







Department of Geology & Geophysics Indian Institute of technology, Kharagpur

RITHVI'20

INFORMATION BROCHURE PRITHVI 20

Society of Exploration Geophysicists (SEG) Society of Petroleum Geophysicists (SPG) **European Association of Geoscientists and Engineers**

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ABOUT US

IIT kharagpur

Being the first IIT to be established, Indian Institute of Technology Kharagpur, has emerged as one of the most reputed technological institution in the country. Recognized as an Institute of National importance by government of India in 1956, IIT Kharagpur spreads over 2100 acres of campus hosting most number of departments and the highest student enrollment among the government-run colleges. With state of art research facilities made available to the students in a diverse range of fields, this institute has carved its path to excellence.

ABOUT US

SOCIETY OF PETROLEUM GEOPHYSICISTS

The Society of Petroleum Geophysicists, India was born on August 15, 1992, when about 30 Geophysicists met and resolved to form an association, for improved interaction and technical exchange. The Society is a non profit organization founded with a motive to exchange technical ideas and practical experience among the geophysical community.

SOCIETY OF EXPLORATION GEOPHYSICISTS

The Society of Exploration Geophysicists is a not-for-profit organization that promotes the science of applied geophysics and the education of geophysicis ts. SEG, founded in 1930, fosters the expert and ethical practice of geophysics in the exploration and development of natural resources, in characterizing the near surface, and in mitigating earth hazards.



INTRODUCTION

Prithvi is the largest symposium of Earth Science and unique of its kind in India with participation of 600+ participants from over 60 colleges all over the country. It is an endeavour to motivate the youth in the field of Geo-Sciences by providing a platform to the youth to showcase their talents and skills in fierce competitions, display cutting edge technologies and research from all over the globe.

PRITHVI is an initiative of the IIT Kharagpur Student Chapters of the Society of Exploration Geophysicists (SEG) in association with the Society of Petroleum Geophysicists (SPG), along with the students of the Department of Geology and Geophysics of the Institute.

Born in 2009 with the motto of promoting technology, scientific thinking and innovation. Prithvi has surpassed 11 golden years of creating an unmatched aura of a science and technology spectacle year after year. This year's Prithvi is an attempt to ponder this perspective. We take immense pleasure in presenting the 12th edition of Prithvi, to be held from 13th-15th March, 2020 with all new challenging Competitions , Workshops, Exhibitions and Guest Lectures focusing on Exploration and various Earth Science fronts.

FROM HOD'S DESK



HEAD - DEPARTMENT OF GEOLOGY AND GEOPHYSICS IIT KHARAGPUR

Prithvi 2020 is the 12th edition symposium of Department of Geology & Geophysics, IIT Kharagpur. It was initiated by the student's body of SEG and SPG under the guidance of its parent bodies and the revered faculty members of our department. Our vision was to bring together the industry and the academic acumen on a platform to inspire students of Earth Science. I am proud to share with you the success story of our efforts so far. We have been successful in marching forward and our last edition was an evidence of it. We received a tremendous response from colleges all over India and participants were highly satisfied with the conference.

For a country to be sustainable it should promote science and technologies and the resources must be judiciously utilized. With our growing energy demands and shrinking proven resources, it is time now to build a new mindset and expertise to help industry growth. With this foresight we aim to congregate this time with eminent scientist, smart researchers and industry leaders to share ideas, associate and endorse scientific growth.

I, on behalf of my department take the opportunity to invite you at Prithvi 2020 at IIT Kharagpur and hope that you will make the best out of this occasion and succeed in your future endeavor. Special thanks to our sponsors who bestowed their trust on us and choose to associate with the biggest festival of Earth Science in India.

Looking forward to a great experience.



CASE STUDY



Case Study will be based on current live problems from the industry and the solutions will be judged on basis of their innovativeness, practicality and the indepth investigation done on the particular topic. They will provide a systematic way looking at events, collecting data, analyzing information, and reporting the results. As a result the company experts, professors and the student community will gain a sharpened understanding of why the instance happened as it did, and what might become important to look at more extensively in future research. The Sponsor can choose to pay the sponsorship amount and/or provide Internships to the winners.

GEOSPECTRUM



GEO-Spectrum is a Quiz competition which will test the participant's quizzing aptitude on a broad spectrum of subjects from Earth Sciences. Though the majoremphasis will be on exploration, it will touch many other facets of Geo-Sciences with a very interesting format. It will be held in two phases. The first phase being the written round and the next phase comprising of oral questions including audio and visual rounds. Initial short listing would be done in the first rounds and the top scorers would advance to the next stage. This is going to check their command over the wide range of subjects.

