### MEMORANDUM OF UNDERSTANDING BETWEEN

# AIR FORCE TECHNICAL COLLEGE, BENGALURU (INDIAN AIR FORCE) AND

# INDIAN INSTITUTE OF TECHNOLOGY, MANDI FOR COLLABORATION IN

# ACADEMIC COOPERATION, RESEARCH, TECHNOLOGY DEVELOPMENT AND TECHNICAL SOLUTIONS

This Memorandum of Understanding ("MoU") is made and entered on this 01st Oct 2024

#### 1. Parties.

The Parties to this Memorandum of Understanding ("MoU") are the

Indian Air Force, represented by AFTC (Air Force Technical College), Jalahalli West Bengaluru - 560015 (hereinafter called "Indian Air Force")

and

Indian Institute of Technology, Mandi established by the Ministry of Education and having its office at Kamand, Mandi, Himachal Pradesh – 175075 (hereinafter referred to as "IIT Mandi").

These entities are collectively referred to as the "Parties" and individually as a "Party" as the case may be.

### Objectives.

This Memorandum of Understanding (MoU) is aimed to:

- (a) Provide a formal basis for interaction between IIT Mandi and AFTC.
- (b) Promote academic cooperation, enhance scientific understanding of technologies related to defence and undertake research and development activities in mutually beneficial areas.

## 3. Plan.

It is envisaged that IIT Mandi and AFTC will collaborate through following: -

(a) Academic cooperation and promotion of research and development in areas of mutual interest.

(आ श्रीवास्तव / A Shrivastava) एयर कमोडोर / Air Commodore कमांडेन्ट / Commandant वा से त का / AFTC

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- (b) Joint study, research/ project work and indigenous development by AFTC and IIT Mandi to understand and offer solutions to problem statements of IAF.
- (c) Facilitate AFTC faculty and trainee officers access to IIT Mandi online technical resources.

#### 4. Agreements and Collaboration.

This MoU shall serve as an aegis for carrying out research and development activities in areas of mutual interest. The signing of this MoU does not entail any financial or legal obligation on either Party. Essentially, this MoU is a framework within which subsequent agreements replete with financial implications and relevant details can be signed for carrying out specific research and development and undertaking focused studies for resolving a particular technical issue or alleviating a technical problem or alleviating training methodology.

Both parties understand that all financial arrangements will have to be negotiated mutually. Both parties agree to cooperate in actively seeking external funding for activities of mutual interest.

#### Sphere of Studies.

The areas of collaboration are: -

- (a) Aerospace Engineering, Artificial Intelligence & Machine Learning, Radar & Microwave, Guided weapon, Drone technologies, Computer science & Cyber security, Mechanical Engineering, Electronics & Communication Engineering and Electrical Engineering.
- (b) Fields of specification: -
  - (i) Aircraft Structures, Metallurgy and Material Sciences, and Corrosion Science.
  - (ii) Aircraft/ Missile Systems and Controls, Instrumentation and Sensors Aircraft Systems and Controls, Instrumentation and Sensors.
  - (iii) Radar and Microwave Engineering.
  - (iv) · Communication Engineering and Embedded systems.
  - (v) Avionics and Computer Communication Networks.
  - (vi) Information Warfare and Cyber Technology.
  - (vii) Nanotechnology and MEMS (Micro Electro Mechanical Systems).



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- (viii) Artificial Intelligence, Data Analytics, Digital Twin and Machine Learning and in associated discipline/ domains.
- (ix) Finite Element Methods (FEM) and Computational Fluid Dynamics (CFD).
- (x) Any other field of Aerospace / Aeronautical Engineering of mutual interest.

