DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVERNMENT OF INDIA & MINISTRY OF SCIENCE, ICT AND FUTURE PLANNING REPUBLIC OF KOREA

INDIA-KOREAJOINT PROGRAMME OF COOPERATION IN SCIENCE & TECHNOLOGY

India-Korea Joint Network Centre Call for proposals

Proposals to be submitted by 6:00 pm (local time) on August 16, 2017

1. Objectives

This Call for Proposals is to enable Indian and Korean scientists from academia and laboratories to carry out joint research activity by leveraging already existing infrastructure and funding available with the partners at both sides through a linkage established by a **Joint Network Centre (JNC)**. Joint Network Centre aims to encourage joint project implementation on focal areas of thematic and knowledge research through networking thus, paving way to sustainable interactions by promoting excellence and developing long term relationship based on synergy of activities. Network Centre may also provide opportunities for integrating research with education.



Structure of the JNC

2. Potential Areas of Cooperation

Department of Science & Technology (DST), Govt. of India Ministry of Science, ICT and Future Planning (MSIP) of the Republic of Korea invite Indian and Korean research groups to submit proposals for **Joint Network Centre** in the following areas:

- Robotics
- Computational Materials Science & Engineering

3. Activities of the JNC

When the focal coordinator draws up the proposal of JNC, the below details may be included.

- Exchange of Researchers, Research students and Post-Doctoral scholars
- Joint Seminar/Workshop/ Hands on training School (one in each country per year)
- Joint Research

When the focal coordinator draws up the proposal of JNC, the below details may be targeted to be delivered as outcomes.

- Publish joint papers
- Develop Prototype / Processes
- Promoting pre-commercial R & D activities

3. Eligibility Requirements

- (i) One focal lead coordinator each from India and Korea.
- (ii) Minimum of two Indian and two Korean separate institutional node partners, except the focal point institute (3+3 partnership mode). However, there can be more than two node partners on each side as well.
- (iii) The Focal Coordinator and node partners should either be scientists, researchers, or faculty members employed by government-recognized universities, academic institutes, or national research and development laboratories or institutes.
- (iv) If interested, Industries can also participate with their own funding, but they will not be counted as neither the focal coordinators nor node partners.
- (v) All partners to have intellectual and financial stake in the Joint Centre activities.
- (vi) Proof of existing funding support available towards infrastructure and equipments has to be provided with the proposal.

4. Programme Requirements

- The Focal Coordinators are responsible for submitting annual scientific and financial reports in order to ensure continued funding.
- Focal Coordinators are also responsible for the technical and administrative coordination of Network Centre.
- Neither Focal Coordinator / Node Partner should be retired or planning to retire during the proposed period of the Proposal.

4. Kind of support available for Joint Project:

One proposal for each field (two proposals in total) will be selected for funding. Each selected Joint Network Centre will be funded for a period of up to three years. However, both sides must pass the annual evaluation in each country for continuation of funding. Expenditure by JNC in their country would be borne by the respective country, i.e., DST would support expenditure on Indian side of the JNC whereas MSIP would meet the expenditure of Korean side.

On the Korean side, MSIP's tentative funding amount for each Network Centre would be approximately 60,000,000 won per year.

On the Indian side, DST will provide funding support to Focal Coordinating Indian Institute. Funds to other Indian nodes of the JNC would be provided through the Focal Indian Institute of the JNC. From DST following financial support can be provided for the each JNC:

- **Research Manpower:** Maximum One JRF / SRF/ Research Associate for each node. In additional one suitable manpower can be provided to the Focal coordinator for coordination of the activities.
- **Research Expenses:** Upto Rs. 5 lakh to each Indian node towards consumables.
- Joint Workshop& Training School: Financial support for organizing one join workshop cum hands on training school each in India and Korea with participation of 15 -20 students of host country every year may be provided to the Focal coordinator of the JNC
- **Support for Exchange visit component:** Two visits from each side each year for each node of the JNC can be funded. The sending side will provide

round-trip economy-class airfare to the relevant entry city of the host country as well as medical insurance. The receiving side will provide accommodation and living expenses, i.e., transportation including pick-up service to and from the airport, food, etc.

- **Institutional Overhead:** Institutional Overhead and contingency support will be determined in accordance with specific norms of DST.
- Participating Indian institutions are responsible for expenses regarding equipment.

5. Proposal Submission

Korean and Indian Focal Coordinator shall write a common application to be submitted to both DST and NRF. The common application must be written in English. It will be responsibility of the Focal coordinator to collect technical and financial details from each associated nodes while writing the proposal.

