SEG Student Section, ISM Dhanbad organizes Student Programme at ISM, Dhanbad

Society of Exploration Geophysicists (SEG) Student Section at ISM Dhanbad under the association of Society of Petroleum Geophysicists (SPG), India organized student interaction programme during August 6-7, 2010 followed by a workshop on "Conventional vs. Non-conventional energy Resources" on August 8, 2010. This kind of interaction and workshop had been organized third time in a row in India by the SEG Student Section ISM Dhanbad.

Interaction programme on August 7 was inaugurated by Shri Apurba Saha, President SPG, India, where the guest of honour was Shri D. P. Sahasrabudhe, Executive Director, MBA basin, ONGC, Kolkata.

Shri Saha spoke on the present energy scenario in Indian context and the challenges for Non-conventional Resources. Shri Sahashrabudhe also spoke on Non-conventional resources.

Students from ISM and various universities like IIT Kharagpur, Andhra University, Banaras Hindu University, Osmania University, Kurukshetra University and NGRI, Hyderabad participated in Quiz competitions, Paper presentation and Geomodeling. Tewnty Three papers were presented by the students at the student interaction programme.

The workshop was chaired by Shri K. M. Sundaram, GGM (W), ONGC, Mumbai. A panel of judges from ONGC, CMPDI announced the results of students' paper presentation and Geomodeling competitions. SEG Student Section, ISM, also organized a colourful CULTECH programme where choreography on "Meghanjana -The Hydrologic Cycle" had been presented. Shri Animesh Sahay Director (T and R&DT), CMPDI, Ranchi chaired the valedictory programme on August 8, 2010. He focused on the achievements of Coal India Limited and the role of young talents in Industry-Academia activities.

Annual Meeting and Technical Seminar - SPG-Duliajan Chapter, 18th July' 10

The first annual meeting and technical seminar of SPG-Duliajan Chapter was held on 18th July 2010 in the presence of renowned geoscientists, persons from academic background, distinguished dignitaries and students from Dibrugarh University. Adhering to the quote that "Life is a journey, not a destination, and invincibly escorted by perpetual growth", the annual convention commenced with the theme "Spreading Knowledge – Striving for Excellence", keeping-in mind the prime vision to indoctrinate the geophysical community through unremitting knowledge sharing and exchange of technical ideas. To honor this promising event, Shri Apurba Saha, President SPG-India presided the convention and was the Chief Guest of the function.

Chief patron & Group General Manager (NEF), Shri K.K.Nath in his welcome address expressed his deep sense of gratitude to all dignitaries for having attended this meeting and emphasized on holding such high level technical seminars on regular basis. The Chief Guest Shri Apurba Saha in his address earnestly suggested on technical co-operation and integration between SPG-Jorhat & Duliajan chapters, and also recommended on promoting geophysics among all, particularly the school children. He greatly regarded the efforts of this chapter & sincerely wished continual progress and promised to extend all kinds of support for its growth.

SPG-Duliajan Chapter has brought forth volume-2 of the official journal INSIGNIA premising "Modern Technology Owes Ecology". SPG-Duliajan Chapter in this convention also initiated facilitations of the pioneers for their commendable effort in taking OIL to greater heights. As its initial attempt, the society has chosen to honor Dr. S.N. Visvanath for his exemplary services in the field of Petroleum Geosciences. The SPG-Duliajan President Dr. Rahul Dasgupta in his report conveyed to all the whole gamut of wonderful, challenging experiences of this eventful year and also put forward the future initiatives to be taken up by the Society.

The technical session included three enlightening talks. The foremost talk was by the well-renowned geophysicist Professor Subhasis Mallick, a SER Professor of Geology and Geophysics in the Department of Geology and Geophysics, University of Wyoming. He delivered an edifying talk on "Applications of Geophysical techniques in CO_2 Sequestration". The next talk was by Dr. Bijender Singh from National Geophysical Research Institute (NGRI) on "Applications of Gravity-Magnetic prospecting in hydrocarbon exploration". The engrossing lecture revealed the prominence and application of G&M methods as a successful complementary technique to conventional seismic in the field of hydrocarbon exploration.

