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SL.No. 1009 Date 18/02/2021 Rs. 100/-

Name Deepak Kumar Singh

No. W/o. late Ravindran Kumar Singh

For Voucher Self R/O NVD

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L.No. 16-05-010/2015

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### MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter called the MoU) is entered into on this 18<sup>th</sup> day of November Two Thousand Twenty One by and between the President of India acting through the Director, Atomic Minerals Directorate for Exploration and Research (AMD), a Constituent Unit of Department of Atomic Energy (DAE), Government of India (hereinafter called "AMD" which expression shall mean and include its successors in interests and assigns) on the ONE PART;

AND

Indian Institute of Technology (ISM) Dhanbad, previously known as Indian School of Mines, Dhanbad established in the year 1926 by His Excellency the then Viceroy of India, Lord Irwin and located at Dhanbad in the state of Jharkhand to facilitate Engineering Education in Energy Sector and Core Engineering Branches, which has been granted autonomy by Govt of India, through its Director/Dean (Research & Development) (hereinafter referred as 'IIT(ISM)' which expression shall mean and include its successors in interests and assigns) on the OTHER PART.

#### 1.0 Preamble:

1.1 Atomic Minerals Directorate for Exploration and Research (AMD) is a premier National Research Centre under the Department of Atomic Energy (DAE) with the primary mandate of exploration and research for atomic minerals required for the

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country's nuclear power programme. AMD has a big pool of scientists in Geology, Geophysics, Nuclear Physics, Chemistry, Electronics, Instrumentation and Engineering disciplines. AMD is interacting closely with Universities and other Academic Institutions for promotion of research in the fields of Earth Sciences, Analytical Chemistry, Electronics, Instrumentation, etc. Apart from this, AMD is also extending training/ dissertation/project work for the students of Universities for their partial fulfillment of their courses.

- 1.2 **Indian Institute of Technology (ISM) Dhanbad** [IIT(ISM) Dhanbad], is an Institute of funded by Ministry of Education, Government of India. It is a premier Institution of excellence in engineering education and research. IIT(ISM) is carrying out academic activities such as teaching and training students at the under graduate and post graduate levels as well as carrying out research leading to Ph. D degrees, in 18 disciplines that includes Engineering, Science, Management and Humanities and Social Sciences. IIT(ISM) Dhanbad also undertakes sponsored research and industrial consultancy. It has highly qualified teaching faculty, Central Research Facility, well equipped research laboratories, computer center, library, workshops.

## 2.0 Scope and objectives:

- 2.1 AMD being an exploration agency, has generated lot of data which is advancement in the earth science, which can be used for further research and pursuance of higher degree. Therefore, AMD encourages its scientists to pursue research leading to various degrees viz. M.Tech., Ph.D and D.Sc., on a topic relevant to its exploration activities. This MoU would help scientists to get involved for further research through enhancement of knowledge available in Universities.
- 2.2 AMD's professional experience in the field of Geology, Geophysics, Nuclear Physics, Isotopic Dating, Analytical Chemistry, etc. can be shared with the students of the IIT(ISM) in the form of lectures, mentoring of research scholars and AMD Studentship Programmes aimed at optimum utilization of resources available with AMD.
- 2.3 IIT(ISM) has rich academic and research experience in the field of Earth Sciences (Geology and Geophysics), Mining and Energy sectors (Coal, Uranium, Oil and Gas), Minerals, Sciences (Chemistry, Physics & Mathematics) and core engineering (Mechanical, Electrical, Civil, Electronics & Instrumentation, Electronics & Communication, Computer Science & Engineering) and specialized branches of Engineering (Petroleum Engineering, Mining Machinery Engineering, Fuel, Mineral and Metallurgical Engineering, Environmental Science & Engineering).
- 2.4 Realizing the above objectives, the Parties hereto have agreed to create a long term partnership in Research, Education and Training including undertaking of collaborative Research in the areas of mutual interest supported by funding through the respective institutions according to the broad framework set forth in this

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Memorandum of Understanding to facilitate advancement of knowledge on the basis of reciprocity based efforts, mutual benefits and regular interactions and monitoring in the following modes of collaboration, within the framework of the rules and regulations of the respective Parties to this MoU:

- (a) exchange of information on Research, Teaching, Learning materials and other literature relevant to the educational and Research programmes envisaged under this MoU such as earth sciences, analytical chemistry, electronics, instrumentation, geological, geophysical survey, mineral exploration, etc.;
- (b) joint proposals and engagement in research or training programmes while extending invitations to each other's personnel/faculty to participate therein;
- (c) exchange on reciprocal basis, student/personnel at under graduate, graduate, doctoral levels for specified periods for the purposes of education and/or research;
- (d) providing opportunities for the personnel of both the Parties and the students to use to the maximum, the expertise and facilities available in both the Organizations through training and through exchange of thoughts and research results, academic research and training materials, etc.; and
- (e) sharing experience and expertise of both the Parties for mutual benefits.

