

**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE & TECHNOLOGY**

**INDIA-JAPAN COOPERATIVE SCIENCE PROGRAMME (IJCSP)**

**CALL FOR PROPOSALS-2016**

**DEADLINE DATE FOR SUBMITTING PROPOSALS: 8<sup>th</sup> September, 2016**

The Department of Science and Technology (DST), Ministry of Science & Technology, Government of India, New Delhi and the Japan Society for the Promotion of Science (JSPS) conduct the India-Japan Cooperative Science Programme (IJCSP) to promote bilateral scientific collaboration between Indian and Japanese scientists. Applications are invited from eligible Indian researchers /scientists to submit proposals for joint projects and joint workshops under IJCSP.

**Areas of cooperation:** The support is available to the following scientific areas:

**[A] Fundamental Sciences: Physical and Chemical Systems**

1. Condensed Matter Physics
2. Molecules and Molecular Assembly Science
3. Interface Science and Catalysis

**[B] Materials and System Engineering: Man-made Systems**

1. Advanced Materials and Nanotechnologies (This keyword includes areas of metal ceramic, polymer science & engineering and materials processes)
2. Engineering Sciences (This keyword includes areas of manufacturing science and engineering and synthesis & analysis/optimization & simulation of engineering processes and systems)

**[C] Natural Systems: Life Sciences and Bioengineering**

1. Molecular and Chemical Biosciences
2. Biotechnology and Bioengineering
3. Medical Biosciences
4. Environmental and Agricultural Biosciences

**[D] Astronomy, Space, Earth System and Sciences**

1. Astronomy, Astrophysics, and Space & Planetary Science
2. Geosciences (Marine, Meteorology, Geology, Paleontology)
3. Geophysics and Geochemistry for Global Issues (Global warming and Natural Resource)

**[E] Mathematics and Computational Science**

1. Mathematical Science
2. Computational Science and Engineering

### **Who can apply:**

The joint application must include one Indian and one Japanese Principal Investigators, who would be responsible for technical as well as administrative co-ordination of the project and its periodic scientific and financial reporting to the DST/ JSPS respectively.

The Principal Investigator (PI) and other investigators in India should be scientists/ faculty members working in regular capacity in UGC recognized Universities/ Deemed Universities/ Academic Institutes and National Research & Development Laboratories/ Institutes. It is preferred that a member of the project team may be designated as Co-PI.

The Japanese PIs must be full time researchers employed at Universities or other research institutions recognized by JSPS. Further details in respect of Japanese participants JSPS website ([www.isps.gov.jp](http://www.isps.gov.jp)) may be referred to.

### **Kind of support available:**

**The sending side would provide the international travel cost and receiving side will provide local hospitality including accommodation charges, per-diem and local travel.**

### **DST provides the following support under the Programme:**

For Indian Researchers – Cost of International airfare to and from the designated research location, visa fee, air port taxes, overseas medical insurance premium for the approved visit duration and airport transfers in India. For joint workshops/ seminars to be organized in India, local travel cost of selected Indian participants and organizing expenses may also be considered for support as per DST norms.

For Japanese Researchers – Costs of accommodation in a guest house, per diem and domestic travel expenses in India including airport transfers as per DST norms.

**Processing:** The formats for joint project/seminar proposals and other details is available at the websites [www.dst.gov.in](http://www.dst.gov.in). Project proposal is to be submitted through e-mail to [nvasishta@nic.in](mailto:nvasishta@nic.in) (preferably **in MS Word format in one file indicating file name as PI name & area code**) **as well as by Post (3 copies )** in the prescribed format on or before the given deadline (8<sup>th</sup> September, 2016), through proper channel to :

**Dr. Naveen Vasishta, Scientist 'E', International Division, Department of Science & Technology, Room No. 18-F, Technology Bhavan, New Mehrauli Road, New Delhi-110016**

Japanese Principal Investigators need to submit proposals with a matching research/ seminars plan to JSPS simultaneously. Japanese Researchers are requested to contact JSPS for their application submission period, documents to be submitted etc.

# INDIA-JAPAN COOPERATIVE SCIENCE PROGRAMME

## PROPOSAL FOR DST-JSPS JOINT RESEARCH PROJECT FOR FY 2016-2017

(to be used by the Indian Scientists/ Researchers)

Project Ref No. \_\_\_\_\_  
(to be given by DST)

