

**MEMORANDUM OF UNDERSTANDING  
BETWEEN**

**Homi Bhabha National Institute**, a Trust registered under the Bombay Public Trusts Act, 1950 and a deemed to be university, having its office at 2nd floor, BARC Training School Complex, Anushaktinagar, Mumbai, - 400 094, represented by its Registrar, (hereinafter referred to as "HBNI") which expression shall unless it is repugnant to the context or meaning thereof, include its representatives, nominees, affiliates, and/or assigns of HBNI, its Constituent Institutions (hereinafter referred to as CIs) and Off Campus Centre (OCC) of HBNI, of the **FIRST PART**

**AND**

**Indian Institute of Science**, a Trust registered under the Charitable Endowments Act of 1890 and a centrally funded Technical Institution, a Deemed to be university and an autonomous body funded by Ministry of Education, Government of India and having its Registered Office at Sir. C. V. Raman Road, Bengaluru, Karnataka – 560 012, represented by its Registrar, (hereinafter referred to as "IISc") which expression shall unless it is repugnant to the context or meaning thereof, include its representatives, nominees, affiliates, and/or assigns of IISc, of the **SECOND PART**;

**1. Preamble**

The Indian Institute of Science (hereinafter referred to as IISc), is a premier institution dedicated to the research, teaching and application of science and engineering. The Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy ("DAE"), Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), (Prayagraj)
- i. Pata Memorial Centre (TMC), Mumbai



- j. Institute of Mathematical Science IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at S.No. (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the longstanding collaboration and cooperation between IISc and some of the CIs/OCC of HBNI, while continuing the existing programmes as of present, there is a scope of further expansion of the existing collaboration and cooperation, IISc and HBNI, collectively referred to as “Partner Institutes” or “Parties” and individually as “Party”, hereby agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).

## 2. Objective

To create a long-term institutional partnership in education and enhance collaborative research in the areas of mutual interest, both in the extent and scope, by using the medium of research students enrolled in the partner institutes.

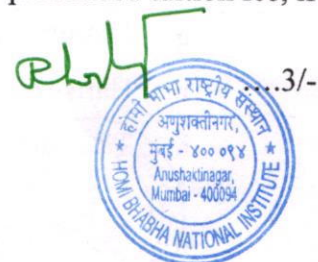
## 3. Modalities of cooperation

3.1 A student registered under a supervisor for Ph.D. in one Partner Institute (hereafter Referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

- a) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student in consultation with Partner Institute.
- b) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean Academic Research (IISc/Dean (HBNI) — as the case may be. This will be as per PhD regulation in vogue in partner Institute.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if





any, for participation of its students in the course work conducted at the Partner Institute, as per rules.

3.4 The exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 A mechanism shall be formulated to identifying research areas of mutual interest of partner Institute.

#### 4. Intellectual Property

Subject to terms and conditions as agreed, information on research results and scientific materials (reports, articles, books) will be exchanged freely keeping in mind the mutually agreed provision of Intellectual Property Rights. All Intellectual Property (Potential IP) solely conceived and/or developed by IISc during the course of this MoU shall be owned by IISc and shall be dealt as per the IP policy of IISc. All intellectual property solely conceived and/or developed by HBNI during the course of this MoU shall be owned by the HBNI and shall be dealt. Intellectual property jointly conceived and/or developed by HBNI and IISc will be jointly owned by HBNI and IISc ("Joint IP"). Each Party may use such property for research and scholarly purposes. HBNI and IISc agree to collaborate towards the protection, if appropriate, and application of such Joint IP for commercial or other purposes on mutually acceptable terms to be negotiated in good faith between the Parties.

#### 5. Confidentiality

Confidentiality: Under this MoU, it may be necessary for one Party to receive information that maybe proprietary and confidential in nature for the other Party. The Parties agree and undertake to keep confidential the confidential information shared, for a period of three (3) years from the date of disclosure by the disclosing party, save where such information is already in the public domain or later becomes part of the public domain through no fault of the receiving Party or is required to be disclosed by any applicable law or regulations, or where the extent of such disclosure is authorized in writing by the other. Neither Party shall use the information of the other Party except to the extent required to enable the performance of this MoU. Both the Parties will strive to ensure that any information generated during the currency of the MoU, will be used for ordinary research and educational purposes only.

#### 6. Term and Termination

This MoU becomes effective from the date it is signed by the Parties and will be valid for a period of five years. The MoU shall be extended by mutual written consent. In case one Party wishes to annul the MoU,



written intent to that effect will have to be communicated. The MoU in that event will cease to be operative from the completion of one month from the date of notice. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

#### 7. Force Majeure

Neither party shall be held responsible for non-fulfilment of their respective obligation under this MoU due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, War, flood, Earthquakes, Strikes(s), Lockouts(s), Epidemics, Riots, Civil Commotions, etc., provided on occurrence and cessation of such events, the party affected by these shall give a notice in writing to the other party within one month of such occurrence and cessation. If the majeure conditions continue beyond six months, the parties shall then mutually decide about the future course of action.

#### 8. Settlement of disputes

If any dispute or difference disagreement arises out of implementation to this MoU will be settled as per Ministry of Law & Justice, Department of Legal Affairs OM No. 334774/DoLA/AMRD/2019 dated 31.03.2020.

9. For implementation of this MoU, the following will be the contact persons.

From HBNI

(i) Dean, HBNI

(ii) Dean Academic of the CI/OCC

From IISc.

(i) Dean, Physical and Mathematical Sciences





## 10. Approval

In MoU with the above terms of participation, the authorized representatives of the **Indian Institute of Science** and HBNI, hereby affix signatures.

Signed on.....26..... day of September , 2023.

For and on behalf of

Homi Bhabha National Institute

Sign.....

Name: **Prof. P. Christopher Selvin**  
Title: Registrar प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR

होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अणुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Witness No. 1



**Suresh Nair**

Dy.Registrar

Homi Bhabha National Institute

Training School Complex

Anushaktinagar, Mumbai 400094



For and on behalf of

Indian Institute of Science

Sign.....

Name: **Capt. Sridhar Warriar (Retd.)**

Title: Registrar श्रीधर वारियर (सेवानिवृत्त)  
Capt. Sridhar Warriar (Retd.)

ಕುಲಸಚಿವರು/ಕುಲಸಚಿವ/REGISTRAR  
ಕಾರ್ಯಾಲಯ: ಬೆಂಗಳೂರು ಸಂಯೋಜನೆ/ಭಾರತೀಯ ವಿಜ್ಞಾನ ಸಂಸ್ಥೆ/INDIAN INSTITUTE OF SCIENCE  
ಬೆಂಗಳೂರು/ಬೆಂಗಳೂರು/BENGALURU - 560 012

Witness No.2



**Prof. Rajesh Sundaresan**

Department of Electrical

Communication Engineering,

Indian Institute of Science,

Bangalore 560012



भारतीय प्रौद्योगिकी संस्थान मुंबई  
पवई, मुंबई-400 076, भारत  
Indian Institute of Technology Bombay  
Powai, Mumbai-400 076, India

दूरभाष/Phone : (+91-22) 2572 2545

फैक्स/Fax : (+91-22) 2572 3480

वेबसाइट/Website : www.iitb.ac.in



Date: 16.01.2023

To  
Prof. P. C. Selvin  
Registrar  
HOMI BHABHA NATIONAL INSTITUTE  
2<sup>nd</sup> Floor, Training School Complex,  
Anushaktinagar, Mumbai-400 094

**Sub. : MoU signed between HBNI and IIT Bombay**

Dear Sir,

An MoU has been signed between "HOMI BHABHA NATIONAL INSTITUTE and IIT BOMBAY" to enhance collaborative research in the areas of mutual interest, both in the extent and scope, by using the medium of research students enrolled in the partner Institutes.

The original signed MoU is being forwarded to you for your records, with a copy to all concerned.

Dean (AP)

**Encl. : Original MoU ( 2 copies )**

Copy to :

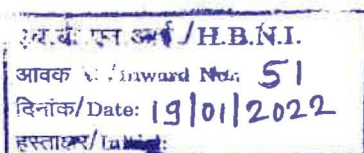
Director  
Dy. Director (AIA)  
Dy. Director (FEA)  
The Registrar (Original Copy)  
Dy. Registrar (Academic)

one original MoU was  
handed over to PS to VC  
on 20/01/2023

*Handwritten signature*  
20/01/2023

*Handwritten initials and date*  
HS  
20/01/23

*Handwritten initials and date*  
To  
AO III  
PS  
19/1/23





**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY**

**1. Preamble**

The Indian Institute of Technology, Bombay (hereinafter referred to as IIT, Bombay), is a premier educational Institution in Science, Engineering and Technology and the Homi Bhabha National Institute (hereinafter referred to as HBNI) is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), (Prayagraj)
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the long standing collaboration and co-operation between Indian Institute of Technology, Bombay and some of the CIs of HBNI through programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under five year plan; pursuit of M.Tech. provided the fulfill eligibility criteria set by IITB under the DAE Graduate Fellowship Scheme (DGFS) wherein the candidates assigned for employment in some of the CIs of HBNI study in IIT, including IITB, and carry the projects under the joint supervision of the faculty from the IITs and the scientists from the CIs/OCC of HBNI; lectured by IITB faculty at BARC Training School and by BARC scientists at IITB, and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiatives such as pursuit of research leading to Ph.D. by employees of BARC and some other CIs/OCC under the external registration programme of Indian Institute of Technology, Bombay and

*M. V. J.*

*[Signature]*

co-supervision of Ph.D. students at Indian Institute of Technology, Bombay by the scientists of BARC and the faculty of Indian Institute of Technology, Bombay, and

RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, Indian Institute of Technology, Bombay and HBNI, collectively referred to as "Partner Institutes"

HEREBY agree to create a long-term institutional partnership in education and research, including the possibility of enhanced funding from Board of Research in Nuclear Sciences (BRNS), a body under DAE, in the areas of mutual interest according to the broad framework set forth in this Memorandum of Understanding (MoU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in the extent and scope, by using the medium of research students enrolled in the partner Institutes.

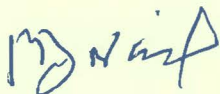
## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for Ph.D. in one Partner Institute (hereafter Referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

- 1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.
- 2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean Academic Research (Indian Institute of Technology, Bombay) / Dean (HBNI) — as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.





3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 Indian Institute of Technology, Bombay will continue interactions with the CIs/OCC of HBNI towards identifying and pursuing research programmes that could lead to award of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the Collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 The MoU shall be further renewed based on an annual review to take stock of the joint academic activities and potential for expansion.

4.3 For implementation of this MoU, the following will be the contact persons

- From HBNI - Dean, HBNI
- From IITB - Dean (Academic Programmes)

**Signed on 30<sup>th</sup> day of December, 2022**

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI

**प्रो. पी. डी. नाईक / Prof. P. D. NAIK**

**कुलपति (कार्यवाहक) / Vice Chancellor (Officiating)**

**हो. भा. रा. सं. / HBNI**

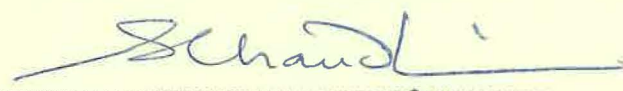
Witnessed by



Registrar, HBNI

For and on behalf of

Indian Institute of Technology, Bombay



Director,

Indian Institute of Technology, Bombay

Witnessed by



Dean (Academic Programmes),  
Indian Institute of Technology, Bombay

RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
**HOMI BHABHA NATIONAL INSTITUTE**  
AND  
**INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR**

The Homi Bhabha National Institute (HBNI), Mumbai, India and the INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR signed a memorandum of understanding on 22.12.2017 and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.

2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from 22.12.22. All the clauses of the initial MoU remain unchanged.

**IN WITNESS HEREOF**, the duly authorized representatives of both the institutions agrees to the provisions of this document.

Signed on 08 day of January, <sup>2024</sup> 2023.

For and on behalf of  
**Homi Bhabha National Institute**



प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अनुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094



Witnessed by



सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अनुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

For and on behalf of



प्रो. वीरेन्द्र के. तिवारी  
Prof. Virendra K. Tewari  
निदेशक  
Director  
भारतीय प्रौद्योगिकी संस्थान खड़गपुर  
Indian Institute of Technology Kharagpur  
खड़गपुर - 721302, भारत  
Kharagpur - 721302, India

Witnessed by



प्रो. कृष्ण कुमार / Prof. Krishna Kumar  
संकायाध्यक्ष, विज्ञान संकाय  
Dean, Faculty of Sciences  
भारतीय प्रौद्योगिकी संस्थान खड़गपुर  
Indian Institute of Technology Kharagpur



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR**

**1. Preamble**

The Indian Institute of Technology, Kharagpur (hereafter referred to as IITKGP) is a premier educational institution in science and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)

RECOGNISING the long standing collaboration and cooperation between IITKGP and some of the CIs of HBNI through programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under five year plans projects or other relevant MoUs pursuant of M.Tech. provided they fulfill eligibility criteria set by IITKGP under the DAE Graduate Fellowship Scheme (DGFS) wherein the candidates assigned for employment in some of the CIs of HBNI study in an IIT, including IITKGP, and carry out the projects under the joint supervision of the faculty from the IITs and the scientists from the CIs/OCC of HBNI; lectures by IITKGP faculty at DAE establishments and by CI/OCC scientists/faculty at IITKGP, and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees CI/OCC under the external registration programme of IITKGP and co-supervision of Ph.D. students at IITKGP by the scientists/faculty of CIs/OCC and the faculty of IITKGP, and

RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, IITKGP and HBNI, collectively referred to as "Partner Institutes"

HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

- 1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.
- 2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean PGS&R/Dean (HBNI) – as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 IIT KGP will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

## **4. Implementation**

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled



4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI –
  - (i) Dean, HBNI
  - (ii) Dean Academic of the CI/OCC
- From IITKGP – Dean, PGS&R

Signed on .....22..... day of December, 2017

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI

For and on behalf of

Indian Institute of Technology, Kharagpur



Director, IIT, Kharagpur

Witnessed by



Dean, HBNI

Witnessed by



Dean PGS&R, IIT Kharagpur

RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
**HOMI BHABHA NATIONAL INSTITUTE**  
AND  
**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**

The Homi Bhabha National Institute (HBNI), Mumbai, India and the Indian Institute of Technology, Kanpur signed a memorandum of understanding on 20.2.2018 and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.

2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from 20.02.2023. All the clauses of the initial MoU remain unchanged.

**IN WITNESS HEREOF**, the duly authorized representatives of both the institutions agrees to the provisions of this document.

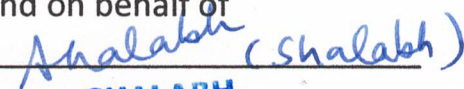
Signed on 26<sup>th</sup> day of December, 2023.

