



# ENHEROES

## Memorandum of Understanding

Between

**ENHEROES GROUP**

And

**IIT(ISM) DHANBAD**

This Memorandum of Understanding (MOU) is entered into by and between ENHEROES GROUP and IIT(ISM), DHANBAD. ENHEROES GROUP and IIT(ISM) DHANBAD agree that cooperation in R&D collaborations and program development specific to Application of Responsible Technology in Carbon Neutrality & Clean Energy Transition would be mutually beneficial. The areas of cooperation may include, subject to mutual consent, any desirable and feasible activity that would further realize the goals of each organization. Such interaction may include cooperation in a variety of joint collaboration activities & sharing of resources for championing Corporate Sustainability while creating Shared Prosperity not limited to

### Business Impact

- Offering of existing degree & non degree certification programs & courses of IIT(ISM) Dhanbad to global Geo-Energy Community on-demand over an executive super app developed by ENHEROES Group.
- Development of new Immersive Executive Programs & Workshop Contents for ENHEROES Global Tech Summits.
- Establishment of Smart Digital Twin Global Campuses for meaningful Industry-Academic Collaboration
- Establishment of Digital Innovation Labs to Co-Develop & Commercialize Responsible IP.
- Establishment of a Geo-Energy Fund to empower Startup & Angel Investor Community
- Establishment of a TechSummit Platform exclusively for purposeful engagement of GeoEnergy community
- Establishment of an ESG centric Digital Startup Lab to incubate high impact founders & Sustainable ventures.
- Establishment of an On-demand Talent Pool for Geo-Energy Business Community.
- Establishment of a Green SuperComputing Facility to benefit Geo-Energy Corporates.
- Establishment of a Corporate Re-skilling & Business Consulting Center

## Social Impact

- Promote Community Higher learning with Sustainability Consciousness Scholarships.
- Help Energy & Mining Corporates Improve Social License to Operate with a meaningful Corporate Social Responsibility (CSR) agenda.
- Facilitate internship & training assistance to students.
- Build & operate a Career Innovation Center for Students & Alumni of IIT(ISM) Dhanbad
- Ensure Intellectual & Financial Empowerment of IIT(ISM) Dhanbad Student Community.
- Set up Responsible Citizen Communities & Digital Forums
- Make higher education more accessible and inclusive, providing the real-time experience of attending a university in a virtual world to the GeoEnergy Community.
- Create a social and community layer, to help give users a real Summit feel in the virtual digital twin world like entering a Summit, hanging out with peers at the Convention Center, and more.
- Establish a Women in Energy empowerment forum for IIT(ISM) Dhanbad Students, alumni & their families.
- Grant of software licenses & training for students , faculties & their family members.

## Environmental Impact

- Partner in Net Carbon Neutral Mission by empowering ESG Startups working directly on Clean Energy Transition & Climate Change.
- Partner in Carbon Neutrality Reward Programs & Clean Technology promotion that shall help in creating an environmentally conscious GeoEnergy leadership Community
- Partners in the adoption of Green WFH & Super Computing devices can help in reducing Carbon Footprints.

## **Both the parties shall collaborate & engage to scale ENHEROES GeoEnergy Executive Super App that aims to facilitate following community benefits**

- DeepTech-XR powered Global learning, Earning, Research & Startup Campuses accessible from anywhere
- Super affordable Executive learning with scholarships & easy financing schemes
- Immersive Experience of Virtual Expo & Exhibitions through XR based proprietary devices.
- Equitable Executive Education Access by partnering with Urban Communities & Corporations
- Rapid Enhancement of Creativity & Intellectual Productivity of Corporate Executives
- Subsidized home computing labs & innovation kits for community members & their family.
- Strengthened Cultural Bonding with joint Global Workshop activities.
- Execution & Deployment of World Class curriculum, Capstone Projects, Simulation Programs for a holistic Career growth
- Subsidized Career Insurance Plan for ENHEROES Prime members
- Subsidized Health & Life Insurance Plan to ENHEROES Community Partners.



