

Approved DST-DAAD List 2019

S. No	Project Title	Indian PI Name	German PI Name
1	Optoacoustic microscope on a fiber tip for endoscopic applications	Samir K Mondal, Principal Scientist, CSIR-Central Scientific Instruments Organisation Head, Advanced Materials and Sensors Chandigarh	Prof. Dr. Vailis Ntziachristos, Technical University Munich Chair of Biological Imaging Ismaninger Str. 22 81675 Munchen Germany
2	“Synergetic C-H functionalization of Arene/Heteroarene via Sequential Transition-metal and Photoredox Catalysis	Prof. Akhilesh K. Verma, Professor, Department of Chemistry University of Delhi, Delhi-110007, India	Prof. Dr. Oliver Reiser, Professor, Institut für Organische Chemie Universität Regensburg Universitätsstr. 31 93053 Regensburg
3	Estimation of physical properties of slag and investigation of slag morphology during solidification and development of mathematical model to estimate heat transfer coefficient in continuous casting molds	Dr. Ajay Kumar Shukla, Assistant Professor, Department of Materials & Metallurgical Engineering Indian Institute of Technology IIT Madras Chennai 208016 India	Prof Dr. Olena Volkova, Director, Institute of Iron and Steel Technology Technical University Bergakademie Freiberg Leipziger Straße 34 09596 Freiberg Germany
4	Interferometry with squeezed states for precision measurement	Dr. Devendra Kumar Mishra, Associate Professor, Department of Physics, Institute of Science, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India	Dr. Maria Chekhova, Head of Research Group, Max-Planck Institute for the Science of Light, Staudtstr. 2, D-91058 Erlangen, Germany
5	Smart Services and Optimization for Microgrids (SSOM)	Dr. Aryadevi RD, Group Leader, Smart Energy Systems and Solutions, Amarita Center for Wireless Networks and Applications, Arita Vishwa Vidapeetham, Amritapuri Campus, Clappana PO, Kollam, Kollam, Kerala, India	Dr. Markus Duchon, Group Leader, Architectures and Services for Critical Infrastructure (ASCI) Group, Fortiss GmbH Guerickestraße 25 80805 Munich Germany
6	Search for the novel metabolites from Arid Zone Plants	Dr. Ekta Menghani, Associate Professor, Department of Biotechnology, JECRC University, Plot No. IS-2036 to 2039, Sitapura Industrial Area Extn, Ramchandrapura, Near Mahatma Gandhi Hospital, Vidhani, Jaipur, Rajasthan 303905	Prof. Dr. Andreas Kirschning, Full professor, Group Leader, Institute of Organic Chemistry, Institute of Organic Chemistry, Leibniz Universität Hannover, Schneiderberg 1 B, 30167 Hannover

7	"Distributed EV charge scheduling and consensus based control for EV charging network	Dr. Rajiv Misra, Associate Professor, Deptt. of Computer Science & Engg. Indian Institute of Technology, Patna, Bihta, Patna, India- 801106	Prof. Dr.-Ing. Axel Sikora, Institute of Reliable Embedded Systems and Communication Electronics (ivESK)Offenburg University of Applied SciencesBadstrasse 24, 77652 OffenburgGermany
8	Spin current transport across antiferromagnetic/metallic oxide interfaces	Prof. Dr. M.S. Ramachandra Rao, Department of Physics, Nano Functional Materials Technology Centre and Room # 113, Materials Science Research Centre, IIT Madras, Chennai, India-600036	Prof. Dr. Rudolf Gross, Room 101, Walther-Meißner-Institut Walther-Meißner Strasse 8 D-85748 Garching Germany
9	Control and Observation of Stewart Platform	Prof. Bijnan Bandyopadhyay, Systems and Control Engineering, IIT Bombay Mumbai - 400076	Prof. Johann Reger, Control Engineering Group, Computer Science and Automation Dept, Technische Universität limenau, PO Box 10 05 65, 98684 - Germany
10	Modulating the reactivity of high-valent nonheme transition metal oxidants by tuning the ligand field enforced by substituted bispidine ligands.	Dr. Chivukula V. Sastri, Department of Chemistry, Indian Institute of Technology Guwahati, Guwahati, 781039	Prof. Dr. Peter Comba, Institute of Inorganic Chemistry Universität Heidelberg 69120 Heidelberg
11	High Fidelity Surface Reconstruction from Noisy Point Sets with Topological Guarantee	Dr. Ramanathan Muthuganapathy, Associate Professor, Department of Engineering Design, Indian Institute of Technology Madras, Chennai 600036	Dr. Konrad Polthier, Professor, Department of Mathematics and Computer Science, Freie Universität Berlin, Berlin, Germany 14195
12	Synthesis, Reactivity and Bonding in Metal and Metal-free Borylenes	Dr. Ashwini Kumar Phukan, Professor, Department of Chemical Sciences, Tezpur University, Napam –784028, Assam, India	Dr. Holger Braunschweig, Professor, Institute of Inorganic Chemistry Lehrstuhl II, Am Hubland, JuliusMaximilians-UniversitätWürzburg, 97074 Würzburg, Germany
13	MXene Nanocomposites for Solid State Supercapacitors, Hybrid- capacitors and Batteries	Dr. Sujin P. Jose, Assistant Professor, Department of Computational Physics School of Physics, Madurai Kamaraj University, Madurai – 625021, Tamil Nadu, India	Prof. Dr. Mukundan Thelakkat, Professor/ Group leader, Chair of MacromolecularChemistry/ Applied FunctionalPolymers. University of BayreuthUniversitätstr.30 95440 BAYREUTH, GERMANY