Indian applicants for funding should submit a completed application form and all relevant information **as a single attachment (single MS word / PDF file)** to the email address: <u>rajivarc@nic.in</u>to reach by 6:00 pm on 16th August 2017. An email acknowledging receipt of the application will be provided to the applicant in 3-5 working days. They are also requested to submit <u>three hard copies</u> by 20thAugust 2017 to :

Rajiv Kumar Scientist International Cooperation Department of Science & Technology New Mehrauli Road New Delhi – 110 016

It should be ensured that application with identical title has been submitted by the Korean Focal Coordinator to NRF by due date (Indian side).

For Korean applicants, a separate application form written in Korean is also required. Please refer to 'call for proposals' for instructions on completing the Koreanlanguage proposal. **(Korean side only).**

6. Assessment of applications

All applications received by the notified deadline will undergo a peer review process and then be referred to an independent advisory panel for consideration and ranking. Applications must attain a positive rating to be considered eligible for funding. Joint selection of successful application by DST and NRF will be discussed by the respective nodal agencies. Decisions made by the India-ROK Joint S&T Committee will be final. The following criteria will be taken into consideration for selection of proposals:

- Scientific merit / Scientific excellence of the proposal
- Synergy / Complementarity aspects between the collaborating nodes
- Mutual advancement of research through the transfer of knowledge and expertise
- Ability of the teams to successfully complete the project
- Expected research outputs
- Perceived advantage(s) for both Indian and Korean sides
- Participation of Industry and potential towards applied research and product development.

7. Contact Information

| DST(INDIA) | MSIP- NRF(KOREA) |
|------------------------------------|---------------------------------------|
| Rajiv Kumar | <u>Ms. Jihye Shin</u> |
| Scientist | Researcher |
| International Cooperation | Asia Cooperation Team |
| Department of Science & Technology | Center for International Affairs |
| New Mehrauli Road | National Research Foundation of Korea |
| New Delhi – 110 016 | Tel : +82-2-3460-5704 |
| E-mail: rajivarc@nic.in | E-mail : <u>sophie1207@nrf.re.kr</u> |
| | |

ANNEXURE - I

APPLICATION FORM FOR JOINT PROGRAMME OF COOPERATION IN SCIENCE AND TECHNOLOGY

1.Name of Joint Network Centre

2. Duration

/ / ~ / (dd/mm/yyyy)(Years & Months)

※Duration should be 3 years (i.e., 36 months) all together.

3. Contact Information of Lead Focal Coordinator

| | INDIA | KOREA |
|------------------------------|-------|-------|
| Name of Focal Coordinator | | |
| Organization | | |
| Department | | |
| Title | | |
| Address of Institution | | |
| Office phone # | | |
| Cell phone # | | |
| Fax # | | |
| e-mail | | |
| Date of Birth | | |

4. Contact Informal with Affiliation of all participating Nodes (Minimum 2 nodes from each side)

| | INDIA | KOREA |
|---------------------------|-------|-------|
| Name of Node Partner | | |
| Organization | | |
| Department | | |
| Title | | |
| Address of Institution | | |
| Office phone # | | |
| Cell phone # | | |
| Fax # | | |
| e-mail | | |

| Name of Node Partner | |
|---------------------------|--|
| Organization | |
| Department | |
| Title | |
| Address of Institution | |
| Office phone # | |
| Cell phone # | |
| Fax # | |
| e-mail | |

5. Executive Summary of the Proposal

| Keywords | | |
|---------------------|--|--|
| Objectives | | |
| Approach | | |
| Expected Outcome | | |

X Attention - font: Times New Roman, size: 11 points / Do not exceed space provided.

6.Background and introduction of the subject area including state of the art in India and South Korea (upto200 words)

7. Aims and Objectives of the Joint Network Centre

8. Details about the partnering Nodes in the JNC (Please specify role and responsibility of each Indian and Korean Nodes alongwith synergy / complementarity)

9.Plan of work(*per annum*)

| Timeline | Responsibilities of Indian node | Responsibilities of Korean node |
|--------------------------------|---------------------------------|---------------------------------|
| 1 st Year (yyyy) | | |
| 2 nd Year (yyyy) | | |
| 3 rd Year (уууу) | | |

| At the Collaborating Indian Institutions | At the Collaborating Korean Institutions |
|--|--|
| | |
| | |
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| | |
| | |
| | |

10. Details about sharing of facilities / manpower and other stakes by the partners:

11. Justification for collaboration

12. Proposed mechanism for IPR sharing

13. Expected outcome specifically in terms of furthering bilateral cooperation / interactions and other substantive follow-ups. Expected results likely to have commercial value.

14. Proposed monitoring / reporting mechanism for the Joint Network Centre

15. Personal Data of Indian and Korean Focal Coordinator to be attached.

*****Describe the expertise in the proposed field of work by citing relevant publications. Do not exceed <u>one pages A4 size</u> for each Coordinator (Font: Times New Roman, size: 11 points).

