



Indian Institute of Technology (Indian School of Mines)

Dhanbad-826004, Jharkhand (INDIA)

Department of Applied Geophysics

Celebrates

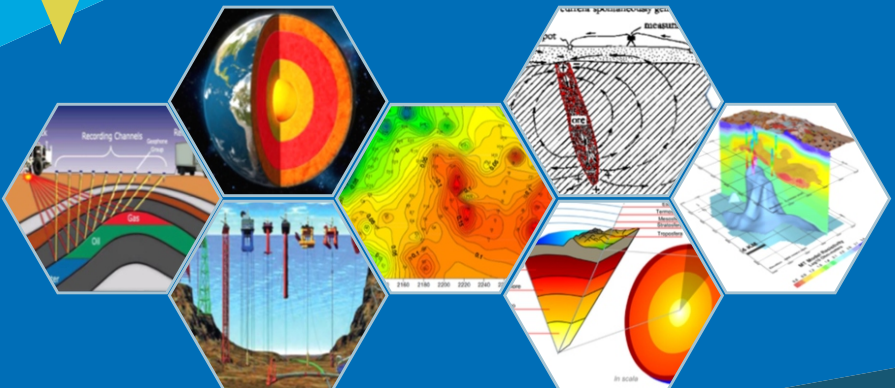
 Diamond Jubilee Conference

on

**Emerging Trends in
Geophysical Research for Make in India**



(March 09-11, 2018)



Objectives

Geophysics plays an ever growing role in both the efficient and sustainable use and preservation of the Earth's resources, and are currently being highlighted as a new dimension of research for rapidly growing needs of the society. Expanding scientific attention through development of novel techniques based on creativity and innovation, emphasizing working together on a contemporary challenges using concrete and comprehensive database, geophysics enables to deliver real benefits to the society. Most of the regions are highly heterogeneous in terms of properties and processes, varying complex ways across a wide range of spatial and temporal scales. However, numerous geophysical techniques have been proven necessary and effective for discovering mineral deposits, oil/gas deposits, and uncovering riddles inside the earth. Moreover, the characteristics of heterogeneities bear important insights in many aspects, for instance, the dynamic processes and evolution of the lithosphere including occurrences of frequent earthquakes, tsunamis, volcanism as well as the phase and chemical composition changes in the interior of the Earth. Robust nature of linear and nonlinear inversion schemes are being used to solve the complex geophysical problems and allow measuring uncertainty of the derived solutions. Complexity also occurs in spatial mapping of Earth resources where geophysical signals found to be overlapped and creating difficulty in discriminating these signals and delineating geological sources.

Rapid urbanization with increasing settlement and extension a major societal concern for developing nations. Such tremendous growth creates shortage of energy and resources, degradation of the environment, and changes to climatic patterns. Geophysics finds significant and new applications conducive to the understanding of the changes and impacts on the physical environment in highly urbanized settings. Geophysics, playing a crucial role in developing sustainable urban infrastructure systems, solves problems related to hazard mitigation, safeguarding of lifeline infrastructures and urban gateways (i.e., air- and sea-ports, railway and highway terminals), archaeological and heritage surveys, homeland security, urban noise control, water supplies and sanitation and solid waste management through successful applications of geophysical techniques.

The conference is convened with the aim to discuss in-depth research in the field of basic as well as applied geophysics including novel technological development, advancement of interpretation techniques, skilled management practices for exploration of mother Earth and its natural resources (e.g., mineral, coal, hydrocarbons, groundwater, geothermal and nuclear). Particularly, this conference's mission is to exploit breakthroughs through innovative approaches to various fields of geophysics to fuel the Make in India programme. The lectures will cover the topics related to energy securities, exploration of fossil and non-fossil fuels, mineral wealth for economic growth, groundwater for sustainability, hazard assessment and need based approach for mitigation, various missions related to deep ocean and continental drilling, mapping of resources using geo-spatial technology, searching for concealed mineral deposits based on multi-thematic earth science data set, deep water exploration and reservoir characterization, near surface and contaminated plumes mapping, and core-mantle-lithosphere-atmosphere coupling. The conference will bring numbers of renowned experts together on a single platform to exchange ideas and learning from each other, permeating the following themes, and making commitment to turn the vision of the conference into reality through closer and practical cooperations.

Themes

Besides the special theme chosen for the three days convention starting from 09th March 2018, the following broad based topics will be covered in various scientific sessions with attention on advancing the knowledge.

- Inner Earth Kinematics and Dynamics
- Fossil Fuel Exploration and Development
- Mineral Exploration and Development
- Renewable Energy Exploration and Development
- Smart cities and Geophysics
- Sustainable Groundwater Exploration
- Geotechnical Characterization and Modelling
- Natural Disasters, Hazards, and Mitigation
- Remote Sensing and GIS for Sustainable Development

About the Organizer

The Department of Applied Geophysics, IIT (ISM) was established during the International Geophysical Year in 1957. Since then it has grown to be one of the premier Geophysics Department in the country imparting excellent teaching and research.