For and on behalf of  
**Homi Bhabha National Institute**

  
प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अणुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094



For and on behalf of

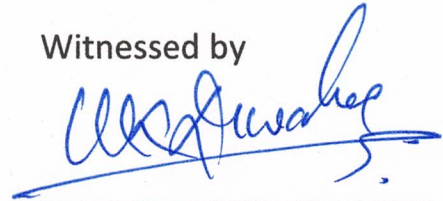
  
**SHALABH**  
DEAN, ACADEMIC AFFAIRS  
INDIAN INSTITUTE OF TECHNOLOGY  
KANPUR - 208016, INDIA

Witnessed by



सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Witnessed by



**M. K. DIWAKAR**  
Joint Registrar  
Academic Affairs  
IIT Kanpur



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INDIAN INSTITUTE OF TECHNOLOGY KANPUR**

**1. Preamble**

The Indian Institute of Technology, Kanpur (hereafter referred to as IITK) is a premier educational institution in science and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units and grant-in aid Institutions of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

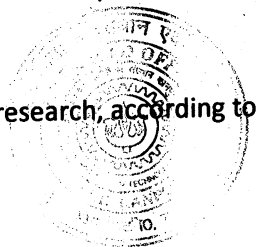
1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)

RECOGNISING the long standing collaboration and co-operation between IITK and some of the CIs of HBNI through programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under five year plans projects or other relevant MoUs pursuant of M.Tech. provided they fulfill eligibility criteria set by IITK under the DAE Graduate Fellowship Scheme (DGFS) wherein the candidates assigned for employment in some of the CIs of HBNI study in an IIT, including IITK, and carry out the projects under the joint supervision of the faculty from the IITs and the scientists from the CIs/OCC of HBNI; lectures by IITK faculty at DAE establishments and by CI/OCC scientists/faculty at IITK, and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees CI/OCC under the external registration programme of IITK and co-supervision of Ph.D. students at IITK by the scientists/faculty of CIs/OCC and the faculty of IITK, and

RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, IITK and HBNI, collectively referred to as "Partner Institutes"

HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).



## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the Partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other Partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean Academic Affairs (IITK)/Dean (HBNI) – as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

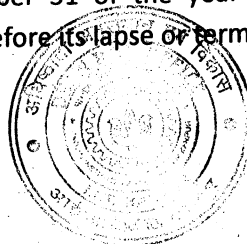
3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 IITK will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the Institutes.

## **4. Implementation**

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The MoU may be extended by mutual consent in writing. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.





4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI  
(ii) Dean Academic of the CI/OCC
- From IITK – Dean (Academic Affairs)

Signed on 20<sup>th</sup> day of Feb 2018

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI 20/2/18

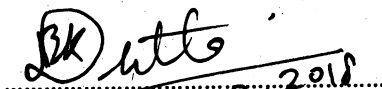
For and on behalf of

Indian Institute of Technology, Kanpur



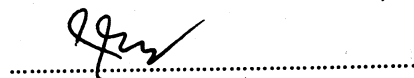
Director 20/2/18

Witnessed by

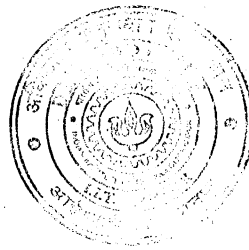


Dean, HBNI 20.2.2018

Witnessed by



DORD, IITK



RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS, CHENNAI

1. The Homi Bhabha National Institute (HBNI), Mumbai and the Indian Institute of Technology Madras, Chennai signed a memorandum of understanding on 02.11.2018 and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.
2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from 02.11.2023. All the clauses of the initial MoU remain unchanged.

**IN WITNESS HEREOF**, the duly authorized representatives of both the institutions agrees to the provisions of this document.

Signed on 29<sup>th</sup> day of July, 2024,

For and on behalf of  
**Homi Bhabha National Institute**



Prof. U. Kamachi Mudali

Vice Chancellor

Witnessed by



प्रो. ए. के. त्यागी / Prof. A. K. Tyagi  
डीन / Dean  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशांतिनगर, मुंबई - ४०० ०१४  
Training School Complex, Anushanti Nagar, Mumbai - 400 004

For and on behalf of  
**Indian Institute of Technology Madras**



Prof. V. Kamakoti

Director

Witnessed by



डीन, शैक्षणिक पाठ्यक्रम  
Dean, Academic Courses  
भारतीय प्रौद्योगिकी संस्थान मद्रास  
Indian Institute of Technology Madras  
चेन्नई / Chennai 600 036



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS**

**1. Preamble**

The Indian Institute of Technology Madras (hereafter referred to as IITM) is a premier educational institution in science, engineering and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), Allahabad
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at S.No. (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the long standing collaboration and co-operation between IITM and some of the CIs of HBNI through academic programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under five year plans projects or other relevant MoUs pursuant of the M.Tech courses, provided they fulfill the eligibility criteria set by IITM under the DAE Graduate Fellowship Scheme (DGFS). The candidates thereby are assigned for employment in some of the CIs of HBNI for study in an IIT, including IITM, and carry out the projects under the joint supervision of the faculty from the IITs and the scientists from the CIs/OCC of HBNI. In addition the lectures by IITM faculty at DAE establishments and by CI/OCC scientists/faculty at IITM are made available for the academic programmes; and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees CI & OCC under the external registration programme of IITM and co-supervision of Ph.D. students at IITM by the scientists/faculty of CIs/OCC and the faculty of IITM, and



RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, IITM and HBNI, collectively referred to as "Partner Institutes"

BOTH HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in the extent and scope, by using the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for M.Tech/MS/Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

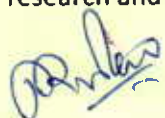
2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean Academic Research (IITM)/Dean (HBNI) — as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 IITM will continue interactions with the Cis of HBNI towards identifying and pursuing research programmes that could lead to award of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint





supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI

(i) Dean, HBNI

(ii) Dean Academic of the CI/OCC

From IITM — Dean (Academic Research)

Signed on 02..... day of November 2018

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI

For and on behalf of

Indian Institute of Technology, Madras



Director, IIT Madras

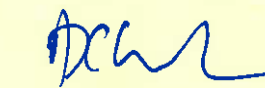
निदेशक / Director  
भारतीय प्रौद्योगिकी संस्थान मद्रास  
Indian Institute of Technology Madras

Witnessed by



Dean, HBNI

Witnessed by



Prof. A. K. Mishra

Dean (Academic Research), IIT Madras

MEMORANDUM OF UNDERSTANDING

BETWEEN

HOMI BHABHA NATIONAL INSTITUTE

AND

INDIAN INSTITUTE OF TECHNOLOGY INDORE

**1. Preamble**

The Indian Institute of Technology Indore (hereafter referred to as IITI) is a premier educational institution in science, engineering and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic activities and programs, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai.
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IOP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), Allahabad
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Sciences (IIMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The Institutions at S. No. (a) to (j) are the CIs and (k) is the OCC.

Recognising, the long standing collaboration and co-operation between IITI and some of the CIs of HBNI through academic programs such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under five year plans projects or other relevant MoUs pursuit of the M.Tech courses, provided they fulfill the eligibility criteria set by IITI under the DAE Graduate Fellowship Scheme (DGFS). The candidates thereby are assigned for employment in some of the CIs of HBNI for study in an IIT, including IITI, and carry out the projects under the joint supervision of the faculty from the IITs and the scientists from the CIs/OCC of HBNI. In addition the lectures by IITI faculty at DAE establishments and by CI/OCC scientists/faculty at IITI are made available for the academic programs; and

  
09/01/2020

  
16/01/2020



Recognising that certain collaborative programs are ongoing because of individual initiative such as pursuit of research leading to Ph.D by employees CI and OCC under the external registration program of IITI and co-supervision of Ph.D students at IITI by the scientists/faculty of CIs/OCC and the faculty of IITI, and

Recognising that, in view of the establishment of HBNI, while continuing the existing program as of present, there is scope of further expansion of the existing collaboration and cooperation, IITI and HBNI, collectively referred to as "Partner Institutes"

Both hereby agree to create a long-term institutional partnership in education and research, according to the broad frame work set forth in this Memorandum of Understanding (MoU).

## 2. Objective

To enhance collaborative research in the areas of mutual interest, both in the extend and scope, by using the medium of research students enrolled in the partner institutes.

## 3. Modalities of cooperation

3.1 A student registered under a supervisor for M.Tech/Ph.D in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer, in particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.


2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean, Academic Affairs (IITI)/Dean (HBNI)- as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lecture and research for short periods shall be further strengthened.

3.5 IITI will continue interactions with the CIs of HBNI towards identifying and pursuing

  
09/01/2020

  
16/01/2020

research program that could lead to aware of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI  
(ii) Dean, Academic of the CI/OCC
- From IITI-Dean (Academic Affairs)

Signed on 16<sup>th</sup> day of January 2020.

For and on behalf of

For and on behalf of



Vice Chancellor, HBNI

प्रो. पी.आर. वासुदेव राव / Prof. P.R. Vasudev Rao  
कुलपति / Vice Chancellor  
होमी भाभा राष्ट्रीय संस्थान

Witnessed by  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशक्तिनगर, मुंबई - 400094.  
Training School Complex,  
Anushaktinagar, Mumbai-400094.



Dean HBNI

प्रो. पी. डी. नाईक / Prof. P. D. Naik  
डीन, होमी भाभा राष्ट्रीय संस्थान  
Dean, Homi Bhabha National Institute  
प्रशिक्षण विद्यालय भवन, अणुशक्तिनगर, मुंबई - 400 094  
Training School Complex, Anushaktinagar, Mumbai - 400 094



Director, IIT, Indore

निदेशक/DIRECTOR  
भारतीय प्रौद्योगिकी संस्थान  
Indian Institute of Technology  
इंदौर/INDORE

Witnessed by



Dean (Academic Affairs), IIT, Indore



**MEMORANDUM OF UNDERSTANDING  
FOR ACADEMIC COOPERATION  
BETWEEN  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
AND  
HOMI BHABHA NATIONAL INSTITUTE, MUMBAI**

Indian Institute of Technology Roorkee (referred as IITR henceforth), Uttarakhand, India, and Homi Bhabha National Institute (referred as HBNI henceforth), Mumbai, Maharashtra, India, a newly established institute under the aegis of the Department of Atomic Energy (referred as DAE henceforth), Government of India recognize their strengths in research and education in one or more disciplines of Science and Engineering and their mutual interest in engaging themselves in academic cooperation. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI.

**Constituent Institutions (CIs)**

1. Bhabha Atomic Research Centre (BARC), Mumbai;
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam;
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore;
4. Variable Energy Cyclotron Centre (VECC), Kolkata;
5. Saha Institute of Nuclear Physics (SINP), Kolkata;
6. Institute of Plasma Research (IPR), Gandhinagar;
7. Institute of Physics (IoP), Bhubaneswar;
8. Harish-Chandra Research Institute (HRI), Allahabad;
9. Tata Memorial Centre (TMC), Mumbai;
10. Institute of Mathematical Science (IMSc), Chennai.

**Off Campus Centre (OCC)**

1. National Institute of Science Education and Research (NISER).

Therefore, IITR and HBNI, collectively referred to as “partner Institutes” to establish a programme for academic cooperation in areas of mutual interest, and in accordance with terms and conditions set forth in this memorandum of understanding (MoU).



## **A. OBJECTIVES**

The goal of this cooperation is to foster collaboration, and to facilitate advancement of knowledge on the basis of reciprocity, best effort, mutual benefit, and frequent interactions, IITR and HBNI agree:

- a) to exchange information on research and educational programmes,
- b) to exchange information on teaching, learning material and other literature relevant to their educational and research programmes,
- c) to jointly organize short-term continuing education programmes, seminars, conferences, workshops on topics of mutual interest to invite each other's faculty / scientists to participate therein,
- d) to jointly propose and engage in research or training programmes sponsored by funding agencies, and to invite each other's faculty to participate therein,
- e) to exchange on a reciprocal basis, students for limited periods of time for purpose of education and/or research.

IITR and HBNI agree that detailed terms and conditions that guide each activity identified above will be separately determined and agreed upon by the two institutions. These terms shall include a technical description of proposed activity, financial arrangements, and person(s) responsible for its implementation, etc.

## **B. JOINT SPONSORED RESEARCH, DEVELOPMENT AND CONSULTANCY**

IITR and HBNI agree to help identify and invite faculty members / Scientists from the other institution to participate in research or development programmes already sponsored by external funding agencies. The terms and conditions for such participation will be worked by mutual agreement between the faculty member(s) and the institution extending such an invitation.

HBNI agrees to host scientific instrument(s) from IITR on the best effort basis for mutual benefits of faculties and students of both the institutions.

IITR also agrees to host scientific instrument(s) from HBNI on the best effort basis for mutual benefits of faculties and students of both the institutions.

## **C. EXCHANGE OF FACULTY, SCIENTISTS AND STUDENT**

IITR and HBNI agree to encourage collaboration between faculty and scientists from the two institutions. The terms and conditions for each visit or an assignment, including those concerning stipend, travel, and housing, will be worked out between the concerned faculty member and the institution extending an invitation.

Notwithstanding the above, IITR and HBNI will examine ways to identify financial resources to fund international travel by their faculty/scientists/students.

IITR and HBNI agree that student exchange will be guided by principles listed below. A home institution refers to the institution where a student is a full-time student, and from where he/she is expected to graduate. A host institution refers to an institution that receives a student for a brief period of time to undertake a pre-determined programme of study or research.

- a) The period of study of the exchange students shall be a maximum of one (1) year in principle.
- b) Exchange students will be selected by mutual agreement between the home institution and the host institution.
- c) If an exchange student has undertaken research, then the host institution will evaluate the exchange student's performance in the research, and issue a letter to that effect, together with a technical "report" of the research carried out.
- d) If an exchange student has undertaken research, then the home institution will take note of the performance evaluation and the technical report, and take steps in accordance with its own procedures.
- e) A student registered under a supervisor for M. Tech. / Ph.D. in one partner Institute (hereinafter referred to as parent Institute) should have a co-supervisor from the other Partner institute. To that end, the supervisor from the parent Institute of the student will identify and seek concurrence of a faculty member from the partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.
- f) The PhD students in one partner institute may carry a part of the course work in the other partner institute with credit transfer. In particular, the courses to be credited to the student for attending a course in the partner institute will be determined by the parent Institute of the student. To facilitate the process of a student attending a course in the partner Institute, the supervisor of the student in the parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean, Academic Affairs (IITR) / Dean (HBNI) - as the case may be.
- g) The students shall pay the tuition fee, if any, either in the parent or the partner Institute.

#### **D. EXCHANGE OF SCIENTIFIC AND TECHNICAL MATERIAL**

IITR and HBNI exchange information on research and educational programmes and teaching/learning material and other literature relevant to their educational and research programmes. Further, IITR and HBNI agree to explore ways to share teaching/learning material, and other relevant literature, while respecting each other's intellectual property and other rights.

#### **E. JOINT CONFERENCES, WORKSHOPS AND SHORT-TERM COURSES**

IITR and HBNI agree to help identify and invite faculty members from the other institution to participate in conferences, workshops and short-term courses. The terms and conditions for such participation will be worked out by mutual agreement between the invited faculty member(s) and the institution extending such an invitation.

When a faculty member visits the other institution on invitation or as part of such joint activity, then such a visit will be classified as such, and handled as per rules of individual institution.

#### **F. INTELLECTUAL PROPERTY**

IITR and HBNI agree to respect each other's rights to intellectual property. Further, the Intellectual Property Rights (IPR) that arises as a result of any collaborative research or activity under this MoU will be worked out on a case-to-case basis, and will be consistent with officially laid down IPR policies of the two institutions.

