

## Hyderabad 2008 – An Overview

The Society of Petroleum Geophysicists, India (SPG) held its 7<sup>th</sup> International Conference and Exposition on Petroleum Geophysics during 14-16 January, 2008 at Hyderabad. The biennial event of SPG, 'Hyderabad2008' was supported by SEG and EAGE. SEG had extended level III support to the conference.

To sustain the unprecedented and continued economic growth, achieving the energy security is the foremost concern for India and the theme of the conference, 'Energy Security: Exploration, Exploitation and Economics' very aptly underlines this concern.



The conference was inaugurated by the Honourable Minister of Petroleum and Natural Gas, Government of India Mr Murli Deora. Mr M S Srinivasan, Secretary Petroleum & Natural gas, Govt of India, Mr R S Sharma, CMD, ONGC, Mr D K Pande, Director(Expln), Dr Fred Aminzadeh, President SEG and Dr Finn Roar Aamodt, President EAGE were the guest of honour during the inauguration.



The conference turned out to be the biggest geophysical event organized so far in India. Over 2000 delegates from all over the world attended the conference that included about 400 overseas delegates.

In his inaugural speech, the minister emphasised that high economic growth of 8-10 per cent of India calls for rapid development of the energy market. He added that the national endeavour to bridge the ever-increasing demand-supply gap by intensifying exploration in India and Abroad needs to be supported by other alternate energy sources like Coal Bed Methane, Gas Hydrates, Coal Liquefaction, Ethanol and Bio Diesel etc. The Petroleum Secretary, Mr M S Srinivasan described the event as the best organised technical conference he has ever attended. Appreciating the role of SPG, he said that SPG may as well denote Special Protection Group in the quest for Indian Energy Security.



The Petroleum Minister also conferred, 'B S Negi Convention Gold Medal' to Mr V C Mohan, former Regional Director, ONGC for his exemplary lifetime contribution in the field of Petroleum Geophysics in India .



Earlier on 13<sup>th</sup> January, Hyderabad2008 was teed off to a Green start with a Golf tournament at Army Golf Course Secunderabad. The event was inaugurated by Dr A K Balyan, Director(HR), ONGC and many delegates, notable among them Dr Fred Aminzadeh, Dr Finn Roar Aamodt and Dr Leon Thomsen participated. Mr B S Dhillon was the Gross winner of the event.



Followed by the inauguration on 14<sup>th</sup> January, two theme sessions were held. The first of the two theme sessions, 'Vicharvastu' saw four eminent speakers present their approaches on the conference theme. Director(Exploration), ONGC said that in our quest for sustainable energy, we should move from conventional hydrocarbon sources to unconventional hydrocarbons. President SEG, Dr Fred Aminzadeh told the audience that the SEG is focusing on accelerating Innovation and strengthening ties with the local societies. EAGE President Dr Aamodt, talked on making the 'invisible', visible with special emphasis on sub surface imaging. He said that other requirements are Technology Development, holistic management and improved integrated work processes. Director(Technology Solutions) of Hewlett Packard, Mr Douglas Hansen said that the Technology is the key enabler of Energy Security. He added that the emerging trends in Exploration Geophysics are putting challenges to IT vis-à-vis computational power and seismic algorithms.



In the second theme session, 'Vichardhara', the speakers discussed some strategic directions to manage the emerging challenges of E&P business. IAGC President, Mr G. C. 'Chip' Gill recommended a healthy division of risks between Client and contractor, fair indemnity provisions and standardizing technical formats for getting the best from Geophysical outsourcing. Former Director(Finance), ONGC,

Mr I N Chatterjee pointed out the shortage of skilled manpower and the necessity of huge investments for future projects in difficult to access areas as two biggest challenges before the E&P industry. Prof G B Pant of IITM, Pune talked of adverse climate change effects of burning Petroleum and urged all scientific forums to give due consideration to the climate change issues.



The conference was the largest so far in terms of the technical content too. The technical programme spanned through 29 technical sessions and 5 poster sessions spread over three days.



A wide range of topics like Deep Water Exploration, Non Seismic methods, Advanced inversion methods for reservoir characterization, Sub-basalt imaging, Velocity modelling & depth imaging, Wide Azimuth data acquisition, AVO, Multi Component Seismics, Well logging, Integrated exploration strategies and many more were covered by distinguished speakers and authors from India and abroad.

A total of 319 technical papers were presented in the conference. Out of these 319 presentations, 158 were oral (including 4 from students) and 161 poster presentations (including 14 from students).

Another highlight of the rich technical content of

the conference was the pre & post conference continuing education courses. A total of 15 courses were conducted at Hyderabad, Mumbai, Chennai and Vadodara.



