



## Memorandum of Understanding

between

**Central Electricity Authority**

and

**Indian Institute of Technology Delhi**

This Memorandum of Understanding (MoU) between Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi, (hereinafter referred to as “CEA”) and the Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016 (hereinafter referred to as “IITD”) witnessed as follows:

### 1. Objectives

The objectives of the Memorandum of Understanding (MoU) are the development of R&D programmes, admission of CEA/Ministry of Power (MoP)/Central Power Research Institute (CPRI)/National Power Training Institute (NPTI) officers to M.Tech/MBA/PhD programmes at IITD, supporting Human Resources Development (HRD)/Training programmes and creation of one Chair Professorship at IITD.

#### 1.1 R&D Programmes

- (a) To develop R&D programmes and to undertake selective R&D projects through Research Scholars selected by IITD for purposes relevant to the needs of Power Sector.
- (b) To assist in R&D in respect of “National Perspective Plan (NPP) on R&D” of MoP.
- (c) To provide technical assistance in activities initiated by Excellence Enhancement Centre (EEC) (A registered Society) for the Indian Power Sector.

#### 1.2 Masters/MBA and Doctoral Programmes

- (a) The officers from CEA/MoP/NPTI and CPRI would be eligible for pursuing their studies for M.Tech/MBA/PhD programmes as per the prevailing rules of IITD.
- (b) To facilitate admissions for pursuing part time M.Tech/PhD programmes in the Department of Electrical Engineering/Department of Mechanical

Engineering/Department of Energy Science and Engineering/ Centre of Excellence in Cyber Systems and Information Assurance (M.Tech in Cyber Security) and MBA or any other stream as per the needs of power sector.

(c) Admission procedures of the Institute shall be followed by the candidates.

### **1.3 HRD/Training Programmes**

IITD to provide active support in conducting HRD programmes relevant to the needs of Power Sector and also to help in coordinating/conducting capsule courses in the identified areas of Power Sector.

### **1.4 CEA Chair Professorship**

One CEA Chair Professorship will be instituted at IITD and this position will be designated as under:

**CEA Chair Professor** from the Electrical Engineering Department/Mechanical Engineering Department/ Department of Energy Science and Engineering/ Centre of Excellence in Cyber Systems and Information Assurance or as deemed fit by IITD.

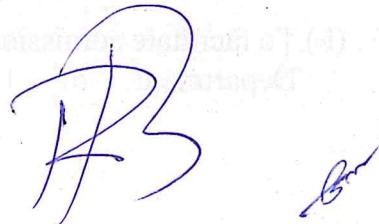
## **2. Contribution for CEA Chair Professorship**

As per the revised guidelines/rules of IITD, an endowment of Rs one (1.0) Crore for one Chair Professorship will be maintained by CEA. The operating expenditure of Chair Professorship would be met through further interest accrued on this endowment fund of Rs 1.0 Crore.

CEA has already paid Rs 30 lakhs (Rupees thirty lakhs only) in the year 1999-2000 and Rs 30 lakhs (Rupees thirty lakhs only) in the year 2000-2001 for the Chair. As on 31<sup>st</sup> March 2022 a sum of Rs. 146.10 lakhs (out of which Rs 1.0 crore will be maintained as endowment fund) is lying as balance to the credit of CEA Chair account which includes endowment fund, interest accrued, and expenditure incurred so far. The sole purpose of the endowment fund is the creation of the CEA Chair Professor to achieve the above-stated objectives.

## **3. Utilization of Contribution**

The earnings from the endowment of Rs 1.0 Crore and interest accrued thereon shall be utilized for meeting the expenditure involved towards Chair Professorship. The scheme has no financial liabilities for the Government of India in future except for the endowment fund already available with IITD. However, additional requirements, if any for pursuing M.Tech/MBA/PhD programme by CEA/MoP



officers and undertaking R&D programmes would be provided by CEA if such programmes are felt necessary.