### 6. Administration.

AFTC would project needs of AI, Machine Learning, Decision Support System and discipline/ domains mentioned above for plausible joint research and D&D by IIT Mandi and its associated entities. IIT Mandi shall provide consultancy services and support towards purpose mentioned above. Towards this, it shall facilitate visit of authorised professors of IIT Mandi to AFTC for initiating joint research/ projects/ indigenous development on mutually agreed terms. It shall provide domain expertise to AFTC, crystallise problem statement and ensure joint monitoring and hand holding throughout the task agreed on mutual basis. The administration will be in two (2) tiers as mentioned below: -

- (a) <u>Joint Managers</u>. Each Party will be represented by one (1) person to act as Joint Manager of this MoU. Head of Faculty, FOMSAT (Faculty of Management studies and Advanced Technology), AFTC Bengaluru, will act as Joint manager for Indian Air Force while the Dr Arnav Bhavsar (as Faculty Co-ordinator) will act as the Joint Manager for IIT Mandi.
- (b) <u>Managers</u>. Each Joint Manager may nominate appropriate personnel to manage the details of activities related to the execution of individual programs initiated under this MoU.

## 7. Validity.

This MoU will be effective from the date it is signed by the Parties and shall be valid for a period of **five (5) years** thereafter. The requirement for and duration of renewal shall be reviewed on completion of the first tenure by both Parties mutually agreed in writing. No amendment or variation to this MoU will operate to change or vary the terms, obligations or conditions hereof except upon mutual agreement by both Parties signed by an authorized representative of each Party.

## 8. Confidentiality.

Any material declared "Confidential" or marked as Confidential by either Party shall be treated as such by the other and shall not be disclosed to any third party without prior written permission of the disclosing Party. During the tenure of this MoU, both Parties will strictly maintain confidentially and prevent disclosure of any such information / data exchanged in furtherance to this MoU. Receiving Party agrees not to disclose any confidential information to third party or to its employees, excepting those employees who are required to have the



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Dean SRIC IIT Mandi Kamand - 175005, H.P., India information in order to evaluate or engage in discussions concerning the contemplated research based relationship.

The obligations under this clause shall not apply if the confidential information is or comes into the public domain through no fault of the receiving Party or of any other person or entity that is similarly contractually or has been obtained independently from a third party.

The obligations of maintaining the confidentiality shall survive for a period of five (5) years from the date of disclosure of such information under the MoU.

Any information that is identified in writing as classified information or trade secret or national secret will survive even after termination / amendment(s) of MoU.

#### Intellectual Property Rights (IPR).

Any IP generated under any research projects financial supported by Indian Air Force under this MoU may be solely or jointly owned by Parties on a case to case basis. In the event any new intellectual property that is generated / developed under this MoU, the Parties shall mutually agree on the ownership of such IPR under a separate agreement and shall be in accordance with the IAF and IIT Mandi IP policy.

#### 10. Dispute Resolution.

Any dispute arising in this MoU will be resolved amicably, through mutual discussion between the higher offices of both the organizations. In exceptional circumstances, if the Parties while solving the disputes amicably fail to resolve the dispute by mutual discussion, the unresolved portions of the dispute or difference shall be referred for arbitration as per the provisions of the Arbitration and Conciliation Act, 1996 as amended from time-to-time, or any enacted in place thereof by a Sole Arbitrator to be agreed by both Parties. The considered decision of Sole Arbitrator shall be final and binding upon the Parties. The seat of arbitration will be in Bengaluru, Karnataka, India. The language of arbitration proceedings shall be English.

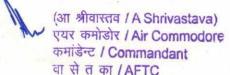
#### 11. Termination.

Either Party may, on giving three (3) months' notice in writing, propose to foreclose/ terminate this MoU or renegotiate its condition. In such cases, the team that has commenced project under this MoU should be allowed to complete the work adhering to the applicable conditions of a relevant document that governs that relationship.

This MoU is signed in duplicate with each copy being an official version and having equal legal validity. The parties, herby agree to this MoU, which shall be effective immediately upon full execution by the signatories listed below:-

#### (a) For the Indian Air Force

Commandant, Air Force Technical College, Bengaluru.





## (b) For Indian Institute of Science

Dean, SRIC, IIT Mandi, Kamand, HP-175075

## Indian Institute of Technology, Mandi

Prof. Syed Abbas

Dean, SRIC

Indian Institute of Technology, Mandi

Himachal Pradesh - 175075

Date: 01, Oct 24

Dean SRIC IIT Mandi

Kamand - 175005,

H.P., India

Air Force Technical College

Air Cmde Ashutosh Shrivastava

Commandant

Air Force Technical College

Bengaluru - 560015

Date: 0 Oct 24