#### **G. CO-ORDINATION**

Each institution shall appoint one member of its teaching/research faculty to coordinate the programme on its behalf. Further, a coordination committee, consisting of (a) Director, IIT Roorkee, or his/her nominee, (b) Vice-Chancellor, HBNI or his/her nominee, (c) Program coordinator from the side of IITR, and (d) Programme Coordinator from the side of HBNI, will periodically review and identify ways to strengthen cooperation between the two institutions.

#### **H. TENURE AND TERMINATION**

This MoU will take effect from the date it is signed by representatives of the two institutions. It will remain valid for five years, and may be continued thereafter after suitable review and agreement.

Either institution may terminate the MoU by giving written notice to the other institution three (03) months in advance. Once terminated, neither IITR nor HBNI will be responsible for any losses, financial or otherwise, which the other institutions may suffer. However, IITR and HBNI will ensure that all activities in progress are allowed to complete successfully.

#### **I. ARBITRATION CLAUSE**

Should there be a dispute relating to any aspect of academic cooperation, Director, IITR and Vice-Chancellor, HBNI will jointly resolve the dispute in a spirit of independence, mutual respect, and shared responsibility.



- (i) The Agreement shall be executed in two counterparts, each of which shall be deemed as original but all of this together shall constitute one and the same instrument.
- (ii) These terms and conditions and the Agreement shall be governed by the laws of India with Courts in New Delhi having jurisdiction. All disputes arising out of or in connection with this Agreement shall be resolved by arbitration, to be conducted by a sole arbitrator mutually selected by the Parties. If the Parties are unable to agree on a single arbitrator, then each Party shall choose one arbitrator, both of whom shall together choose a third arbitrator. The arbitration proceedings shall be conducted as per the provisions of the Indian Arbitration and Conciliation Act, 1996. The venue for such arbitration shall be New Delhi.
- (iii) These terms and conditions and the Agreement shall be governed by the laws of India with Courts in New Delhi having jurisdiction to hear and resolve any disputes under the Agreement.

Signed for

Indian Institute of Technology  
Roorkee, Uttarakhand, India



PROF. AJIT K. CHATURVEDI  
Director

Signed for

Homi Bhabha National Institute,  
Mumbai, Maharashtra, India



PROF. P. R. VASUDEVA RAO  
Vice-chancellor



कुलशासक (शैक्षणिक अफेयर्स)  
Dean of Academic Affairs  
भारतीय प्रौद्योगिकी संस्थान, रुड़की  
Indian Institute of Technology Roorkee  
रुड़की / Roorkee - 247 667 (U.K.)


Witness: PROF. APURBBA K. SHARMA



Witness: PROF. MANISH SHRIKHANDE

कुलशासक/Dean  
प्रायोजित शोध एवं औद्योगिक परामर्श  
Sponsored Research & Ind. Consultancy  
भा. प्रौ. सं. रुड़की/I.I.T. Roorkee-247667

Date: 16-Dec-2021



प्रो. पी. डी. नाईक / Prof. P. D. Naik  
डीन, होमी भाभा राष्ट्रीय संस्थान  
Dean, Homi Bhabha National Institute  
प्रशिक्षण विद्यालय भवन, अणुशक्तीनगर, मुंबई - 400 094  
Training School Complex, Anushaktinagar, Mumbai - 400 094

Witness:

Witness:



प्रो. डी. ए. माल्टी / Prof. D. R. Malty  
सह डीन / Associate Dean  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute

Date:

21-Dec-2021  
प्रशिक्षण विद्यालय परिसर, अणुशक्तीनगर, मुंबई-४०००९४.  
Training School Complex, Anushaktinagar, Mumbai - 400 094



RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
INSTITUTE OF CHEMICAL TECHNOLOGY

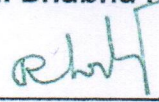
The Homi Bhabha National Institute (HBNI), Mumbai, India and the Institute of Chemical Technology, Mumbai signed a memorandum of understanding on 21.7.2018 and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.

2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from 21.7.2023. All the clauses of the initial MoU remain unchanged.

IN WITNESS HEREOF, the duly authorized representatives of both the institutions agrees to the provisions of this document.

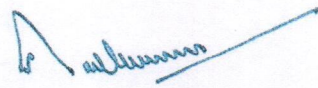
Signed on 27<sup>th</sup> day of July, 2023.

For and on behalf of  
Homi Bhabha National Institute

  
प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अनुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094



Witnessed by

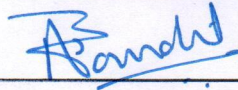


सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute

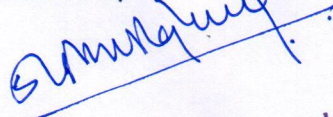
प्रशिक्षण विद्यालय परिसर, अनुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094



For and on behalf of  
INSTITUTE OF CHEMICAL TECHNOLOGY

  
VICE CHANCELLOR  
Institute of Chemical Technology  
(University under Section-3 of UGC ACT OF 1956)  
N. P. Marg, Matunga, Mumbai - 400 019.

Witnessed by



Prof. (Dr.) Ravindra V. Adivarekar  
Professor of Fibre Chemistry  
Department of Fibres & Textile Processing Technology,  
INSTITUTE OF CHEMICAL TECHNOLOGY  
Nathalal Parekh Marg,  
Matunga, Mumbai - 400 019, India  
Ph.: 022-33611111 Ext. 2811  
Email : rv.adivarekar@ictmumbai.edu.in



**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**HOMI BHABHA NATIONAL INSTITUTE**  
**AND**  
**INSTITUTE OF CHEMICAL TECHNOLOGY**

**1. Preamble**

The Institute of Chemical Technology, Mumbai (hereafter referred to as ICT) is a premier educational institution in Chemical Engineering, Chemical Technology and Pharmacy, and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

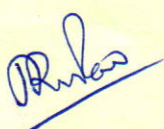
**Constituent Institutions (CIs)**

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of physics (IOP), Bhubaneswar
8. Harish Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar. (OCC)

RECOGNISING that the long standing collaboration and cooperation between ICT and some of the CIs of HBNI are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees CI/OCC under the external registration programme of ICT and co-supervision of Ph.D. students at ICT by the scientists/faculty of CIs/OCC and the faculty of ICT, and

RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, ICT and HBNI, collectively referred to as "Partner Institutes"

HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).





## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.1 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

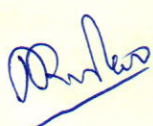
- 1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.
- 2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean (Academic Programme) ICT/Dean (HBNI) – as the case may be.

3.2 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.3 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.4 ICT will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.5 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.





#### 4 Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled

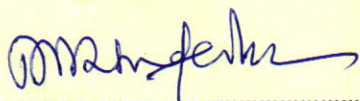
4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI
- From HBNI (ii) Dean Academic of the CI/OCC, HBNI
- From ICT – (i) Dean (Academic Programmes)

Signed on ..... day of .....

For and on behalf of

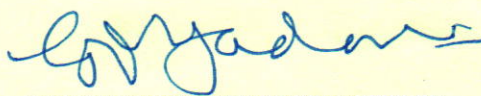
Homi Bhabha National Institute



.....  
Vice Chancellor, HBNI

For and on behalf of

Institute of Chemical Technology



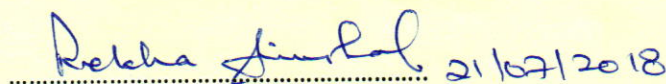
.....  
Vice Chancellor, ICT

Witnessed by



.....  
Dean, HBNI

Witnessed by



.....  
Dean (Research, Consultancy and Resource Mobilization)

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
CHENNAI MATHEMATICAL INSTITUTE**

**1. Preamble**

The Chennai Mathematical Institute (hereinafter referred to as CMI), is a premier educational Institution in science, engineering and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), (Prayagraj)
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at S.No. (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the long standing collaboration and co-operation between Chennai Mathematical Institute and some of the CIs of HBNI through academic programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under plan projects, or through lectures / courses by Chennai Mathematical Institute faculty at DAE establishments and by CI/OCC scientists/faculty at Chennai Mathematical Institute; and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiatives such as pursuit of research leading to Ph.D. by employees CI & OCC under the external registration programme of Chennai Mathematical Institute and co-supervision of Ph.D. students at Chennai Mathematical Institute by the scientists/faculty of CIs/OCC and the faculty of Chennai Mathematical Institute, and



RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, Chennai Mathematical Institute and HBNI, collectively referred to as “Partner Institutes”

BOTH HEREBY agree to create a long-term institutional partnership in education and research, According to the broad framework set forth in this Memorandum of Understanding (MoU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in the extent and scope, by using the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for Ph.D. in one Partner Institute (hereafter Referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

- 1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.
- 2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean Academic Research (Chennai Mathematical Institute) /Dean (HBNI) — as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 Chennai Mathematical Institute will continue interactions with the CIs/OCC of HBNI towards identifying and pursuing research programmes that could lead to award of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the Collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 The MoU shall be further renewed based on an annual review to take stock of the joint academic activities and potential for expansion.

4.3 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI  
(ii) Dean Academic of the CI/OCC

From **Chennai Mathematical Institute** — Dean (Academic Research)

Signed on.....13<sup>th</sup>..... day of June.....2022

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI, **VASUDEVA RAO**  
कुलपति / Vice Chancellor  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अनुशक्तिनगर, मुंबई - 400094  
Training School Complex,  
Anushaktinagar, Mumbai - 400094.

Witnessed by

**DR. P. C. SELVIN / डॉ. पी. सी. सेल्विन**  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अनुशक्तिनगर, मुंबई - 400 094  
Registrar, HBNI  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

For and on behalf of

Chennai Mathematical Institute



Director, Chennai Mathematical Institute  
**Prof. Madhavan Mukund**  
Director  
Chennai Mathematical Institute  
H1 SIPCOT IT Park, Siruseri,  
Kelambakkam - 603 103. Tamil Nadu, India.

Witnessed by

**S.Sripathy**  
Registrar  
Chennai Mathematical Institute  
H1, Sipcot IT Park,  
Siruseri, Kelambakkam - 603 103.  
Tamilnadu, India  
**S.S. 7**  
Registrar, Chennai Mathematical Institute





पश्चिम बंगाल पश्चिम बंगाल WEST BENGAL

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
JADAVPUR UNIVERSITY**

This MEMORANDUM OF UNDERSTANDING is made on the 5<sup>th</sup> Day of April, 2022.

**BETWEEN**

**HOMI BHABHA NATIONAL INSTITUTE**, a deemed to be University under the aegis of the Department of Atomic Energy, Government of India, having registered Office at Training School Complex, Anushaktinagar, Mumbai – 400 094 and local Office at Dean Academic (Engineering Science), VECC, HBNI, Sector – I, Block – AF, Bidhan Nagar, Kolkata – 700 064, hereinafter referred to as the 'HBNI' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART

**AND**

**JADAVPUR UNIVERSITY**, a body corporate under Jadavpur University Act, 1981 having its Main Campus at 188, Raja S. C. Mallik Road, Kolkata – 700 032, hereinafter referred to as Jadavpur University (which expression shall where the context so admit include its successors and permitted assigns) of the OTHER PART.



  
Registrar  
JADAVPUR UNIVERSITY

  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute



For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs) off Campus Centre (OCC) of HBNI :

Constituent Institutions (CIs)

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gnanndhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research(IPR), Gandhinagar
7. Institute of Physics(IOP), Bhubaneswar
8. Harish Chandra Research Institute (HRI), Alahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai

Off Campus Centre (OCC)

1. National Institute of Science Education And Research (NISER), Bhubaneswar

RECOGNISING the long-standing collaboration and cooperation between Jadavpur University and some of the CIs/OCC of HBNI (For example, School of Nuclear Application and Study at Jadavpur University) and in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, the Jadavpur University and HBNI, collectively referred to as "Partner Institutes".

HEREBY agree to create a long-term institutional partnership in education and research, including the possibility of enhanced funding for collaborative research in areas of mutual interest supported by extramural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, according to the broad framework set forth in this Memorandum of Understanding (MoU).

**1. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope by using the medium of research students enrolled in the Partner Institutes.



  
Registrar  
JADAVPUR UNIVERSITY

  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute

## 2. Modalities of Cooperation

- 2.1. A student registered under a supervisor for M. Sc. (Engg.)/M.E/M.Tech./Ph.D. (Sc.)/Ph.D. (Engg.) in one Partner Institute (hereinafter referred to as Parent Institute) should have a co-supervisor from the other Partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.
- 2.2. The students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer if applicable and in vogue. In particular,
  - a) The credits to be awarded to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student in consultation with the partner institute.
  - b) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student will put up the proposal (in consultation with appropriate academic bodies of the Institute/ Department) to the Dean, Faculty of Engineering and Technology, Jadavpur University/Dean (HBNI) – as the case may be. This will be as per Ph.D. Regulations in vogue in the Partner Institutes.
- 2.3. The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.
- 2.4. The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.
- 2.5. A mechanism shall be formulated to identify the research areas of mutual interest and for possible funding for the same from BRNS.
- 2.6. The issues related with the Intellectual Property Right (IPR) with regard to the outcomes of the collaborative research and the outcomes of project/thesis work carried under the joint supervision of the faculty from the Partner Institutes shall be governed by the IPR regulations of the Government of India.
- 2.7. In case of disputes, initial approach will be to sort that out amicably between the partners, otherwise law of the land will prevail.



### 3. Implementation

3.1. This MoU becomes effective from the later of the dates on which it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

3.2. For implementation of this MoU, the following will be the contact persons :

- From HBNI - (1) Dean, HBNI  
(2) Dean Academic (Engg. Sciences) of the CI.
- From Jadavpur University - (1) Dean, Faculty of Engg. and Technology  
(2) Principal Secretary, F.E.T.

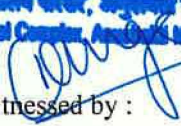
Signed on ..... day of ....., 2022

For and on behalf of  
**Homi Bhabha National Institute**



Registrar  
Homi Bhabha National Institute  
डा. पा. सी. सेल्विन / DR. P. C. SELVIN  
कुलसचिव / REGISTRAR  
होमि भाभा राष्ट्रीय संस्थान  
**HOMI BHABHA NATIONAL INSTITUTE**  
प्रशिक्षण विद्यालय बॉयस, अणुसंशोधन केंद्र, मुंबई - ४०० ०१४  
Training School Campus, Anusandhan Nagar, Mumbai - 400 014

Witnessed by :



For and on behalf of  
**Jadavpur University**



05-04-22

Registrar  
Jadavpur University

**Registrar**  
**JADAVPUR UNIVERSITY**

Witnessed by :



5/4/22

**S. G. SARKAR**  
Joint Registrar  
**JADAVPUR UNIVERSITY**  
KOLKATA - 700 032





**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
JAWAHARLAL NEHRU UNIVERSITY**

**1. Preamble**

The Jawaharlal Nehru University (hereinafter referred to as 'JNU'), is a premier educational Institution in science, engineering and technology and the Homi Bhabha National Institute (hereafter referred to as 'HBNI') is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), Prayagraj
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at S. No. (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the long standing collaboration and co-operation between Jawaharlal Nehru University and some of the CIs of HBNI through academic programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under plan projects, or through lectures / courses by Jawaharlal Nehru University faculty at DAE establishments and by CI/OCC scientists/faculty at Jawaharlal Nehru University; and

RECOGNISING that certain collaborative programmes are ongoing because of individual initiatives such as pursuit of research leading to Ph.D. by employees CI & OCC under the external registration programme of Jawaharlal Nehru University and co-supervision of Ph.D. students at Jawaharlal Nehru University by the scientists/faculty of CIs/OCC and the faculty of Jawaharlal Nehru University, and

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RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, Jawaharlal Nehru University and HBNI, collectively referred to as "Partner Institutes"

BOTH HEREBY agree to create a long-term institutional partnership in education and research, According to the broad framework set forth in this Memorandum of Understanding (MoU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in the extent and scope, via the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for Ph.D. in one Partner Institute (hereafter Referred to as Parent Institute) can have a co-supervisor from the other Partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the University Authorities (JNU) / Dean (HBNI) — as the case may be.

