MEMORANDUM OF UNDERSTANDING

BETWEEN

BHABHA ATOMIC RESEARCH CENTRE (BARC)

AND

PANDIT DEENDAYAL PETROLEUM UNIVERSITY (PDPU)

For Establishing
AN ACADEMIC & RESEARCH COLLABORATION
FELLOWSHIP PROGRAMME

(2019-2024)



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MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MoU") made and entered into on this 25th day of March 2019

BETWEEN

Bhabha Atomic Research Centre, Department of Atomic Energy, Government of India, Trombay, Mumbai 400085, (hereinafter referred to as 'BARC'), through its Director, on the First Part.

AND

PANDIT DEENDAYAL PETROLEUM UNIVERSITY, established by the Gujarat Legislature Act No.14 of 2007 (hereinafter referred to as **PDPU**), Raisan Village, Dist. Gandhinagar, Gujarat – 382007, through its Director General (I/C)/ Vice-Chancellor, on the Other Part.

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भाषा प्राथिण अनुसंधान केंद्र / Bhabha Atomic Research Centre 4. पुडाब शिक्स के कर्त कर दामके भारत सरकार/Government of India ६. इस्ते असल्यास त्यांच नाव, पता य सहा द्राप्ते, नृबई-४०० ०८५./ Trombay Mumbai-400 085

७. दुसऱ्या पक्षकारांचे नाद

८. मुझंक शुल्क रक्कम ९. परवानाबारक प्रशंक विकेल्याची सही व परवाना क्रमांक तसेव

निलेश सी. भोजन परवाना ऋ.७२०५०२३, मुदांक विकेत्याची विकाण/पत्ता सी-२/४/०:१, सेंक्टर-२, बाओ, नथी मुंबई-४०० ७०।

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी बेला त्यांनी त्याच कारणासाठी मुद्रांक छरेदी बेल्यो बापरणे गंधनकारक आहे.

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MEMORANDUM OF UNDERSTANDING

Bhasha Atomic Research Centre, Department of Atomic Energy, Government of India, Trombay, Mumbai 400085, (hereinafter referred to as BARC), through its Director, on the First Part.

PANDIT DEENDAYAL PETROLEUM UNIVERSITY, established by the Curlial (I/C)/ Vice-Chancellor, on the Other Part.

WHEREAS BARC, the premier research institution in the country under Department of Atomic Energy (DAE) has vast expertise and facilities for research in nuclear science and technology. In order to fully harness the expertise and the facilities and to assist Universities/Institutions in their efforts to develop human resources, BARC has been laying strong emphasis on active collaboration with Universities and other institutions of higher learning.

AND WHEREAS the PANDIT DEENDAYAL PETROLEUM UNIVERSITY has been keen on carrying out collaborative research with BARC in the area of academics, research and technology related to applications of nuclear energy in power and non-power sectors such as application of radioisotopes in food & agriculture, medicine & health care, research and industry.

To further strengthening the ongoing collaboration, it is proposed to set-up research fellowship programme (hereinafter referred to as 'the programme') whereby students after acquiring M.Tech/M.Sc Degree would be selected for doctoral programme of PDPU. This MoU is now entered into for instituting research fellowship programme under full funding from PDPU. This MoU supersedes all the previous correspondence and discussions pertaining to this subject.

AND WHEREAS both BARC and the PDPU are desirous of establishing a research fellowship programme under full funding from PDPU.

NOW IT IS AGREED BETWEEN THE TWO PARTIES AS HEREUNDER:

- 1. The research collaboration programme leading to Ph.D. (Engineering/Science) shall be established:
- 1.1 Instituting research fellowships for students pursuing Ph.D. at PDPU under funding from PDPU and
- 1.2 Scientists of BARC shall be recognized by PDPU as guides for Ph.D. and they will continue to function as such for implementing the collaborative programme under this MoU.

