

Original copy with stamp & signature
Received on 22/07/2022
Bhawan

Memorandum of Understanding

Between

**MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room)
A Government of India Society**

and

**Indian Institute of Technology (Indian School of Mines), Dhanbad
Government of India**

This MoU is entered on this 6th day of December, 2021 at Dhanbad;

BY AND BETWEEN

MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room), Under Ministry of MSME, Government of India, a Society registered under the Societies Registration Act, 1860 bearing Regd. No. 828 having its registered office at M – 4 (Part), Phase – VI, Tata Kandra Road, Adityapur Industrial Area, Gamharia, Jamshedpur, Pin : 832108, Jharkhand, India (herein after referred to as '**IDTR**' which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) of the FIRST PART;

AND

Indian Institute of Technology (Indian School of Mines), Dhanbad, an autonomous institution of technical education established in 1926 and governed by the Institutes of Technology Act, 1961 (institution of National Importance), under administrative and financial control by Ministry of education, Govt. of India, located at Dhanbad Jharkhand, INDIA, 826004, India represented by Director (hereinafter referred to as '**IIT (ISM)**' , which expression shall unless repugnant to the context or meaning thereof, be deemed to mean and include its successors/representatives) of the SECOND Part;

Brief about MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room):

IDTR is a Technology Centre under Ministry of MSME, Govt. of India established as an autonomous body in the year 1991 under the bilateral agreement between Government of India & Government of Denmark. IDTR is equipped with the State-of-the-Art facilities with sophisticated plant, machinery, Labs, Class Rooms, & other infrastructure. The Centre manufactures intricate high precision Tools, Dies, Jigs, Fixtures, Moulds & precision components and also provides technological support & skilled manpower to MSMEs and Industries. IDTR conducts AICTE approved Diploma Courses in Tool & Die Making, Production Engineering & Mechatronics; NCVT approved ITI courses of Fitter, Machinist, Turner, Tool & Die Maker, Welder & Computer Hardware and Network Maintenance; NSQF Courses approved by Ministry of MSME, Govt. of India & other short-term courses. Courses are hands on practical based with 70% practical and 30% theoretical framework. Some of the prominent technologies available at IDTR are Additive Manufacturing, Prototyping, & Reverse Engineering, EDM, Wire EDM, CNC Vertical & Horizontal Machining Centers, Surface & Cylindrical Grinding, CNC Optical Profile Grinding, CNC Jig Grinding, CNC Turn Mill Centers, CMM, Laser Calibration, Vacuum Heat Treatment etc. Labs are equipped with the latest Hardware & Software with separate labs for Pro Engineer, Delmia, Catia, AutoCAD, Unigraphics,

R

CNC Simulation, Welding Simulation, Computer Hardware & Networking, PLC, SCADA, VLSI, Hydraulics, Pneumatics, Robotics, Mechatronics etc.

In recent times, IDTR has developed several import substitutes & precision components e. g. Prototype Actuators for the World's largest telescope - The Thirty Meter Telescope (www.tmt.org), ceramic dental bracket for CSIR-CMERI, Slide gate mechanisms as an import substitute for Steel plants for Krosaki Japan, Meth-CO Meter for Mines, components for SARAS aircraft, Ordnance factories etc.

Brief about IIT (ISM) Dhanbad:

The Indian Institute of Technology (Indian School of Mines) constituted under Institute of Technology Act, 1961 is administered through IIT Council-the apex body, Government of India.

ISM Dhanbad was officially converted to Indian Institute of Technology, Dhanbad on 6th September 2016 by a Gazette notification after the nod of the Parliament. Now officially known as Indian Institute of Technology (Indian School of Mines) Dhanbad, has 18 full-fledged departments offering undergraduate, postgraduate and doctoral level courses in various branches of Engineering, Pure and Applied Sciences, Management and Humanities & Social Sciences. IIT(ISM) has contributed significantly for the growth and development of Mining, Mineral and Petroleum Exploration in India and abroad thus contributing to the country's Industrial development in last several decades. It has built research collaborations with various universities and Technical Institutions across the globe and thus contributed to the development of cutting-edge technologies in relevant areas.

