

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

An Indo-Polish Joint call for Proposals was issued by the Department of Science and Technology (DST), Ministry of Science & Technology, Government of India and Polish National Agency for Academic Exchange (NAWA), Poland for inviting joint research projects carried out by Indian and Polish researchers on the mutually agreed areas of i) Natural Sciences ii) Engineering and Technology iii) Medical and Health Sciences and iv) Agricultural Sciences.

2. The last date for submitting the project proposals was 28th August 2019. A total of 215 common project proposals were received against the call. After judicious assessment based on scientific strength, technical aspects, project objectives and national priorities of both the countries, Department of Science and Technology (DST), India and Polish National Agency for Academic Exchange (NAWA), Poland have jointly decided to support 19 project proposals.

3. We are pleased to inform you that following 19 joint projects have been recommended for implementation for the period 2020-2022 under DST- NAWA program between India and Poland. These are mobility based projects in which the sending side would provide the international travel cost and receiving side will provide local hospitality. Due to the current pandemic, we are not envisaging any visit in this financial year. Funding of these projects will start after coming out of present COVID-19 pandemic. The scientists on two sides are expected to collaborate using available resources (manpower, consumables, equipment etc.) at their end through institutional sources or externally funded projects.

List of Projects

S. No.	Title of the Project	Indian PI Name and Institute Details	Polish PI Name and Institute Details
1.	Estimation of the potential impact on human health of cyanobacteria and microalgae and their toxins in the bioaerosols of the coastal zone: a comparative assessment between India and Poland	Dr. Sagnik Dey, Centre for Atmospheric Sciences, I.I.T. Delhi	Dr. Anita Lewandowska, University of Gdansk, Poland
2.	Effects of stress on the bacterial factor dependent termination process.	Dr. Ranjan Sen Centre for DNA fingerprinting and diagnostics (CDFD), Hyderabad, Telangana	Prof. Agnieszka Szalewska-Pałasz Department of Bacterial Molecular Genetics, University of Gdańsk, Poland

3.	Development of Single Source 3-Phase High-Power-Density Switched-Capacitor Multilevel Boost Inverter	Dr. Krishna Kumar Gupta Thapar Institute of Engineering and Technology, Punjab	Zbigniew Waradzyn AGH University of Science and Technology, Krakow, Poland
4.	Targeted Delivery of Ru(II)-polypyridyl Complexes Towards Breast Cancer Microenvironment Using Functionalized Liposomes	Dr. Ganeshpandian M SRM Institute Of Science And Technology (Formerly SRM University), Tamil Nadu	Dr.habil. Malgorzata Brindell Jaiellonian University Krakow, Poland
5.	Development of a smart scaffold for assisting efficient bone repair	Dr. Ravichandran Kandaswamy Anna University, Madras Institute of Technology Campus, Chennai Tamil Nadu	Prof. Elzbieta Pamula AGH University of Science and Technology, Mickiewicza, Poland.
6.	Design and development of equiatomic multicomponent FeCoNiAx (A= Nil, Al/Ti/Mg, Cr, Si/Cu) alloys for electromagnetic applications	Dr. Vinod Kumar, IIT Indore, Madhya Pradesh	Dr. Wojciech Maziarz, Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Poland
7.	Exploring Lead-Free Hybrid Perovskite Materials for Neuromorphic Computing	Dr. Vijayakumar C. Nair CSIR National Institute For Interdisciplinary Science And Technology, Thiruvananthapuram Kerala	Prof. Konrad Szacilowski Academic Centre for Materials and Nanotechnology AGH University of Science and Technology, Krakow, Poland
8.	A novel heterostructure architecture for photodetection and photo-enhanced electron emission applications	Dr. Joy Mitra, Indian Institute of Science Education and Research, (IISER), Thiruvananthapuram, Kerala	Prof. Dorota Anna Pawlak, Institute of Electronic Materials Technology, Warsaw, Poland
9.	Development of CRISPR/Cas9 mediated genome editing in pea (<i>Pisum sativum L.</i>) for characterization of oligosaccharide pathway genes	Dr. Siddharth Tiwari, National Agri-Food Biotechnology Institute, Punjab	Dr. Magdalena Gawłowska, Institute of Plant Genetics, Polish Academy of Sciences, Poland
10.	Cobalt containing antimicrobial bioactive glass coated urinary	Dr. Jui Chakraborty, Central Glass and Ceramic Research	Dr. Justyna Pawlik AGH University of Science and Technology, Krakow,

	catheter tubing for the management of catheter associated urinary tract infections (CAUTI)	Institute, Kolkata, West Bengal	Poland
11.	Structure, functions and activation of bacterial type III toxin-antitoxin complexes	Dr. Mahavir Singh, Centre of Earth Sciences, Indian Institute of Science, Karnataka	Dr. Anna Czarna, Malopolska Centre of Biotechnology- Protein Crystallography Research Jagiellonian University Krakow Poland
12.	Opto-electrochemical fiber grating-based devices for chemical and biosensing applications	Mr. Palas Biswas, Central Glass and Ceramic Research Institute, Kolkata, West Bengal.	Dr. Mateusz Smietana, Institute of Microelectronics Optoelectronics, Warsaw University of Technology, Poland
13.	Investigation of Transport, Magnetic and Electrochemical properties of Nanostructured Conductive Diamond films for Superconductivity and Pesticides Sensing Applications	Dr. Susanta Sinha Roy, Shiv Nadar University, Uttar Pradesh	Prof. Robert Bogdanowicz, Department of Metrology and Optoelectronics, Gdansk University of Technology, Poland
14.	Development of coating parameters for two-source evaporation to create sequentially deposited EBC coatings by application of EB-PVD technology	Dr. Arivarasu M Vellore Institute Of Technology , Tamil Nadu	Prof. Andrzej Nowotnik, Rzeszow University of Technology, Poland
15.	Highly Localized, Coherent and Tunable Photon Source using Nonlinear Plasmonics and Elastomeric Actuator for Photothermal Therapy of Cancer Cells and Improved Detection in Bio-Sensing	Prof. Vijay Janyani, Malaviya National Institute of Technology, Jaipur Rajasthan	Dr. Michal Karpinski, Optics Division, Faculty of Physics, University of Warsaw, Poland.
16.	Designing and Investigation of Piezoresistive based Electro-Textile Sensor Matrix for Health Monitoring	Dr. Bipin Kumar IIT Delhi, HauzKhas, New Delhi	Associate Prof. Malgorzata Zimniewska Heat of Institute of Natural Fibres & Medicinal Plants, Poznan, Poland
17.	Minimal Left-Right Symmetric Model as an	Dr. Joydeep Chakraborty	Dr. Janusz Gluza Institute of Physics,

	Effective Field Theory	IIT Kanpur, Uttar Pradesh	University of Silesia, Katowice, Poland
18.	Design and Development of nanomaterials-based sensor devices for monitoring of Artificial Heart Valve	Prof. Prosenjit Sen Indian Institute of Science, Bengaluru, Karnataka	Prof. TadeuszUhl AGH University of Science and Technology, Krakow, Poland
19.	Development of PCM encapsulated light weight aggregate concrete wall panels for thermal comfort in buildings	Dr. Andal Lakshumiah Velammal College Of Engineering And Technology, Madurai Tamil Nadu	Tomasz Kisilewicz, Cracow University of Technology, Krakow, Poland
