL Ohridsky Technical University of Sofia Sofia, Bulgaria
INT/ BLG/P-13/2019	Processing and characterization of hybrid non-equilibrium composites fabricate by friction Stir Processing ( FSP)	KRISHNA KISHORE MUGADA Department of Mechanical Engineering Gayatri Vidya Parishad College of Engineering Madhurawada, Vishakhapatnam Andhra Pradesh 530002, India	CHRISTO KONDOFF Acad Georgi Bonchev St, B1 11, Bulgarian Academy of Science, Sofia, Bulgaria
INT/ BLG/P-14/2019	Exploiting the Zn-ferrite thin films material an assortment of spintronics devices	MURTAZA BOHRA Mahindra Ecole Centrale 1A, Survey No: 62, Bahadurpally, Hyderabad, Telangana 500043, India	KIRIL KREZHOV Institute of Electronics 72, Tsarigradsko chaussee blvd. Bulgarian Academy of Science, Sofia, Bulgaria
INT/ BLG/P-15/2019	Green and sustainable catalyst based on zeolites for oxidative transformation reaction	UTPAL BORA Department of Chemical Science, Tezpur University, Napaam, Tezpur, Assam 784028, India	YURI KALVACHEV Institute of Catalysis, Acad Georgi Bonchev St, B1 11, Bulgarian Academy of Science, Sofia, Bulgaria
INT/BLG/P-16/2019	Capsicum germplasm exploitation for resistance against important capsicum viruses across Bulgaria and India	PRAMESH, D University of Agricultural science Raichur, Karnataka – 584104, India	GANCHO PASEV 32 Brezovsko shosse, Marista Vegetable Crops Research Institute Plodiv, Bulgaria