1. Objectives of this MoU:

IDTR and IIT (ISM) Dhanbad agree to share each other's competence and proficiency into synergy that would create an end result far outweighing what each individual could achieve.

Both the parties agree;

- a) To exchange information on Technology, Research and Educational programs
- b) To exchange information literature relevant to Technology, Research and Educational programs
- c) To submit proposals of joint research projects for obtaining funding from both government and private agencies
- d) To jointly provide end to end skill training through online/offline mode including assessment and certification to the trained students
- e) To jointly organize short-term continuing education programs through online/offline mode on topics of mutual interest and to invite each other's faculty to participate therein
- f) To jointly organize seminars, conferences, or workshops on topics of mutual interest and to invite each other's faculty to participate therein
- g) To jointly propose and engage in research and/or sponsored training programs by funding agencies (both governmental & private), and to invite each other's faculty to participate therein
- h) To jointly propose and engage in training programs for external students
- i) To exchange, on a reciprocal basis, faculty and students for limited periods of time for purpose of sharing information on latest developments in Technology, Education and/or Research.
- j) To cooperate for business incubation and design projects of students, startups and individuals
- k) To cooperate for increasing outreach in catchment area of both Institutes for supporting MSMEs
- l) To cooperate on any such other activities that may be identified on a consensual basis as and when such an opportunity arises
- m) To work on programs for joint skill development for local people of Jharkhand

2. Focus Areas:

The following areas are identified for engagement in initial phase:

- **Mechanical & Production**
 - Various CAD/CAM/CAE software
 - Tool & Die- Design & Manufacturing
 - CNC programming & manufacturing
 - Non-Traditional machining such as EDM/Wire EDM
 - Reverse Engineering through 3D scanner
 - Additive Manufacturing Structural Design Analysis
 - Welding Technology
 - Vacuum Heat Treatment Furnace
 - CREO/CATIA/ANEX/ANSYS
 - Product Design
 - Metrology with CMM& Laser calibration
- **Electrical & Electronics**
 - SCADA/PLC
 - MATLAB
 - Automation & Process Control
 - Computer Hardware & Networking
- **Civil**
 - STAAD PRO
- **For All Branches**
 - Enterprise Resource Planning (ERP) software
 - Design Centre & Incubation Support for MSMEs
 - Entrepreneurship Development
 - Lean & other allied improvement methods
 - New emerging and high-end technologies in future
- **Industry 4.0 Technologies**
 - Industrial Internet of Things (IIoT)
 - Augmented Reality/Virtual Reality (AR/VR)
 - 3D Printing
 - Robotics
 - Big Data Analytics and Artificial Intelligence/Machine Learning (AI/ML)
 - Simulation
 - Cloud
 - Cyber Security
 - System Integration

3. Roles and Responsibilities:

3.1 First Party – MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) shall;

- Propose and select areas of collaboration for skill development programs
- Provide platform for registration of students for Internships/Skill Development programs
- Develop course curriculum to suit latest and future technologies
- Ensuring infrastructure so that students shall be registered and monitoring of attendance
- Prepare over all calendar of training programs through online/offline mode and communicate to institutions and students

- Organize Training programs for registered students via online and offline modes
- Encourage and support interested candidates in industrial project as a part of their internships
- On the successful completion of program, the candidate will be awarded certificate by MSME-Technology Centre, Jamshedpur (Indo-Danish Tool Room) & IIT (ISM) Dhanbad jointly
- MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) will bring several professionals and companies to institutions to impart valuable skills and entrepreneurship abilities to students
- Provide facility to the IIT (ISM) Dhanbad faculties (including software licenses) for conducting on-site training to the students of IDTR Jamshedpur
- Provide facility to the IIT (ISM) Dhanbad faculty and students for carrying out their project and research work
- Prepare operational guidelines for Lab to be followed by the institution and students
- Promote Research & Development, Innovation and Entrepreneurship for interested students
- Engage students of IIT (ISM) Dhanbad to work on projects of industrial significance