Towards the end of each year, IITD will send an audited annual account to CEA and Controller of Accounts, Ministry of Power (MoP), for the amount spent for the above purpose. CEA would be liable to pay the gap, if any, under the applicable rules/regulations of expenditure and income out of the endowment fund.

#### **4. Appointment and Tenure of CEA Chair Professor**

Appointment of Chair Professor will be made as per the established procedures at IITD and also as per the prevailing rules and guidelines of the Institute. The tenure of the Chair Professor is normally for a period of up to five (5) years, but such that it does not extend beyond his/her term of employment as Associate Professor or Professor, Visiting Faculty/Professor or Emeritus Fellow/Professor. However, continuation into the fourth and fifth years will be subject to a review at the end of the third year. Further, the chair professor may be eligible to be considered for re-appointment, together with other eligible candidates, for a period of up to five (5) years (without a break) any number of times.

#### **5. Operation of Programmes**

##### **5.1 Masters and Doctoral Programmes**

- i) M.Tech and PhD programmes will be made available for the officers of Ministry of Power (MoP) and CEA and also NPTI and CPRI on the recommendations of CEA/MoP as per rules of the Institute.
- ii) The admission to these programmes would be done by the respective Departments/Centres of IITD in their academic calendar. The norms would be decided by IITD as per the rules applicable for other Government Departments/CPSUs for admission to part-time courses.
- iii) IITD shall admit up to a maximum of thirty (30) candidates and charge fees accordingly for part time M.Tech programmes in the specified fields in ten (10) years [subject to maximum of three (03) candidates per year] from the date of execution of the MoU. Also, IITD shall admit and charge fees for enrolment of officers in part time MBA programme for twenty (20) candidates in ten years [subject to maximum of two (02) candidates per year] as per the rules/ procedures of the Institute.
- iv) Similarly, IITD shall admit and charge fees for PhD Programme for ten (10) candidates (one candidate per year) who are officers of Ministry of Power and CEA and also of NPTI and CPRI as per rules/ procedures of the Institute.



- v) In case, the aforementioned limit of seats in respect of all the programmes is not exhausted in a year, the same (seats) shall be carried forward for future years.
- vi) For the above-mentioned part-time programmes, the candidates shall deposit the applicable fees/ charges as per the rules of the Institute for such admissions.
- vii) The fees and charges deposited by the candidates of CEA and MoP are reimbursable from CEA.
- viii) The fees and charges deposited by the candidates from NPTI and CPRI will be reimbursed by the respective organizations.

## 5.2 R&D Programme

- (i) The Chair Professor could undertake R&D activities (**in consultation with CEA**) to be executed through Research Scholars funded by CEA selected by IITD for purposes relevant to the needs of the Power Sector.
- (ii) IITD shall assist in formulating R&D proposals in respect of National Perspective Plan (NPP) on R&D and EEC to provide technical assistance in activities initiated by the Government of India for the Indian Power Sector. However, cost of research done separately by other IITD faculty shall be borne by CEA.
- (iii) Any outcome(s) of research done by a member occupying the CEA Chair Professor/Faculty, through Research Scholars funded by CEA selected for this purpose, in the form of patent/copyrights or any other form of intellectual property, would be of CEA, MoP and IITD only.
- (iv) Based on a request from CEA, the CEA Chair Professor would organize two (2) capsule courses/workshops in an academic year. Such activities will be funded by CEA.

## 6. Presentation of the work done by the CEA Chair Professor

The CEA Chair Professor will present his work to the Management Committee once a year at a venue chosen by CEA and IITD.

## 7. New Areas of Cooperation

1. Interaction of CEA officials with the School of Public Policy of IITD.
2. Thermal Energy Storage and other storage Technologies.
3. Electric Vehicle – whole eco system including the development of Standards.
4. Recycling of batteries, solar panels, wind turbine blades and other power sector wastes.
5. Utilization of gypsum.



6. CCUS technology.
7. Hydrogen Economy.
8. Energy Transition.
9. Emerging challenges in power sector as and when felt necessary.