**Both the parties shall collaborate & engage to scale ENHEROES GeoEnergy Executive Super App that aims to build knowledge resources in following technology segments not limited to**

5G	Internet of Things (IOT)
AI & ML	Nanotechnology
Automation	Quantum Computing
Big Data Analytics	Robotics
Blockchain	Data Science
Cloud Computing	Nuclear Fusion Technology
Edge Computing	Wearable Devices
Cyber Security	Digital Twin & Metaverse
Drones & Autonomous Vehicles	Carbon Capture & Storage Tech
Extended Reality (AR/VR/MR)	Geospatial Technology
FinTech	Energy Storage Technology

**Both the parties shall collaborate & engage to scale ENHEROES GeoEnergy Executive Super App that aims to develop expertise in following industry sectors not limited to**

Exploration Geoscience	Oceanography
Development Geoscience	Geothermal Energy
Production Geoscience	Hydrogen Economy
Reservoir Geoscience	EV & Sustainable Mobility
Mining Geoscience	Carbon Capture & Storage(CCS)
Airborne Geophysics	Shale Geoscience
Marine Geoscience	Space & Atmospheric Science
Near Surface Geoscience	GeoData Management
Geochemistry	GeoHazard Management
Microseismic & Earthquake Seismology	Disaster Management
Geomechanics	Decommissioning

Both parties anticipate that a number of these initiatives will occur during the period of this MOU. In particular, based on previous conversations, the following guidelines related to following Global Goals 2030 (SDG-17:Partnership for Goal) provides a good starting place and can be put into place as soon as administrative details can be worked out between the two enterprises:

- **SDG 4 Quality Education (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.)**
- **SDG 5 Gender Equality (Achieve Gender Equality and Empower All Women and Girls.)**
- **SDG 7: Affordable & Clean Energy (Ensure access to affordable, reliable, sustainable and modern energy for all)**
- **SDG 8: Decent Work & Economic Growth (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)**
- **SDG 9: Industry , Innovation & Infrastructure (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation)**
- **SDG 13: Climate Action (Take urgent action to combat climate change and its impacts.)**

**Both the parties shall collaborate to exploit the following Socio-economic benefits from Geo-Energy market Opportunity currently matured by ENHEROES**

- The size of ASIAN on-demand executive productivity market is estimated to be in excess of USD\$25 billion by 2030 as adoption of WFH trend has created higher demand for remote executive productivity solutions from corporate & individual customers. ENHEROES is a future market leader in this segment.
- ENHEROES Super App project can be a seedbed to development of a Digital Geo Energy Super corridor across the ASEAN zone worth 10 billion dollars by 2030.
- As an emerging Knowledge & Innovation Platform plus digital marketplace ENHEROES has potential to be listed in the ACE market of Bursa Malaysia & Singapore Stock Exchange as the first Geo-Energy Deeptech Unicorn with Potential return on investment in the range of 10 to 100X.
- Confirmation on Novelty & Commercial viability from WIPO creates high chances to receive Utility Innovation Patent grant in more than 25 countries globally including Malaysia.
- ENHEROES has accelerated Business growth potential in multiple markets outside Malaysia due to limited legal barriers or restriction and higher product value innovation as confirmed from the International search report from WIPO.
- There are multiple Corporate Venture Capitals & Impact investment networks looking to invest in scalable tech ventures. The Digital Super University Startup Incubator can leverage on this opportunity.
- The project can create thousands of job & internship opportunities in India & Asean Region in coming years.



ENHEORES GROUP represents the following registered businesses in ASIA

- **ENHEROES GLOBAL ENERGY SDN BHD Reg-(1299557-V)**  
Registered address: 1120A, Damansara Intan, No. 1, Jalan SS 20/27, Petaling Jaya,  
Selangor Darul Ehsan, Malaysia
- **ENHEROES TECHNOLOGY PTE LTD (UEN 202119922R)**  
68 Circular Road #02-01, 049422, Singapore

**IIT(ISM) Dhanbad** represents the following registered address

Police Line Road, Main Campus IIT (ISM, near Rani Bandh, Hirapur, Sardar Patel Nagar, Dhanbad,  
Jharkhand 826004

**AUTHORIZED PERSONS:**

Both the Parties shall nominate Authorized persons from each of their offices who shall be the point of Contact and any transaction or agreement between the parties shall require the authentication of these Authorized persons.

The contact details of the Authorized Persons of each of the Party are as follows:

**For 1<sup>st</sup> Party**

Designation : Founder & CEO  
ENHEROES TECHNOLOGY PTE LTD  
68 Circular Road #02-01  
Attention : Shubhabrata Samantaray  
Email : founder@enheroes.co

**For 2<sup>nd</sup> Party**

Designation : Associate Professor  
IIT(ISM), Dhanbad.  
Attention : Dr. Saurabh Datta Gupta  
Email : saurabh@iitism.ac.in

The parties may enter into specific written agreements whenever appropriate to clarify and define the nature, extent, and terms of operation for the proposed collaborations, including intellectual property ownership and funding issues. Any agreement entered into by these two parties will require the approval of the Authorized Persons from each Party.