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the prescribed tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 Jawaharlal Nehru University will continue interactions with the CIs/OCC of HBNI towards identifying and pursuing research programmes that could lead to award of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the Collaborative research and the outcome of thesis/projects work carried out under the joint supervision

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of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 The MoU shall be further renewed based on an annual review to take stock of the joint academic activities and potential for expansion.

4.3 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI  
(ii) Dean Academic of the CI/OCC

From **Jawaharlal Nehru University** — Dean, SPS

Signed on.....21<sup>st</sup>..... day of .....October..... 2022


For and on behalf of

**Homi Bhabha National Institute**

For and on behalf of

**Jawaharlal Nehru University**

  
.....  
Vice Chancellor,  
Homi Bhabha National Institute  
प्रो. पी. डी. नाईक / Prof. P. D. NAIK  
कुलसचिव (कार्यवाहक) / Vice Chancellor (Officiating)  
डॉ. पी. ए. सी. / HBNI

  
.....  
Vice Chancellor,  
Jawaharlal Nehru University  


Witnessed by

  
.....  
Registrar,  
Homi Bhabha National Institute  
Registrar,  
Homi Bhabha National Institute  
Mumbai - 400 094.

Witnessed by

  
.....  
Registrar,  
Jawaharlal Nehru University  
कुलसचिव/Registrar  
जवाहरलाल नेहरू विश्वविद्यालय  
Jawaharlal Nehru University  
नई दिल्ली/New Delhi-110067

  
.....  
Associate  
Dean,  
Homi Bhabha National Institute  
डॉ. ए. के. दुर्गा / Associate Dean  
सह. डीन/Associate Dean  
होमी भाभा राष्ट्रीय संस्था  
Homi Bhabha National Institute  
प्रशिक्षण संस्थान, 2<sup>nd</sup> फ्लोर, अरुणोदयनगर, मुंबई-400 094.  
Training Centre Campus, 2<sup>nd</sup> Floor, Arundhatinagar, Mumbai-400 094.

  
.....  
Dean, School of Physical Sciences,  
Jawaharlal Nehru University  
प्रो. केदार सिंह/Prof. Kedar Singh  
सहायक अध्यक्ष/Dean  
भौतिक विज्ञान संस्थान  
School of Physical Sciences  
जवाहरलाल नेहरू विश्वविद्यालय  
Jawaharlal Nehru University  
नई दिल्ली/New Delhi-110067



RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE  
AND  
PANJAB UNIVERSITY CHANDIGARH

The Homi Bhabha National Institute (HBNI), Mumbai, India and the Panjab University Chandigarh signed a memorandum of understanding on 3rd November, 2017, and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.

2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from 3.11.22. All the clauses of the initial MoU remain unchanged. In addition, it is explicitly stated that there will be no financial obligation on either institute.

IN WITNESS HEREOF, the duly authorized representatives of both the institutions agrees to the provisions of this document.

Signed on 5<sup>th</sup> day of March, 2024.

For and on behalf of  
Homi Bhabha National Institute

  
प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अनुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Witnessed by


  
सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अनुशक्ती नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Naga, Mumbai - 400 094



For and on behalf of  
Panjab University Chandigarh

  
Registrar  
Panjab University  
Chandigarh

Witnessed by

  
Chairperson  
Department of Physics,  
P.U., Chandigarh



**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**HOMI BHABHA NATIONAL INSTITUTE**  
**AND**  
**PANJAB UNIVERSITY CHANDIGARH**

This MEMORANDUM OF UNDERSTANDING is hereby made BETWEEN HOMI BHABHA NATIONAL INSTITUTE, a deemed to be University under the aegis of the Department of Atomic Energy, Government of India, having registered office at Training School Complex, Anushaktinagar, Mumbai-400094, hereinafter referred to as the 'HBNI' (which expression unless excluded by or repugnant to the subject shall mean and include its successor- in-office and assign) of the ONE PART

**AND**

PANJAB UNIVERSITY CHANDIGARH having its Campus at Sectors 14 and 25, Chandigarh – 160014, hereinafter referred to as Panjab University (which expression shall where the context so admit include its successors and permitted assigns) of the OTHER PART.

For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs) and Off Campus Centre (OCC) of HBNI:

**Constituent Institutions:-**

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre of Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute for Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. The Institute of Mathematical Science (IMSc), Chennai

**Off Campus Centre:-**

11. National Institute of Science Education and Research (NISER), Bhubaneswar

RECOGNISING the long-standing collaboration and cooperation between Panjab University and some of the CIs & OCC of HBNI and in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, the Panjab University and HBNI, collectively referred to as "Partner Institutes".



HEREBY agree to create a long-term institutional partnership in education and research according to the broad framework set forth in this Memorandum of Understanding (MoU).

### **1. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope by using the medium of research students enrolled in the Partner Institutes.

### **2. Modalities of Co-operation**

- 2.1 A student registered under a supervisor for M.Sc./M.E/M.Tech/Ph.D. (Sc.)/Ph.D.(Engg.) in one Partner Institute (hereinafter referred to as Parent Institute) may have a co-supervisor from the other Partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.
- 2.2 The students in one Partner Institute may carry a part of course work in the other Partner Institute with credit transfer if applicable and in vogue. In particular,
  - a) The credits to be awarded to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student in consultation with the Partner Institute.
  - b) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student will put up the proposal (in consultation with appropriate academic bodies of the Department) to Panjab University Authorities/Dean (HBNI) – as the case may be. This will be as per Ph.D. Regulations in vogue in the Partner Institute.
- 2.3 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute, as per rules.
- 2.4 The exchange of faculty for lectures and research for short periods shall be strengthened.
- 2.5 A mechanism shall be formulated to identify the research areas of mutual interest of Partner Institutes.
- 2.6 The issues related to the Intellectual Property Right (IPR) with regard to the outcomes of the collaborative research and the outcomes of project/thesis work carried under the joint supervision of the faculty from the Partner Institutes shall be governed by the IPR regulations of the Government of India.



2.7 In case of dispute arising out of this MoU to the parties, they will be settled through a grievances handling mechanism by way of mutual discussions, otherwise law of the land will prevail.

### 3. Implementation

3.1 This MoU becomes effective from the later of the dates on which it is signed by the Partner Institutes and will be valid for an initial period of five years. This MoU may be extended for subsequent five years term by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by the month of June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

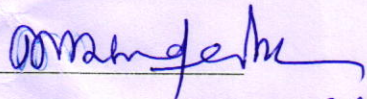
3.2 For implementation of this MoU, the following will be the contact persons:

- From HBNI (1) Dean, HBNI  
(2) Dean Academic of the CI/OCC
- From Panjab University (1) Chairperson, Department of Physics  
(2) Dr. Lokesh Kumar, Assist. Prof., Dept. of Physics

Signed on .....<sup>3<sup>rd</sup></sup>.....day of.....November.....2017

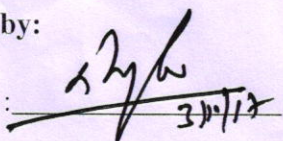
For and on behalf of

**Homi Bhabha National Institute**

(Signature) :   
(Name) : P.R. VASUDEVA RAO

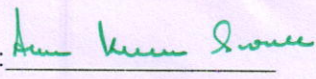
कुलपति / Vice Chancellor  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशक्तिनगर, मुंबई - 400 094.  
Training School Complex,  
Anushaktinagar, Mumbai - 400 094.

Witnessed by:

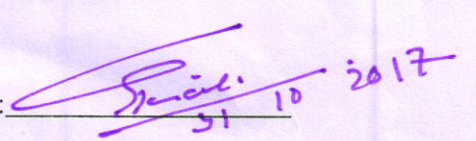
(Signature) :   
(Name) : के. स्वामीनाथन / K. Swaminathan  
प्रशासन अधिकारी-III / Adm. Officer-III  
भारत सरकार / Govt of India  
(Designation) : के. स्वामीनाथन / K. Swaminathan  
होमी भाभा राष्ट्रीय संस्था / Homi Bhabha National Institute  
प्रशिक्षण विद्यालय भवन, द्वितीय मंजिल, अणुशक्तिनगर, मुंबई-400 094.  
Training School Complex, 2<sup>nd</sup> Floor, Anushaktinagar, Mumbai-400 094.

For and on behalf of

**Panjab University**

(Signature) :   
(Name) : Prof. Arun K. Grover

Vice Chancellor  
Panjab University  
Chandigarh-160014

(Signature) :   
(Name) : Prof. O. P. Katare  
(Designation): Director  
**Research Promotion Cell**  
**Panjab University,**  
**Chandigarh.**



RENEWAL OF MEMORANDUM OF UNDERSTANDING  
BETWEEN  
**HOMI BHABHA NATIONAL INSTITUTE**  
AND  
**TATA INSTITUTE OF FUNDAMENTAL RESEARCH, MUMBAI**

The Homi Bhabha National Institute (HBNI), Mumbai, India and the Tata Institute of Fundamental Research (TIFR) signed a memorandum of understanding on December 3<sup>rd</sup>, 2018 and the said MoU was valid for a period of five years. The two Institutions have since reviewed the activities undertaken under the MoU and are satisfied at the progress made.

2. In order to continue with and expand upon the said collaboration, the two Institutes hereby agree to extend and continue the aforementioned MoU for an additional period of 5 years commencing from December 3<sup>rd</sup>, 2023. All the clauses of the initial MoU remain unchanged.

**IN WITNESS HEREOF**, the duly authorized representatives of both the institutions agrees to the provisions of this document.

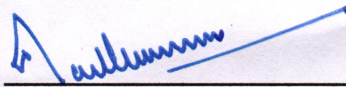
Signed on 8<sup>th</sup> day of February, 2024.

For and on behalf of  
**Homi Bhabha National Institute**

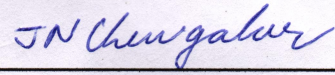
  
\_\_\_\_\_  
प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

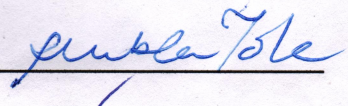


Witnessed by

  
\_\_\_\_\_  
सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

For and on behalf of  
**Tata Institute of Fundamental Research**

  
\_\_\_\_\_  
जयराम एन. चेंगलूर / Jayaram N. Chengalur  
निदेशक / Director  
टाटा मूलभूत अनुसंधान संस्थान  
Tata Institute of Fundamental Research  
समविश्वविद्यालय/Deemed to be University  
1, होमी भाभा रोड, कुलाबा/1, Homi Bhabha Road, Colaba  
Witnessed by मुंबई / Mumbai - 400 005

  
\_\_\_\_\_  
Dean, Graduate Studies / अधिष्ठाता, स्नातक अध्ययन  
Tata Institute of Fundamental Research / टाटा मूलभूत अनुसंधान संस्थान  
Deemed to be University / समविश्वविद्यालय  
Homi Bhabha Road, Colaba / होमी भाभा रोड, कुलाबा  
Mumbai 400 005 / मुंबई - 400 005.



## MEMORANDUM OF UNDERSTANDING

BETWEEN

HOMI BHABHA NATIONAL INSTITUTE

AND

TATA INSTITUTE OF FUNDAMENTAL RESEARCH, MUMBAI

### 1. Preamble

The Tata Institute of Fundamental Research, Mumbai (hereafter referred to as TIFR) a grant-in-aid institution of the Department of Atomic Energy, Government of India (hereafter referred to as DAE) and a Deemed to be University, is a premier research institution in fundamental sciences, and the Homi Bhabha National Institute (hereafter referred to as HBNI), a Deemed to be University established under the aegis of the DAE, is a premier research university. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

#### Constituent Institutions (CIs)

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of physics (IOP), Bhubaneswar
8. Harish Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar. (OCC)

RECOGNISING that the long-standing collaboration and cooperation between TIFR and some of the CIs of HBNI are ongoing because of individual initiatives such as pursuit of research leading to Ph.D. by employees CI/OCC under the external registration programme of TIFR and co-supervision of Ph.D. students at TIFR by the scientists/faculty of CIs/OCC and the faculty of TIFR, and

RECOGNISING that, in view of the commonality between the educational and research interests of TIFR and the CIs/OCC of HBNI, there is scope of further expansion of the existing collaboration and cooperation, TIFR and HBNI, collectively referred to as "Partner Institutes"

HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).