### **3.0 Duration of MoU, Extension and Termination:**

- 3.1 This MoU shall be valid for a period of 5 (five) years from the date of its signing.
- 3.2 This MoU may be extended for a further period of up to 5 years by mutual consent which will be in writing.
- 3.3 This MoU may be terminated by either Party by giving a written notice of not less than 3 months prior to the desired termination date to the other Party by mutual consent. However, both Parties agree that notwithstanding the termination, all continuing obligations to students, scholars, staff / personnel of both Parties, funding bodies or other entities under this MoU shall be met in full, subsequent to the notice of termination.
- 3.4 The termination of this MoU shall not affect the rights or obligations of either party regarding any binding offer or firm obligation approved and agreed to by the Parties prior to the notice of termination.
- 3.5 The termination of this MoU shall not invalidate any of the actions taken by either Party in good faith under the force of this MoU prior to such notice of termination.

### **4.0 Amendment/Modification:**

No amendment to, or modification of, this MoU may be made except by written mutual consent between the Parties.

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## 5.0 Duties and Responsibilities of AMD:

- 5.1 AMD will permit the exchange of resource personnel between AMD and IIT(ISM) for Specialized Lectures and practical demonstration. AMD will offer services to IIT(ISM) without any honorarium or compensation of any kind, on mutual understanding basis.
- 5.2 AMD will invite teachers and students from IIT(ISM) for participation in various Seminars / Symposia / Workshops in AMD, Hyderabad. No registration fee will be charged upto five participants approved by the IIT(ISM) authorities.
- 5.3 AMD will facilitate participation of M.Sc., M. Tech. & M.Sc. Tech students (Geology and Geophysics disciplines) in the AMD-Studentship Programme (AMDSP) with stipend at the rates prescribed and notified by AMD from time to time. A certificate of participation will be issued to such students. A copy of the prospectus on AMDSP as on date of signing of this MoU is annexed to this MoU and shall form part and parcel of this MoU. The terms and conditions of the AMDSP are subject to change from time to time and shall be binding on the IIT(ISM).
- 5.4 AMD will facilitate participation of B.E./B.Tech. (Electronics & Instrumentation, Civil, Mechanical and Electrical) and M.Sc./M.Tech. (Physics, Chemistry, Geology, Geophysics disciplines) students of IIT(ISM) to pursue their project work in AMD's Laboratory/Field areas ranging from one month to two months duration. A certificate of participation will be issued to such students.
- 5.5 AMD will offer core samples and facilities in the core library at AMD, Hyderabad to research scholars of IIT(ISM) for pursuing research, if desired for joint investigations, subject to the provisions of the Confidentiality and Non-Disclosure Agreement referred to in para 8.1 hereinafter as well as the Atomic Energy Act, 1962 and the Rules made thereunder.
- 5.6. AMD will encourage the IIT(ISM) to take up research and development projects of AMD's interest, funded by / through the Board of Research in Nuclear Sciences (BRNS), an advisory body of the Department of Atomic Energy, Government of India in which AMD will offer its scientists to act as Principal Coordinators. AMD will not, however, be involved in any manner in procurement of specialized/specific equipment for any BRNS project, which has to be managed in accordance with the BRNS guidelines stipulated for Principal Investigators (PI). AMD also will not have any role in the financing of such projects by BRNS and the same will be governed by BRNS rules and guidelines.
- 5.7 AMD will provide the knowledge based services of its scientists for evaluation of Graduate, Post-Graduate students and Ph.D. scholars if required, as per the rules of IIT(ISM).
- 5.8 AMD will identify internal supervisors in AMD for the officer / staff who qualify for registration of Ph.D./D.Sc. in IIT(ISM). The Internal supervisor will be in addition to

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IIT(ISM) guide for carrying out research and such internal supervisor identified by AMD shall be acceptable and binding on the IIT(ISM).