- 16. Research History of both Focal Coordinator.
- ※ Describe major scientific publications, patent applications and ongoing / completed national / international projects during <u>the last 5 years</u>. Do not exceed <u>one page A4 size for</u> each PI (Font: Times New Roman, size: 11 points).

17. Personal Data and Research History of Indian and Korean Node Partner to be attached.

※Describe the expertise in the proposed field of work by citing relevant publications / patents, and ongoing / completed national / international projects during <u>the last 5 years</u>. Do not exceed <u>one pages A4 size</u> for each Node Partner (Font: Times New Roman, size: 11 points). 18. Number of exchange visits required to achieve the objectives by all Partners (Year wise)

| | INDIA TO S. KOREA | | S. KORE | A TO INDIA |
|----------------------|----------------------------------|--|----------------------------------|-------------------------------------|
| | Number of persons x visits | Duration for each person's visit | Number of persons x visits | Duration for each person's visit |
| 1 st Year | | | | |
| 2 nd Year | | | | |
| 3 rd Year | | | | |

18. Joint Workshops cum hands on training school proposed to achieve the objectives by all Partners (Year wise)

| | In India | | In South Korea | | ea | |
|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Number of Korean Speakers | Number of Indian Speakers | Number of Indian Students | Number of Indian Speakers | Number of Korean Speakers | Number of Korean Students |
| 1 st Year | | | | | | |
| 2 nd Year | | | | | | |
| 3 rd Year | | | | | | |

FINANCIAL INFORMATION

Consolidated Budget Plan-Total proposed Budget on Indian side

(All costs should be in Indian Rs. for proposal submitted by Focal Coordinator. Budget of all Indian nodes must be included while seeking the financial support)

| | | | (Rs.) |
|----------------------|---------------------------|---------------------------|---------------------------|
| | 1 st Financial | 2 nd Financial | 3 rd Financial |
| | Year | year | Year |
| Consumables | | , | |
| Manpower | | | |
| Contingency | | | |
| Exchange Visits | | | |
| Indian Scientists to | | | |
| Korea | | | |
| | | | |
| Korean Scientists | | | |
| to India | | | |
| | | | |
| Workshop in | | | |
| Korea | | | |
| i torou | | | |
| Workshop in India | | | |
| | | | |
| Training School | | | |
| | | 1 | I |
| | | | |
| Total | | | |
| | | | |

Budget plan of Individual Indian Focal Coordinator and Nodes

(All costs should be in Indian Rs.. Budget of each Indian Nodes and Focal Coordinators should be prepared separately under this head.

| | | | (Rs .) |
|-------------------------------|---------------------------|---------------------------|---------------------------|
| | 1 st Financial | 2 nd Financial | 3 rd Financial |
| | Year | year | Year |
| Consumables | | | |
| Manpower | | | |
| Contingency | | | |
| Exchange Visits | | | |
| Indian Scientists to Korea | | | |
| Korean Scientists to India | | | |
| Workshop in Korea | | | |
| Workshop in India | | | |
| Training School | | | |
| Total | | | |

- Please quantified list out consumable items
- Full justification should be given for each budget head
- Please note that failing to provide quantified list of consumables and full justification, the support for consumables would not be considered by the evaluation Committee.

A. Signatures of the Nodal Partners

| Indian | | |
|-------------|-----------|------|
| Name | Signature | Date |
| | | |
| | | |
| ▶ Indian | | |
| Name | Signature | Date |
| | | |
| | | |
| | | |
| | | |
| | | |
| Korean PI | | |
| Name | Signature | Date |
| | | |
| | | |
| ► Korean PI | | |
| | | |
| Name | Signature | Date |

B. Signatures of the Focal Coordinators & Institutions

| Indian | | |
|---------|-----------|------|
| Name | Signature | Date |
| | | |
| | | |
| ▶Korean | | |
| Koleali | | |
| Name | Signature | Date |

- C. Declaration from the Heads of the Focal Collaborating Institutions It is certified that
 - i) the Institutions agree to participate in this Joint Research Project;
 - ii) the Institutions shall provide necessary facilities for implementing the Joint Research Project;
 - iii) the Institutions assume financial & other management responsibilities for the duration of the project to be carried out at their institution; and
 - iv) the back-up funding for manpower, consumable etc. is available for this Joint Research Project.

Signature of the Heads of the Institutions

| Head of the Indian Institution | | | | |
|--------------------------------|-------------|------|--|--|
| Name | Signature | Date | | |
| | | | | |
| ►Head of the Korean | Institution | | | |
| Name | Signature | Date | | |