

India-Austria Joint Call 2017: Recommended Projects

S. No.	Project Title	Indian PI	Austrian PI
1	Phase Retrieval for Advanced Imaging Application (PRAIMA)	Prof. Chandra Sekhar Seelamantula, Associate Professor, A211, Department of Electrical Engineering, Indian Institute of Science, bangalore-560012 Karnataka, India	Dr. Bettina Heise, Senior Scientist, Coherent Imaging Lab, ZONA; Department of Knowledge- Based Mathematical Systems; Johannes Kepler University 4040 Linz, Austria
2	Study of Phase Stability and thermal Transport in 2D Sulfide Materials Under Strain	Dr. Chandan Bera, Institute of Nano Science and Technology Habitat Centre, Phase-10, Sector-64 Mohali, Punjab- 160062	Dr. Jesus Carrete Montana, TU Wien, Institute of Materials Chemistry Getreidemarkt 9/165 1060 Vienna Austria
3	Ultrafast Electron Transfer Dynamics and Anti-Proliferative Activity of Hybrid Transition Metal Nitrosyl Complexes	Dr. Karunakaran Venugopal, Senior Scientist, Photosciences and photonics Section, Chemical Sciences and Technology Division CSIR-National Institute for Interdisciplinary Sciences and technology, Thiruvananthapuram, 695019, Kerala, India	Dr. Vladimir B. Arion, Associate Professor, Institute of Inorganic Chemistry, University of Vienna, Waheringer Strasse 42, A-1090 Vienna, Austria
4	Development and assessment of asphalt mastic from typical Indian and Austrian filler materials with a new test method	Dr. Nikhil Saboo, Assistant Professor, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India-221005	Dr Bernhard Hofko, Assistant Professor, Institute of Transportation, Vienna University of Technology, Gusshausstrasse 28/E230-3, 1040 Wien
5	Morphologic evolution of small-scale solar flux tubes and its implication for MHD waves	Prof. Depankar Banerjee, Indian Institute of Astrophysics 2nd Block, Koramangala, Bangalore 560034	Dr. Dominik Utz, Institute of Physics/Geophysics, Astrophysics, and Meteorology Universitätsplatz 5/II, University of Graz, AT-8010, Austria
6	Skutterudite based thermoelectric nanocomposite materials for high temperature applications	Dr. Ramesh Chandra Mallik, Assistant Professor, Department of Physics, Indian Institute of Science, Bangalore- 560012, Karnataka, India	Dr. Ernst Bauer, Professor, Institute of Solid State Physics Technische Univrsitat Wien Wiedner HauptstraBe 8-10 A-1040 Wien Austria
7	Defining next generation searches for Beyond the Standard Model Physics	Rohini M, Godbole, Professor, Centre for High Energy Physics, Indian Institute of Science, Bangalore- 560012	Dr. Suchita Kulkarni, Institute fur Hochenergiephysik Nikolsdorfergasse 18, 1050, Vienna, Austria
8	Single molecule biophysics using a small amplitude atomic force Microscopy	Shivprasad Patil, Associate Professor, Indian Institute of Science Education & Research, Dr. Homi Bhabha Road, Pune 411008	Yoo Jin Oh, Institute of Diophysics, Johannes Kepler Univesityt Linz, Gruberstrasse 40, 4020 Linz, Austria

