



**Department of Science & Technology
(International Bilateral Co-operation Division)
India-Czech Bilateral Scientific and Technological Cooperation**

Result - Call for Joint Project Proposals – 2019

An Indo-Czech call for joint proposal under India-Czech Bilateral Scientific and Technological Cooperation was issued by the Department of Science & Technology (DST) of the Indian Republic and the Ministry of Education, Youth and Sports (MEYS) of the Republic of Czech for inviting Indian and Czech scientists to submit their proposals for joint research projects in the areas of Information and communication technologies; Natural sciences and biotechnology; New materials and nanotechnology; Medical sciences (including pharmaceutical sciences) and food safety; Research of climate change, environment and energy.

187 joint proposals were received against this Call. DST and MEYS jointly agreed to fund the following 20 high ranking projects:

File Number	Project Title	Project Investigator (Czech)	Project Investigator (India)
DST/INT/CZ/P-01/2019	A study on pollen competition in Arabidopsis thaliana hybrids	Dr. David Honys, Ústav experimentální botaniky, AVČR, v.v.i.	Prof. Ramamurthy Baskar Department of Biotechnology Indian Institute of Technology - Madras Tamilnadu - 600036
DST/INT/CZ/P-02/2019	Polyphasic assessment of diversity of phototrophic microorganisms from cold environments and their bioprospection potential	Doc. RNDr. Linda Nedbalová, Botanický ústav AV ČR, v.v.i.	Dr. Arun Kumar Mishra Department of Botany Banarus Hindu University Varanasi Uttar Pradesh - 221005
DST/INT/CZ/P-03/2019	Visualizing GPCR-G-protein-b-arrestin supercomplexes in living cells using two-photon polarization microscopy	Mgr. Josef Lazar, Ph.D. Ústav organické chemie a biochemie AV ČR, v.v.i.	Dr. Arun K. Shukla Department of Biological Sciences and Bioengineering Indian Institute of Technology - Kanpur Uttar Pradesh - 208016

DST/INT/CZ/P-04/2019	Processing of complex acoustical signals including vocalizations in inhibitory circuits of the central auditory system in mice models of autism and different types of sensorineural hearing loss	Prof. MUDr. Josef Syka, Ústav experimentální medicíny AV ČR, v.v.i.	Dr. Sharba Bandyopadhyay Electronics and Electrical Communication Engineering Indian Institute of Technology, Kharagpur West Bengal - 721300
DST/INT/CZ/P-05/2019	Stimuli-Responsive Block Copolymer Based Nanostructured Single-/Multi-component Micelles: Materials and Applications	Ing. Mariusz Uchman, Univerzita Karlova, Přírodovědecká fakulta	Prof. Tarun K. Mandal School of Chemical Sciences Indian Association for the Cultivation of Science Kolkata West Bengal - 700032
DST/INT/CZ/P-06/2019	Development of high strength and low young's modulus, bioactive and antibacterial porous titanium structures for orthopaedic implants	Ing. Edgar Benjamin Montufar Jimenez Vysoké učení technické v Brně - Středoevropský technologický institut	Dr. Ramesh Babu Nagumothu Metallurgical and Material Engineering National Institute of Technology, Thuvakudy, Tiruchirappalli Tamilnadu - 620015
DST/INT/CZ/P-07/2019	Miniatura Antenna Development for Communication Between Airborne Drones in Swarm	Ing. Miloslav Čapek, České vysoké učení technické v Praze	Prof. Bhaskar Gupta Department of Electronics and Telecommunication Engineering Jadavpur University Kolkata, West Bengal - 700032
DST/INT/CZ/P-08/2019	Porous Conjugated Polymers for All Polymer Solar Cells	Prof. Ing. Martin Weiter, Vysoké učení technické v Brně	Dr. Sanjio Zade Department of Chemical Sciences Indian Institute of Science Education and Research Mohanpur West Bengal - 741246

