



Department of Applied Geophysics,
Indian Institute of Technology
(Indian School of Mines),
Dhanbad-826004, Jharkhand, India

MEMORANDUM OF UNDERSTANDING



National Centre for Polar and Ocean
Research, Ministry of Earth Sciences,
Govt. of India, Headland Sada,
Vasco-da-Gama, Goa 403804, India

This MEMORANDUM OF UNDERSTANDING [hereinafter referred to as MoU] is made and entered into on this Twentieth day of June 2022 between the Department of Applied Geophysics, Indian Institute of Technology (Indian School of Mines), Dhanbad-826004, Jharkhand, India (hereinafter referred to as "DAG-IIT(ISM)"), on the ONE PART, and the National Centre for Polar and Ocean Research (Ministry of Earth Sciences, Govt. of India) [hereinafter referred to as NCPOR], Headland Sada, Vasco-da-Gama, Goa 403804, India on the OTHER PART (who for the purpose of this MoU are hereinafter individually referred to as PARTY and collectively referred to as the PARTIES).

The PARTIES, having discussed the fields of common research interests and allied activities between the two institutions, have decided to enter into a long-term collaboration in the areas of education, training and research.

WHEREAS, National Centre for Polar and Ocean Research (NCPOR) was established as an autonomous Research and Development Institution of the Ministry of Earth Sciences (formerly Department of Ocean Development), Government of India on the 25th of May 1998. It is India's premier R&D institution responsible for the country's research activities in the Polar and Southern Ocean realms. The mandate of NCPOR is multi-dimensional: Leadership role in niche areas of scientific research in the domain of polar and ocean sciences.

AND WHEREAS DAG-IIT(ISM), a reputed department of higher learning, is involved in education, teaching, research and development, consultancy and training in the field of Applied Geophysics.

AND WHEREAS it has been considered expedient to agree in writing to participate jointly in undertaking research projects and student mobility programmes as per the expertise and logistics available with the PARTIES. It will enable to promote cooperative activities and collaboration between the two Institutions.

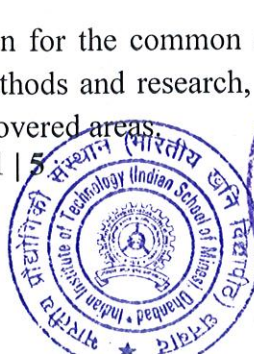
DAG-IIT (ISM) and NCPOR agree undertaking the following activities and actions:

Article 1 – Objectives

3.1 To set up long-term and stable cooperation for the common development of advanced geophysical, physical and geotechnical methods and research, with special emphasis on their applications in the marine and water covered areas.

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R.Mohan



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Article 2 – Scope of activities

- 2.1 To undertake joint research, societal and industry relevant projects.
- 2.2 Recognition of Scientists of NCPOR for joint supervision of doctoral and masters students as per IIT (ISM) rules.
- 2.3 Mutual exchanges of faculties for lectures, expertise sharing and training.
- 2.4 To conduct joint field programs in areas of common geographical interest.
- 2.5 Participation of students and faculties of DAG-IIT(ISM) in NCPOR-conducted ocean scientific expeditions based on the i] merit of the research proposals submitted by the faculty, ii] vacancies aboard the research vessels, iii] terms and conditions governing the participation of research personnel from partner institutions of NCPOR.
- 2.6 Seminars and lectures on topics of mutual interest and relevance.
- 2.7 Cooperation in providing information by each PARTY in matters related to setting up sophisticated analytical lab facility in either of the organizations.
- 2.8 Both PARTIES in consultation with each other shall constitute requisite working groups for each and every joint research project(s) and/or programme(s).