**LAWS:**

All agreements and activities covered under this MOU or entered into by the parties must comply with all applicable laws and regulations, including both India, Malaysia & Singapore export control laws and regulations wherever applicable. A party shall not be liable for the acts or omissions of the other Party as a result of noncompliance of any of the Laws of their respective country. Any loss to one party as a result of acts or omissions of another Party shall be indemnified appropriately

### AVAILABILITY OF MANPOWER AND RESOURCES


For agreed-upon activities, both enterprises will make available all the resources including ManPower and the cost of these resources are charged on their respective Party's account.


The primary contacts for this MOU are Dr. Saurabh Datta Gupta for IIT(ISM), Dhanbad and **SHUBHABRATA SAMANTARAY** for ENHEROES GROUP. The parties may enter into specific written agreements whenever appropriate to clarify and define the nature, extent, and terms of operation for the proposed collaborations, including intellectual property ownership and funding issues. Any agreement entered into by these two parties will require the approval of appropriate officers from each enterprise. All agreements and activities covered under this MOU or entered into by the parties must comply with all applicable laws and regulations, as mentioned above & wherever applicable.

For agreed upon activities, this MOU will be valid for five (5) years unless terminated by one of the parties. Either parties may withdraw from this MOU provided written notification of the withdrawal is given to the other enterprise at least three (3) months prior to the desired withdrawal date.

This MOU may be renewed for another period of five (5) years upon mutual written consent of the two enterprises before the expiration date. This MOU is made in English and executed in Digital form. This MOU will take effect on the date the signatures of the executives are affixed to this document

The following authorized individuals have signed the present MOU on behalf of their respective organizations:

  
\_\_\_\_\_  
Name **Saurabh Datta Gupta**  
Title **Dr.**  
IIT(ISM) Dhanbad

  
\_\_\_\_\_  
Name **Shubhabrata Samantaray**  
Founder & CEO  
ENHEROES GROUP

2022-09-02  
\_\_\_\_\_  
Date

2022-09-02  
\_\_\_\_\_  
Date





## ABOUT IIT(ISM)DHANBAD

Standing tall since the early decades of the 20th century, the institute is steadily sailing through the millennium change and has emerged into one of the most prominent institutions- Indian Institute of Technology IIT(ISM) with full bloom functioning of 18 branches of Engineering, Applied Sciences, Management Studies and Humanities. IIT (ISM) has had a centenary long credentials of outperforming achievements/contributions in academia and the industry.

Internationally, in the 2017 and 2018 QS World Rankings by Subject, IIT Dhanbad featured at 24th and 29th respectively in the world in Engineering-Mining and Mineral Science, IIT (ISM) Dhanbad ranked 173 among BRICS nations in the QS World University Rankings of 2019, 801-1000 globally by the Times Higher Education World University Rankings of 2020, 201–250 in Asia Rankings 2020 and 251–300 in Emerging Economies Rankings 2020.

In India, among engineering colleges, it ranked 14 by Outlook India in 2019 and 12 by The Week in 2019. It was ranked 11 among engineering colleges by the National Institutional Ranking Framework in 2021 in the Engineering category and ranks 26 in the Overall category.

The institute was ranked 29th in NIRF for its management course floated by the Department of Management Studies in 2020.

## ABOUT ENHEROES GROUP

Inspired by Global Goals 2030, Asean Tech Impact startup ENHEROES has developed a novel solution, a "Digital Super University Digital Twin" to help Energy & Mining focussed Corporates achieve sustainability & catalyze large Scale Social Progress using Responsible Technology. It is building an on-demand, Pandemic Resilient, smart & autonomous Digital Platform (A special Purpose Intellectual Vehicle) that can act as a Seedbed for highly skilled responsible & efficient workforces , incubation of innovative products & high growth ventures leveraging on responsible technology trends around Sustainable Energy & Natural Resources sector while aiming for equitable debt free education & flexible job opportunities for future generation.

ENHEROES envisions to create a new world of learning innovation where real time collaboration possibilities can empower people to become opportunity-enablers, responsible leaders and transformational entrepreneurs without having to bear hefty burden of student debt. Its secret sauce lies in the development of a smart Digital Community of Practices (CoPs) that ensures effective engagement of Corporates & Community with support from an alliance of Startups, Universities & Government thereby co-creating Shared Prosperity while championing Global Goals 4,5,7,8,9 &13.