9	Mathieu moonshine and N=2 Heterotic-Type II string duality	Dr. Justin David, Associate Professor, Center for High Energy Physics, Indian Institute of Science Bangalore 560012, India	Dr. Timm Wrase, University Assistant, Institute for Theoretical Physics, Vienna University of Technology, Wiedner Hauptstrasse 8-10/136, A- 1040, Vienna, Austria
10	Combined computational and experimental approaches for recombinant production of pectate lyase major allergens	Dr. N. Latha, Associate Prof. Sri Venkateswara College, Department of Biochemistry Sri Venkateswara College Dhaula Kuan New Delhi 110021 India	Dr Michael Hauser, Senior Research Scientist, University of Salzburg, Dept. of Molecular Biology University of Salzburg Hellbrunnerstrasse 34 5020 Salzburg Austria
11	Mapping Quantum Circuits to Dedicated Architectures Subject to Technological Constraints	Dr. Indranil Sengupta, Professor, Dept. of Computer Science and Engineering Indian Institute of Technology Kharagpur, Kharagpur 721302, West Bengal	Dr. Robert Wille, Professor, Head Institute for Integrated Circuits Johannes Kepler University Linz Science Park 3, 4th floor (Room 0405) Altenberger Strasse 69 4040 Linz, Austria
12	Energy Aware Scientific Workflow Compiler for Future Heterogeneous Systems	Dr. Shajulin Benedict, Adhoc Faculty, Indian Institute of Information Technology Kottayam C/o IISER-Thiruvananthapuram Transit Campus, Computer Science Building, CET, Engineering College (P.O.) Trivandrum-695016, Kerala, India	Prof. Radu Prodan, University Professor, Institute of Information Technology University of Klagenfurt UniversitätsstraBe 65-67 A-9020 Klagenfurt, Austria
13	Investigation of Water Soluble Manganese Corrole Complexes as Bifunctional Catalysts to Device an Artificial Photosynthetic System	Dr. Abhishek Dey, Associate Professor, 2A & 2B Raja S. C. Mullick Road, Kolkata- 700032, India	Dr. DI. Dr. Wolfgang Schofberger, Associate Professor, Institute of Organic Chemistry, Johannes Kapler University Linz, Altenberger StraBe 69, 4040 Linz, Austria
14	Probing of Hot Jupiters Environmental and Physical Conditions: Numerical Modeling Vs. Observations	Dr. Yogesh Chandra Joshi, Scientist 'D', ARIES, Manora Peak, Nainital Uttarakhand-263002, India	Dr. Navin Kumar Dwivedi, Scientist, Space Research Institute, OeAW Sechmiedlstrasse 6, A-8042, Graz, Austria
15	Solvent-Triggered Changing Bio-Polymer Films: Experimental and Numerical Design	Pijush Ghosh, Associate Professor, MSB 224A IIT Madras Chennai-600036, TN	Manfred U1z, Associate Professor, Institute of Strength of Materials Graz University of Technology Kopenikusgasse 24, 8010 Graz, Austira

16	Metamaterials for phase control of THz resonant-tunneling-diode oscillators	Dr. Dibakar Roy Chowdhury, Associate Professor, Mahindra Ecole Centrale, Bahadurpally, Survery No 62/1A, Hyderabad, 500043, India	Michael Feiginov, University Professor, TU Wien, Gusshausstrasse 25/354, 1040 Vienna, Austria
17	Understanding the role of the CTG clade specific histone H3 Variant in the Pathobiology of candida albicans	Dr. Kasutuv Sanyal, Professor, Molecular Mycology Laboratory Molecular Biology & Genetics Unit Jawaharlal Nehru Centre for Advanced Scientific Research Jakur Post, Bangalore 560064 India	Dr. Karl Kuchler, Professor, Medical University Vienna-Max F. Perutz Laboratories, Campus Vienna Biocenter Dr. Bohr-Gasse 9/2; A-1030 Vienna, Austria
18	Defect engineering of 2D transition metal carbide-graphene heterostructures for high performance hybrid electronic devices	Dr. Chandra Sekhar Rout, Associate Professor, Centre for Nano and Material Sciences, Jain University, Jain Global Campus, Ramanagaram, Bangalore-562112	Dr. Jani Kotakoski, Associate Professor, Physics of Nanostructured Materials Faculty of Physics Boltzmannngasse 5 , 1090 Vienna
19	Optimized Thermal Utilization of Municipal Solid Waste-derived Fuel in India	Dr. Anurag Garg, Associate Professor, Centre for Environmental Science and Engineering, IIT Bombay, Powai. Mumbai, Maharashtra. 400076	Therese Schwarzbock, Doctoral Candidate, Research Center of Waste and Resource Management, Institute for Water Quality, Resource and Waste Management, TU Wien Karlsplatz 13, 1040 Vienna
20	Morphological taxonomy and DNA barcoding of Gyrodactylus spp. (Platyhelminthes: Monogeneans) in economically important freshwater fishes of India	Dr. Amit Tripathi, Assistant Professor, Department of Zoology University of Lucknow Lucknow-226 007 Uttar Pradesh, India	Dr. Christoph Hahn, Assistant Professor, Institute of Zoology University of Graz Univesitaetsplatz 2 8010 Graz Austria
21	Controlled drug delivery to prevent bacterial adhesion and enhance osteoconduction of Ti alloys used in spinal application by tailoring the surface with nanopores	Dr. Geetha Manivasagam, Professor & Assistant Director, Centre for Biomaterials, Cellular and Molecular Theranostics (CBCMT), School of Mechanical Engineering (SMEC), VIT University, Vellore-632014 India	DI DDr. Juergen M. Lackner, Senior Scientist, Joanneum Research Forschungsgesellschaft m.b.H. Materials- Institute of Surface Technologies & Photonics, Laser & Plasma Processing Leobner-StraBe 94 8712 Niklasdorf Austria
22	Implementation of plants and treated natural fibers to enhance the strength properties of soft soil and to decrease the rate of surface erosion (Nat-Treat)	Dr. Anasua GuhaRay, Assistant Professor, Department of Civil Engineering, BITS-Pilani Hyderabad Campus Room No. D 115B, Jawaharnagar, Shameerpet Mandal, Secunderabad- 500078, Telangana, India	Prof. Dr. Wei Wu, Professor, Universitat fur Bodenkultur (BOKU) Institute of Geotechnical Engineering Feistmante1strasse 4 1180 Vienna Austria

