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 3rd, 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.

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 3rd, 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 8th 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 विद्यासय परिसर, अणुशक्ती नगर, मुंबई - ४०० ०९४ Training School Complex, Anushakti Nagar, Mumbai - 400 094

Witnessed by

For and on behalf of

Tata Institute of Fundamental Research

जयराम एन. चेंगालूर / Jayaram N. Chengalur निवेशक / Director

टाटा मूलबूत अनुसंधान संस्थान of Fundamental Research धारमय/Deemed to be University

1, होनी भाभा रोड, कुलाबा/1, Homi Bhabha Road, Colaba

Witnessed by Mumbai - 400 005

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सुरेश नायर / Suresh Nair उप कुलसचिव / Dy. Registrar होमी भाषा राष्ट्रीय संस्थान

Homi Bhabha National Institute प्रशिक्षण विद्यालय परिसर, अणुशक्ति नगर, मुंबई - ४०० ०९४ Training School Complex, Anushakti Naga; Mumbai - 400 094

Dean, Graduate Studies / अधिष्ठाता, स्नातक अध्ययन Tata Institute of Fundamental Research / टाटा मूलभूत अनुसंधान संस्थान Deemed to be University / समविश्यविद्यालय

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

Signed on Third day of December	ver	2118
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For and on behalf of

For and on behalf of

Homi Bhabha National Institute

Tata Institute of Fundamental Research

Vice Chancellor, HBNI

Witnessed by

Witnessed by

Dean, HBNI

Dean, Graduate Studies, TIFR