MAJOR EVENTS

BRAIN STORM



When the whole world would be sleeping the students at the PRITHVI arena would be battling to solve questions in the overnight Problem solving Questions designed to test the aptitude, intelligence and the knowledge of the students. Groups of 2-4 students will exercise their brains to solve questions which will be from various fields such as Physical Geology, Sequence Stratigraphy, Seismic Interpretation to Structural Geology. The students will be given a night for coming up with their solutions and would be judged on the numbe of questions solved by each group. This event requires analytical aptitude with good accuracy.

EXPLIQUE



Prithvi presents you a platform to present your innovative ideas and research work. Mesmerize the audience with the presentation of your completely new idea or an improvement of any existing research work on any topic related to Unconventional hydrocarbons sources. Grab this opportunity to spark your idea nto the minds of the experts.

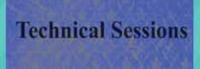


GEO-MODELLING



If you are highly creative so there is no point in locking your fantasy inside your mind. Geomodelling provides a platform for the depiction of the various surface/subsurface geological processes taking place in Earth system with dynamic models. Free yourself: use your incredible ideas in the most ofessional way and share your 3D models. Participating team need to present a working model. Model can depic a geological/ geophysical/ petroleum setting or phenomenon. Participants can also present a 3D design of model on any software.

TECHNICAL SESSIONS



Prithvi brings to you an opportunity to interact with personalities from across the world. We invite you to witness sheer awesomeness - the pioneer of evolution and revolution are here, at IIT Kharagpur; a group of prodigies holding their own in Geo-fields. The feather in the crown of Prithvi, Lecture series has been and this time introduces. Technical Sessions. It includes a presentation from students just after every lecture series. Presentation can include powerpoints, posters etc. related to that topic.

MAJOR EVENTS

MINREX



This fresh event is aimed at testing the students' mineral identification skills. It will be a challenging experience for them to maneuver the minerals and rock samples through the various properties: observing the streak, hardness, luster, cleavages and other physical properties as well as to see the minerals in depth - as deep as with microscopes on thin sections. A combination of these two is sure to complete a proper sweep of the student's mineral identification skills in all authenticity. This is a truly mind churning event.

POSTER PRESENTATION



INDIANA GEONES

Making Posters is the best way to convey information about a topic. It require submission of poster on recently published papers (2008-2009) or on-going research / projects in the field of Geo-Exploration. Typically posters include both textual and graphic elements, although a poster may be either wholly graphical or wholly textual. Posters are designed to be both eye-catching and convey information. The precise topics will be displayed on the website. Last date of submission of abstract will be 2 weeks before the event. Authors of selected abstract will be informed within a week. The judges panel will comprise of eminent people from the academia and industry.

INDIANA GEONES

PRITHVI presents a treasure hunt for our budding young Geoscientists who fashion themselves as modern Indiana Jones. The task involves using geophysical prospecting methods to locate objects whose expected geophysical properties are known. The instruments and data processing equipments will be provided. The design of the survey / experiment and its successful execution will be the challenge. It will be exactly what is done in the field for exploration.



GUEST LECTURES

It is always inspiring to listen the leader & learn from them. Prithvi guest lecture series is best among any earth science institute in India. We have had the privilege to host some of the best sessions in the past.

Here is a glimpse of our previous year Guest Lectures, earlier guests and their topics.



Dr SUMT RAY Honorary Scientist & Dy Director General(Retd), GSI.

Atomic Mineral Exploration





MR. UDIT GURU

Ex-Advisor, Petrophysicist
at Schlumberger

lecture on "Gas Hydrates". Schlumberger



Mr Kingshuk Dash Industry applications of ML



TALK BY CAMECA:

Electron Probe
MicroAnalysis CAMECA
SXFive latest
developments





Mr. Kondal Reddy

Talk by Cairn India





HING'S CROWN TITLE



The fight for the king's crown begins this season. Prithvi 20 brings you a battleground where you will have to battle it out not just for your own self but for the prestige of your college. Each event would take you a step closer to the ultimate prize, the Geological King's crown which would be awarded to the college with the maximum number of event winners. So get ready to give in all you have got, put everything at stake for the prized honour.

College winning "King's Crown" will lift the grand Trophy of Prithvi'20 and all participants of the winning college will get various goodies/prizes. College's name will be updated on our website with its winning participants.

So participate not as an individual but college as a whole and make others realize your strength.

CONTACTS

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GLIMPSES OF PRITHVI 16











GLIMPSES OF PRITHVI 18