### A. PROJECT IDENTIFICATION

1. Area Code & Key Words (Please tick  the appropriate box and also write sub theme/key words):

1.	Fundamental Sciences: Physical and Chemical Systems (FS) <ul style="list-style-type: none"><li>• Condensed Matter Physics</li><li>• Molecules and Molecular Assembly Science</li><li>• interface Science and Catalysis</li></ul>	
2.	Materials and System Engineering: Man-made Systems (MS) <ul style="list-style-type: none"><li>• Advanced Materials and Nanotechnologies (Including metal ceramic, polymer science &amp; engineering and materials processes)</li><li>• Engineering Sciences (Including manufacturing science and engineering and synthesis &amp; analysis/ optimization &amp; simulation of engineering processes and systems)</li></ul>	
3.	Natural Systems: Life Sciences and Bioengineering (NS) <ul style="list-style-type: none"><li>• Molecular and Chemical Biosciences</li><li>• Biotechnology and Bioengineering</li><li>• Medical Biosciences</li><li>• Environmental and Agricultural Biosciences</li></ul>	
4.	Astronomy, Space, Earth System and Sciences (ASESS) <ul style="list-style-type: none"><li>• Astronomy, Astrophysics, and Space &amp; Planetary Science</li><li>• Geosciences (Marine, Meteorology, Geology, Paleontology)</li><li>• Geophysics and Geochemistry for Global Issues (Global warming and Natural Resource)</li></ul>	
5	Mathematics and Computational Science (MCS) <ul style="list-style-type: none"><li>• Mathematical Science</li><li>• Computational Science and Engineering</li></ul>	

2. TITLE OF THE PROJECT :
3. PROPOSED DURATION OF THE PROJECT : \_\_\_\_\_ Months
4. PROJECT INVESTIGATORS & COLLABORATING INSTITUTIONS :

INDIAN PRINCIPAL INVESTIGATOR (PI)

Name			
Designation			
Department			
Institution			
Postal Address			
	Contact Phone No. (o) & (M) :	Fax:	
E-mail			
Date of Birth :		Age as on 8 <sup>th</sup> Sept. 2016:	

JAPANESE PRINCIPAL INVESTIGATOR

Name			
Designation			
Department			
Institution			
E-mail			

5. INDIAN CO-PRINCIPAL INVESTIGATOR (CO-PI)

Name			
Designation			
Department			
Institution			
Postal Address			
	Contact Phone No. (o) & (M) :	Fax:	
E-mail			
Date of Birth			

6. OTHER MEMBERS OF THE INDIAN PROJECT TEAM :

S. No.	Name & Designation	Department & Institute	Academic Qualification & Specialization

7. OTHER MEMBERS OF THE JAPANESE PROJECT TEAM :

S. No.	Name & Designation	Department & Institute	Academic Qualification & Specialization

*Brief Bio-data of Indian and Japanese PIs and other Indian team members highlighting the expertise in the proposed field of work alongwith list of publications highlighting those relevant to the proposed project.*

8. ONGOING / COMPLETED PROJECTS WITH THE INDIAN PRINCIPAL INVESTIGATOR :

National Projects:

S. No.	Project Title	Sponsoring Agency	Budget	Status

International Projects:

S. No.	Project Title	Name of the Collaborating Scientist & Institute	Sponsoring Agency	Budget	Status

**B. TECHNICAL INFORMATION**

1. Objectives (*in bullet form*) :
2. Necessity and the significance of the proposed research exchange with Japan: ( whether the proposed work could be done without the collaboration, if not please mention the complementary aspects including benefits of the collaboration)
3. Past research activities in the relevant area including those with Japan and history of correspondence with the Japanese PI.
4. National & International scenario in the proposed topic/theme of research (*in about 200 words*), Please provide key bibliographic references.
5. Scientific & technical description of the project including methodology
6. Plan of proposed research and six monthly milestones (*please describe the project's collaborative framework, division of work between Indian and Japanese sides, number of exchange visits planned with duration of each visit during each financial year from each side, up to 2 visits per year from each side* )
7. Expected results of the Cooperation (*for example: joint publications, patents etc.*). Are any of the expected results are likely to have commercial value? How do you propose to share it ?:
8. **Dully filled in Check list in the prescribed format.**
9. Any other relevant information:

### C. FINANCIAL AND ADMINISTRATIVE INFORMATION

#### TOTAL COST OF THE PROJECT :

*Generally limited to the extent of expenditure on approved exchange visits viz. international airfare for Indian scientists and local hospitality to the Japanese scientists as per approved norms. Major items of expenditure should be met from internal resources of the Implementing Institution or any other sources.*

1. List of equipment and other facilities available in the participating Institutes for implementation of the project :  
(In case facilities of other institutes are utilised, a consent letter from the these institute(s) may be neclosed)
- 2.. Exchange visits and estimated expenditure:

Items of Expenditure	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Total
<u>Visits from India to Japan</u> - Number of visits and duration for each visit - International to & fro Airfare by lowest economy class including airport taxes - related local travel in India from city parent institute to nearest International Air Port - visa fee - Overseas medical insurance			
<u>Visits from Japan to India</u> - Number of visits and duration for each visit - Accommodation in Guest House - Per diem @ 1000 per day - local travel in India between the host institute and the nearest International Air Port			
Total			

*Note :i) The PI is to required to submit periodic reports and its continuation in the second year would depend upon its progress assessed by DST. At the end of each financial year .the PI is also required to submit the Utilisation Certificates and Statement of Expenditure in prescribed format.*

*ii) Visit of one person is to be counted as one visit.*

3. Designation and address of the Authorised official in Institute/ University to receive the grant
4. A letter from the Japanese Principal Investigator agreeing with the objectives, work plan including projected visits from both sides may be enclosed.

