

## Department of Science & Technology

### International Division

#### DST-DAAD Results 2022

Under the joint call for proposal-2022 with German Academic Exchange Service (DAAD) and the Department of Science and Technology (DST), total 79 common proposals were jointly received and shortlisted for evaluation for the financial support for exchange visits between scientists and researchers of India and Germany. 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 German Academic Exchange Service (DAAD) have jointly decided to support following 23 proposals. Project coordinators are being informed separately to complete administrative formalities for release of DST grant.

#### List of Selected Joint Research Projects: -

<u>S.No.</u>	<u>TPN No.</u>	<u>Project Title</u>	<u>Indian PI/Institute</u>	<u>Japanese PI/Institute</u>
1.	86734	Generation of tunable mid-IR radiation by cascaded optical parametric oscillators	<b>Dr. Subhasis Das</b> The University Burdwan West Bengal (713104)	<b>Dr. Valentin Petrov,</b> Max Bonn Institute for Nonlinear Optics and Short Pulse Spectroscopy
2.	86680	Optimization of a Helical Hydrokinetic Turbine for India's Perennial Streams	<b>Prof. Abdus Samad,</b> Indian Institute of Technology Madras Tamilnadu (600036)	<b>Prof. Dominique Thevenin,</b> Otto von Guericke University of Magdeburg, Germany
3.	86694	Bubbles and Directed Transit Functions Structures and Algorithms	<b>Dr. ManojChangat,</b> University of Kerala Thiruvananthapuram Kerala (695581)	<b>Dr. Peter F Stadler,</b> University of Leipzig
4.	86779	Elucidating the role of CNTF/BDNF signaling on adult neurogenesis and synaptic plasticity under neuroinflammation mediated by gut dysbiosis	<b>Dr. Baby Chakrapani P S,</b> Cochin University of Science and Technology Department of Biotechnology Kochi Kerala (682022)	<b>Prof. Martin Korte,</b> TU Braunschweig
5.	86700	Distributed Authentication and Privacy Scheme DAPS	<b>Dr. Ashok Singh Sairam,</b> Indian Institute of Technology, Guwahati Assam (781039)	<b>Prof. Axel Sikora</b> Offenburg University of Applied Sciences
6.	86687	Two-dimensional Mxene-derived Hybrids with Gas Diffusion Electrodes for Efficient Electrochemical CO2 reduction	<b>Asst.Prof .Dr. Jayaramulu,</b> Kolleboyina Indian Institute of Technology Jammu (IITJ)	<b>Prof. Justus Masa,</b> Max Planck Institute for Chemical Energy Conversion