The concluding presentation was on innovative techniques for hydrocarbon exploration by SPG-India-Secretary Shri. Rohit Sinha, an eminent geophysicist from ONGC. His presentation included talks on advances in processing technique and "A case study on the use of Passive seismic for hydrocarbon exploration".

A workshop on "Exploration & Exploitation of Hydrocarbons from Shale"

A quiet revolution in the energy scenario of the country has been just unveiled at a workshop on **Exploration & exploitation of Hydrocarbons from shale** held at Nehru Auditorium, ONGC Academy, Dehradun on 27-28 November under the aegis of **Society of Petroleum Geophysicists (SPG), India.** Over 200 delegates from 13 companies and academic institutes of the country participated in the workshop. These included four oil companies, namely, ONGC, OIL, RIL and Cairn Energy, India and four Service companies-Schlumberger CGG Veritas, Global Geophysical and Haliburtan research institutes– NGRI, Hyderabad and academic institutes Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli and Kurukshetra University and DGH, the governing body of the Government of India in the field of exploration and exploitation of Hydrocarbons.

Shri D K Pande, Director (E) and Patron SPG, India was the Chief Guest for the workshop who, while inaugurating the workshop explained the significance of Shale Gas as an alternative energy source for India. Shri Apurba Saha, President, SPG gave a welcome address.

The significance of the conference lies in the role that exploration of shale gas has come to play globally in the recent years and is expected to play in India in the years to come. In USA which has been the leader in this field, shale gas is contributing as much as 18% of its annual gas production now and the share is expected to increase. In terms of reserves, shale gas is estimated to contribute 33% of the US national gas reserves of 1,836 trillion cubic feet (Tcf). It has been only recently in the last 2-3 years that shale gas has proved to be such an important source of energy in the USA. This sudden growth has resulted in the decline in the import of gas by the country and is expected to tilt US economy favorably.

As emerged from the presentations by the various speakers at the workshop, there are several differences in exploration and exploitation of shale gas from that of conventional gas.

In contrast to the conventional gas which is deposited in discrete traps, Shale gas formations are "continuous", deposited over large areas. The gas source, trap and reservoir are the same, not three distinct elements as for a conventional gas prospect. As a result, the total percentage of shale gas reserves in a basin can be several times that of conventional gas reserves. On the other hand, the geologic setting of shale gas is more complex than conventional gas and to exploit it calls for advanced for technology of hydro-facturing and subsurface imaging of the network of fractures from which shale gas is to be produced. Several speakers at the workshop presented their know how on how these advanced technologies can be harnessed for exploration of shale gas in the Indian context.

India possesses large shale deposits across the Gangetic plain, Rajasthan, Gujarat and other coastal areas. As brought out in the workshop, ONGC with Schlumberger as its technology partner has undertaken an R&D Exploration project in the Damodar Valley basins. Four wells are planned and the first well is currently being drilled. In appreciation of the potential of shale gas in India, DGH is planning to announce NELP bocks specifically for shale gas exploration. If this policy is successful, it may prove to be a deciding tool in enhancing the energy security and upward tilting the economy of the nation.

SEG 2010 South & East Asia Honorary Lecture

With the objective of disseminating knowledge and providing technical updates on emerging technologies, Society of Petroleum Geophysicists (SPG), India organized SEG 2010 Honorary Lecture Program with the support of Society of Petroleum Geophysicists (SEG), USA on "Geophysical Issues and Challenges in Southeast Asia with Emphasis on Malay Basin" by Dr. Dave Ghosh, Petronas Research, Kuala Lumpur, Malaysia on 8th November, 2010 at Dehradun.

The proceedings started with a formal bouquet presentation to Dr. Deva Ghosh by Mr. Y.M.S. Reddy, ED-Chief E&D and Mr. P.K. Bhowmick, ED-HOI-KDMIPE, Dehradun.Mr. K M Shukla, Secretary, SPG, India delivered the welcome address and shared the initiatives taken by SPG, India for promoting geoscience.