The Department of Applied Geophysics attains its 60 years of excellence in 2018. The Department has grown in multifold and now been offering three years M.Sc. Tech. and five years integrated M.Sc. Tech./M.Tech in Applied Geophysics. Jointly with Department of Applied Geology, a two-year M. Tech. in Petroleum Exploration is being run since 1983. The Department has introduced a new M.Tech. course on Earthquake disaster, Hazard and Risk Mitigation since 2015-16 academic session. In addition, it offers doctoral programme in Applied Geophysics. The academic programs encompass many interesting fields of study. The Department is well equipped with state of the art geophysical instruments for various Geophysical discipline. The Department has a seismological observatory with broadband recording facility and a number of laboratories to name a few, geophysical inversion, geophysical instrumentation, rock physics and coal geophysics. The Department has been recognized by University Grant Commission (UGC) as a vibrant research center with the support of several national programmes such as DRS I, DRS II, UGC-SAP I, II & III, COSIST and CAS. In addition, the Department has also been supported by Department of Science and Technology (DST) under its FIST programme. A large number of geophysicists from this Department have held, and today occupy prestigious positions in national and international oil companies, mineral, R & D, and academic institutions around the world. The Department is evolving and exploding in cutting edge research and currently has ambitious plan to establish couple of new centers of excellence in areas of Mineral Exploration, Tsunami Modeling, Resource of Unconventional Hydrocarbon and Exploration of Groundwater.

Call for Abstracts

Extended abstract of maximum 2 pages (A4 Size) should be submitted in MS Word format with maximum one figure and five references. Both soft and hard copies are required to be submitted. Authors are requested to download the template in the website <http://www.iitism.ac.in>. Submitted abstracts will be reviewed and accepted on the basis of content and merit with respect to the theme of the seminar for Oral or Poster presentation.

Please send the abstract in the following email: etgrmi2018@gmail.com

Important Dates

Pre-registration	January 25, 2018
Last date of extended abstract submission	January 25, 2018
Acceptance of extended abstract	February 01, 2018
Final Registration	March 09-10, 2018
Conference	March 09-11, 2018

Registration Fees

Delegates (Industry)	₹ 6000/-
Delegates (Academic Institution and R & D Labs)	₹ 4000/-
Research Scholar	₹ 1500/-
Students	₹ 500/-
Spouse/Accompanying Person	₹ 1500/-
Foreign Delegates	\$ 200
Foreign Delegates with accompanying person	\$ 100

Registration fee includes Lunch and Dinner at the conference, access to the scientific sessions, conference documents including extended abstract volume.

Sponsorship

An organization sponsoring/co-sponsoring/supporting will find its name in the conference publicity literature and will be displayed prominently at the conference venue.

Platinum Sponsorship ₹ 5,00,000/- or more (including 20 delegates free)	Gold Sponsorship ₹ 2,50,000/- or more (including 10 delegates free)
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Silver Sponsorship ₹ 1,00,000/- or more (including 6 delegates free)	Bronze Sponsorship ₹ 50,000/- or more (including 3 delegates free)	Co-Sponsorship ₹ 30,000/- or more (including 2 delegates free)
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Mode of Payment

The payment may be sent by

1. Money Transfer/NEFT/RTGS to State Bank of India, ISM Campus Branch, IFS Code - SBIN0001641, A/C No. - 37182899301.
2. Demand draft drawn in favour of ETGRMI – 2018 payable at Dhanbad.
3. Wire transfer for Foreign remittance through MICR Code-826002006 Swift Code- SBININBB388.

Accommodation

Accommodation will be arranged either in the Institute's Guest House or nearby hotels. Transportation will be provided during the seminar. Details about transport, accommodation and other facilities will be mentioned in the website as well as second circular of the conference.

Exhibition/Stalls

An exhibition of geophysical and allied instruments will be organized during the conference. Exhibition stalls will be chargeable. Rates for stalls are available in the website.

Venue

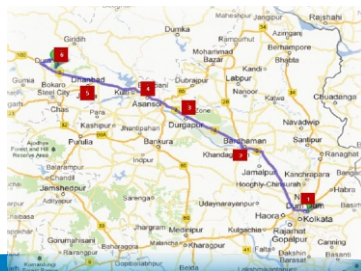
Indian Institute of Technology (Indian School of Mines),
Dhanbad, Jharkhand – 826 004

Temperature (°c) : Max 30, Min 16

Season : Best Season

Clothing : Light Woolen

Languages Spoken : Hindi, Bengali and English



Places of Interest

Dhanbad, a mining town is internationally famous for its rich coalfields. It lies at the western part of Eastern Indian Shield, the Dhanbad district is ornamented by several tourist spots, namely Parasnath Hill, Parasnath Temple, Topchanchi, famous Jharia coalfields, to mention a few. Other important places are Bodh Gaya, Maithon Dam, and this town is only at 259 km distance by rail route from Kolkata.