DST/INT/CZ/P-09/2019	Multi-linguality in speech technologies	Dr. Ing. Jan Černocký Vysoké učení technické v Brně	Prof. Srinivasan Umesh Department of Electrical Engineering Indian Institute of Technology - Madras Tamilnadu - 600036
DST/INT/CZ/P-10/2019	Development of Advanced Computational Algorithms for evaluating post-surgery rehabilitation	Dr. Jan Mareš, doc. Ing. Vysoká škola chemicko-technologická v Praze	Dr. Sanjeev Kumar Department of Mathematics Indian Institute of Technology, Roorkee Uttarakhand-247667
DST/INT/CZ/P-11/2019	Smart contactless technology development for smart fencing	Dr. Jan Pidanič, Ing. Univerzita Pardubice	Dr. Gaurav Trivedi Department of Electronics and Electrical Engineering Indian Institute of Technology, Guwahati Assam - 781039
DST/INT/CZ/P-12/2019	Metaheuristics Framework for Multi-objective Combinatorial Optimization Problems (META MO-COP)	Prof. RNDr. Václav Snášel, CSc. Vysoká škola báňská – Technická univerzita Ostrava	Dr. Millie Pant Applied Science and Engineering Indian Institute of Technology Roorkee Uttarakhand - 247667
DST/INT/CZ/P-13/2019	Design of performance based concrete using sand reclaimed from construction & demolition wastes	Prof. Ing. Petr Hájek CSc. České vysoké učení technické v Praze - Univerzitní centrum energeticky efektivních budov ČVUT	Dr. Bhavna Tripathi Department of Civil Engineering Manipal University Jaipur Rajasthan - 303007
DST/INT/CZ/P-14/2019	Ab-initio linear and non-linear ultrafast spectroscopy in two-dimensional nitrogen based binary buckled group V semiconductors	Mgr. František Karlický, Ostravská Univerzita	Dr. Sitangshu Bhattacharya Electronics and Communication Engineering Indian Institute of Information Technology Allahabad Uttar Pradesh - 211015
DST/INT/CZ/P-15/2019	Development of e-mode III-Nitride devices for energy optimized agile power electronics	Dr. Ing. Alice Hospodková, Fyzikální ústav AVČR, v.v.i.	Dr. Shubhankar Majumdar Department of Electronics Communication National Institute of Technology Meghalaya

			Shillong - 793003
DST/INT/CZ/P-16/2019	Carborane-protected metal nanoclusters: A new family of materials with atomic precision	Mgr. Tomáš Baše, Ústav anorganické chemie AV ČR, v.v.i.	Dr. Pradeep Thalappil Department of Chemical Sciences Indian Institute of Technology Madras, Tamilnadu - 600036
DST/INT/CZ/P-17/2019	Photoswitchable and Magnetic Photoswitchable Ionic Liquids: Theory and Experiments	Dr. Tomáš Slanina, Ústav organické chemie a biochemie AV ČR, v.v.i.	Dr. Sugumar Venkataramani Department of Chemical Sciences Indian Institute of Science Education and Research Mohali Punjab - 140306
DST/INT/CZ/P-18/2019	Carbon-Conjugated 2D-Covalent Organic Frameworks Based on Alternative D-A-D/A-D-A Systems with Exceptional Optoelectronic Properties	Prof. Ing. Filip Bureš, Univerzita Pardubice	Dr. Santanu Bhattacharya Director's Research Unit Indian Association for the Cultivation of Science Kolkata Bengal - 700032
DST/INT/CZ/P-19/2019	Development of energy efficient twin-fluid atomizer for effective post combustion CO ₂ and NO _x removal	Prof. Ing. Jan JEDELSKÝ, Vysoké učení technické v Brně	Dr. Madan Mohan Avulapati Department of Mechanical Engineering Indian Institute of Technology Tirupati Andhra Pradesh - 517506
DST/INT/CZ/P-20/2019	Development of primary alcohols fueled engine prototype	Dr. Ing. Martin Pexa, Česká zemědělská univerzita v Praze	Dr. Avinash Kumar Agarwal Department of Mechanical Engineering Indian Institute of Technology Kanpur Uttar Pradesh - 208016