23	Optimization of pulse cleaning parameters for achieving high level performance of filter media during industrial pollution control	Dr. Arunangshu Mukhopadhyaya, Professor, Department of Textile Technology, National Institute of Technology NH!, Jalandhar - 144011 Punjab, India	Ao. Univ Prof. Dipl.-Ing Dr. Techn Gernot Krammer, Institute of Process and Particle Engineering, Institute of Process and Particle Engineering, Graz, University of Technology, Inffeldgasse 13, 8010 Graz, Austria
24	Atom-to-Circuit' modeling technique for exploration of Topological Insulator based ultra-low power electronics	Prof. Santanu Mahapatra, Department of Electronic systems Engineering (DESE) Indian Institute of Science (IISc) Bangalore 560012	Privatdoz, Viktor Sverdlov, TU Wien Institute for Microelectronics GuBhausstraBe 27-29/ E360 A-1040 Wien Austria
25	Development of a computer-assisted diagnosis system for segmenting and detecting abnormalities and disease diagnosis	Debotosh Bhattacharjee Designation-Professor, Computer Science Department, Jadavpur University, Jadavpur University, 188, raja S. C. Mallick Road, Kolkata, West Bengal 700032, India	Christian Kollmann, Designation- Assistant Professor, Center for Medical Physics and Biomedical Engineering, Medican University Vienna. Medical University Vienna, General Hospital Vienna, 4L Waehringner Guertel 18-20 1090 Vienna, Austria
26	Development of Methodologies for Self-Aware Network-on-Chip Design	Soumya J, Assistant Professor, Room No. D 218, Department of Electrical and Electronics Engineering, BITS-Pilani Hyderabad Campus, Jawaharnagar, Shameerpet Mandal, Secunderabad- 500078, Telangana, India	Jantsch Axel, Professor, Room No. CA 02 31 E384- Institute of Computer Technology GuBhausstr. 27-29 1040 Wien Austria
27	Magnitude and Pathways of Anthropogenic Platinum Group Elements: Emerging Environmental Contaminant in India:	Indra S. Sen, Department of Earth Sciences IIT Kanpur, Kanpur UP- 208016	Ao.Prof. Dr. Alexander Meisel General and Analytical Chemistry Montanuniversitat Leoben Franz-Josef-Str. 18 8700 Leoben, Austria
28	NATURAL FIBRE REINFORCED CEMENTITIOUS COMPOSITE FOR SUSTAINABLE INFRASTRUCTURE	Dr. Umesh Kumar Sharma, Associate Professor Department of Civil Engineering, IIT Roorkee, Roorkee, India 247667	Dr. Ildiko Merta, Technical University Vienna, Institute of Building Construction and Technology Karlsplatz 13/206-1 Stiege II, 3. Stock 1040 Wien

The above proposals have been recommended by both Indian and Austrian 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?

....2/-

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 whether 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