## Department of Science & Technology International Division

An India-Ukraine Joint call for proposals with the Ministry of Education & Science (MOES) of Ukraine in the areas of (i) Metals & Materials Science (ii) Computational Science (iii) Earth & Environmental Sciences (iv) Aerospace Engineering and (v) Biological Sciences was advertised in May 2018. In total, 36 common proposals were received against the joint call for which last date was 11<sup>th</sup> June 2018. Based on scientific merit, complementarities of the project objectives, scientific strengths of the project coordinators, national priorities of both the countries and availability of fund, Department of Science & Technology, India and Ministry of Education & Science (MOES) of Ukraine have jointly decided to support following 10 proposals during 2019-21. Project coordinators are being informed separately to complete administrative formalities for release of DST grant.

SI No	Title	Indian Coordinator	Ukrainian Coordinator
1	R&D of nanostructured microwave composites with enhanced wear resistance	Dr. Apurbba Kumar Sharma, Indian Institute of Technology Roorkee	Dr. Zgalat-Lozynsky Ostap, Institute for Problems of Materials Science(IPMS)
2	Development of the method for determination of soil quality by the system "e-nose"	Dr. Ravi Chand Singh, Department of Physics, Guru Nanak Dev University Amritsar	Dr. Astrelin Ihor, National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»
3	Advanced computational techniques for sloshing analysis in fuel tanks with baffles	Dr. Neelam Choudhary, Department of Mathematics, Bennett University, Greater Noida	Dr. Olena Strelnikova A.N. Podgorny Institute for Mechanical Engineering Problems
4	Hydrodynamic cavitation based intensified and low cost technology for industrial wastewater treatment containing toxic organic compounds and solid particles	Dr. Parag Gogate, Institute of Chemical Technology, Mumbai	Prof. Zenovii Znak Institute of Chemistry and Chemical Technology, Lviv Polytechnic National University, NAS of Ukraine
5	Discovery of novel antimalarial drugs targeting plasmodium tubulin machinery	Dr. Dinesh Gupta, International Centre for Genetic Engineering and Biotechnology, New Delhi	Dr Pavel A. Karpov, Institute of Food Biotechnology and Genomics, NAS of Ukraine

6	Investigation of irradiation resistance of the graphene monoatomic layers and low-resistance metal-graphene contacts under irradiation by reactor neutrons.	Dr. Mayank Shrivastava, Indian Institute of Science, Bangalore	Prof. Inessa Bolshakova, Lviv Polytechnic National University
7	Development of the express- method for laboratory simulation of in-service degradation of structural steels in the energy sector for an evaluation of their susceptibility to stress corrosion cracking	Dr. Vivekanand Kain, Processing & Corrosion Engineering Division Bhabha Atomic Research Centre, Mumbai	Prof. Hryhoriy Nykyforchyn, Karpenko Physico- Mechanical Institute, NAS of Ukraine, Lviv
8	Creation of novel organic- inorganic hybrid materials as sorbents for wastewater treatment from heavy metal ions	Dr. Bijay P. Tripathi Department of Materials Science & Engineering, Indian Institute of Technology Delhi	Dr. Oksana Dudarko, Chuiko Institute of Surface Chemistry, NAS of Ukraine, Kyiv
9	Rare earth iron garnets epitaxial films for magneto-optical Q-switching of a laser beam	Dr. Anil Prabhakar Indian Institute of Technology-Madras	Dr. Ihor I. Syvorotka, Scientific Research Company "Electron-Carat" Lviv
10	Scientific and technical bases of creation of a complex of energy technology processing of biomass for obtaining substances with new properties and increasing their commercial value.	Dr. S. Pugalendhi, Department of Bioenergy, Tamil Nadu Agricultural, University, Coimbatore	Dr. Mykola Zablodskiy, Scientific Institute of Power Engineering, Automation and Energy Saving, NAS of Ukraine, Kyiv

In addition to above following four project proposals have been kept as reserve projects, which may be considered for joint funding subject to availability of funds on the Ukrainian side. The Ukrainian side will be conveying their decision on these reserved project proposals by end of March 2019. Indian applicants of these proposals will be approached separately on receipt of confirmation from the Ukrainian side:

SI No	Title	Indian Coordinator	Ukrainian Coordinator
RL1	Red-Emitting Ultrabright Carbon Dot: Ultrafast Dynamics, Single Particle Blinking and Biolmaging In- Vitro and In-Vivo	Dr. Prasun K. Mandal, Indian Institute of Science Education and Research (IISER) Kolkata	Prof. Tatiana Borisova, Palladin Institute of Biochemistry, National Academy of Sciences of Ukraine, Kiev

RL2	New antimalarial agents based on modified piperidine and piperazine chalcones	Dr Brijesh Rathi Department of Chemistry, Hansraj College, University of Delhi	Dr. Mykola Gorobets, Institute for Single Crystals, National Academy of Science of Ukraine, Kharkiv
RL3	Formation of Cadmium free Quantum Dot Clusters with Improved Coupling for the Fabrication of Photoactive Electrodes towards the Reduction of CO2	Dr. Devaraj NATARAJ Department of Physics Bharathiar University Coimbatore	Dr. Oleg Yu Khyzhun, Frantsevych Institute for Problems of Materials Science, National Academy of Sciences of Ukraine, Kyiv
RL4	Aphid-borne plant viral diseases endangering potato and cucurbits production in India and Ukraine, and development of efficient and user-friendly diagnostics	Dr Abhishek Sharma Department of Vegetable Science, Punjab Agricultural University, Ludhiana	Dr. Irene Budzanivska Institute of Biology and Medicine, Taras Shevchenko National University of Kyiv