The programmes were well attended by the representatives of various companies and the students. The details of the pre & post courses are given in the following table

Yet another special event under the technical programme was a joint session of four Indian Geosciences societies, viz., SPG, APG, SPE and SPWLA on 16<sup>th</sup> January, 2008. Four speakers representing different societies put forth their ideas on latest technological solutions for E&P industry on production cost optimization before the delegates. The session was seen as an indicator of greater co-operation amongst the Indian societies.

The Exposition is an integral part of SPG conference. The exposition arena had grown bigger to 84 booths as

**Table: Details of the Pre & Post Conference Continuing Education Courses**

| Course | Title  | Faculty  | Date & Place                       |
|--------|--|--|------------------------------------|
| CE 1   | Pore Pressure Analysis   | Dr. Nader C. Dutta, Schlumberger   | 12th Jan, 2008 at Hyderabad        |
| CE 2   | Deep Water Imaging   | Dr. Ian Jones, GXT   | 13h Jan, 2008 at Hyderabad         |
| CE 3   | Geopotential and Magnetotelluric methods for Petroleum Exploration | Dr. Mita Rajaram, IIG Prof. S.G Gokarn, Dr. S.P Anand – IIG, Prof. H.T Anderson, Digitus Intl., & Dr. A. Saito , Geoprobe Co.  | 12th - 13th Jan, 2008 at Hyderabad |
| CE 4   | Seismic Attributes for Reservoir Characterization                  | Dr. Satinder Chopra, Arcis Corporation   | 13th Jan 2008 at Hyderabad         |
| CE 5   | Seismic Inversion for Reservoir Characterization                   | Prof. Mrinal K. Sen, UT Austin<br>Dr. Dhananjay Kumar, Chevron   | 13th Jan 2008 at Hyderabad         |
| CE 6   | Petrophysical evaluation of problematic reservoirs                 | Dr Paul F. Worthington   | 17th Jan 2008 at Hyderabad         |
| CE 7   | Introduction to Seismic Inversion & AVO                            | Dr. Brian H. Russell, Hampson Russell  | 17th Jan 2008 at Hyderabad         |
| CE 8   | Seismic Anisotropy   | Dr. Leon Thomsen, BP   | 18-19th Jan, 2008 at Mumbai        |
| CE 9   | Seismic Wavefield Modeling   | Dr. Luca Duranti<br>Dr. Dhananjay Kumar, Chevron   | 12-13th Jan, 2008 at Hyderabad     |
| CE 10  | Inversion of seismic Data & Net Pay Estimation                     | Dr. Raghu Chunduru, Shell<br>Dr. Dhananjay Kumar, Chevron<br>Dr. Satish Singh,<br>Dr. Kalachand Sain, NGRIP<br>K Chaudhary ONGC<br>Dr. C H Mehta, Paradigm Geophysical, Mumbai | 18th Jan, 2008 at Hyderabad        |
| CE 12  | Gas Hydrates   | Dr. Nader C. Dutta, Schlumberger   | 17th Jan 2008 at Chennai           |
| CE 13  | Challenges on Carbonate Reservoirs                                 | Dr. Pabitra Sen & others   | 15th Jan, 2008 at Hyderabad        |
| CE 15  | Deep Water Depositional Processes & Environment                    | Dr. Rabi Bastia, Dr. Ven Kolla,<br>Dr.R.J Singh & Dr. Bhagaban Das - RIL   | 11th Jan, 2008 at Mumbai           |
| CE 16  | Passive Seismics   | Shivaji N. Dasgupta, Saudi Aramco  | 19th Jan 2008 at Baroda            |
| CE 17  | Petrophysics   | Dr. Manika Prasad, Colorado School of Mines  | 12th Jan 2008 at Ahmedabad         |

Note: CE-11, 'Estimating Pre-drill Pore Pressure & Fracture Gradient Analysis using Petrophysical Data' by Dr Gopal R Amruthpuri could not be held during Hyderabad2008 and was conducted on Dec 06, 2008.

compared to 72 last time. It was a spectacular display by E&P companies, Service companies and professional societies. Along with the displays by professional societies like SEG, EAGE and APG, more than 43 companies showcased their products, new technologies and solutions to various E&P challenges. The enhanced level of participation by SEG and EAGE in the exposition was evident from their displays. The exposition attracted students and professionals alike. Inaugurating the Expo, the Petroleum Secretary M S Srinivasan expressed his immense happiness to see the students through the exhibition booths. ONGC and CGGVeritas were adjudged as the best and second best exhibitors respectively.



charts, instruments and live demonstrations at National Geophysical Research Institute.