BODH GAYA



Lying at 220 km distance from Dhanbad, Bodh Gaya is the place where Gautam Buddha attained unsurpassed, supreme Enlightenment. It is a place which should be visited or seen by a person of devotion and which would cause awareness and apprehension of the nature of impermanence. About 250 years after the Enlightenment, the Buddhist Emperor, Ashoka visited the site of pilgrimage and established the Mahabodhi Temple.

USRI FALL

Amidst in the range of the famous Parasnath Hills, the Usri River gushes down from a steep gorge, some 40 feet high in three separate streams. Located ~68 km away from Dhanbad Town. It is a favourite picnic spot.



JHARIA COALFIELDS



Jharia coal field lies in the Damodar River Valley, and covers about 110 square miles (280 square km). It is one of the most important coalfields in India, and produces the only source of coking or metallurgical coal in the country. Jharia, a suburb of Dhanbad city is also an important town of the Jharkhand state.

PANCHET DAM

Panchet Dam was the last of the four multi-purpose dams included in the first phase of the Damodar Valley Corporation. It was constructed across the Damodar River at Panchet in Dhanbad district in the Indian state of Jharkhand, and opened in 1959. Panchet Dam is 9 kilometres from Chirkunda on Grand Trunk Road, and 54 kilometres from Dhanbad. It is a popular tourist spot.



PARASNATH TEMPLE



The Parasnath Temple is considered to be one of the most important and sanctified holy places of the Jains. According to Jain tradition, not less than 23 out of 24 Tirthankaras (including Parsvanatha) are believed to have attained salvation here.

MAITHON DAM

Maithon is 52km from Dhanbad. This is the biggest reservoir in the Damodar Valley. This dam, designed for flood control, has been built on Barakar river. It has a unique underground power station, which is first of its kind in South East Asia. Kalyaneshwari temple at Kalyaneshwari in Asansol of Bardhaman district in the Indian state of West Bengal is located on the banks of Barakar River, about 5 kilometres (3.1 mi) downstream from Maithon Dam of Damodar Valley Corporation.



TOPCHANCHI LAKE



Topchanchi lake lies at 37 km from Dhanbad. It was excavated along the slope of the Parasnath hills in 1915 to supply water to Jharia. Situated in a calm, quiet and beautiful environment Topchanchi still is a veritable paradise to nature lovers. A wild life sanctuary has been built in the hilly forests around the lake. The Topchanchi Wildlife Sanctuary covers a sprawling plot that measures approximately 8.75 square kilometers. Although the Topchanchi Wildlife Sanctuary is not that spacious yet it manages to preserve the innocuous essence of the wild beasts that reside in it.

GEODETIC OBSERVATORY

Equipped with Broadband Seismograph, MEQ Recorder, Standalone GPS Station along with METPACK. VSAT connectivity with National Nodal Agency, and collocated Permanent Gravity Base Station.



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CORRESPONDENCE

Prof. P. K. Khan, Convener

Department of Applied Geophysics
IIT(ISM), Dhanbad - 826 004, Jharkhand, India
Phone : +91-326-2235465 (O), +91-326-2235565 (R)
Email : khanprosanta1966@gmail.com, M: +91-9431711020

Prof. P. N. S. Roy, Organizing Secretary

Department of Applied Geophysics
IIT(ISM), Dhanbad - 826 004, Jharkhand, India
Phone : +91-326-2235469 (O), +91-326-2235569 (R)
Email : pareshr@iitism.ac.in, M: +91-9431122600

Dr. S. Maiti, Organizing Secretary

Department of Applied Geophysics
IIT(ISM), Dhanbad - 826 004, Jharkhand, India
Phone : +91-326-2235067 (O), +91-326-2235063 (R)
Email : saumen@iitism.ac.in, M: +91-9471192208

Dr. S. D. Gupta, Treasurer

Department of Applied Geophysics
IIT(ISM), Dhanbad - 826 004, Jharkhand, India
Phone : +91-326-2235072 (O), +91-326-2235071 (R)
Email : saurabh@iitism.ac.in, M: +91-9431513999

Registration Form



National Seminar
on

Emerging Trends in Geophysical Research for Make in India



(March 09-11, 2018)

1. Name (in block letters):
2. Affiliation:.....
3. Full Postal Address:
4. Tel:..... Fax:
5. Email:
6. Participation details:
 - (i) Extended Abstract submitted
 - (ii) Author's Name
 - (iii) Title of the Abstract
7. Details of Registration Fees
Demand Draft No. Date:
Amount:
8. Additional information, if any: