

**MEMORANDUM OF UNDERSTANDING FOR INSTITUTIONAL  
COLLABORATION  
BETWEEN  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR (IITKGP),  
AND  
EUROPEAN SPALLATION SOURCE (ESS), SWEDEN**

**Preamble**

**Indian Institute of Technology Kharagpur (IITKGP)** is a reputed institution of higher learning situated at Kharagpur, India, 721302

**The European Spallation Source (ESS)** is a European Research Infrastructure Consortium (ERIC), a multi-disciplinary research facility based on the world's most powerful neutron source. This will be achieved with a proton accelerator and Tungsten Target. Accelerator is based on RF Superconducting cavity. Cryogenics are to cool the cavities below 4.2 K and neutron speed is moderated by liquid Hydrogen.

IITKGP and ESS, Sweden have agreed for institutional collaboration in education, Training and research in the field of Cryogenic Engineering and Superconductivity. The primary objective is to promote interaction and collaboration in the field of Cryogenic Engineering and Superconductivity between faculty, staff and students of the two institutions through visits and exchange programmes, carry out joint academic and research programmes on a reciprocal basis. The relationship also aims at enhancing the technological, social and cultural relations of both countries/states/regions. This document presents a general framework for such a relationship. It also includes some specifically identified areas of cooperation, which may be updated from time to time.

**Coordination**

**Prof. J G Weisend II, Deputy Head of Accelerator Projects** shall be the Coordinator from European Spallation Source (ESS), Sweden and **Professor Parthasarathi Ghosh**, Cryogenic Engineering Centre and **Professor T.S Datta, Visiting Professor** at Cryogenic Engineering Centre shall be the Coordinator from IITKGP. The participants and Coordinators may change from time to time as decided by appropriate authority of the respective institutions.

**Scope of Cooperation**

The following areas of cooperation have been identified under this MoU.

- (i) **Faculty/ Scientist exchange programme:** The two parties will explore opportunities for interaction among members of faculty/ Engineer/ Scientist. The total duration of visits from each side is expected to be approximately equal. Each such visit shall require approval of the respective institutions.

- (ii) Student exchange programme: The two parties agree to participate in student exchange programme at the respective institutions. Visits under such programmes may be for a short duration, such as summer/winter terms or short courses, or for a project work longer duration not exceeding two semesters. For visits exceeding two semesters separate approvals will be needed. Scientists/ Engineer from ESS, Sweden will be encouraged to participate on attending course at Cryogenic Engineering Centre.
- (iii) Joint academic activities and events: IITKGP and ESS ( Sweden) may formulate joint academic activities such as short course, seminars, workshops or conferences based on mutual interests and available expertise in both the institutions.
- The areas of cooperation may be revised by mutual consent. However, specific programmes may require separate agreements detailed out and documented as annexures to this MoU.

### **Non-discrimination**

IITKGP and ESS, Sweden agree not to discriminate against any person because of age, sex, national origin, race, ancestry, color, religious creed disability or handicap, and sexual orientation. Neither institution shall impose criteria for the exchange of faculty, staff and students that would violate the principles of non-discrimination.

### **Code of Conduct**

Visiting student and faculty will abide by the codes of conduct of the host Institution..

### **Intellectual Property**

Each institution will adhere to the intellectual laws of its nation. Intellectual Property developed during the visit of an exchange student/researcher/faculty/staff will be governed by the rules of the host institute unless otherwise specified.

Any Background Intellectual Property (BGIP) shall remain the sole and exclusive property of the Party to whom it belonged prior to the commencement of this MoU. If one Party receives any BGIP from the partner under a clearly defined non-disclosure agreement, necessary and reasonable care will be taken to protect the intellectual property received.

The two institutions shall jointly own results and Intellectual Property generated thereof for clearly defined collaborative projects and exchange programmes. This joint ownership of Jointly Developed Intellectual Property (JDIP) also entitles each party to explore commercialization. However, transfer or sale of JDIP and associated sharing of revenue shall be governed by a separate agreement.

### **Financing**

Both institutes will consider tuition fee waivers to the visiting students. The host institute will make arrangements for local living including accommodation, food, insurance etc. at reasonable costs to visiting students and faculty. All travel costs shall be borne by the visitors or their home

institution. Additional support, if any, will be governed by separate agreements that may be drawn up for specific activities.

### Legal Status

This document is a statement of intent to foster genuine and mutually beneficial cooperation and is not legally binding on both the parties. Any disputes shall be resolved through mutual discussion.

### Validity and Termination

This MoU is valid for an initial period of five years and becomes effective from the date it is signed by the partners. The faculty coordinators of the MoU from both sides shall conduct a 6-month review of activities engendered under the MoU, typically around January and July every year after it is signed.


The partnership period may be extended by mutual consent.

This agreement may be terminated:

- a. on either party giving the other party 6 months' prior written notice;
- b. on written notice by one of the Parties if the other Party has committed a breach of this MoU.

However, specific commitments made prior to such intimation shall be honoured by both the partners including ensuring that any student at that time participating in the Programme is able to complete the term of the assignment and be assessed for it.

  
-----  
Dr. Kevin Jones  
Technical Director  
European Spallation Source  
  
Sweden  
  
Date: 2021.10.16.....

  
-----  
Prof. Jayanta Mukhopadhyay  
Dean Outreach  
Indian Institute of Technology Kharagpur  
  
Kharagpur, India  
  
Date: 08.10.2021.....