14	Archival Vector DNA Data Storage	Manish K Gupta , PhD (IIT Kanpur) Professor Room 2209, Faculty Block 2 Dhirubhai Ambani Institute of Information and Communication Technology Post Bag 4, Near Indroda Circle, Gandhinagar-382007, Gujarat, India	Dr. David M Smith , Group Leader (DNA Nanodevices), Fraunhofer Institute for Cell Therapy and Immunology (IZI), DNA Nanodevices Unit, 04103 Leipzig, Germany
15	Extreme events in networks of dynamical systems	Dr. Pinaki Pal , Assistant Professor, Department of Mathematics, National Institute of Technology, Mahatma Gandhi Avenue, Durgapur 713209, West Bengal, India	Prof. Dr. Ulrike Feudel , Professor, Institute for Chemistry and Biology of the Marine Environment (ICBM), Carl von Ossietzky University Oldenburg PF 2503, 26131 Oldenburg, Germany
16	Environmental stable electrolyte-gated circuits and applications	Dr. Subho Dasgupta , Assistant Professor, Dept. of Materials Engineering, Indian Institute of Science, Bangalore- 560012, Karnataka	Prof. Dr. Jasmin Aghassi-Hagmann , Professor, Institute of Nanotechnology Karlsruhe Institute of Technology 76344, Eggenstein-Leopoldshafen
17	Massive parallel interconnect architectures for Vision Systems-on-Chip: Exploiting graphene nanophotonic technologies	Dr. Brajesh Kumar Kaushik , Associate Professor, Electronics and Communication Engineering Department, Indian Institute of Technology Roorkee, Roorkee-247 667, Uttarakhand	Dr. Alberto Garcia-Ortiz , Professor, Chair for Integrated Digital Systems, ITEM University of Bremen (NWI) Otto-Hahn Allee I 28359 Bremen Germany
18	Analysis and Numerical Methods for Population Balance Equations	Dr. Ankik Kumar Giri , Assistant Professor, Department of Mathematics, Indian Institute of Technology Roorkee, Roorkee-247667, Uttarakhand, India	Prof. Dr. Volker John , Head of Research Group Numerical Mathematics and Scientific Computing Weierstrass Institute for Applied Analysis and Stochastics Mohrenstr. 39 10117 Berlin, Germany
19	Geo-electrical characterization of the fault zone in the Himalayan foothills and Sub-Himalayan region in and around Mohand area Uttarakhand, India	Dr. M. Israil , Professor, Department of Earth Sciences Indian Institute of Technology Roorkee Roorkee, India	B. Tezkan and P. Yogeshwar, Institute of Geophysics and Meteorology University of Cologne Germany
20	"Development of Non-contact type method for heart vibration parameters estimation for sleep disordered breathing analysis	Dr. Sachin Singh , Assistant Professor, Electronics Engg., National Institute of Technology, Delhi-110040, Sector A10, Institutional area, Narela, Delhi	Prof. Dr. Thomas Penzel , Prof. Dr. Thomas Penzel Sleep Medicine Center Charite Universitätsmedizin Berlin, Chariteplatz 1 10117 Berlin, Germany

