MEMORANDUM OF UNDERSTANDING This Memorandum of Understanding (MoU) is made between

(A) NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR, DEPARTMENT OF HIGHER EDUCATION, MINISTRY OF HUMAN RESOURCE DEVELOPMENT, GOVERNMENT OF INDIA (herein after referred to as NITD) and (B) TROFIMUK INSTITUTE OF PETROLEUM GEOLOGY AND GEOPHYSICS, SIBERIAN BRANCH OF RUSSIAN ACADEMY OF SCIENCES, THE RUSSIAN FEDERATION

(herein after referred to as IPGG SB SRAS)

Article 1: Objectives

At the result of the negations of June 19 – 22, 2017 in the city of Novosibirsk, Russia between Trofimuk Institute of Petroleum Geology and Geophysics, Siberian Branch of Russian Academy of Sciences (IPGG SB RAS), with legal address registered at Bld. 3, Akademika Koptyga ave., Novosibirsk, 633090 Russia, represented by Prof. Igor N. Yeltsov, the Director,

and

National Institute of Technology Durgapur (NITD), an autonomous institution of the Government of India under Department of Higher Education, Ministry of Human Resource Development, with legal address registered at Durgapur – 713 209, West Bengal, India, represented by Prof. (Dr.) Asok De, the Director

hereinafter both referred to as the Parties, have agreed to foster the cooperation, as defined in this Memorandum of Understanding (MoU).

Taking into consideration that both NITD and IPGG are involved into research activities in various spheres of geo-science, and both have scientists with the competence and experience that enable them to perform such research and, being interested in continuing and extending the scopes of their scientific work, the Parties have agreed to sign this Memorandum of Understanding (MoU) and to undertake the activities and procedures as set forth below:

Article 2: Scope of MoU

Cooperation between the Parties implies joint researches and exchange of the information allowed by both Russian and Indian laws.

Areas identified as having potential for future cooperative projects may include but are not limited to:

- Exchange of information and data on general geology and geophysics
- Earthquake Prediction with application of geophysical and geochemical techniques and modeling.
- Exploration and development of energy resources:
- Geothermal Power from hot spring sites.
- Helium gas exploration from geothermal field and petroleum deposits
- Joint research in geotechnical, geology, geophysics and geochemistry;
- Exchange of ideas in perspective energy reserves exploration and development and prospects of collaboration therein with southeast Asian countries

Article 3: Forms of Cooperation

- Organization of joint events such as international conferences, seminars, workshops and/or symposia
- Exchange visits of individual scientists and faculty members and post-graduate students and Ph D students
- Exchange of relevant scientific and technical information in the agreed herewith spheres of interest;
- Collaboration on individual research problems of mutual interest, and the study of techniques and methods alongside with the facilities available and applicable at each Party's side
- Formation of joint research groups and undertaking collaborative research activities through participation in nationally/internationally funded projects
- Training individual scientists through participation in collaborative projects and joint research;
- Joint supervision of Ph.D. research
- Other forms of cooperation as may be mutually agreed between the Parties
- Visiting faculty will be given a workplace and the necessary support by the host institution and may be permitted to take guest lectures

- The host institution will help visiting faculty and students find suitable accommodation and support their academics and research. However, expenses for food and lodging and travels shall be borne by the visiting members.
- Both parties will participate in joint research projects and apply for appropriate funds to national or international funding agencies. If both parties agree, additional partners could also participate in the projects.
- It is implicit that every activity undertaken under this MOU is approved by the appropriate officials at each institution and must fall within each institution's academic and fiscal constraints.

It is agreed that the intention of this MOU to cooperate is not to restrict or otherwise detract from the relationship which may already exist between the Parties and their clients/partners, or to form a mutually exclusive arrangement that would prohibit NITD or IPGG from participating in other collaborative relationship with a third Party.

Article 4: Procedures for Individual Project

The activities to be undertaken by each organization will be based upon individual project or program agreements through an Annex Agreement between the Parties. The specifics of Annex Agreement implemented under this Memorandum, including, if necessary, details of financial arrangements, the allocation and protection of intellectual property rights, and general terms and conditions will be confirmed in writing between the Parties prior to commencement of the project or program. These annexes will include the specific work plans involving staffing requirement, cost estimates, funding sources and other undertakings, obligations or conditions not included in this MOU.

In the event of any inconsistency between this MOU and an Annex hereto, the terms of this Memorandum will prevail.

Article 5: Rights of Information, Data and Innovations

All scientific, technical and development information and data used in or derived from work performed pursuant to this Memorandum or any Annex hereto will be considered to be jointly owned by the Parties except for such information and data that are identified by the Parties as requiring protection under domestic law and regulations of the Russian Federation and the Government of India, or are otherwise susceptible to protection as its proprietary data. Either Party, after consultation with and agreement by the other Party, may at its discretion and subject to its national laws, publish the information and data exchanged. Each Party is to respect and acknowledge the copyright for information and data of the other Party.

Article 6: Review of Activities

With the exception of specific projects or programs excluded by mutual agreement, each Party reserves the right to review activities carried out under this MOU or any Annex Agreement to the MOU. Each Party agrees to inform the other of the outcome of any review of activities.

Any intention by one Party to substantially modify or discontinue a project or program shall be the subject of reasonable notice to the other Party.

Article 7: Entry into Force, Amendment and Termination

This MOU shall enter into force upon the date of the last signature of the two Parties and remain in force for five (5) years. It may be amended by mutual written agreement between the Parties. An intention by either Party to terminate the MOU prior to its agreed termination date must be notified to the other Party in writing at least ninety (90) days prior to the date of proposed termination. The termination of this MOU will not affect the validity, duration or other terms of any projects, programs or activities that were implemented within the duration of the MOU.

- This MOU may be modified at any time after due consultation between the two institutions.
- No party shall have the right to use the name or emblem of another party without the prior approval of that party in writing.
- Issues relating to intellectual property rights shall be resolved by both parties for each joint project separately before the start of the project.
- Both parties agree that this MOU does not contain any financial obligations for either side, and that measures will be pursued on the condition that national or international funds are available for the specific purpose.
- This document can not be treated as a legal document and be produced in a court of law.
- In the event of any dispute or difference arising in the implementation of the MoU, such disputes shall be resolved amicably by mutual discussions by the Directors of both the institutions. All such decisions shall take into account the status of students

working/projects under this arrangement and the interest of such students/ projects shall be guarded as much as possible.

NationalInstituteofTechnologyDurgapur (NITD)

By ornite 22/6/17

Prof. (Dr.) Asok De Director

Date :

Trofimuk Institute of Petroleum Geology and Geophysics (IPGG SB RAS)

By

Prof. Igor N. Yeltsov Director

Date: 22.06.0017