ENHEROES has built a Global Technology Summit Platform to Facilitate global engagement of Business Leaders, scientists & innovator community across industries to unlock Geoscience values combined by SDGs, Digital Transformation & Clean Energy Transition

- ENHEROES is Asia's first Deeptech Impact Startup to build a prototype of a Carbon Neutral Super Kit to propel sustainable innovations across the Geo- Energy sector.
- ENHEROES Super Kit integrates a Super Console & a Super App together to offer one of the Smartest & most Sustainable productivity booster packages helping the users to learn, earn, innovate & invest in a responsible manner. Its mission is to help corporates champion sustainability & jump start impact startup ecosystem across Geo-Energy sector.
- ENHEROES Super Kit project shall empower executives & leaders across the Geo-Energy sector to co-create business profitability & social progress while protecting the planet, a first of kind corporate sustainability solution in its segment propelling Doing Well by Doing Good philosophy.
- It possesses an industry first innovative intellectual product validated for novelty & commercial viability by World Intellectual Property Organization (WIPO) from its international search report. It has filed Utility Patent in Malaysia & international PCT/MY2021/050029.



# Appendix

As per the letter attached below dated Apr 6, 2022 ,the MoU proposal between IIT(ISM) Dhanbad & ENHEROES Group has been recommended to Go-Ahead by an Industry expert consulted by IIT(ISM), Dhanbad.

4/8/22, 10:42 AM

Indian Institute of Technology (Indian School of Mines), Dhanbad Mail - Draft MOU between ENHEROES GROUP & IIT(ISM)...



Shalivahan <shalivahan@iitism.ac.in>

## Draft MOU between ENHEROES GROUP & IIT(ISM)Dhanbad

Amit Shukla <amitshk.in@gmail.com>  
To: Shalivahan <shalivahan@iitism.ac.in>

Wed, Apr 6, 2022 at 11:37 AM

The MoU says, " The parties may enter into specific written agreements whenever appropriate to clarify and define the nature, extent, and terms of operation for the proposed collaborations, including intellectual property ownership and funding issues. "

So major issues shall be decided in subsequent agreements in details, so we can go ahead with the present Mou  
Thanks & Regards  
Amit Shukla

[Quoted text hidden]

--  
Amit K. Shukla  
Technology & Business Consultant  
Mobile: 9198 535123

**As per the email attached below the following statement has been added to the MoU  
"Notwithstanding anything contrary contained herein the rules and regulations of IIT (ISM)  
Dhanbad shall prevail over the clauses of this MoU"**

----- Forwarded message -----

From: Amit Shukla <amitshk.in@gmail.com>  
Date: Thu, Aug 18, 2022 at 9:01 AM  
Subject: Re: Mou with IIT (ISM) Dhanbad  
To: Associate Dean Research Infrastructure IIT (ISM) <adri@iitism.ac.in>

Dear Sir,

They are talking about- "Offering of existing degree & non degree certification programs & courses of IIT(ISM) Dhanbad to global Geo-Energy Community on-demand over an executive super app developed by ENHEROES Group."

Since degree is always subject to the IIT ISM rules, I recommend please include the following clause- "Notwithstanding anything contrary contained herein the rules and regulations of IIT (ISM) Dhanbad shall prevail over the clauses of this MoU".

Thanks & Regards,  
Amit Shukla

# Signature Certificate

Reference number: DMFVN-B3M9U-JXCYM-PZHML

## Signer

## Timestamp

## Signature

### SHUBHABRATA SAMANTARAY

Email: founder@enheroes.co

Sent:

02 Sep 2022 06:29:53 UTC

Viewed:

02 Sep 2022 06:29:54 UTC

Signed:

02 Sep 2022 06:31:38 UTC



IP address: 202.186.84.29

Location: Petaling Jaya, Malaysia

### Saurabh DattaGupta

Email: saurabh@iitism.ac.in

Shared via link

Sent:

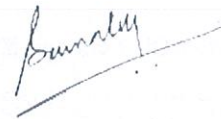
02 Sep 2022 06:29:53 UTC

Viewed:

02 Sep 2022 06:34:56 UTC

Signed:

02 Sep 2022 07:35:07 UTC



IP address: 103.15.228.66

Location: Dhanbad, India

02 Sep 2022 07:35:07 UTC

Page 1 of 1



Signed with PandaDoc

PandaDoc is a document workflow and certified eSignature solution trusted by 30,000+ companies worldwide.