The lecture was attended by over 100 Geo-scientists from ONGC at Dehradun. The lecture focused on better ways to image within and below gas chimneys, locate channel sands, image below carbonates and improve resolution of thin, stacked sands. Dr. Deva Ghosh also briefed the audience about useful technologies of high-resolution seismic imaging,

using anisotropic velocities, elastic inversion and attribute analysis.

The lecture emphasized techniques of multi-azimuth seismic for imaging below salt and carbonates, low-frequency sources and other acquisition methods that reduce multiples. Judging by the extensive interaction of Dr. Ghosh with the audience, it was apparent that the subject of the talk had struck a chord with the audience and that the lecture was very well received. Shri C B Yadav, Joint-Secretary, SPG, India offered thanks to Dr. Ghosh for giving a very lucid and educative talk.

Prof. Mrinal K Sen delivers a technical talk on Inverse Methods, Geostatistics and Neural Networks for reservoir characterization

Prof. Sen was invited by SPG India to deliver a technical talk on Inverse Methods, Geostatistics and Neural Networks for reservoir characterization to enrich knowledge of fellow geoscientists on 21st December, 2010 at GEOPIC Conference Hall. He was welcomed by Shri A.K. Arya Vice President SPG India on behalf of SPG.

His talk covered inversion methods and their limitations, geostatistics and its role in interpolating petrophysical properties across wells, and different types of neural networks for log prediction. He further elaborated with case studies on how neural network outputs can be used for classification of facies, for predicting porosity, saturation, and shale volume and for generating probability maps. The talk was well received by the audience with a live interaction during the course of presentation. Geoscientists from Frontier Basin, KDMIPE, GEOPIC and other work centers participated in the program.

The talk was summed up by Shri Shyam Mohan officiating Head, GEOPIC. He emphasized the need and usefulness of neural network technique for porosity prediction, particularly in carbonate reservoir rocks. Shri K.M. Shukla, Secretary, SPG India, presented a vote of thanks on behalf of SPG.

Society of Petroleum Geophysicists, Dehradun, India

Editorial Policy

Geohorizons publishes material of relevance to Petroleum Geophysics. Contributions can be in the form of research papers, case histories, tutorials, reviews or interpretation work. Manuscripts on fundamental geophysical principles that are relevant for exploration are also invited. The forum "Points-to-ponder" is meant for discussion on subtle questions of theoretical or practical interest normally not covered in text books or papers. Readers may contribute such a question along with an answer, if known to him. "What's new?" is intended to convey the latest development in a field.

A predominantly mathematical paper should preferably include an illustration or example of its application. The manuscript should include at least one example of synthetic or recorded data to illustrate the technology orconcept described in the paper. In addition to technical contributions, readers may submit news related to differentprofessional societies affiliated to Society of Petroleum Geophysics, India, along with a brief write-up and photographs. Letters to Editor expressing any issue which can enhance the value of the periodical are welcome.

Technical papers, case histories, tutorials, require an abstract. Authors should confine their papers to ten (10) journal pages or fewer, including figures. The intent of the length restriction is to improve clarity by encouraging authors to organize and focus their writing.

Geohorizons encourages authors of works presented at SPG biennial conferences to submit expanded, journalqualityversions of their work for consideration of publication in Geohorizons.

All contributions submitted in English are considered regardless of whether the author is a member of the Society of Petroleum Geophysicists, India. A technical contribution is accepted for publication with the understanding that (1) it has **neither been accepted for publication nor published elsewhere either in whole or in substantial part,** (2) it is **neither currently being considered by another journal nor will be submitted to another journal** while under consideration for Geohorizons. If prior submission or publication has been to a publication with a very limited audience, the Editor may choose to waive the restrictions (1) and (2). It is further also understood that: (3) the work is essentially original. Extension of an earlier work by another author, tutorial, or a review are welcome. However, **if the contribution contains any material published elsewhere, beyond what is permitted by the original publisher, the authors need to obtain due acknowledgment / permission from the original authors / publishers.** It is the authors' responsibility to inform the Editor of any variance from (1), (2), and (3) above. **Responsibility for any infringement of Copy Rights arising from publication of the submitted papers rests solely with the authors and not with Geohorizons**.