*We hereby certify the statements above to be true and correct.*

Signature with Date  
Indian Principal Investigator

Signature with Date  
Indian Co-Principal Investigator

## CERTIFICATE OF HEAD OF THE INDIAN INSTITUTION

It is certified that

- 1) The institution agrees to participate in this joint research project;
- 2) In the event of the Indian Principal Investigator (PI) leaving the Institute due to retirement or otherwise, the Co-PI would become the PI and be responsible for completing the project and submitting the periodic progress report and financial statements;
- 3) The institution shall provide infrastructure & available facilities as mentioned above, for implementing the joint project;
- 4) The institution assumes to undertake financial & other management responsibilities for part of the project work to be carried out in this institution;
- 5) The breakup funding for manpower, consumables etc. is available to this project;
- 6) All necessary formalities as per our institution have been completed.

Signature and seal of the Head of the institution

**DEPARTMENT OF SCIENCE & TECHNOLOGY  
INTERNATIONAL DIVISION  
(Support for Joint Workshops/ Expert Committee Meeting Under bilateral S&T  
Cooperation programmes)**

1. BROAD SUBJECT AREA:
2. TITLE OF JOINT WORKSHOPS (WS)/ EXPERT COMMITTEE MEETING (ECM):
3. DATES : FROM : TO: NO. OF DAYS:
4. VENUE :
5. NAME AND ADDRESS OF WS / ECM COORDINATORS:

	INDIAN COORDINATOR	FOREIGN ORGANIZER
NAME DESIGNATION: INSTITUTE CONTACT ADDRESS PINCODE CONTACT PHONE, MOBILE & FAX NOS E-MAIL:		

6. STATUS OF INDIAN ORGANISING INSTITUTE  
(PLEASE TICK OUT THE APPROPRIATE ITEM)  
 Professional Body State Govt.  
 Registered Society Central Govt.  
 Pvt. Industry Pvt. College  
 University Others
7. DESIGNATION OF OFFICIAL EMPOWERED TO RECEIVE FINANCIAL GRANTS  
(GRANTS WILL BE RELEASED ONLY IN FAVOUR OF HEAD/ REGISTRAR OF  
INSTITUTION OR SOCIETY) :
8. MAIN TOPICS TO BE COVERED AND PROPOSED PROGRAM SCHEDULE
9. EXPECTED OUTCOME:
10. BROAD DETAILS OF ESTIMATED EXPENDITURE (IN RUPEES)

Item of Expenditure	Estimated Expenditure	Grant being requested from DST
FOR WS/ECM BEING ORGANISED IN INDIA: TA for Indian Scientists/ Invited Speakers (No. of persons may also be indicated) Local Hospitality for Other Participants (No. of persons x days and rate for each item may also be indicated) Organizational Expenses including Food, Pre-conference Printing, Typing, Stationary, transport etc. Local Hospitality for Foreign Scientists -accommodation, per diem, local travel/ transport in India etc (No. of persons x days and rate for each item may also be indicated) Misc (please specify)		
FOR WS/ECM BEING ORGANISED ABROAD - International to & fro Airfare including airport taxes - related local travel in India - visa fee - Overseas medical insurance		
TOTAL		



11. DETAILS OF PARTICIPANTS IN THE EVENT :

- a) No. of Foreign scientists :
- b) No. of Indian scientists:

*(A list of expected participants may be enclosed. A list of foreign participants along with their passport particulars - Name, Citizenship, Passport number, Date of issue, Place of issue, and Expiry date is to be sent at a later stage but about 2 months before the event)*

12. IN CASE OF WS/ECM IN INDIA, INDICATE WHETHER CLEARANCE FOR PARTICIPATION OF FOREIGN SCIENTISTS HAVE BEEN OBTAINED FROM  
(PLEASE TICK OUT THE APPROPRIATE ITEM)

Received

Applied

Administrative Ministry of the Organizer

External Affairs Ministry

Home Affairs Ministry

13. PURPOSE OF THE WS/ECM (PLEASE TICK OUT THE APPROPRIATE ITEM)

- a. Review state of art
- b. Formulate specific programme of action
- c. Bring out proceedings/papers in the subject
- d. Other (Please Specify)

14. BRIEF OBJECTIVE OF WS/ECM HIGHLIGHTING ITS IMPORTANCE IN NATIONAL CONTEXT

Signature of applicant/  
Organizing Secretary

Signature of Head of Institution or  
President/ Secretary of Society

Place:

Date

## CHECKLIST

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?

### IV. 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

**Electronic Clearing System (ECS) Format**

1	Name of the Agency	
2	Name and Designation of A/C holder (as per Bank A/C)	
3	Bank Account No.	
4	Bank Name and Branch Address	
5	IFSC Code	
6	Name of Principal Investigator	
7	E-mail (Agency/ PI)	
8	Mobile No. (Agency/ PI)	

Agency/ Institution are requested to fill up above mentioned columns for transferring the fund through electronically.

*(Kindly also send scanned copy of the cancelled cheque which has all the requisite details if possible).*