## 2. Objectives:

- a) To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.
- b) To jointly work to promote educational programs in the domain of nuclear sciences

## 3. Modalities of cooperation

- 3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.
- 3.2. The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,
  - 1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.
  - 2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up a proposal (in consultation with appropriate academic bodies of his institute) to the Dean (Academic Programme) TIFR/Dean (HBNI) – as the case may be.
- 3.3. The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.
- 3.4. The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.
- 3.5. TIFR will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI / TIFR.
- 3.6. HBNI and TIFR will work together to create and disseminate courses and other educational material related to different areas of science including nuclear science that could benefit students and researchers inside and outside DAE. Such joint courses will be identified by interaction between Boards of Studies in HBNI with corresponding Subject Boards of TIFR.
- 3.7. Any issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the

joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

### 3 Implementation

3.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled

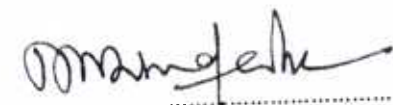
3.2 For implementation of this MoU, the following will be the contact persons

- From HBNI
  - (i) Dean, HBNI
  - (ii) Dean Academic of the CI/OCC
- From TIFR – Dean, Graduate Studies, TIFR

Signed on Third day of December 2018

For and on behalf of

Homi Bhabha National Institute



Vice Chancellor, HBNI

For and on behalf of

Tata Institute of Fundamental Research



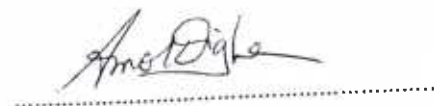
Director, TIFR

Witnessed by



Dean, HBNI

Witnessed by



Dean, Graduate Studies, TIFR





കേരളം കേരल KERALA

DD 743838

**MEMORANDUM OF UNDERSTANDING BETWEEN  
HOMI BHABHA NATIONAL INSTITUTE AND  
UNIVERSITY OF CALICUT**

**1. Preamble**

The **University of Calicut** (hereinafter referred to as **Calicut University**) is a premier educational Institution in science, engineering and technology and the **Homi Bhabha National Institute** (hereafter referred to as **HBNI**) is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy, Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- Bhabha Atomic Research Centre (BARC), Mumbai
- Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- Variable Energy Cyclotron Centre (VECC), Kolkata
- Saha Institute of Nuclear Physics (SINP), Kolkata



Registrar  
Homi Bhabha National Institute

No: 31462 Date: 8.3.2022

Value: 100

Taluk: Amsom:

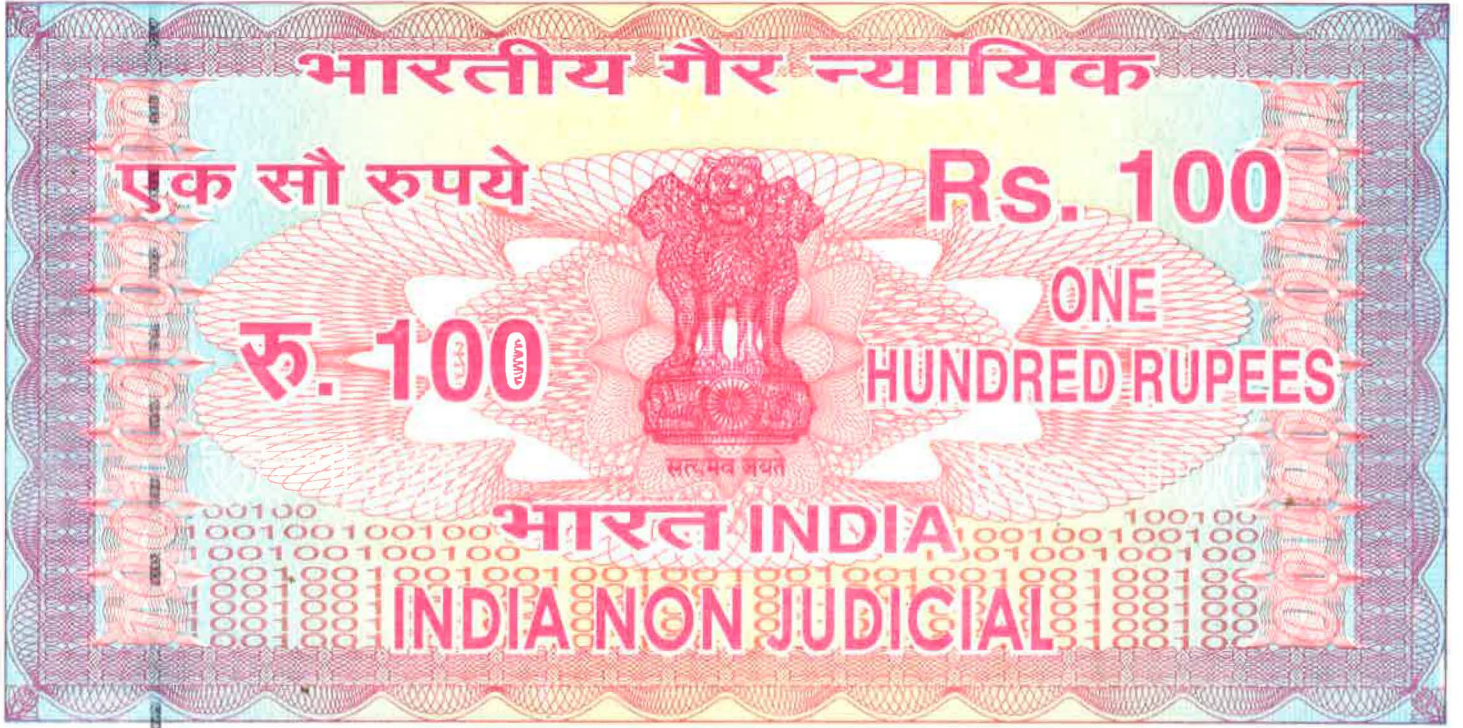
Name: Registrar: University of Calicut

K. JAFARON  
Acting S.R.O. Stamp Vendor  
Thenhipalam



REGISTRAR





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- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), Allahabad
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar

The institutions at S.No. (a) to (j) are the CIs and (k) is the CCC.

RECOGNISING the long standing collaboration and co-operation between Calicut University and some of the CIs of HBNI through academic programmes such as collaborative research supported by extra-mural funding through the Board of Research in Nuclear Sciences (BRNS), a body under DAE, or directly through allocation under plan projects, or through lectures / courses by Calicut University faculty at DAE establishments and by CI/OCC scientists/faculty at Calicut University ;

and

*R.H.T.*

Registrar  
Homi Bhabha National Institute



No: 31663 Date: 8.3.2022  
Value: Rs. ....

Taluk: ..... Amsom: .....  
Name: Registrar: University of Calicut \*

K. JAFAR MON  
Acting S.R.O. Stamp Vendor  
Thenhipalam

REGISTRAR





3.5 Calicut University will continue interactions with the CIs/OCC of HBNI towards identifying and pursuing research programmes that could lead to award of degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the Collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for a period of five years. The agreement shall be extended by mutual written consent. In case one Partner Institute wishes to annul the MoU, written intent to that effect will have to be communicated by June of that particular year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

- From HBNI (i) Dean, HBNI  
(ii) Registrar, Calicut University

From **Calicut University — Registrar**

Signed on.....24<sup>th</sup>..... day of August 2022


For and on behalf of

For and on behalf of

Homi Bhabha National Institute

University of Calicut





Registrar, HBNI

Registrar, Calicut University

Registrar  
Homi Bhabha National Institute  
Mumbai - 400 094.

REGISTRAR  
UNIVERSITY OF CALICUT

Witnessed by

Witnessed by







**UNIVERSITY OF CALICUT**

**Abstract**

DoR - Permission to sign the draft MoU between Homi Bhabha National Institute and University of Calicut , vide Item no.2022.410\* of the meeting of the Syndicate held on 10.05.2022 - Implemented - Orders issued.

**Directorate of Research**

U.O.No. 11017/2022/Admn

Dated, Calicut University.P.O, 02.06.2022

- Read:-**1) Note from the Office of the PVC dtd. 04.04.2022.  
2) Item No.2022.410\* of the meeting of the Syndicate held on 10.05.2022.  
3) Orders of the Vice-Chancellor in the file of even No.dated 21.05.2022.

**ORDER**

Vide reference cited as 1<sup>st</sup>, Office of the Pro-Vice-Chancellor has forwarded a copy of the finalised Memorandum of Understanding (MOU) between the Homi Bhabha National Institute (HBNI - a deemed to be University) and the University of Calicut, along with the legal opinion received from Adv.K.Sulfikar, Legal Advisor of the University of Calicut. It was further directed to take necessary steps to enable the University authorities to issue orders and to sign the MOU on behalf of the University, to create a long-term institutional partnership in education and research between University of Calicut and HBNI, according to the broad framework of set forth in the MOU.

The Legal Advisor of the University has stated that he has thoroughly verified and scrutinized the MOU and there is no need of any changes or amendments in the draft.

Considering this, the Vice-Chancellor ordered on 12.04.2022 to place the draft Memorandum of Understanding (MOU) to be signed between the University of Calicut and Homi Bhabha National Institute before the Syndicate for consideration.

As per reference cited 2<sup>nd</sup> above, the Syndicate in the meeting held on 10.05.2022, vide item No.2022.410\* has resolved to approve the matter of signing MoU between Homi Bhabha National Institute and University of Calicut.

The Vice Chancellor, as per the reference cited 3<sup>rd</sup>, has ordered to implement the resolution of the Syndicate held on 10.05.2022, vide item No.2022.410\*.

The resolution of the Syndicate, vide reference cited 2<sup>nd</sup> above, is thus implemented.

Orders are issued accordingly.

Rilesh K.T

Deputy Registrar

To

1) HOMI BHABHA NATIONAL INSTITUTE  
Copy to : PS to VC/ PA to PVC/ PA to Registrar/ AR,Legal Cell/ JDKSAD/ SF

Forwarded / By Order

Section Officer

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**IMPLEMENTING AGREEMENT**

**BETWEEN**

**DEPARTMENT OF ATOMIC ENERGY,  
THE HOMI BHABHA NATIONAL INSTITUTE  
OF THE REPUBLIC OF INDIA**

**AND**

**COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX  
ENERGIES ALTERNATIVES, NATIONAL INSTITUTE  
FOR NUCLEAR SCIENCE AND TECHNOLOGY  
OF THE REPUBLIC OF FRANCE**

**CONCERNING EDUCATION AND TRAINING**

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## IMPLEMENTING AGREEMENT

This Implementing Agreement concerning Education and Training (this "Implementing Agreement") is hereby entered into

between

The **HOMI BHABHA NATIONAL INSTITUTE**, a Deemed-to-be University under the **DEPARTMENT OF ATOMIC ENERGY**, established under section 3 of the University Grants Commission Act of the Republic of India, located at BARC Training School Complex, Anushaktinagar, Mumbai - 400 094, India, (hereinafter referred to as "HBNI"),  
Represented by Mr. P.R.Vasudeva Rao, Vice Chancellor, HBNI,

and

**COMMISSARIAT À L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES**, a French public scientific, technical and industrial establishment, registered with the Companies Registry of Paris under the number R.C.S. PARIS B 775 685 019, having its principal office Bâtiment "Le Ponant D" 25, rue Leblanc, 75015 PARIS - France,  
Represented by Mr. Philippe CORRÉA, acting as Director of the **NATIONAL INSTITUTE FOR NUCLEAR SCIENCE AND TECHNOLOGY**, a public institution established pursuant to the French Decree No. 56-614 of 18 June 1956,  
hereinafter referred to as « CEA/INSTN »,

hereinafter collectively referred to as the "Parties" and individually as a "Party":

### WHEREAS

- A. The Government of the Republic of France and the Government of the Republic of India" concluded an agreement for the development of peaceful uses of nuclear energy signed on 30<sup>th</sup> September 2008(hereinafter referred to as the "Framework Agreement");
- B. Further to this Framework Agreement, the French Commissariat à l'Energie Atomique et aux Energies Alternatives ("CEA") and the Indian Department of Atomic Energy ("DAE"), have entered in a cooperation agreement on December 6<sup>th</sup> 2010 (hereinafter referred to as "the CEA-DAE Cooperation Agreement"), in order to establish a general framework of cooperation in the field of nuclear science and technology for peaceful uses of nuclear energy.
- C. Pursuant to Articles 3 and 4 of the Cooperation Agreement, the areas of cooperation and the forms of cooperation include Education and Training with exchange and



training of scientific and technical personnel; exchange of scientific and technical information; participation by scientific and technical staff of one Party in research and development activities conducted by the other Party; conduct of joint research activities, including organizing scientific and technical conferences and symposia;

- D. Pursuant to Articles 5 and 6 of the Cooperation Agreement, the Parties, if deemed necessary, may conclude separate implementing agreements ruled by the terms of the Cooperation Agreement, and which progress are supervised by the Franco-Indian Joint Committee for Atomic Energy, which has been set up for the purpose of monitoring the progress of the Cooperation Agreement.

In respect thereof, the Parties have signed an implementing agreement on February 10<sup>th</sup> 2016, in order to provide for a scientific collaboration program in the field of PhD education (hereinafter referred to as "February 10<sup>th</sup> 2016 Implementing Agreement"). In respect thereof, the Parties wish to enter into an additional implementing agreement in the field of education, training, information exchange in the areas of nuclear and radiation safety, nuclear medicine and materials, between HBNI, which is a Deemed to be University under the Department of Atomic Energy, specialized in education and research related to nuclear science and technology and the French national institute for nuclear science and technology INSTN, which is an Institute of CEA specialized in Education & Training in Nuclear Science and Technology.

**NOW AND THEREFORE**, the Parties to this Implementing Agreement agree to cooperate with one another on education and training in accordance with the relevant provisions of the Cooperation Agreement, completed as follows:

#### **Article 1 – Scope and forms of collaboration**

1.1. Collaboration activities conducted by the Parties under this Implementing Agreement include:

- the joint development of courses and course modules on the basis of the action plan provided for in Appendix 1
- the joint delivery of such courses and course modules in both countries through exchange visits of faculty or through skype/videoconferencing/sharing pre-recorded certified video content
- the preparation and publication of educational material such as monographs and books with joint authorship on topics of relevance to both sides, upon prior mutual written agreement.

Handwritten signature and initials in black ink, consisting of a stylized name and a vertical line with a horizontal crossbar.



1.2 The fields of the activities covered by article 1.1 of this Implementing Agreement are:

- i. Nuclear Safety
- ii. Materials
- iii. Nuclear Medicine
- iv. Radiation Biology
- v. Radiation Protection
- vi. Biomedical Imaging
- vii. Medical Physics

1.3. Action Sheets as per the format provided in Annex 2 will be discussed and signed by the authorized representatives of the Parties further to this Implementing Agreement. The Action Sheets shall include detailed description of the scope of work of each Party, specific conditions regarding the assignment of personnel, specific intellectual property provisions, specific financial conditions, schedules and any other information relevant for the implementation of the activities.

## **Article 2 – Monitoring of the Implementing Agreement**

2.1. Each Party shall nominate a coordinator who shall act as single point of contact through whom all communications with regard to this Implementing Agreement shall be made.

2.2. Each Party shall be entitled to change its Coordinators at any time by communicating its decision in writing, via regular mail or electronic mail to other Parties.

2.3. The Parties agree to appoint the following Coordinators:

### For HBNI:

Name: Prof. Adarsh K. Dureja  
Title: Associate Dean  
Address: Homi Bhabha National Institute, Anushaktinagar, Mumbai 400 094, India  
  
Telephone: +91-22-25597629  
E-mail: dureja@hbni.ac.in

### For INSTN:

Name: Paul LIVOLSI  
Title: INSTN International Relations Officer  
Address: INSTN  
CEA/Paris-Saclay  
F-91191 GIF SUR YVETTE  
FRANCE  
  
Telephone: + 33 4 38 78 39 27  
E-mail: paul.livolsi@cea.fr



2.4. The Coordinators shall be responsible for the overall coordination actions of the Parties under the scope of this Implementing Agreement, and shall report their activities to the members of the Franco Indian Joint Committee set up by the Cooperation Agreement.

### **Article 3 – Intellectual property rights**

Pursuant to article 7 of 'the CEA-DAE Cooperation Agreement', the intellectual property rights of the Parties in relation to this Implementing Agreement shall be governed by the provisions of the intellectual property rights agreement between the French Republic and the Government of India of December 6<sup>th</sup> 2010, save as otherwise provided hereinafter.

3.1. No exchange of information under this Implementing Agreement is intended to nor shall create in any Party any intellectual property rights whatsoever in the information exchanged for the fair implementation of the actions decided by the Parties. Such rights shall remain vested solely in the Party providing information.

3.2. Envisaged publications of data or information, on whatever medium, concerning this Implementing Agreement shall be shared between the Parties well in advance in order to allow a Party to have the opportunity to check the data or information prior to such publication and delete some parts of data or information with the view to protecting confidential information and provide written consent.

3.3. Any information and technology which is held by one Party prior to the conclusion of this Implementing Agreement or acquired by one Party completely independently of any disclosure by the other Party, or acquired solely by one Party, shall remain the sole property of that Party.

3.4. No Party shall assign or otherwise transfer to any third party in whole or in part any of its right or obligation under this Implementing Agreement, without the prior consent of the other party.

3.5. Notwithstanding the stipulations contained in Article 3, the intellectual property rights may be the subject of specific provisions included in the actions sheets.

### **Article 4 – Financial obligations**

4.1. All the activities under this Implementing Agreement shall be subject to the availability of appropriate funds and personnel, and subject to the national laws and regulations of the Parties.

4.2. The Parties shall be responsible for their own legal and advisory fees and related expenses incurred in connection with this Implementing Agreement.

4.3. The airfare for the visits of faculty from one side to the other side will be borne by the visitor's side; the accommodation and local hospitality, as well as any honorarium for the

A handwritten signature in black ink, appearing to be 'R. K. S.', is located at the bottom left of the page. The signature is written in a cursive style with a horizontal line underneath the main part of the name.



lectures delivered by the visiting Party will be met by the host side (for less than two weeks) at the rates prevalent in the host organization as described on Appendix 3.

The Parties could define specific financial provisions in relation to implementing activities envisaged in the Action Sheets agreed by the Parties.

#### **Article 5 – Liability**

5.1. Either Party, including its personnel, legal representatives and third persons or parties which either Party uses within the objectives of this Implementing Agreement, shall only be liable for direct damages in case of willful misconduct or gross negligence.

5.2. Either Party shall, not be liable for loss of profit, loss of production or any other indirect or consequential damages or indirect financial losses, regardless of the legal theory they are based upon.

#### **Article 6 – Duration, amendment and termination**

6.1. This Implementing Agreement shall enter into force upon the date of its signature by the designated authorized representatives of the Parties and shall remain in force for three(3) years (the "Term"), unless (a) terminated by the Parties, or (b) further extended by the Parties in accordance with this Article 6.

6.2. Three (3) months before the date of the expiry of the Term of this Implementing Agreement, the Parties shall consult each other to decide whether the Term of the Implementing Agreement shall be extended, in accordance with the provisions of this Article. The Term may be extended by the Parties in writing through an amendment to the Implementing Agreement.

6.3. Either Party shall have the right to terminate this Implementing Agreement through a six (6)-month prior written termination notice to the other Parties. Such a termination shall be without prejudice to the rights which may have occurred under this Implementing Agreement to either Party up to the date of such a termination.

#### **Article 7 – Settlement of disputes**

All disputes arising from or related to the interpretation of implementation of the Implementing Agreement shall be settled through friendly consultations and negotiations between the Parties, and in line with the provisions of the CEA-DAE cooperation agreement.

#### **Article 8 – Miscellaneous**

8.1. If any change in laws, decrees, regulations or administrative orders intervenes with this Implementing Agreement and affects:

- (a) the reasonable performance of the objectives of this Implementing Agreement,

A handwritten signature in black ink, appearing to be 'D. R. ...', is located at the bottom left of the page.

the Parties shall negotiate in good faith amendments to be applied to this Implementing Agreement as a result of such change.

## 8.2. Amendment

This Implementing Agreement may be amended in writing only, with the amendment signed on behalf of the Parties in the same manner as this Implementing Agreement.

## 8.3. Force Majeure

Neither Party shall be liable for damages caused by any delay or default in performing hereunder if such delay or default is caused by conditions beyond its control.

## Article 9 - Language

This Implementing Agreement is drawn up and executed in English. Any negotiations related to it will be conducted in English, unless otherwise agreed by Parties.

**IN WITNESS WHEREOF**, the Parties hereto have signed in duplicate this Implementing Agreement in the English language by their respective duly authorized representatives, with an original copy of this Implementing Agreement made for each Party.

**For HBNI:**

**For CEA/INSTN:**

**P.R. Vasudeva RAO**

**Mr Philippe CORRÉA**

**Vice Chancellor**

**Director**

**Place:**

**Place:** *WIPANA*

**Date:**

**Date:** *18/X/18*

**Signature:**

*P.R. Vasudeva RAO*

**Signature:**

*Philippe CORRÉA*





ACTIONS PLAN

**Description, Location and Schedule of activities:**

1-6 months:

1. Visit of one faculty from each side to the other country, to deliver lecture module (10-20 lectures based on mutual agreement) on a subject that is related to a MASTER/Doctorate program pursued by the student(s) from other side and to be identified through discussions.
2. These visits would also be used to engage in detailed discussions on the objectives mentioned above and evolve a clear action plan for academic activity.

7-24 months:

1. Visit of one faculty from each side to the other country, in each semester, to deliver lecture module (10-20 lectures) on a subject that is related to a MASTER/Doctorate program pursued by the student(s) from other side and to be identified through mutual discussions. The number of visits/no. of faculty to visit may be enhanced based on mutual discussions taking into account progress made in first six months. The lecture program can also be held on videoconferencing mode, as and when mutually agreed upon.
2. Details of action plan on objectives 1-3 described under clause 1.3 will be finalized, taking into account the academic calendar of both sides;
3. A course module on nuclear reactor safety will be developed, course content (videos) will be exchanged;
4. Preparation of Book(s) with joint authorship will be undertaken based on mutual discussions

24-36 months:

1. The activities during this period will be an extension of the activities undertaken during 7-24 months in pursuit of the objectives described in clause 1.3. In addition to continuation of lecture programs on selected topics, course modules would be developed in one or more of the subject areas mentioned in 1.2, and preparation of books will also be continued.



# EXAMPLE

**ACTION SHEET #x**

**In addendum to the Implementing Agreement between HBNI and INSTN**

<b>CONCERNING EDUCATION AND TRAINING BETWEEN HBNI and INSTN</b>	
<b>Area(s) of cooperation</b>	<b>No. Pages:</b>
	<b>Date:</b>
<b>TITLE:</b>	
<b>UNIT INVOLVED IN THE IMPLEMENTING AGREEMENT:</b> HBNI INSTN / DIR - DDP	
<b>DETAILED CONTENT AND PURPOSE OF THE TOPIC OF COOPERATION:</b>	
<b>TRAINING MODULES / COURSES CONCERNED:</b>	
<b>LOCATION AND SCHEDULE:</b>	
<b>HOSTING CONDITIONS:</b>	
<b>FINANCIAL CONDITIONS:</b>	

*Arulas* ↓



APPENDIX 3

Financial provisions

- CEA/INSTN :

Item	Rates
Full Accommodation night, breakfast (recommended hotel), lunch and dinner	150 euros/day
Honorarium for lectures	62 euros/hour

- HBNI :

Item	Rates
Accommodation and food expenses	Accommodation will be provided in DAE Guest House at no cost; an allowance of Rs. 5500 per day is payable towards food and other expenses
Honorarium for lectures	Rs. 5000 per lecture

*Q. n. 10*

# AMENDMENT #1 to the

## IMPLEMENTING AGREEMENT CONCERNING EDUCATION AND TRAINING

BETWEEN

### DEPARTMENT OF ATOMIC ENERGY, THE HOMI BHABHA NATIONAL INSTITUTE OF THE REPUBLIC OF INDIA

Represented by Mr. P.R.Vasudeva Rao, acting as Vice Chancellor, HBNI. The **HOMI BHABHA NATIONAL INSTITUTE**, a Deemed-to-be University under the **DEPARTMENT OF ATOMIC ENERGY**, established under section 3 of the University Grants Commission Act of the Republic of India, located at BARC Training School Complex, Anushaktinagar, Mumbai - 400 094, India,

hereinafter referred to as "HBNI",

AND

### COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES, NATIONAL INSTITUTE FOR NUCLEAR SCIENCE AND TECHNOLOGY OF THE REPUBLIC OF FRANCE

Represented by Mr. Eric GADET, acting as Director of the **NATIONAL INSTITUTE FOR NUCLEAR SCIENCE AND TECHNOLOGY**, a public institution established pursuant to the French Decree No. 56-614 of 18 June 1956,

hereinafter referred to as "CEA/INSTN",

*P.R. Vasudeva Rao*  
EC





Hereinafter referred to as the "Parties" or the "Party",  
**IT BEING PREVIOUSLY RECALLED THAT :**

On 18 September 2018, CEA/INSTN and HBNI signed an implementation agreement regarding Education & Training (hereinafter the "Agreement").

Prior to the expiry of the Agreement on 18 September 2021, the Parties have come together to agree on its extension in accordance with Article 6.2 of the IMPLEMENTING AGREEMENT.

**AS A RESULT OF WHICH IT HAS BEEN AGREED AS FOLLOWS:**

Capitalised terms refer to terms defined in the Implementing Agreement.

**ARTICLE 1 - PURPOSE OF AMENDMENT NO. 1**

The purpose of this AMENDMENT No 1 is to extend the IMPLEMENTING AGREEMENT in accordance with Article 6.2 until 18 September 2024.

**ARTICLE 2 - EFFECTIVE DATE OF AMENDMENT NO. 1**

This AMENDMENT No. 1 shall take effect on the date of signature of this Agreement by the last of the Parties with a retroactive effect to 18 September 2021.



**ARTICLE 3 - MODIFICATIONS**

Appendix 3 of the IMPLEMENTING AGREEMENT has been revised and is presented in Annex 1 of this AMENDMENT.

**ARTICLE 4 - MISCELLANEOUS**

All other provisions of the Agreement which are not expressly modified by this AMENDMENT #1 or in contradiction with AMENDMENT #1 are unchanged and shall remain in force between the PARTIES until the expiry or termination of the Extended Agreement.

Done in two (2) original copies in English.

<b><u>For HBNI:</u></b>	<b><u>For CEA/INSTN:</u></b>
<b>Mr. P.R. Vasudeva RAO</b>	<b>Mr. Eric GADET</b>
<b>Vice Chancellor</b>	<b>Director</b>
<b>Place:</b>	<b>Place:</b>
<b>Date:</b>	<b>Date:</b>
<b>Signature:</b> 	<b>Signature:</b> 



## ANNEX 1

### APPENDIX 3

#### Financial provisions

- If the training is conducted in France at CEA /INSTN:

Item	Rates per Indian lecturer
Full Accommodation night, breakfast (recommended hotel), lunch and dinner	150 € per day
Honorarium for lectures	62 € per hour

- If the training is conducted in India at HBNI:

Item	Rates per French lecturer
Accommodation and food expenses	Rs. 5500 per day*
Honorarium for lectures	Rs. 5000 per hour*

\* payable to CEA/INSTN

*Handwritten signature*  
EG





**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**HOMI BHABHA NATIONAL INSTITUTE, INDIA**  
**AND**  
**GHENT UNIVERSITY, BELGIUM**

This MEMORANDUM OF UNDERSTANDING is hereby made BETWEEN **HOMI BHABHA NATIONAL INSTITUTE (HBNI)**, a deemed to be University under the aegis of the Department of Atomic Energy (DAE), Government of India, having registered office at Training School Complex, Anushakti Nagar, Mumbai-400094, India, hereinafter referred to as the 'HBNI' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assign) of the ONE PART

**AND**

**GHENT UNIVERSITY** having its campus at Sint-Pietersnieuwstraat 25, B-9000, Ghent, Belgium, hereinafter referred to as Ghent University (which expression shall where the context so admit include its successors and permitted assigns) of the OTHER PART.

For the purpose of academic programmes, the following units of DAE in different parts of India are the Constituent Institutions (CIs) and Off Campus Centre (OCC) of HBNI:

**Constituent Institutions:-**

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute for Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. The Institute of Mathematical Sciences (IMSc), Chennai

**Off Campus Centre:-**

1. National Institute of Science Education and Research (NISER), Bhubaneswar

RECOGNISING the long-standing collaboration and cooperation between Ghent University and some of the CIs & OCC of HBNI and in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, the Ghent University and HBNI, collectively referred to as "Partner Institutes".

HEREBY agree to create a long-term institutional partnership in imparting education to the Ph.D. students according to the broad framework set forth in this Memorandum of Understanding (MoU).

### 1. OBJECTIVE

To enhance education of Ph.D. students in the areas of mutual interest, both in extent and scope, by using the medium of faculty and research students enrolled in the Partner Institutes.

### 2. MODALITIES OF CO-OPERATION

**Co-Supervisor:** A student registered under a supervisor for Ph.D. in one Partner Institute (hereinafter referred to as *Parent Institute*) after completion of the first year coursework (if applicable) may have a co-supervisor from the other Partner Institute. To that end, the supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institutes. The student may visit the Partner Institute for a certain period during his Ph.D. programme to work with the co-supervisor. During such visit, it is expected that the student shall have occasions to interact with other faculty members of the Partner Institute as well to get international exposure in his/her subject area.

### 3. FINANCE

HBNI shall not provide any financial support for visits of the Ph.D. student to the Partner Institute. However, the CIs/OCC and Ghent University may consider for extending financial support to cover the expenditure towards such visits by the student





subject to availability of funds. The supervisor and co-supervisor from the Partner Institutes may also explore the possibility of getting financial support for the students from external funding agencies. This will always depend on the availability of funds.

#### 4. PUBLICATIONS AND CONFIDENTIALITY

Each Partner Institute may freely publish its own research outcomes, information and technology obtained by its PhD students. The Partner Institute that intends to publish such research outcomes will however refrain from publishing any confidential information owned or controlled by the other Partner Institute.

#### 5. INTELLECTUAL PROPERTY/ PATIENTS

Partner Institutes shall exchange research outcomes obtained from the collaborative work of the PhD student, the supervisor and the co-supervisor, except for the technical information and knowledge that the Partner Institutes are prohibited from disclosing under an agreement with a third party.

The Intellectual Property Right (IPR) with regard to the outcomes of the Ph.D. thesis work of the student carried under the joint supervision of the faculty members from the Partner Institutes, as well as the details of the preparation, filing, prosecution and maintenance of Patent applications shall be governed within the framework of IPR policies of both the institutes. The parties shall endeavor on a best effort basis and in good faith to support each other in obtaining and maintaining Intellectual Property Right protection in and to the results from any Ph.D Research under their joint supervision.

#### 6. HUMAN RIGHTS

The parties ensure that they shall respect human rights.

#### 7. DURATION

This MoU shall become effective from the later of the dates on which it is signed by the Partner Institutes and will be valid for an initial period of five years. Thereafter, it will be reviewed and can be amended or renewed as agreed by both parties.

#### 8. TERMINATION



In the case one Partner Institute wishes to cancel/terminate the MoU, written intent to that effect will have to be communicated by the month of June of that year. The MoU in that event will cease to be operative from the end of the year, that is, from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

Each of the parties may terminate this agreement with immediate effect if the other party is involved in a serious violation of human rights.

## 9. MISCELLANEOUS

In case of any dispute arising out of this MoU to the Partner Institutes, it will be settled through a grievances handling mechanism by way of mutual discussions, respecting the legal requirements that hold in each country and institution.

## 10. CONTACT PERSONS


The following officials will be the contact persons from the Partner Institutes for implementation of this MoU:

- From HBNI (1) Dean, HBNI  
(2) Dean Academic of the CI/OCC
  
- From Ghent University (1) Prof. Dr. Bart De Bruyn

Signed on ..... day of ..... 2019



For HBNI, India

Signature: 

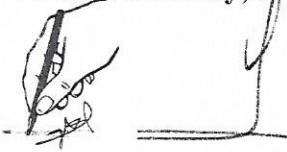
Name: Prof. P R Vasudeva Rao

Designation: Vice-Chancellor

Date: 31/10/2019

Place: Mumbai

For Ghent University, Belgium

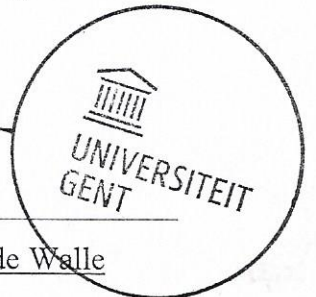
  
Signature: \_\_\_\_\_

Name: Prof. Dr. Rik Van de Walle

Designation: Rector

Date: 16/10/2019

Place: Gent





**MEMORANDUM OF UNDERSTANDING  
BETWEEN**



**DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY,  
GIRINAGAR, PUNE**

**AND**



**HOMI BHABHA NATIONAL INSTITUTE**

*MUMBAI*

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**FOR  
COLLABORATION ON RESEARCH & DEVELOPMENT &  
EDUCATION**

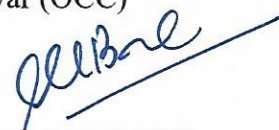
# MEMORANDUM OF UNDERSTANDING BETWEEN HOMI BHABHA NATIONAL INSTITUTE AND DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY(DU)

## 1. Preamble

Defence Institute of Advanced Technology (Deemed to be University), Pune (hereafter referred to as DIAT) is a premier Higher Educational Institution established u/s 3 of the UGC act 1956. Ministry of Education, Government of India has placed DIAT (DU) in Category 'A' Deemed to be University. DIAT is accredited by 'National Assessment and Accreditation Council (NAAC)' and, most of the programmes offered by DIAT are accredited by National Board of Accreditation (NBA). DIAT is engaged in imparting technical education, in niche areas at various levels such as M.Tech & Ph.D in its various forms and capacities. The main focus of the Institute is to get evolved as an innovative unique teaching and research University to develop indigenous contemporary defence related futuristic technologies.

Whereas Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)





Recognising that the long-standing collaboration and co-operation between DIAT(DU) and some of the CIs of HBNI are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees of CI/OCC under the external registration programme of DIAT(DU) and co-supervision of Ph.D. students at DIAT(DU) by the scientists/faculty of CIs/OCC and the faculty of DIAT(DU), and

Recognising that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, DIAT(DU) and HBNI, collectively referred to as "Partner Institutes" HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MOU).

## **2. Objective**

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.

## **3. Modalities of cooperation**

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

i) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

ii) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate

academic bodies of the Department) to the Dean (Academics), DIAT(DU) /Dean (HBNI)-as the case may be.

3.3 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.4 DIAT(DU) will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.5 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

# From HBNI-

(i) Dean, HBNI

(ii) Dean Academic of the CI/OCC

# From DIAT(DU)-

(i) Dean(Academics), DIAT(DU)

(ii) Registrar, DIAT(DU)





Signed on.....<sup>20<sup>th</sup></sup>..... day of December, 2023.

For and on behalf of  
Homi Bhabha National Institute

  
प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Registrar, HBNI  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

For and on behalf of  
Defence Institute of Advanced Technology (DU)


  
Registrar, DIAT(DU)

Witnessed by

  
Deputy Registrar, HBNI

सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Witnessed by

  
Joint Registrar (Academics), DIAT(DU)



## Memorandum of Understanding

Between

**Homi Bhabha National Institute**, a Trust registered under the Bombay Public Trusts Act, 1950 and a deemed to be university, having its office at 2nd floor, BARC Training School Complex, Anushaktinagar, Mumbai, - 400 094, represented by its Registrar, (hereinafter referred to as “HBNI”) which expression shall unless it is repugnant to the context or meaning thereof, include its representatives, nominees, affiliates, and/or assigns of HBNI, its Constituent Institutions (hereinafter referred to as CIs) and Off Campus Centre (OCC) of HBNI, of the **FIRST PART**

AND

**Confederation of Indian Industry**, a Society Registered under the Societies Registration Act, 1860, having its Central Office at 105, Kakad Chambers, 132, Dr Annie Besant Road, Worli, Mumbai – 400 018, which is represented by Dr. Rajesh Kapoor, Regional Director, Confederation of Indian Industry, (hereinafter referred as “CII”) which expression shall unless repugnant to the context or meaning thereof, be deemed to mean and include its legal successors, administrators and permitted assignees, of the **SECOOND PART**;

Individually referred to as ‘Party’ and collectively referred to as ‘Parties’.

### 1. Preamble

The Confederation of Indian Industries is a non-government, not-for-profit, industry-led and industry-managed organization, with over 9000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 294 national and regional sectoral industry bodies. CII works to create and sustain an environment conducive to the development of India, partnering Industry, government and civil society, through advisory and consultative processes. CII has been instrumental in successfully organizing several aspirational events like Make in India, Global Exhibition on Services, Maritime Summit, Auto Expo etc. to name just a few, by closely assisting and supporting Central and State Governments.

The Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University of high repute established under the aegis of the Department of Atomic Energy (“DAE”), Government of India. For the purpose of academic activities and programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

- a. Bhabha Atomic Research Centre (BARC), Mumbai
- b. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam





- c. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- d. Variable Energy Cyclotron Centre (VECC), Kolkata
- e. Saha Institute of Nuclear Physics (SINP), Kolkata
- f. Institute of Plasma Research (IPR), Gandhinagar
- g. Institute of Physics (IoP), Bhubaneswar
- h. Harish-Chandra Research Institute (HRI), (Prayagraj)
- i. Tata Memorial Centre (TMC), Mumbai
- j. Institute of Mathematical Science (IMSc), Chennai
- k. National Institute of Science Education and Research (NISER), Bhubaneswar.

The institutions at S.No. (a) to (j) are the CIs and (k) is the OCC.

RECOGNISING the scope for a longstanding collaboration, CII and HBNI, collectively referred to as “Partner Institutes” or “Parties” and individually as “Party”, hereby agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MoU).

## 2. Objectives

HBNI is desirous of organizing initiatives under Industry Academic engagement and intends to collaborate with CII and its members in rendering necessary help, support and services of CII for organizing the initiatives as mutually decided and planned.

## 3. Scope Of Work – Advisory Support and Assistance

Both the parties decided to collaborate with each other to fulfil the requirements for trained professionals by conducting Industry Workshops & Employability Enhancement Programs for students of HBNI.

## 4. Deliverables by CII

- a) CII shall communicate with Industry about details of the programs and facilitate participation for HBNI in accordance with the requirements
- b) CII shall liaison with HBNI Team and Institutions for smooth execution of programs leading to bridge gap in employability.
- c) CII will support HBNI in connecting with its members and industry leaders to build additional content that would benefit HBNI
- d) CII Shall disseminate information about Spinoff Technology Developed by HBNI to CII members.
- e) CII shall jointly, (with HBNI) and after a mutual consensus conduct conferences / forums to promote HBNI Technology and training programs.





## 5. Deliverables by HBNI

- a) HBNI shall develop training programs / workshops as per the current job market requirements and in compliance with all relevant regulations and industry standards.
- b) HBNI shall support the Training programs / workshops by coordinating with subject matter experts, industry experts, guest speakers etc. as may be discussed and agreed between CII and HBNI.
- c) HBNI understands that the quality and timely execution of Training programs / workshops is of utmost importance, and it shall entrust the responsibilities of the Training programs / workshops only on subject matter experts, industry experts, guest speakers and/or independent consultants who are competent and possess the necessary qualifications, professional experience to successfully execute the same.
- d) HBNI shall make arrangements for technical platform and logistics for the recording, broadcasting and all incidental matters required for creating the Webinar Events.

## 6. Financials and Estimated Budget etc.

The terms of the agreement are non-financial and do not involve any commercials or exchange of financial transactions.

If either of the parties incur expenses towards the organising of any of the activities under the MoU, they can seek financial support from their respective contacts or network towards the same. Unless otherwise specifically agreed to in writing by the Parties, each Party will bear on their own the respective costs of carrying out the obligations under this MOU. Each party is responsible for its own taxes and compliances in respect to the deliverables envisaged herein and shall not hold the other party responsible for such taxes and compliances. This is merely a broad understanding between the parties in furtherance to the common intention for accomplishing the objectives mentioned herein above. In future, if the parties intend to enter into any financial arrangement, the legal rights and commercial obligations of the parties as applicable shall be delineated through separate documents on case to case basis. Taxes if any will be charged extra and withholding tax if any will be deducted by respective party on any financial transaction as per applicable laws.

## 7. Exclusivity & Branding of CII Logo

- i) **Branding and Acknowledgement of CII and HBNI as Partners:** CII and HBNI shall have their logos prominently placed in all backdrops, collaterals, creative communication of all related activities of the Initiatives (including pre, during and post Initiatives). Any other competitor / similar organisation / Association, if it associates with the Initiatives, may do so as a Supporting Partner and shall be acknowledged as such and its logo may appear as per mutually decided by CII and HBNI.





- ii) **CII and HBNI representatives** – CII Members and HBNI officials shall have proper and prominent speaking roles and representation at the sessions.

## 8. Force Majeure

Neither party shall be held responsible for non-fulfilment of their respective obligation under this MoU due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, War, flood, Earthquakes, Strikes(s), Lockouts(s), Epidemics, Riots, Civil Commotions, etc., provided on occurrence and cessation of such events, the party affected by these shall give a notice in writing to the other party within one month of such occurrence and cessation. If the majeure conditions continue beyond six months, the parties shall then mutually decide about the future course of action.

## 9. Abandonment / Partial Abandonment or Premature Termination of the MoU

The Parties shall have the right to terminate this MOU, on breach of any of the terms in this MOU or without cause, by giving the other party, written notice of 30 (thirty) calendar days, prior to the effective date of termination.

Any decision with regard to cancellation, change of dates, or change of venue etc of the Initiatives shall be jointly taken by the HBNI and CII according to mutually agreed terms.

## 10. Indemnity:

HBNI represents and warrants that the proposed initiative under this MoU adhere to relevant industry standards and regulations. CII shall be indemnified and held harmless by HBNI from any claims including third party claim arising as a direct result of the a) HBNI Technology (Spinoff Technology ) and training programs under this MOU.

HBNI declares that the training materials provided do not infringe upon any others' intellectual property rights (IPR). HBNI shall indemnify and hold harmless CII from any claims, liabilities, or damages arising from a third party's assertion that the training materials infringe on their IPR,

## 11. Limitation of Liability

Both the sides shall not be liable to each other for any special, indirect, consequential or exemplary damages, including but not limited to loss of revenue, or good will, or anticipated profits, or loss of business.

## 12. Settlement of disputes

Any dispute or controversy arising out of or relating to this MoU shall be attempted to be resolved by a mutual discussion between senior representatives of both the parties. If the parties are unable to resolve their dispute or differences within 30 days, such dispute shall be referred to sole arbitrator appointed by Secretary, DAE and finally resolved as per the Arbitration and Conciliation



Act, 1996 as amended from time and the rules thereunder. The language used in the arbitral proceedings shall be English. Place of arbitration shall be Mumbai.

**In MEMORANDUM OF UNDERSTANDING WHEREOF, both Parties have affixed their signatures and seal as under**

Signed on 3<sup>rd</sup> day of June, 2024 at Mumbai.

For and on behalf of

**Homi Bhabha National Institute**

Sign. *U. Kamachi Mudali*  
03/06/2024  
Name: **Prof. U. Kamachi Mudali**

Title: Vice Chancellor,  
HBNI, Mumbai

For and on behalf of

**Confederation of Indian Industry**

Sign. *Rajesh Kapoor*  
Name: **Dr Rajesh Kapoor**

Title : Regional Director,  
CII Western Region

Witness No. 1

*P. Christopher Selvin*  
Name: **Prof. P. Christopher Selvin**

Registrar  
Homi Bhabha National Institute  
Training School Complex  
Anushaktinagar, Mumbai 400094

Witness No.2

*Rishi Kumar Bajaj*



**MEMORANDUM OF UNDERSTANDING (MoU)**  
**BETWEEN**  
**INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD (IIMA)**  
**AND**  
**HOMI BHABHA NATIONAL INSTITUTE (HBNI)**

**1. PREAMBLE:**

Indian Institute of Management Ahmedabad (hereinafter referred to as IIMA), situated at Vastrapur, Ahmedabad – 380015 is a premier institute carrying out pioneering work in Management education, and is involved in executive education under its continuing executive education program.

Homi Bhabha National Institute (hereinafter referred to as HBNI, which expression shall include its successors and permitted assignees) is a Deemed to be University established under the aegis of Department of Atomic Energy, Government of India. It has ten Constituent Institutions at different locations in the country and one Off-Centre Campus at Bhubaneswar. Of these eleven institutions, four are DAE units and seven are Grant-in-Aid institutes fully supported by the Department of Atomic Energy.

Recognizing the need for training senior executives in various organizations in DAE such as NPCIL, BARC etc., towards empowering and enabling them to efficiently execute their management functions at different levels, HBNI has proposed to offer management training programs to senior DAE officers. The programs will be designed keeping in mind the functions and requirements of DAE officers.

IIMA has come forward to offer such a program to DAE officers wherein the content will be developed in consultation with HBNI. The program duration and timings will also be configured as per mutual convenience.

**2. PROPOSAL:**

Now, HBNI and IIMA which are individually referred to as 'party' and both collectively referred to as 'parties', have agreed to create a long-term association in education and training according to the broad framework set forth in this Memorandum of Understanding (MoU).

**3. OBJECTIVE OF THE MoU:**

The objective of this MoU is to create a framework for HBNI to avail the services of IIMA in providing a customized training program for its senior officers, as per terms and conditions to

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be specified in an Implementing agreement that will be signed between the parties for each program.

#### **4. IMPLEMENTING AGREEMENT (IA):**

4.1 For every program to be organized by IIMA based on a proposal by HBNI, the parties will sign an implementing agreement after mutual acceptance of all parameters.

4.2 From HBNI, Registrar, HBNI will be signatory to the agreement and the Dean-Programmes, IIMA, will be signatory on behalf of IIMA. Additionally, the Chief Operating Officer (COO), EEP, IIMA, will also be signing as a witness.

4.3 The parties will identify an implementation committee consisting of two senior Faculty/Officer from each side to arrive at details of the program.

4.4 The IA will clearly specify all parameters associated with the program, including but not limited to the period, contents, target group and financial implications.

4.5 IIMA will be bound to provide services as mentioned in the IA to the full satisfaction of HBNI, and HBNI will be bound to share all such information and make all such payments that are specified in the IA.

#### **5. INTELLECTUAL PROPERTY RIGHTS**

5.1 In case, case studies are developed during the program delivery process, IPR will remain with the respective authors. Ownership rights will be with IIMA, and the use of case studies for subsequent batches by IIMA will be permissible.

5.2 The case studies can also be used by HBNI for their internal programs with prior intimation to the author.

5.3 HBNI agrees that it shall seek permission of IIMA for publishing such case study in any form.

5.4 Reasonable attempts will be made to register the case study developed by IIMA faculty at IIMA case centre and/or get the case study published in a journal. IIMA will not be held responsible if "Case Study" is not selected for publishing in Case Clearing House/Case Centre department at IIMA.

#### **6. CONFIDENTIALITY**

6.1 The parties agree to maintain secrecy and confidentiality of any and all confidential information exchanged or to be exchanged between them in relation to this MoU.

6.2 Both parties agree to restrict access and disclosures of such confidential information to their employees, agents and vendors.

6.3 IIMA agrees that any of HBNI's technical or business or other information including information given for development of any case studies/development of any program

rbh





modules/contents, made available by HBNI or its stakeholders to IIMA would be deemed confidential information, and would not be used except to enhance the value of the program. 6.4 IIMA also agrees that such technical or business information shared by HBNI or its stakeholders shall not be used by IIMA for developing module/contents for any other third party.

6.5 Confidential information shall at all times remain the sole and exclusive property of the disclosing Party. Upon request of the disclosing party, the information shall be destroyed or returned as requested followed by a written confirmation.

For the purpose of this clause Confidential Information shall mean information exchanged between the Parties relating to the Program including:

- Intellectual property information;
- Technical or business information or material not covered in 6.3 above
- Proprietary or internal information related to the Program;
- Information disclosed pursuant to this MoU;
- All such other information – which by its nature or the circumstances of its disclosure is confidential and all such information of whatever nature and exchanged between the parties hereto and which by mutual MoUs to be treated as confidential;
- This MoU and its terms and conditions.

## **7. DISPUTE RESOLUTION**

All disputes regarding quality, specifications and rates shall be tried to be settled mutually by making references to conditions of MoU documents or prevailing local practices etc., but if not settled mutually, shall be referred to arbitration via appointment of 1 (one) arbitrator, mutually, subject to Arbitration and Conciliation Act 1996 and its amendments, modifications to-date. Arbitration cost to be shared equally by IIMA and HBNI. The place of Arbitration shall be Ahmedabad and any award whether interim or final, shall be made and shall be deemed for all purpose between the parties to be made, in Ahmedabad. The arbitrator shall give a reasoned award. The award of arbitration shall be final and conclusive and binding upon the parties.

## **8. GENERAL TERMS AND CONDITIONS:**

**Prohibition on Advertising:** Neither party shall advertise or otherwise make public that they are furnishing / utilizing goods or service under this MoU, without specific permission of the other party.

**Independent:** Nothing contained in this MoU will be construed as creating any agency, partnership, joint enterprise or other similar relationship between the parties. The relationship/rights and liabilities between IIMA and HBNI will at all times be independent in nature. Neither party will have authority to contract for or bind the other in any manner whatsoever. This MoU confers no rights upon either party except those expressly granted herein and does not confer any right upon either party to make any representation or commitment on behalf of the other.



## 9. TERM AND TERMINATION

This MoU shall be valid for a period of three years from the date of signature of the parties (the later of the dates if the parties have not signed on the same date) on this MoU. The MoU can be further extended based on mutual consent. The said extension may be done by way of signing of an addendum to the MoU wherein modifications, if any to the MoU may be brought out and signed by both the parties.

Notwithstanding any of the above terms, this MoU can be terminated by either of the parties by giving the other thirty days' written notice of termination. In the event programs are under implementation at the time of the termination, both the parties agree that these programs will come to a natural fruition as envisaged under the implementing agreement. While terminating this MoU, it is agreed that IIMA will be entitled for payments for teaching and other associated costs made up to the day of cancellation of the MoU and for such cancellation charges of facilities booked either within or outside.

IN WITNESS WHEREOF, the Parties hereto have or have caused their respective duly authorized representatives to execute this MoU

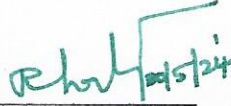
### Signed on:

For & On behalf of HBNI

For & On behalf of IIMA

**Homi Bhabha National Institute Mumbai**

**Indian Institute of Management Ahmedabad**

(Signature) 


Date: 30.5.2024

Name: **Prof. P.C. Selvin**

Designation: Registrar, HBNI



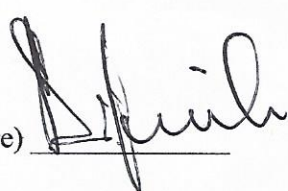
Witnessed by:

(Signature) 

Date: 30.5.24

Name: **Suresh Nair**

Designation: Dy. Registrar


(Signature) 

Date:

Name: **Prof. Diptesh Ghosh**

Designation: Dean Programmes, IIMA



(Signature) 

Date:

Name: **Mr. Vikas Chaturvedi**

Designation: Chief Operating Officer (COO),  
EEP, IIMA



# **MEMORANDUM OF UNDERSTANDING**

**BETWEEN**



**HOMI BHABHA NATIONAL INSTITUTE  
MUMBAI**

**AND**



**INDIAN INSTITUTE OF TECHNOLOGY  
DELHI**

**FOR**

**COLLABORATION IN EDUCATION & RESEARCH**

**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**HOMI BHABHA NATIONAL INSTITUTE**  
**AND**  
**INDIAN INSTITUTE OF TECHNOLOGY, DELHI**

**Preamble**

The Indian Institute of Technology, Delhi (hereinafter referred to as IIT, Delhi) is a premier educational institution in science and technology and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)

RECOGNISING that certain collaborative programmes are ongoing because of an individual initiative such as the pursuit of research leading to a Ph.D. by employees of CIs/OCC under



the external registration programme of IITD and co-supervision of Ph.D. students at IITD by the scientists/faculty of CIs/OCC and the faculty of IITD, and

RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, IIT, Delhi and HBNI, collectively referred to as "Partner Institutes" HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MOU).

## 2. Objective

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.

## 3. Modalities of cooperation

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean, AP (IITD) /Dean (HBNI)-as the case may be.

*Resubmit. RBH*

3.3 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 IIT, Delhi will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. Implementation

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e., from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

# From HBNI-

# From IIT, Delhi

(i) Dean, HBNI

(i) Dean (Academics), IIT, Delhi

(ii) Dean Academic of the CI/OCC

Signed on..... 11<sup>th</sup> ..... day of June , 2024.





For and on behalf of

**Homi Bhabha National Institute**

Registrar, HBNI

प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अनुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094



Witnessed by

Deputy Registrar, HBNI

सुरेश नायर / Suresh Nair  
उप कुलसचिव / Dy. Registrar  
होमी भाभा राष्ट्रीय संस्थान  
Homi Bhabha National Institute  
प्रशिक्षण विद्यालय परिसर, अनुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

For and on behalf of

**Indian Institute of Technology, Delhi**

संकायाध्यक्ष, शैक्षिक  
Dean, Academic  
भारतीय प्रौद्योगिकी संस्थान दिल्ली  
Indian Institute of Technology Delhi  
हौज खास, नई दिल्ली - 110016  
Hauz Khas, New Delhi-110016

Witnessed by

एलन वी. सिनाटे / ALAN V. SINATE  
उप कुलसचिव (शैक्षिक)  
Deputy Registrar (Academics)  
भारतीय प्रौद्योगिकी संस्थान दिल्ली  
Indian Institute of Technology Delhi  
हौज खास, नई दिल्ली / Hauz Khas, New Delhi-16

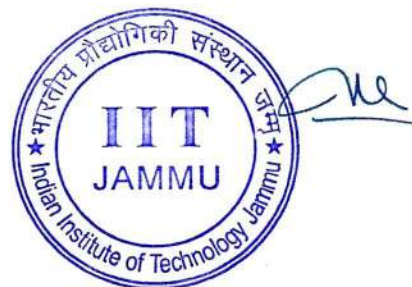
# MEMORANDUM OF UNDERSTANDING BETWEEN HOMI BHABHA NATIONAL INSTITUTE AND INDIAN INSTITUTE OF TECHNOLOGY JAMMU

## 1. Preamble

The Indian Institute of Technology Jammu is a premier educational institution in science and technology (hereafter referred to as IITJMU) and the Homi Bhabha National Institute (hereafter referred to as HBNI) is a Deemed to be University established under the aegis of the Department of Atomic Energy (hereafter referred to as DAE), Government of India. For the purpose of academic programmes, the following units of DAE are the Constituent Institutions (CIs)/Off Campus Centre (OCC) of HBNI:

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
3. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
4. Variable Energy Cyclotron Centre (VECC), Kolkata
5. Saha Institute of Nuclear Physics (SINP), Kolkata
6. Institute of Plasma Research (IPR), Gandhinagar
7. Institute of Physics (IOP), Bhubaneswar
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Tata Memorial Centre (TMC), Mumbai
10. Institute of Mathematical Science (IMSc), Chennai
11. National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)
12. Homi Bhabha Cancer Hospital & Mahamana Pandit Madan Mohan Malaviya Cancer Centre (HBCH & MPMMCC), Varanasi (OCC)

RECOGNISING that the long-standing collaboration and cooperation between IITJMU and some of the CIs of HBNI are ongoing because of individual initiative such as pursuit of research leading to Ph.D. by employees of CI/OCC under the external registration programme of IITJMU and co-supervision of Ph.D. students at IITJMU by the scientists/faculty of CIs/OCC and the faculty of HBNI, and





RECOGNISING that, in view of the establishment of HBNI, while continuing the existing programmes as of present, there is scope of further expansion of the existing collaboration and cooperation, between IITJMU and HBNI, collectively referred to as "Partner Institutes" HEREBY agree to create a long-term institutional partnership in education and research, according to the broad framework set forth in this Memorandum of Understanding (MOU).

## 2. Objective

To enhance collaborative research in the areas of mutual interest, both in extent and scope, by using the medium of research students enrolled in the partner Institutes.

## 3. Modalities of cooperation

3.1 A student registered under a supervisor for M.Tech./Ph.D. in one Partner Institute (hereafter referred to as Parent Institute) can have a co-supervisor from the other partner Institute. To that end, the Supervisor from the Parent Institute of the student will identify and seek concurrence of a faculty member from the Partner Institute to take up the responsibility of being a co-supervisor. The arrangement will come into effect after the supervisor and the co-supervisor obtain approval for the same from their respective institute.

3.2 The Ph.D. students in one Partner Institute may carry a part of the course work in the other Partner Institute with credit transfer. In particular,

1) The courses to be credited to the student for attending a course in the Partner Institute will be determined by the Parent Institute of the student.

2) To facilitate the process of a student attending a course in the Partner Institute, the supervisor of the student in the Parent Institute will put up the proposal (in consultation with appropriate academic bodies of the Department) to the Dean (Academic Affairs), IITJMU/Dean (HBNI)- as the case may be.



3.3 The Parent Institute shall be responsible for paying to the Partner Institute the tuition fee, if any, for participation of its students in the course work conducted at the Partner Institute.

3.4 The ongoing exchange of faculty for lectures and research for short periods shall be further strengthened.

3.5 IITJMU will continue interactions with the CIs of HBNI towards identifying and pursuing research programmes that could lead to a degree from HBNI.

3.6 The issues related with the Intellectual Property Right (IPR) with regard to the outcome of the collaborative research and the outcome of thesis/projects work carried out under the joint supervision of the faculty from the Partner Institutes shall be governed through mutual agreement and within the framework of IPR policies of both the institutes.

#### 4. **Implementation**

4.1 This MoU becomes effective from the date it is signed by the Partner Institutes and will be valid for an initial period of five years. The agreement may be extended by mutual consent. In case one Partner Institute wishes to cancel the MoU, written intent to that effect will have to be communicated by June of that year. The MoU in that event will cease to be operative from the end of the year i.e. from December 31 of the year in question. However, the commitments already made under this MoU before its lapse or termination will be fulfilled.

4.2 For implementation of this MoU, the following will be the contact persons

# From HBNI-

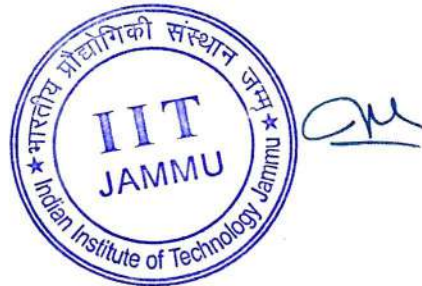
(i) Dean, HBNI

(ii) Dean Academic of the CI/OCC

# From IITJMU-

(i) Dean (Academic Affairs) IITJMU

(ii) Dean (Admin), IITJMU





Signed on.....14<sup>th</sup>..... day of September , 2024.

For and on behalf of

For and on behalf of

**Homi Bhabha National Institute**

**Indian Institute of Technology Jammu**

Registrar, HBNI

Dean (Academic Affairs), IITJMU

प्रो. पी. सी. सेल्विन / Prof. P. C. Selvin  
कुलसचिव / REGISTRAR  
होमी भाभा राष्ट्रीय संस्थान  
HOMI BHABHA NATIONAL INSTITUTE  
प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Dean/अध्यक्ष  
Academic Affairs/शैक्षणिक अनुभाग  
Indian Institute of Technology Jammu  
भारतीय प्रौद्योगिकी संस्थान जम्मू

Witnessed by

Witnessed by

सुरेश नायर / Suresh Nair

उप कुलसचिव / Dy. Registrar

Deputy Registrar, HBNI

Homi Bhabha National Institute

प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४  
Training School Complex, Anushakti Nagar, Mumbai - 400 094

Dean (admin), IITJMU

संकायाध्यक्ष प्रशासन

Dean Administration

भारतीय प्रौद्योगिकी संस्थान जम्मू

Indian Institute of Technology Jammu

जगती, नगरोटा, जम्मू-181221, जे एंड के, भारत  
Jagti, Nagrota, Jammu-181221, J&K, India



Hamed Saeed supporting staff of National Goals Program and Mr. Kiran Vaidhya Representative of Sheth Global, Mumbai visited Banana Pseudostem Processing Unit to assess the scope of employment and secondary income generation thorough value addition in banana and other crops of Sudan on January 24, 2020.



Mr. Chang Pyong Kil, CEO, CASIA Corporations, a South Korea based company visited Banana Pseudostem Processing Unit at Navsari Agricultural University, Navsari and discussed the need to adopt organic sources in agriculture on February 17, 2020.

### MoUs signed

During the year 2019-20, the NAU has signed 14 MoUs with National Institutes and Private Companies for training and research purposes.

Sr. No.	MoU partners	Particulars
1	BHABHA Atomic Research Centre, Mumbai	Research and Development programme on "Field Evaluation of Trombay Crop Genotypes and Research Activities in Agriculture" on May 21, 2019
2	Paperdom Surat, Gujarat	Training and Research on Banana Paper Crafts on June 13, 2019
3	Unifeb India Solution, Nashik, Maharashtra	Training and Research on fabrication of banana processing machine on June 13, 2019
4	Institute of Wood Science & Technology, Bengaluru, Karnataka	Training and Research on Wood Value Addition and Processing on July 04, 2019
5	Pollucon Laboratories Pvt. Ltd. Surat	Training and Research on food safety on July 29, 2019
6	Indian Institute of Technology, Kharagpur	PG Research on November 02, 2019
7	Indian Institute of Natural Resins and Gums, Ranchi	Training and Research on Value Addition and Processing of NRGs on November 27, 2019

Srivastava; Regional Manager, West Zone and Mr. Manoj Kumar Rawat; Branch Manager, Indore (MP) visited Banana Pseudostem Unit with Officers of Gujcomsol, Ahmedabad for national level marketing of NOVEL on February 25, 2020.



Dr. Stayajit Roy, Director, DMAPR, Anand along with associated faculties visited workshop of "Scientific Utilization of NTFPs & MAPs" established under NAHEP-CAAST-Sub-project and Bamboo Resource Centre established plan project of GoG, on January 24, 2020.