2.THE FELLOWSHIP PROGRAMME:

- 2.1 The Programme will be in major engineering discipline including Nuclear, Mechanical and Chemical Engineering and extended to Life Sciences Agriculture, Biochemistry, Biotechnology etc. During the validity of MoU, additional disciplines/programmes can be included in the present MoU with mutual agreement.
- 2.2 Admission to maximum of 3 students every year for pursuing the doctoral programme shall be allowed. Basic qualifications and recruitment procedure to select these fellows will be as per the norms of the University.

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The numbers in the three disciplines will be kept approximately equal. Based on the experience gained, both parties may mutually agree to increase the intake at appropriate time.

- 2.3 The research fellows shall be enrolled with the PDPU. The topics for research by the fellows will be selected keeping in view the strengths of PDPU and their relevance to the programmes of BARC. The fellows will carry out research work under supervision of a guide from PDPU and a co-guide from BARC.
- 2.4 The research fellows will carry out their research work either at both BARC and PDPU or only at BARC. The duration at respective campuses would be decided through mutual discussion by the research supervisors on either side depending on the nature and needs of the research project.

Accommodation of PDPU students while in BARC will be arranged by PDPU, however BARC may considered accommodation request based on availability.

- 2.5 The research fellows will submit their thesis for the award of the Ph.D. degree to the PDPU. The research fellows will be charged fees by PDPU as per the University norms.
- 2.6 The research fellows will be selected by the selection committees having equal representation from the PDPU and BARC.
- 2.7 A Coordination Committee will be constituted for effective execution of the Programme. There will be one Coordinator from BARC (to be nominated by the Director, BARC) and another from the PDPU (to be nominated by the Director General (I/C). For each discipline, a two member discipline wise committee, consisting of one member from the University nominated by the Vice Chancellor of the University and one member from BARC nominated by the Director, BARC will be formed. Both Coordinators and the members of the team for each discipline, put together, would form a Coordination Committee. The Coordination Committee will meet once a year to review the programme under PDPU-BARC collaboration and need for further extension of the MOU beyond 5 years. The Coordinators from both sides will chair the meetings of the Coordination Committee every alternate year. They will report on this programme yearly to Director, BARC and Director General (I/C) PDPU. This Committee will meet twice a year, once to select the students, and next to review the programme in research/extension of fellowship yearly. The Committee will be chaired by the two nominated members.



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- 2.8 For the students funded by PDPU, the fellowship and related contingency amount will be released by PDPU from University Fund as per prevailing rates.
- 2.9 The payment of fellowship and its duration will be as per the rules by which the University is formed. TA/DA for Visiting Faculty from BARC and TA/DA/Accommodation for PhD students to be borne by PDPU. If he/she is not able to complete the Doctoral programme within five years, the fellowship can be extended another one year on the joint recommendation of the Research Supervisors of both the sides and the approval of the two member discipline wise committee based on yearly review.

3.INTELLECTUAL PROPERTY RIGHTS & PUBLICATIONS:

The rights in any intellectual property emerging out of the collaborative programme to be carried out under this MoU, will be jointly owned by the PDPU and BARC. The authorship in publications will be jointly shared. For filing of any joint patent arising out of this programme, national or international, prior permission of the competent authorities from DAE is essential.

4.CONFIDENTIALITY:

- 4.1 The term "Confidential Information" shall mean any information disclosed by one party ("Discloser") to the other ("Receiver"), pursuant to this MoU or otherwise, which is in written, graphic, machine readable or other tangible form and is marked as 'Confidential' or 'Proprietary' or in some other manner to indicate its confidential nature. Confidential information may also include oral information disclosed by one party to the other, pursuant to this MoU, provided that such information is designated as Confidential at the time of disclosure and reduced to a written summary by the disclosing party, within 30 days after its oral disclosure, which is marked in a manner to indicate its confidential nature and delivered to the receiving party.
- 4.2 For the term of this MoU, each party shall treat as confidential all confidential information of the other party, shall not use such confidential information except as expressly set forth herein or otherwise authorized in writing, shall implement reasonable procedures to prohibit the disclosure, unauthorized duplication, misuse or removal of the other party's confidential information and shall not disclose such confidential information to any third party except as may be necessary and required in connection with the rights and obligations of such party under this MoU. Without limiting the foregoing, each of the parties shall use at least the same procedures and degree of care which it uses to prevent the disclosure of its own confidential information.
- 4.3Confidential information shall not include the information which,