#### 6.0 Duties and Responsibilities of the IIT(ISM):

- 6.1 The IIT(ISM) will permit the exchange of resource personnel between AMD and the IIT(ISM) for specialized lectures and practical demonstration. The IIT(ISM) will offer services to AMD without any honorarium or compensation of any kind on mutual understanding basis.
- 6.2 The IIT(ISM) will recognize AMD as a Research Centre to pursue research leading to M.Tech./Ph.D./D.Sc. AMD scientists who prefer to pursue research in IIT(ISM) will be given relaxation, as may be possible, from the mandatory course work as prescribed by IIT(ISM). Such scholars will be permitted to utilize laboratory facilities, library and online resources of the IIT(ISM).
- 6.3 The IIT(ISM) will furnish to AMD, a copy of the Ph.D. thesis submitted by the research scholars who have used the facilities of AMD under this MoU.
- 6.4 The IIT(ISM) will arrange lectures on specialized subjects to trainees of BARC Training School as well as the scientists and staff of AMD/DAE, as and when requested by AMD.
- 6.5 The IIT(ISM) will offer their services to AMD in technical review of research papers and teaching materials for trainees.
- 6.6 The IIT(ISM) will consider expertise available in AMD for the nominations in academic and scientific committees of IIT(ISM) for the advancement of science.
- 6.7 The IIT(ISM) will also consider participation of AMD's Scientists in National level research projects undertaken by the IIT(ISM), for mutual benefit. AMD will not, however, participate in any consultancy projects which involves monetary benefit to IIT(ISM) or of commercial nature.
- 6.8 The IIT(ISM) will extend all necessary and possible help to AMD in implementation of DAE's societal programmes such as the "AKRUTI Technology Package for Rural Deployment" and any other such programmes developed by DAE in future for societal developments. The IIT(ISM) will also extend necessary and possible support to the public outreach programmes of DAE for propagating ideas of "**Safe and Clean Nuclear Energy in India**".
- 6.9 The IIT(ISM) will invite AMD scientists for workshops, special lectures, seminars, etc. on subjects of mutual interest. No registration fee will be charged for such events from AMD up to five participants from AMD.

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- 6.10 The IIT(ISM) personnel shall comply with all the requirements, rules and regulations of AMD including safety, health, security, access and operational practices, when they are in AMD complexes.
- 6.11 The IIT(ISM) shall not use AMD's/DAE's name, logo, etc., for the purpose of publicity through any public media like press, radio, television, internet etc. without the prior written permission from AMD / DAE authorities. This clause also mutatis mutandis apply to the scholars, students, contractors, sub-contractors, consultants, advisors, etc. of the IIT(ISM) and the IIT(ISM) shall be vicariously liable for any breach of this condition by any of these functionaries, in addition to these functionaries being individually liable for such breach.

## **7.0 Financial and other Obligations:**

- 7.1 This MoU does not commit any specific financial obligation or liability on either Party. Each Party shall be responsible for its own costs in connection with all matters relating to the collaborations under this MoU except to the extent specifically mentioned in this MoU. All the expenses on implementation of the programmes under this MoU incurred/to be incurred by the Parties such as travel expenses, personal expenses, per diem, expenses on accommodation, health etc. shall be borne by the respective Party. However, in case of invited lectures, all such expenses of the invitee shall be borne by the inviting host party. In case of external funding of any programme, under this MoU, is considered necessary, either Party, by mutual consultation, may explore the same.
- 7.2 Nothing in this MoU constitutes or shall construe a Party as the partner, agent, employee or representative of the other Party. A Party to this MoU must not act independently of the other Party and does not have the right or power to commit the other Party on any matter or to incur any obligation on behalf or pledge the credit of, the other Party without the prior written approval of the other Party.

## **8.0 Confidentiality and Non-Disclosure of Information:**

- 8.1 The Parties to this MoU agree that in general, there is no intention to share any confidential information or proprietary information in any collaboration under this MoU. At the same time, all information and documents to be exchanged pursuant to this MoU will be kept confidential by the parties and will be used subject to such terms as each party may specify. The parties will not use the information for purpose other than that specified without the prior written consent of the other party.
- 8.2 It is further agreed that in the event of any need to share or disclose any such information for the purpose of implementation of the programmes under this MoU, all such information shall remain the exclusive property of the disclosing party. The parties agree that this agreement and the disclosure of the Confidential Information

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do not grant or imply any license, interest or right to the Recipient in respect of any intellectual property right of the other party.

- 8.3 Unpublished information, whether oral, in writing or otherwise, discovered or conceived by the scientists or technicians and exchanged under the provision of this MoU will not be transmitted to any third party, unless otherwise agreed to by the parties in writing and unless due approval of the competent authority in AMD is specifically conveyed in writing.
- 8.4 The provisions of this clause shall continue to be in force even after expiry or termination of this MoU, except to the extent of information as may be brought in the public domain by way of lawful publication of research results, etc.
- 8.5 Any contravention of the "Restricted information" categories under Section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under Section 5 of the Official Secrets Act, 1923 and rules made thereunder by the students / scholars and employees of the Parties or by any contractor, sub-contractor, consultant, advisor or the employees of the contractor/Agency will invite penal consequences under the aforesaid legislations. This clause shall also *mutatis mutandis* apply to the scholars, students, contractors, sub-contractors, consultants, advisors etc. of the IIT(ISM) and the IIT(ISM) shall be vicariously liable for any breach of this condition by any of these functionaries, in addition to these functionaries being individually liable for such breach.