21	Mathematical models of non-local interactions: From explicit constructions of fractional derivatives and integrals by generalized special functions to functional analytic properties	Prof. Praveen AGARWAL , Department of Mathematics, Anand International College of Engineering, Jaipur-303012, India	Prof. Dr. habil. Jochen Merker , Faculty of Computer Science, Mathematics and Natural Sciences HTWK Leipzig Gustav-Freytag-Str. 42a D-04277 Leipzig
22	Characterisation of Complex Droplets	Saptarshi Basu , Associate Professor, Department of Mechanical Engineering, Indian Institute of Science, Bangalore	Cameron Tropea , Professor, Dr.-Ing., Institute of Fluid Mechanics and Aerodynamics (SLA), Technische Universität Darmstadt, Darmstadt
23	Network models for climate studies	Neelima M Gupte , Dept. of Physics IIT Madras Chennai 600036. India.	Prof. J. Kurths , Potsdam Institute of Climate Research Telegraphenberg A 31, D-14473, Potsdam
24	Disentangling Mass Changes of Debris-Covered Glaciers	AL. Ramanathan , Professor, School of Environmental Science, Jawaharlal Nehru University, New Delhi 110067, India	Matthias Braun , Professor, Institut für Geographie, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Wetterkreuz 15 D-91054 Erlangen, Germany
25	Synthesis of (Hydro-)Gels Bearing Organo-catalysts for the Use in Microfluidic Reactors	Dr. Leena Nebhani , Assistant Professor, Department of Materials Science and Engineering, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016, India	Prof. Dr. Dirk Kuckling , Department of Chemistry, University of Paderborn, Warburger Strasse 10, 33098 Paderborn, Germany
26	Photovoltaic-driven adsorption and electrochlorination post-treatment coupled with riverbank filtration for sustainable drinking water production	Dr Priyabrata Banerjee , Senior Scientist, Surface Engineering & Tribology Group (SET) CSIR-CMERIMahatma Gandhi AvenueDurgapur-712232	Dr.-Ing. Cornelius Sandhu , Research Associate, University of Applied SciencesDresden (HTWD) Faculty of Civil Engineering / ArchitectureDivision of Water Sciences Friedrich-List-Platz 1 01069 Dresden, Germany
27	Diffusion bonding for joining of similar and dissimilar metals using innovating approaches for enhanced joint performance	Dr. Dheerendra Kumar Dwivedi , Professor, Indian Institute of Technology Roorkee Mechanical and Industrial Engineering Department, Roorkee U.A. : 247667	Dr. Peter Mayr , Professor, Chemnitz University of Technology, Institute of Joining and Assembly, Chair of Welding Engineering Riechenhainer Strasse 70, 09126 Chemnitz, Deutschland
28	Fate and transport of pesticides during bank filtration from managed aquifer recharge	Dr,S. Parimala Renqanayaki , Assistant Professor (Senior), Department of Environment and Water Resources Engineering, VtT University (VIT), Vellore campus, Vellore, Tamil Nadu- 632014, India.	Dr. Brindha Karthikeyan , Researcher, Institut fUr Geologische Wissenschaften, Fachbereich Geowissenschaften, Freie Universitaet Berlin (FUB), Room B 1'18, Building B, Maltaserstrasse 74-1 00, 12249 Berlin

29	Functional Reactive Program Verification	Dr. Praveen Manjunatha , Assistant Professor, Computer Science Chennai Mathematical Institute H1 SIPCOT IT Park, Siruseri Chennai 603103 India	Dr. Roland Meyer , Professor, Institut für Theoretische Informatik Technische Universität Braunschweig Mühlenpfordtstr. 23 D-38106 Braunschweig Germany
30	Prediction and mental construction of future events in younger and older drivers by means of assistive information	Azizuddin Khan , Department of Humanities and Social Sciences, IIT Bombay, Mumbai	Rinkenauer Gerhard , IfADO, Dortmund, Germany
31	Targeting hypoxia microenvironment to mitigate endocrine resistance in breast cancer	Bramanandam Manavathi , Professor, Department of Biochemistry, University of Hyderabad, Gachibowli, Hyderabad, Telangana, 500046, India	Dr. Reinhard Depping , Fachphysiologe, Universität zu Lübeck Institut für Physiologie Zentrum für Medizinische Struktur und Zellbiologie Ratzeburger Allee 160 D-23562 Lübeck, Germany
32	Optimization of Wave Energy system – A Primitive Model for Indian Coastal Lines	Dr Abdus Samad , Associate professor, Department of Ocean Engineering, Indian Institute of Technology Madras, Chennai - 00036, India	Dr Dominique Thevenin , Professor and Dean, “Otto von Guericke” University Magdeburg, Germany, Institute of Fluid Dynamics & Thermodynamics, Universitätsplatz 239106 Magdeburg, Germany.

The above proposals have been recommended by both Indian and German Subject Expert Committees. The Indian Project Investigators are requested to submit the enclosed check list (**Annexure-I**), bank details (**Annexure-II**) and Budgetary details as proposed in the project with sufficient justification for processing the individual cases for sanctioning the Projects from DST side. The documents submitted by post to the following address.

Dr. Chadaram Sivaji
Scientist – F
International Bilateral Cooperation Division
Department of Science & Technology
Ministry of Science and Technology
Government of India
Technology Bhavan, New Mahrauli Road
New Delhi – 110016
Email: sivaji@nic.in

C H E C K L I S T

1. Title of the Project :
2. Initiating Institute of project :
3. Sponsoring Agency/Ministry :
4. Total cost of the project
- : Nature and Quantum of foreign

Collaboration sought

- (i) Financial support: :
 - (ii) Equipment support :
 - (iii) Technical support :
 - (iv) Manpower training : (v)
 - Miscellaneous :
5. Is there any possibility, however :
remote of use of data, information of result
of the work which may impinge on
India's national security?

If yes, the nature of such a use may be
indicated. (In case the concerned scrutinizing
Ministry do not have clear answer, the matter
should be referred to the DRDO and MHA for
examination).

II. ORIGIN OF THE PROJECT AND ITS SPONSORS:

6. If the proposal is foreign-originated, what is the background of the foreign agency or organization which is sponsoring the project? Information available, if any on past collaboration by foreign agency with Indian Institution.
7. Are the foreign agency, organization, scientists concerned, known to have taken up any project of military significance in the past or are known to be associated with any military organization or project? (if the

above information is not known or if there is definite information that there is no such association, these should be clearly indicated).

8. Is the proposer (Indian) known to the foreign collaborator and his group for some time and has this emerged naturally from the research work done by the two sides?

III. FUNDING OF THE PROJECT

9. Is the foreign source known to have funded research into sensitive and national security areas in its own country or in other countries?
10. Are there reasons to believe that the foreign source is a cover name for some other sponsor?

ADMINISTRATION AND CONTROL OF THE PROJECT

11. Give a list of the likely places of visit :
within the country planned by the foreign collaborator. Also give a list of the institutions which the collaborator is likely to visit.
12. Will any sensitive source material be referred to during the course of the research?
13. (I) Does the collaboration involve
 - a) Transfer of biological material(s) :
:
 - b) Use of radioactive materials :
 - c) Use of environmentally or otherwise :
: hazardous material(s)
 - d) Use of Genetically Modified Organisms :
 - e) Field trials or testing :
 - f) Ethical issues :

g) Issues related to Intellectual Property
: Rights (IPR)

14. If answer to any section of question 13
is yes, are the investigators/ proposers
aware of the relevant regulations and
have they agreed to abide by them?

15. Will the research be conducted in :
accordance not only with the country's
own ethical and environmental standards,
but with international standards as well?

Signature with date of the Principal Investigator

Signature with date and seal of Head of Department/ Institute

PROJECT SUMMARY

1. Project Title:
2. Total cost of the project (Indian side) (in Rs.):
3. Duration of the Project.
4. Project Investigators (PIs) and Co-Investigators:
 - 4.1 Indian PIs
 - 4.2 Foreign
5. Other Project participants:
 - 5.3 Indian
 - 5.2 Foreign
6. Implementing Agencies / Institutions:
 - 6.1 Indian
 - 6.2 Foreign
7. Sponsoring Agency / Department / Ministry
 - 7.3 Indian
 - 7.2 Foreign

8. Administrative Ministry in Government of India:

-:

9. Has the Project been cleared by Secretary of the Administrative/
Sponsoring Ministry/Department from security/sensitivity angle?: Yes/No

10. If answer to (9) above is 'No', then does the Administrative/ sponsoring
Ministry/Department recommend the Project to be considered by High Level Committee of
Secretaries? Yes/No

Signature of the concerned
Officer in the
Administrative/Sponsoring
Ministry/Department

International Cooperation Division
Department of Science & Technology
Bank details for transfer of DST fund electronically

Agency name as registered with DST CPMS	
Agency Code as per CPMS	
Account Holders name/ designation	
Name of Bank and address	
Saving Bank Account Number	
IFSC Code	
MICR Code	

I do hereby certify that the above mentioned account is an interest bearing account and I take all responsibility for declaring the interest so accrued on the released grant from DST in the SE/UC to be furnished to DST.

Signature of Finance Authority with seal

(Please note that Agency name and Account holders name should be identical.)