**8. Management Committee and Review of the Annual Progress**

- i) A Management Committee consisting of the following will review the functioning of the Chair as well as the utilization of funds every year:

**IITD**

**CEA**

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| <ul style="list-style-type: none"> <li>• Director IITD</li> <li>• Two nominated Members by IITD</li> <li>• Professors of related Discipline</li> </ul> | <ul style="list-style-type: none"> <li>• Chairperson, CEA</li> <li>• Two Members nominated by CEA</li> <li>• Joint Secretary, MoP</li> </ul> |
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- ii) The various activities to be reviewed by the Management Committee will include:

- a) The details of income and expenditure during the previous year.
- b) The objective fulfilled as at para-1.1, 1.2 and 1.3 above by the CEA Chair Professor during the year.
- c) Research and other academic work may be proposed to be undertaken by the CEA Chair Professor for the coming year in frontier areas of Power Sector.

- iii) There will be an Advisory Committee to assist the Management Committee. The formation of Advisory Committee shall be as under:

<b>IITD</b>	<b>CEA</b>
Head (Electrical Engineering Department)	CE (Hydro Engineering & Technology Development Division)
Head (Mechanical Engineering Department)	CE (Thermal Engineering & Technology Development Division)
Head ( Department of Energy Science and Engineering)	CE (Power System Engineering and Technology Development Division)
Head (Centre of Excellence in Cyber Systems and Information Assurance)	CE (Research and Development Division)

Dean (R&D), IIT Delhi or his Nominee	Chief Engineer (Information Technology and Cyber Security Division)
Coordinator of the Programme, IIT Delhi	Director, (Research and Development Division) - Member Secy.

9. The CEA Chair Professor is expected to be available to CEA for advice, guidance, and delivering lectures during CEA/ MoP sponsored seminar/workshop.
10. It is hereby agreed that recommendations of the duly constituted committees under this MoU shall be binding on CEA and IITD.
11. It is hereby agreed that any dispute arising out of the interpretation and/or achieving the objectives of this MoU shall be mutually settled between Chairperson, CEA and Director, IITD.
12. This Memorandum of Understanding (MoU) shall be valid for a period of ten (10) years from the date of signing, subject to review after every five years, unless and otherwise terminated through mutual agreement by both the parties. It shall take effect from the date of its signing.

IN WITNESS THEREOF the parties hereto have signed this Memorandum of Understanding by the hand of Shri Ghanshyam Prasad, Chairperson, on behalf of Central Electricity Authority and by the hand of Prof. Rangan Banerjee, Director, on behalf of Indian Institute of Technology, Delhi. The MoU is signed subject to approval by the appropriate authorities on both the sides.

All the matters of dispute shall be executed subject to the jurisdiction of a Court at Delhi.

SIGNED AND DELIVERED

On behalf of the said  
Central Electricity Authority



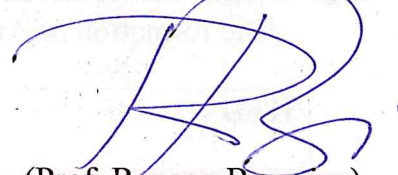
(Ghanshyam Prasad )  
Chairperson, CEA

Date: 17/3/2023

घनश्याम प्रसाद / GHANSHYAM PRASAD  
अध्यक्ष / Chairperson  
एवं पदेन सचिव, भारत सरकार  
and Ex-Officio Secretary to the Govt.  
केन्द्रीय विद्युत प्राधिकरण / C.E.A.  
विद्युत मंत्रालय / Ministry of Power  
भारत सरकार / Government of India  
नई दिल्ली / New Delhi-110066

SIGNED AND DELIVERED

On behalf of the said  
Indian Institute of Technology Delhi



(Prof. Rangan Banerjee)  
Director, IIT Delhi

Date: 17/3/2023

रंगन बॅनर्जी  
Rangan Banerjee  
निदेशक / Director  
भारतीय प्रौद्योगिकी संस्थान दिल्ली  
Indian Institute of Technology Delhi  
हौज खास, नई दिल्ली-16/Hauz Khas, New Delhi-16