Article 3 – Exchange of Data and Research Samples

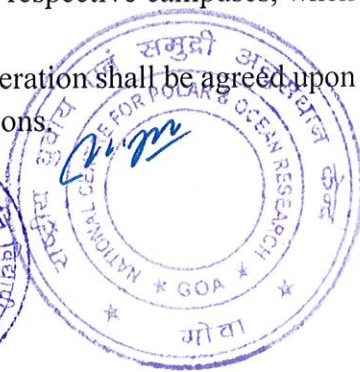
- 3.1 The term “information” includes scientific or technical data, results and/or methods of investigation, and other information intended to be provided, exchanged or arising under the objectives identified under Articles 1 and 2. The PARTIES shall take all measures to protect the secrecy of- and avoid- disclosure and unauthorised use of the confidential information outside the public domain.
- 3.2 Samples exchanged between the PARTIES shall not be transferred to any third party for research and commercial purposes and that the unutilised portions of such samples must be sent back to the concerned party.

Article 4 – Contribution by both Parties

- 4.1 The Parties will collaborate to research in areas of mutual interest and outreach activities.
- 4.2 The Parties shall exchange the scientific personnel for carrying out research in the respective areas.
- 4.3 The Parties will also share the infrastructural facilities of their respective campuses, when needed.
- 4.4 Common activities, exchange of visits and other forms of cooperation shall be agreed upon and approved by the authorized representatives of the two Institutions.

A. K. Aubrey

Sagar



R. Mohan



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4.5 Any research publications and intellectual property rights arising out of the students and joint research projects shall be jointly published and, when patented, shall be jointly and equally owned by DAG-IIT(ISM) and NCPOR.

4.6 The procedural formalities for securing and maintaining the intellectual property rights shall be the responsibility of DAG-IIT(ISM) and NCPOR. The expenditure incurred thereof shall be borne jointly and equally by DAG-IIT(ISM) and NCPOR.

4.7 The upfront fee and royalty accrued from licensing of any intellectual property arising from this collaboration to other party[ies] shall be shared between the PARTIES, the terms and conditions of which shall be the subject matter of a separate agreement between the party.

4.8 The PARTIES shall not assign any rights and obligations to any third party[ies] without written consent of the other PARTY.

Article 5. Implementation

5.1 The Parties agree to constitute an Implementation Committee as follows:

S. No.	DAG-IIT(ISM) Team	NCPOR Team
1.	Prof. P.K. Khan - Chairperson	Shri Mirza Javed Beg - Chairperson
2.	Prof. U.K. Singh	Dr. Rahul Mohan
2.	Prof. Mohit Agrawal	Mr. Ajeet Kumar
3.	Prof. G.S. Rao	Dr. Nisha Nair
4.	Prof. A.K. Chaubey - Convenor	Dr. John Kurian P. - Convenor

5.2 The Implementation Committee shall meet alternatively at DAG-IIT(ISM) and NCPOR once in a year to review the progress.

5.3 The Committee shall, in consultation with the faculty and scientists, decide on topics and the mode of cooperation for each of the academic years during the tenure of this collaboration.

5.4 The convenors shall be the contact persons for all the cooperation and other related issues identified in this MoU.

Article 6 - Financial provisions

6.1 Each PARTY shall bear the respective costs of carrying out the obligations under this agreement. Neither PARTY shall make a claim against the other PARTY for any expenditure unless such expenditure has been agreed upon in writing between the PARTIES.

6.2 Each party either individually or jointly will approach their parent organizations for funding.

A.K. Chaubey

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agencies and various industries to collect funds for effective measures and smoothly running activities under the MoU.

Article 7 - Amendments and duration of the agreement

7.1 This MoU represents the entire understanding between the PARTIES and supersedes any and all understandings either oral or written hitherto with respect to the subject matter of this understanding.

7.2 This MoU comes into effect on the date of signature by both Parties and may be amended by mutual consent.

7.3 The MoU will be valid for a period of five years and can be extended or amended with the written agreement of both Parties.

7.4 No amendment or modification of the MoU shall be valid unless the same is made in writing and consent by both the PARTIES is given and specifically stating the same to be an amendment of the MoU. The modifications/changes shall become part of the MoU and shall be effective from the date on which they are made/ executed unless otherwise agreed to.

