

**DST-DAAD Joint call 2017: Recommended projects**

<b>SL. NO.</b>	<b>Project Title</b>	<b>Indian PI</b>	<b>German PI</b>
1.	Soft-Lithography of pi-conjugated nanostructures via kinetically controlled supramolecular polymerization	Subi J. George, Assistant professor, supramolecular chemistry lab, new chemistry unit, jawaharlal nehru centre for advaced scientific research, jakkur post bangalore-560064	pol Besenius, Professor (w2), institute of organic chemistry johannes guttenberg-university mainz duesbergweg 10-14 55128 mainz
2.	Understanding the lone pair influence on the local structure and The local structure and thermoelectric properties of I-V-V2(1=Cu/Ag/Tl, V= sb/Bi. VI= S/Se/Te) compounds	Dr. Kanishka Biswas, Assistant professor, New chemistry unit, jawaharlal Nehru centre for advaced scientific research, jakkur, bangalore 560064	Dr. Wolfgang Zeier, Junior Group Leader, Institute of Physical chemistry, justus-liebig-university giessen, Heinrich-buff-ring 17 35392 giessen
3.	Spectroscopy of planetary analogues form hot planetary surfaces to icy moons	Dr Bhalamurugan Sivaraman, Reader, Atomic molecular and optical physics division, Physical research laboratory, Navrangpura, Ahmedabad - 380009	Dr. Joern Helbert, Research Director of planetary Spectroscopy Laboratory (PSL), Institute for planetary Research (PF-Xp) German Aerospace Center (DLR), Rutherfordstrasse 2, 12489 berlin
4.	Riverbank filtration through challenging geological formations for rural water supply in south India	Prof. Elango Lakshmanan, Dept. of Geology, Anna University, Anna University, Chennai, 600025	Prof. Dr.-Ing. Thomas Grischek, University of Applied Sciences Dresden (HTW Dresden), Faculty of Civil Engineering & Architecture, Division of Water Sciences Friedrich-List-Platz 1, D-01069 Dresden
5.	Genetic Modification of Lactobacillus brevis for enhanced 1,3 Propanediol production	Binod Parameswaran, Scientist, Microbial processes and technology divison CSIR-National insitute for interdisciplinary science and technology industrial estate PO Trivandrum - 695019	Volker F. Wendisch, Professor, Bielefeld University (UNIBI)
6.	chimera in multiplex networks	Dr. Sarika Jalan, Associate professor, Indian institute of technology indore khandwa road, simrol, indore- 452020	Dr. Anna zakharova, senior scientist, Technische universitat berlin institute fur theoretische physik sekr. EW 7-1 Hardenbergstr, 36 10623 Berlin
7.	Title of the project: Alternative oxidase as a tool to increase nitrogen use efficiency and growth under nitrogen limitation	Dr. Jagadis Gupta Kapuganti, National Institute of Plant Genome Research, Aruna Ali Marg, 110067, New Delhi, India	Dr. Alisdair R. Ferine, Max-Planck-Institut fur Molekulare Pflanzenphysiologie Wissenschaftspark Golm Am Muhlenberg 114476 Potsdam, Germany

8	<b>Signatures of recent interaction in the Magellanic Clouds through panchromatic study</b>	<b>Annapurni Subramaniam, Professor, Indian Institute of Astrophysics, Koramangala II block, Bangalore - 560034</b>	<b>Maria-Rosa Cioni, Professor, Leibniz-Institute for Astrophysics Potsdam An der Sternwarte 16 14467 Postdam, Germany</b>
9.	<b>Hybrid 3D architecture for smart and flexible supercapattery</b>	<b>Dr. Ananthakumar Ramadoss, Jr scientist, Laboratory for advanced research in polymeric materials central institute of plastic engineering and technology, b/25, CNI Complex, Patia, Bhubaneswar - 751024</b>	<b>Prof. Dr. Lukas Schmidt-Mende, Professor, University of konstanz, universitatsstr. 10, Faculty of Physics, fach 680, D-78457 Konstanz, Germany</b>
10.	<b>Design, synthesis and biological evaluation of GSK-3B inhibitors</b>	<b>Dr. Ruchi Malik, Assistant professor, Department of Pharmacy, Central University of rajasthan, Bandarsindri, kishangarh, ajmer, rajasthan, india</b>	<b>Dr. Roland Brandt, Professor, Department of neurobiology, university of Osnabrueck, Barbarastrasse 11, D-49076 Osnabrueck, Germany</b>
11.	<b>Root hydraulics: towards answering the global questions on root functionality and possible use in crop improvement programs</b>	<b>Jana Kholva, Senior Scientist, 302 - Crops physiology ICRISAT-502324 502324- Patancheru</b>	<b>Dr. Mutez Ahmed, Division of soil Hydrology, University of Gottingen</b>
12.	<b>Exploring the structural and functional determinants of neuronal calcium sensors</b>	<b>Yogendra Sharma, Phd chief scientist and group leader, professor of biology, acsir, CSIR-Centre for cellular and molecular biology (CCMB) Uppal road, hyderabad-500007</b>	<b>Prof. Dr. karl-w. Koch, professor of biochemistry, dept. of neuroscience, faculty VI university of oldenburg carl-van-ossistzky-str. 9-11 D-26129 oldenburg</b>
13.	<b>Development of hollow core photonic crystal fiber for efficient transmission at 3 micron wavelength for clinical studies</b>	<b>Dr. Debashri Ghosh, Senior scientist, Fiber optics &amp; photonics division CSIR-Central glass &amp; ceramic research institute 196, Raja S. C. Mullick Road Kolkata-700032</b>	<b>Dr. R.J. Dwayne miller, principal scientist, Max planck institute for the structure and dynamics of matter bldg. 99 (CFEL) Luruper chaussee 149 22761 hamburg</b>
14.	<b>Toxicity and personal exposure assessment of fine particulate matter and VOCs at air pollution hotspot under changing climatic conditions</b>	<b>Dr. S. M. Shiva Nagendra, Asassociate professor, Department of civil engineering, indian institute of teechnology madras, chennai-600 036</b>	<b>Dr. Andrea muller, senior scientist, Helmholtz centre for environmental research GmbH leipzig-ufz, dep. Molecular systems biology</b>
15.	<b>Investigating mechanism of action of membrane targeting antibacterial agents</b>	<b>Dr. Jayanta Haldar, Associate prof, New chemistry unit jawaharlal nehru certre for advaced scientific research (JNCASR) jakkur, bangalore 560064,</b>	<b>Dr. Julia Elisabeth bandow, Prof. Ruhr-universitat bochum universitatsstr, 150, 44780 bochum, Deutschland</b>

16.	Developing gradient exchange correlation kernel in time-dependent density functional theory (TDDFT) and its application to spinel vanadates	Dr. Tulika Maitra, associate professor, Department of physics, IIT , Roorkee, roorkee-2476667, uttarakhand	Dr, Sangeeta sharma, Project group leader, Max-planck institute of microstructure physics, halle, germany
17.	Probing the effect of a modified graphene oxide surfactant on synthesis and material properties of fluoro acrylate emulsion as super-hydrophobic coatings	Dr. K. I. Suresh, Assoc prof. , Polymers & Functional materials division, CSIR-indian instituet of chemical technology, uppal road, hyderabad- 500007, telangana,	Prof. dr. Eckhard Bartsch, Professor of Macromolecular & Physical Chemistry, Institute fur Makromolekulare chemie, stefan-meiser 31, D- 79104 freiburg
18.	Structure and function of a novel family of AMPA receptor auxiliary subunits	Janesh Kumar, National centre for cell science, s.p. pune university campus, ganeshkhind	Jakob von Engelhardt, Institute of pathophysiology, university medical center, johannes gutenber university mainz, duesbergweg 76, 55128 mainz
19.	Descriptive complexity of parameterized counting problems	Raghavendra Rao B. V. , assistant professor, Department of computer Scicence & Engineering, IIT Madras	Arne Meier, Lecturer, Institute of Theoretical computer science Leibniz universitat hannover
20.	Engineering Superhemophobic nanostructured surfaces on superelastic Ni-free Ti based alloys for stent applications	Dr. Geetha Manivasagam, Sr. Professor & Director, Centre for biomaterials celluar and molecular theanostics (CBCMTY), VIT university , Vellore-632 014	Dr. Mariana calin, Institute for complex materials (ICM) Leibniz-institute for solid state and materials research dresden (IFW Dresearch), Helmholtzstrasse 20, 01069 Dresden
21.	Design automation for state-of-the-art microfluidic lab-on-a-chips (DALoC)	Dr. Sudip Roy, Assistant professor, Department of computer science and engineering indian institute of technology rookee, rookee, 247667	Dr.-Ing. Bing LI, Postdoctoral Researcher (Habilitation), Dept. of electrical and computer engineering, technical university of munich
22.	Flavour physics and dark matter: reconnecting the dost	Subhendu Rakshit, Associate Professor, Discipline of Physics, IIT Indore, Simrol, Khandwa Road indore-453552	Heinrich Pas, Professor, theoretical physics III, Department of physics, TU dortmund otto-hahn-str. 4, D-44221 Dortmund, Germany
23.	Waste-to-energy: bridging the gaps and mapping the technology with the raw material	Dr. Sunil Kumar, Senior scientist, Solid and Hazardous waste management division, CSIR-NEERI, nagpur, 440020,maharashtra, india	Prof. Dr. Hiroshan hettiarachchi, head, waste management unit, United nation university, institute for integrated management of material fluxes and of resources (unu-flores), ammonstrasse 74 01067 dresden

24.	<b>Development of new dephosphorisation model for primary steel making</b>	<b>Dr. Ajay Kumar Shukla, Assistant professor, Department of Materials &amp; metallurgical engineering indian institute of technology IIT madras chennai 208016</b>	<b>Prof. Dr. Olena Volkova, Director, Institute of Iron and steel technology technica luniversity bergakademie freiberg leipziger straBe 34 09596 freiberg</b>
25.	<b>Low-temperature epitaxial growth of high mobility "Ge1-Snx" Channel material for</b>	<b>Dr. Satinder Kumar Sharma, school of computing &amp; electrical engineering, indian indtitute of Technology (IIT) Mandi, Himachal Pradesh- 175001</b>	<b>Prof. Habil. Jorg schulze, Institute of semiconductor Electronics (IHT) Univerity of stuttgart, Stuttgart, Pfaffenwaldring 47,70569</b>
26.	<b>Towards a theory of convergence to near optimality in swarm intelligence systems</b>	<b>John Ebenezer Augustine, Associate Professor, Department of Computer Science &amp; Engineering, IIT Madras, Chennai 600036</b>	<b>Alexander Skopalik, Assistant Professor, Heinz Nixdorf Institut Universitat Paderborn Furstenallee 11 33102 Paderborn</b>

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](mailto: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?

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### **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.)

**VISIT PROPOSAL**

1. Project Title:
  
2. DST's Sanction Order No: Dated:
  
3. Name and position with full official address of the visiting scientist:  
(including his/her Phone, Fax , Email)

**4. VISIT DETAILS:**

- (i) Period of visit : From:
- (ii) Duration (in days):
- (iii) Place(s) to be visited:

5. Whether any visit (s) have taken place previously under this project:  
(if yes, please fill the following table in chronological order):

Period of visit		Name(s) of scientist(s)
From	To	

6. Name, position and address of the host scientist (**attach a copy of the invitation letter, only in case of visit by Indian scientists**)
  
7. Brief status of the work achieved so far (in general terms):
  
8. Brief Work Plan and purpose of the proposed visit.
  
9. FINANCIAL STATUS (in Rs.)

Sanctioned amount	Amount released	Expenditure incurred	Balance

10. Weather you need further release of grant? (if yes, please ensure wheather you have submitted the visit report of each one mentioned in table 5 to DST alongwith the statement of accounts)

\*Certified that the visiting scientist is presently working on the above mentioned project and is affiliated to the institute/department/laboratory/University as...Associate Professor...from..... Till present.....

(\*Only for Indian participants)

Name & Signature of the Indian PI

Forwarded by

Head of the Department/Institute