7.	86568	Can Dark Matter Clump In Early Universe and form PBH	<b>Prof. Subinoy Das,</b> Indian Institute of Astrophysics Bengaluru Karnataka (560034)	<b>Prof. Luca Amendola,</b> University of Heidelberg
8.	86696	Highly Isolated Antenna Array using Substrate Integrated Waveguide for 5G and Beyond Networks	<b>Dr. Ragesh G K,</b> Indian Institute of Information Technology Kottayam an Institution of National Importance, Pala Kerala (686635)	<b>Dr. Marlene Harter,</b> Offenburg University of Applied Sciences
9.	86790	Assessment of Stability Limits and NOx Emissions of Non-premixed Ammonia-Hydrogen Air Flames	<b>Dr. Rajesh Sadanandan,</b> Indian Institute of Space Science and Technology IIST Thiruvanthapuram Valiamala Kerala (695547)	<b>Dr. Detlev Markus,</b> Physikalisch Technische Bundesanstalt PTB
10.	86765	Synchronization and propagation of seizures in large-scale epileptic brain networks	<b>Dr. Chittaranjan Hens,</b> International Institute of Information Technology Hyderabad Telangana (500032)	<b>Prof. Klaus Lehnertz,</b> Universit228tsklinikum Bonn
11.	86748	Light-controlled stomata development in the moss Physcomitrium patens	<b>Dr. Sourav Datta,</b> Indian Institute Of Science Education And Research Bhopal Madhya Pradesh (462066)	<b>Prof. Ute Hoecker</b> University of Cologne
12.	86705	Multi-resonance and Horizontally-Oriented Blue TADF Emitters From Materials to Device Engineering	<b>Dr. Ishita Neogi,</b> Csir National Institute for Interdisciplinary Science and Technology Thiruvananthapuram Kerala (695019)	<b>Prof. Wolfgang Brutting,</b> University of Augsburg
13.	86641	Probing the origins of the solar wind SOLWIND	<b>Dr. Vaibhav Pant,</b> Aryabhata Research Institute Of Observational Sciences (Aries), Manora Peak, Nainital Uttarakhand (263002)	<b>Dr. Lakshmi Pradeep Chitta,</b> Max Plank Institute for Solar System Research
14.	86605	Quest for novel magnetism in selected 3d and 5d based transitional metal oxides	<b>Dr. Tusharkanti Dey,</b> Indian Institute of Technology (Indian School of Mines) Dhanbad IIT (ISM) Dhanbad Jharkhand (826004)	<b>Dr. Sabine Wurmehl,</b> IFW Dresden
15.	86796	Understanding the role of Jasmonic acid in tomato flower development under cold stress	<b>Dr. Riffat John,</b> University of Kashmir, Hazratbal, Srinagar Jammu and Kashmir (190006)	<b>Prof. Bettina Hause</b> Department of Cell and Metabolic Biology Weinberg 3, 06120 Halle Saale, Germany
16.	86584	Functional analysis lipid transporters at the single vesicle level	<b>Dr. Tripta Bhatia,</b> Indian Institute of Science Education and Research Mohali Punjab (140306)	<b>Prof. Thomas G Pomorski,</b> Ruhr-University Bochum Email Id- thomas.guenther-pomorski@rub.de
17.	86778	Complexity of Manipulative Attacks on Resource Allocation	<b>Dr. Pallavi Jain,</b> Indian Institute of Technology Jodhpur Rajasthan (342030)	<b>Prof. Robert Bredereck</b> TU Clausthal

18.	86664	X-ray microscopy for understanding the mechanism of the deposition of environmentally relevant microplastics in saturated porous media-Towards understanding plastic accumulation in soils	<b>Dr. Gopala Krishna Darbha,</b> Indian Institute of Science Education and Research Kolkata, West Bengal (741246)	<b>Prof. Thorsten Schaefer,</b> Friedrich Schiller University Jena Germany
19.	86799	Low carbon pathways for energy system planning and operation under the aspects of flexibility from transport sector	<b>Dr. Rohit Bhakar,</b> Malaviya National Institute of Technology Jaipur Rajasthan (302017)	<b>Prof. Dominik Most,</b> TU Dresden
20.	86578	Design and development of advanced sensors based on fusion of microstrip patch and surface acoustic wave for soil analysis towards precision agriculture	<b>Prof. Surinder Singh,</b> Sant Longowal Institute Of Engineering Technology Sangrur Punjab INDIA Longowal Punjab (148106)	<b>Prof. Dr Ing Olfa Kanoun,</b> Chemnitz University of Technology Technische Universität Chemnitz
21.	86789	4D-Printed structures of locally stiffened pH responsive soft actuators	<b>Dr. Pijush Ghosh,</b> Indian Institute of Technology Madras Chennai Tamilnadu (600036)	<b>Prof. Patrick Theato,</b> Karlsruhe Institute of Technology
22.	86669	Synthesis and Verification Targeted to Memristive Crossbars	<b>Prof. Indranil Sengupta,</b> IIT kharagpur West Bengal (721301)	<b>Prof. Rolf Drechsler,</b> University of Bremen
23.	86793	Digital Twin for City-based Air Pollutant Distribution Framework	<b>Dr. Mainak Thakur</b> Indian Institute Of Information Technology Chittoor, Sricity Andhra Pradesh (517646)	<b>Dr. Jia Chen,</b> Technical University of Munich