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- i) was generally known and available at the time it was disclosed or becomes generally known and available through no fault of the receiver, was known to the recipient of such information, without restriction, at the time of disclosure as shown by the files of the recipient in existence at the time of disclosure.
- ii) is disclosed with the prior written approval of the disclosure,
- iii)was independently developed by the receiver without any use of the confidential information, and by employees and other agents of the receiver who have not been exposed to the confidential information, provided that the receiver can demonstrate such independent development by documented evidence prepared contemporaneously with such independent development.
- iv) becomes known to the receiver, without restriction, from a source other than the discloser without breach of this MoU by the receiver and otherwise, not in violation of the discloser's rights.
- v) In addition, each party shall be entitled to disclose the other party's confidential information to the extent such disclosure is requested by the order or requirement of a Court, administrative agency, or other governmental body, provided that the party required to make the disclosure shall provide prompt and advance notice thereof, to enable the other party to seek a protective order or otherwise prevent such disclosure.
- 4.4 The parties shall, upon expiration of this *MoU*, promptly deliver to each other, all materials in its or its employee's possession or control containing such confidential information.
- 4.5The provisions of this Clause shall survive the expiration or termination of this MoU

5.EFFECTIVE DATE AND DURATION OF THE MoU:

This *MoU* shall be effective from the date it is signed by the parties hereto: The duration of the *MoU* will be for a period of five (5) years from the effective date, unless or otherwise terminated earlier, as per Clause 7. This duration can be extended further with mutual consent.

6.AMENDMENT TO MoU:

No amendment to this MoU shall be valid unless the same is made in writing jointly by the parties hereto or their authorized representatives and specifically stating the same to be an amendment to this MoU.

7. TERMINATION OF MoU:

7.1This MoU can be terminated by any party giving the other party, a prior written notice of not less than 60 days of its intention to do so.

7.2In the event of termination of the *MoU*, the fellows already working under this programme will continue to work for full term on the same terms and conditions as mentioned in this *MoU*.

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8. SETTLEMENT OF DISPUTE

Any dispute arising in relation to or in connection with this MoU between the parties shall be resolved by mutual negotiations. In case of any unresolved dispute, the parties shall refer the said dispute for arbitration, to the sole arbitrator appointed by the parties hereto and the decision of the arbitrator shall be final and binding on both the parties. The provisions of Arbitration and Conciliation Act 1996 shall apply to such arbitration. Such arbitration proceeding shall be held in Mumbai.

IN WITNESS WHEREOF both the parties hereto have set their hands, and the date and year mentioned.

PDPU

For and on behalf of

Pandit Deendayal Petroleum

University(PDPU)

Signature:

Designation:

Prof. C Gopalkrishnan Director General, PDPU For and on behalf of BhabhaAtomic Research Centre(BARC)

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Signature:

Designation: डॉ. ए. के. मोहान्ती / Dr. A. K. Mohanty निदेशक, भा.प.अ.केंद्र

Dr A K Mohanty Director, BARC

Director, B.A.R.C

Place: Gandhinagar

Date: 25th March 2019

Name: Prof Chaitanyamoy Ganguly Advisor toDirector General, PDPU

Witness 2:

Name: Prof Tarun Shah

Registrar, PDPU

Witness 1:.

Name: Shri R. J. Patel

Raja Ramanna Fellow, BARC

Witness 2:

Name: Dr. Amar Banerji

Head, TT&CD, BARC