7.5 Either institution may terminate the MoU by giving a written notice to the other institution six months in advance. Once terminated, neither DAG-IIT (ISM) nor NCPOR will be responsible for any losses, financial or otherwise, which the other institutions may suffer. However, the Parties will ensure that all activities in progress are allowed to be completed successfully.

Article 8 - Confidentiality and settlement of disputes

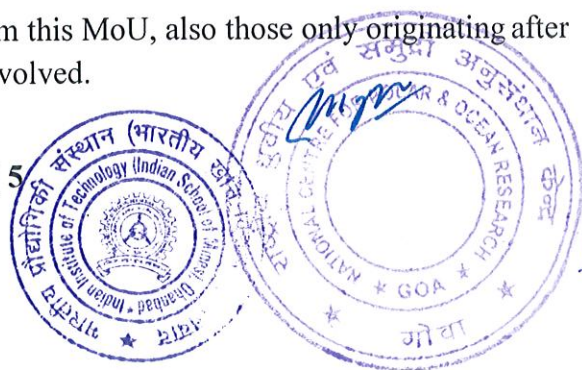
8.1 The Parties shall at all times keep confidential and shall not disclose to any third Party, persons or individual, any confidential information acquired or discovered by either Party in connection with the performance of this MoU, unless otherwise authorized in advance in writing by either Party.

8.2 The scientific and technical results of collaboration will be shared and/or commonly published, or for specific projects held as confidential in accordance with written terms agreed upon by both Parties.

8.3 Data collected in the framework of the MoU can be distributed to third Parties only after authorization in writing by either Party.

8.4 All and any differences of opinion arising from this MoU, also those only originating after its end, shall be settled amicably by the Parties involved.

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R. Mohan



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Article 9. Non-exclusivity

9.1 The relationship of the PARTIES under this MoU shall be non-exclusive and both PARTIES are free to pursue other agreements or collaborations of any kind. However, when entering into a particular education, training and research agreements, the participants may agree to limit each PARTY'S right to collaborate with others on that subject.

9.2 This MoU has been executed in two originals, one of which has been retained by DAG-IIT(ISM) and the other by NCPOR.

IN WITNESS WHEREOF, the PARTIES have executed this MoU on this ~~Twentieth~~ day of the June month and the year 2022 and represent that they approve, accept and agree to the terms contained herein.

For and on behalf of IIT(ISM) Dhanbad

Rajiv Shekhar

Name: Prof. Rajiv Shekhar

Title: Director

Address: Indian Institute of Technology
(Indian School of Mines), Dhanbad-826004, India

प्रो. राजीव शेखर / Prof. Rajiv Shekhar

निदेशक / Director

Seal: भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), Dhanbad
धनबाद / Dhanbad-826004

In the presence of

Prosanta Kumar Khan

Name: Prof. P.K. Khan

Title: Head of Department of Applied
Geophysics

Head of Dept. Applied Geophysics
Indian Institute of Technology
(Indian School of Mines)
Dhanbad- 826004, Jharkhand
INDIA

Seal:

For and on behalf of National
Centre for Polar and Ocean
Research

Shri Mirza Javed Beg

Name: Shri Mirza Javed Beg

Title: Director

Address: National Centre for

Polar and Ocean Research,

Headland Sada, Vasco-da-Gama,

Goa - 403804, India

Seal: Headland Sada, Vasco-Da-Gama, Goa-403804

In the presence of

R. Mohan

Name: DR. RAHUL MOHAN

Title: Scientist-F

डॉ. राहुल मोहन / Dr. Rahul Mohan

वैज्ञानिक एफ / Scientist F

Seal: ईएसएसओ - राष्ट्रीय ध्रुवीय एवं समुद्री अनुसंधान केन्द्र
ESSO - National Centre for Polar and Ocean Research
(पृथ्वी विज्ञान मंत्रालय / Ministry of Earth Sciences)

हेडलैंड सदा, वास्को-द-गामा / Headland Sada, Vasco-da-Gama
गोवा / Goa - 403804

AK Lakshy

Sagar