#### **9.0 Indemnification in case of Liabilities:**

In case of any accidental death or injury or loss, including loss of property, of any kind to the students/scholars/employees of each Party or to any other person engaged by either Party for the purposes of this MoU while in the premises of the other Party / or during joint field traverses, neither Party nor its employees shall have any liability to the other Party or towards such students/scholars/employees. Each party hereby indemnify the other in this regard.

#### **10.0 Co-ordination and Monitoring:**

Both AMD and the IIT(ISM) will nominate and designate one person each from the respective Party who will be responsible for the co-ordination and implementation of this MoU. A joint committee comprising two members from each Party and the co-ordinators so nominated shall monitor the academic benefits to both the institutions and progress of the achievements during the implementation of this MoU and shall recommend the further course of action from time to time. The committee shall meet at least twice a year or more number of times as may be required.

  
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## 11.0 Intellectual Property Rights:

- 11.1 Each Party acknowledges that the Participating Researchers may engage only in general, collaborative activities involving basic, non-proprietary research during exchange visits under this MoU. The Parties do not intend for the Participating Researchers to create or develop new intellectual property as a result of such visits. If intellectual property is created or developed by Participating Researchers under this MoU, the Parties will negotiate in good faith to resolve the issues including but not limited to ownership, responsibility for patent or other statutory protection and licensing.
- 11.2 If specific collaborative research Projects are identified by either Party, the same shall be decided by mutual discussions. In such an event, the Parties to this MoU shall enter into a separate written agreement ("Specific Collaborative Research Project MoU") before commencing any research activity, setting forth therein all the requirements, each Party's contributions, deliverables and commitments. Such Specific Collaborative Research Project MoU will also delineate the Parties' rights and obligations and will address, among other things, sources of funding and intellectual property rights. Each Party shall inform its Participating Researchers that they are responsible for reporting to their respective Co-ordinating officer regarding any proposed specific collaborative research projects that may arise from their visits and their interactions with one another under this MoU, prior to initiating projects or applying jointly for external funding for such projects. Each Party also shall inform its Participating Researchers of their obligations to abide by all regulations, policies and procedures of their employing institutions regarding the disclosing and handling of intellectual property and developed technologies that may arise under this MoU or under any Specific Collaborative Research Project MoU.

## 12.0 Jurisdiction of Courts:

The Courts having jurisdiction at Hyderabad and the Honourable High court for the State of Telangana at Hyderabad shall have the exclusive jurisdiction on matters arising out of this MoU.

### 13.0 Arbitration:

- 13.1 Notwithstanding clause 12.0 hereinabove, any differences of opinion, disagreement or dispute arising out of or in the course of implementation of this MoU, shall be amicably settled by mutual discussions between the Heads of both the Parties to this MoU. In the event no settlement could be arrived at by mutual discussions as above, the differences of opinions, disagreement or dispute shall be referred to the sole Arbitration of an Arbitrator appointed by Secretary, Government of India, Department of Atomic Energy. The award of the Arbitrator shall be final and binding on the parties to this MoU.

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- 13.2 Performance under this MoU shall not be or stand suspended or terminated due to initiation or continuation of any arbitration proceeding and no payment due under this MoU to any Party shall be withheld unless such payment constitutes the subject of such arbitration proceedings. The venue of arbitration shall be such as the arbitrator at his discretion may determine.
- 13.3 Subject as aforesaid, the Arbitration and Conciliation Act 1996, and the rules there under and any statutory modifications thereof for the time being in force shall apply to the arbitration proceedings under this clause. However, all payments due to AMD will be made during the period of dispute, unless that itself is the point of dispute.
- 13.4 In this clause the expression "Secretary, Government of India, Department of Atomic Energy" includes, if there be no such Secretary, Government of India, Department of Atomic Energy the officer who is for the time being the Administrative head of the Department of Atomic Energy, whether in addition to other functions or otherwise.

#### 14.0 Force Majeure:

Neither of the Parties hereto shall be considered in default in performance of the obligations hereunder, if such performance is prevented or delayed because of any act of God or caused by reasons beyond the reasonable control of such Party and in such an event, the agreed time of completion of obligation under this MoU shall stand extended by a period equal to the period of delay so caused.

  
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(Dr. Deepak Kumar Sinha)  
Director, AMD  
डॉ. दीपक कुमार सिन्हा Dr. D. K. SINHA  
निदेशक Director

परमाणु खनिज अन्वेषण एवं अनुसंधान निदेशालय  
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(Dr. T.S. Sunil Kumar)  
Additional Director (R&D), AMD

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अपर निदेशक Additional Director  
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(Prof. Shalivahan Srivastava)  
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(Prof. Sagar Pal)  
Associate Dean, RI, IIT, ISM Dhanbad