

## DST-VR Sweden results

S no.	Title of Project	Indian Coordinator	Swedish Coordinator
1	Topology and Magnetism in Noval Quantum Materials	RatnamalaChatterjee, Professor Physics Department, IIT Delhi, HauzKhas New Delhi-110016 Ph.011-26591354	Saroj Prasad Dash Associate Professor D/o Micotechnology and Nanoscience, Chalmers
2	Robust topological methods for analysis of dynamic large-scale data for modern material design	Vijay Natarajan Associate Professor D/o Computer Science and Automation Indian Institute of Science (IISc) Bangalore Ph.08022932909 23602911	Ingrid Hotz Professor D/o Science and Technolgy Linkoping University Sweden
3	A metronomically bioactive factor releasing nanotextileintergratedimmunoprotective nanoporous capsule for islet cell encapsulation and transplantation	Dr.Binulal Nelson Sathy Centre for Nanoscience and Molecular medicine, Amrita VishwaVidyapeetham, Kochi, Kerala, India Ph.0484-2801234 M.9645087084	Joey Lau Borjesson D/o Medical Cell Biology, Uppsala University, BMC, Husarg 3, Uppsala, Sweden
4	Verification of Multi-Core Real-Time Embedded Software Systems	Dr.MadhavanMukund Professor Computer Science Chennai Mathematical Institute, Siruseri, Chennai-603103	Dr.Parosh Aziz Abdulla Professor D/o Information Technology Uppsala University, Uppsala, Sweden
5	Nanometric Sensitizer-Polyoxometalate Tandem System for photocatalytic water splitting	Dr.RajuMondal Associate Professor School of Chemical Sciences, Indian Association for the Cultivation of Sciences , 2A & 2B Raja S.C.Mullick Road, Jadavpur Kolkata- 700032	Dr.Christian Andre Ohlin Associate Professor D/o Chemistry Umea University 90187 Umea, Sweden
6	Physical Layer Secrecy for IoT Networks with Heterogeneous Traffic	Dr.ParhajitMohapatra Assistant Professor Electical Engineering Indian Institute of Technology, TirupatiRenigunta Road	Dr.Nikilaos Pappas Sr.Lecturer (University slektor) Mobile Telecommunications Group, D/o Science and Technology, Campus
7	Optical control of valleytronics materials	SumanKalyan Pal Associate Professor School of Basic Sciences Indian Institute of Technology Mandi	TonuPullerits Professor D/o Chemical Physics Lund University, Sweden

8	Ab initio search for topological Mott insulators	PriyaMahadevan Sr. Professor D/o Condensed Matter Physics & Material Science, S.N.Bose National Centre for Basic Sciences, JD Block, Sector 3, Salt Lake, Kolkata-700106	FerdiArasetiawan Professor Lund University D/o Physics Mathematical Physics Division, Professorsgatan 1 Lund, Sweden
9	Design of Novel Layered Materials in Bulk and 2D form for Thermal Energy Harvesting	Dr.AjaySoni, Assistant Professor School of Basic Sciences, Indian Institute of Technology Mandi, Academic Block A4, Office 309, Mandi- 175005	Prof. Per Eklund, Associate Professor Thin Film Physics Division, D/o Physics, Chemistry, and Biology (IFM) Linkoping University, Linkoping, Sweden
10	Manipulation of static and dynamic properties of oxide heterostructures	SrimantaMiddey Assistant Professor D/o Physics, Indian Institute of Science, Bengaluru-560012	BiplabSanyal Associate Professor Division of Materials Theory, D/o Physics and Astronomy, Angstromlaborato riet, Uppsala University, Uppsala, Sweden
11	Intricate functional scaffolds produced via solvent free, single step process	Dr.RajivK.Srivastava, D/o Textile Technology, Indian Institute of Technology Delhi, HauzKhas, New Delhi- 110016	Dr.MinnaHakkarainen Professor and Head Fiber and Polymer Technology, Royal Institute of Technology, Stockholm, Sweden
12	Fabrication of low power consuming inverted near-infra red AMOLEDs	Dr.BholaNath Pal Assistant Professor School of Materials Science and Technology, Indian Institute of Technology (BHU) Varanasi-221005	Dr.Ergang Wang, Associate Professor D/o Chemistry and Chemical Engineering Chalmers University of Technology Gothenburg, Sweden
13	Design and Characterisation of Novel Perovskite Semiconductors for Understanding and Elimination of Non-radiative Losses	Monojit Bag Assistant Professor D/o Physics, IIT Roorkee Roorkee-247667 Uttarakhand	Ivan Scheblykin Professor Chemical Physics, Chemistry Department, Lund University, PO Box-124, Lund Sweden
14	Cognitive interfaces for software engineering with multimodal brain imaging	Dr.CotaNavin Gupta Assistant Professor D/o Biosciences and Bioengineering (BSBE) Office No 7 (Ground Floor) Block N , Indian Institute of Technology, Guwahati, India	Dr.Pawel Herman Associate Professor D/o Computational Science and Technology, Lindstedtsvagen 5, KTH Stockholm Sweden
15	Liquid feedstack plasma sprayed nanostructured layers on 3D printed porous Ti6Al4V implants impregnated with stem cells in collagen hydrogel for accelerated osseointegration	Dr.GeethaManivasagam Director Sr.Professor Centre for Biomaterials, Cellular and Molecular Theranostics (CBCMT) VIT-Vellore-632014	Dr.NicolaleMarkocsan Professor D/o Engineering Science University West, Trollhattan, Sweden

16	Large deviations, rare-event simulation and machine learning: Importance sampling using neural networks	Sandeep Juneja, Professor and Dean School of Technology and Computer Science TIFR, HB Road, Colaba	Pierre Nyquist, Associate Professor D/o Mathematics KTH Royal Institute of Technology Stockholm Sweden
17	Microstructural evolution and structure-property correlations in FeCoNi based multi component alloy thin films	Dr.(Mr) Suhash Ranjan Dey Associate Professor D/o Materials Science and Metallurgical Engineering Indian Institute of Technology, Hyderabad, Kandi	Uta Klement Professor Head of Division Materials and Manufacture D/o Industrial and Materials Science Chalmers University of Technology, Ranvagen 2A SE-412 96 Goteborg, Sweden
18	Metal-oxide nanoparticle assemblies for gas sensors	Navakanta Bhat, Professor Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore-560012	Srinivasan Anand, Professor D/o of Applied Physics School of Engineering Sciences, KTH Royal Institute of Technology, Sweden
19	Bulk crystal growth of gallium oxide and fabrication of heterojunction diodes	Sridharan Moorthy Babu Professor Anna University Crystal Growth Centre Chennai-600025	Sebastian Lourdu Doss, Professor D/o Applied Physics School of Engineering Sciences Royal Institute of Technology, Electrum Sweden
20	Quasi-two-dimensional perovskite light-emitting diodes	Dinesh Kabra Associate Professor Physics, IIT Bombay, Powal Mumbai, Maharashtra-400076	Feng Gao Associate Professor Physics, Linkoping University, Linkoping, Sweden

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?

### **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.)