3.2 Second Party – IIT (ISM) Dhanbad Shall;

- Develop the courses according to the market needs in India in collaboration with MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) and execute with academic planning in collaboration with Technology Centre and conduct training of Staff/Faculties
- Institute would recommend the engineering students to MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) for internship/project work/training. IIT (ISM) Dhanbad will not pay the requisite fee. It will be the sole responsibility and discretion of the student(s) to join such course and pay a nominal fee as mutually decided by IIT (ISM) Dhanbad and MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) for such internship/project work/training
- Ensure infrastructure so that students shall be registered and monitoring of attendance
- Institute should consider the attendance for the students at the time of Internship/Project work at MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room)
- Depute faculty to upgrade the skills to train the students as per the curriculum and market needs
- Provide facility to the IDTR faculties (including software licenses) for conducting on-site training to the students of IIT (ISM) Dhanbad
- On the successful completion of program, the candidate will be awarded the joint certificate by MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) & IIT (ISM) Dhanbad
- To provide support for conducting Workshops/Seminars/Job Melas and facilitate for placements
- IIT (ISM) Dhanbad faculty shall participate as project team members as per need and expertise in research projects of MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) from different funding agencies
- IIT (ISM) Dhanbad will not have any financial liability

4. Other Provisions:

4.1 Co-ordination

Each institution shall appoint one member of its teaching/research faculty to coordinate the program on its behalf. The coordinator, thus appointed, will periodically review and identify ways to strengthen cooperation between the two institutions.

Each Institute will provide accommodation and hospitality on their respective campus for such visits under this MoU for which the parent Institute/ sending Institute shall pay from their recurring expenditures.

4.2 Course Fee

Both IDTR and IIT (ISM) can charge a nominal fee in order to meet the administrative expenses towards providing the selected facilities; this will be dependent on the training courses or programs finalized during later stage.

4.3 Employment Opportunities in the Industries/establishments:

The participants of training programs would acquire adequate and appropriate skills making them fit for supervisory and managerial positions to make them industry ready respectively in Automobile/ Manufacturing/ Electronics/ IT industries.

4.4 Intellectual Property

IDTR and IIT (ISM) agree to respect each other's rights to intellectual property. Further, the intellectual property rights that arise 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.

Neither party shall share any confidential information with any third party. The sharing of such database by each other will be on trust that it will not be used by either party for providing any kind of information to any third party.

The parties shall diligently perform their respective obligation under the MoU as per the procedure set forth above.

4.5 Arbitration

All disagreements/differences of opinion/disputes regarding the interpretation of the provisions of this MoU shall be resolved by mutual consultation by the signatories.

4.6 Validity & Termination of MoU

This MoU will take effect from the date it is signed by representatives of the two Institutions. It will remain valid for three years (3 years) from thereon with annual review and may be continued thereafter also after suitable review of MoU. Either institution may terminate the MoU by giving written notice to the other institution six months in advance. Once terminated, neither IDTR nor IIT (ISM) will be responsible for any losses, financial or otherwise, which the other institutions may suffer. However, IDTR and IIT (ISM) Dhanbad will ensure that all activities in progress are allowed to complete successfully.

4.7 Limitation of Liability

Except as agreed and provided under this MoU, neither of the parties shall be liable to bear or pay any damages arising for the equipment's in the MSME Technology Centre, Jamshedpur (Indo-Danish Tool Room) as well as in IIT (ISM) Dhanbad.

4.8 Amendment

It is mutually understood and agreed by and between the parties that amendment within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed, and dated by all parties.

This MoU is signed subject to approval of the respective academic/administrative bodies.

IN WITNESS WHEREOF, the aforementioned parties have affixed their signatures and seal on the date, month and year first above written.

**MSME Technology Centre, Jamshedpur
(Indo-Danish Tool Room)**

**Indian Institute of Technology (Indian School
of Mines) Dhanbad**

Anand Dayal

Managing Director
Anand Dayal



Witness:

- 1) [Signature] (S. K. Bhaumik)
- 2) [Signature]
(S. K. Bhaumik)

Raj S.

निदेशक / Director
Director
भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), Dhanbad
धनबाद / Dhanbad-826001

Witness:

- 1) [Signature] (Rajendra Kumar), DIIET
- 2)