As regards to university students, they too had an ample opportunity to get a wonderful exposure to the current trends in the industry and they also made their presence felt at a number of forums specially structured for them. There were three exclusive programs for the students, viz., The Students Forum, the Quest and the Students' Quiz. Geophysics students from 11 Indian universities and institutes participated in these events.



The current and future Geosciences students have always been a centre of attention for SPG and the student programme of the conference clearly highlighted this fact. Apart from the programs for university students, separate programmes were organised for school going children which were aimed at generating interest and awareness amongst the young students towards the Earth sciences. In addition to a visit to Exposition at HICC, the young students were given an introduction of the science of Geophysics by Dr B B Bhattacharya, distinguished Professor Chair in SN Bose National Centre for Basic Sciences, Kolkata. They were also explained a number of Geophysical concepts through models,





The Students Forum provided an opportunity for interaction of Academia, Industry and Professional societies. A Panel of four distinguished personalities viz., Dr Fred Aminzadeh, President SEG, Dr Finn Roar Aamodt, President EAGE, Mr N K Mitra, Director(Offshore), ONGC and Prof RGS Sastry, IIT Roorkee addressed the aspirations and apprehensions of the students. The students raised issues related to unavailability of quality books, latest software, regular updating of curriculum and real data for the study. Replying to students' different questions, Fred Aminzadeh encouraged students to get free SEG membership so that they can avail associated benefits including availability of quality texts. President SPG, Mr Saha at one occasion suggested that Industry leaders need to be more generous towards students' needs. He assured that SPG would consider helping the needy institutes provided they come with their genuine requirement.

Mr Mitra said that the teachers may also need to participate in such conferences where current Industry specific issues are discussed and deliberated. Dr Aminzadeh observed that the educators need to be educated to keep track of the rapid changes that are happening with this industry.

The Students Quiz, which is incidentally the

inspiration behind SEG Challenge Bowl, was as exciting as ever. Total 11 teams participated from different universities and institutes this year. Mr Satinder Chopra from Arcis Corporation, Canada was the adjudicator to settle any controversial issue. The Cochin University team comprising of Meenakshi Kumari and A Kavitha was the winner of the Students Quiz of 2008 held on 15<sup>th</sup> January.



Earlier on the same day, in the Students' Quest, the participants presented their views on the theme, 'Perspective on Energy Security'. The theme of the quest was disclosed to the students just one hour before the event so it was more or less spontaneous performance by the students. The judges, SEG President Fred Aminzadeh and Director(Exploration), ONGC, Mr D K Pande, appreciated the participants for their extempore performance. Deepak Kumar of Kurukshetra University and Devi Joshna of Andhra University were adjudged the best and second best speakers respectively.

With a commitment to provide the job avenues to young Geoscientists and encouraged from the success of the Job Fair during Kolkata 2006, SPG further expanded the job fair organised this time by adding Reservoir Engineering. A total of 423 students from Geology, Geophysics and Petroleum Engineering disciplines took part in the fair. About 95 students were recruited in different Geosciences streams by companies like ONGC, Schlumberger, CGG Veritas etc..



Another highlight of the conference was CEO's meet on 'Future E&P Solutions for Energy Security of Developing Economies'. All four speakers of the meet, viz., Mr Robert Brunck, President & CEO CGG Veritas; Dr A K Balyan, Director(HR), ONGC; Mr Robert Peebler, President & CEO of ION and Mr Svein Rennemo, President & CEO PGS emphasized the importance of higher penetration of high-end Geophysical technologies.



In a well attended Business Programme session, Mr R S Butola, Managing Director ONGC Videsh and Mr S V Rao, Executive Director E&D, ONGC talked about future E&P strategies in the global perspective and the thrust areas of business.

Amidst the serious technical deliberations and strategic discussions focussed on attaining energy security, there were two early morning programs on the second and third day of the conference which seemed a little out of context but were immensely liked by the participants.

On 15<sup>th</sup> January, Spiritual discourse by Acharya Vidyadhar, the foremost disciple of Sri Sri Ravishankar on 'Art of Living' mesmerised the audience with simple yet thought provoking words on our daily experiences and their relevance to our happiness, fulfilment and progress explaining how science and the spirituality complement each other. He



said that science is a wonderful development of human mind which has led to the material progress. But it also involves endless quest on the purely physical plane that leaves one unsatisfied and hungering for more. Spirituality on the other hand guides us to contentment through enjoying what is available rather than endlessly aspiring for what we do not have now.



The other non-geophysical session was an informative and interesting talk by noted lifestyle specialist Dr Savitha Menon from Apollo Hospital, Hyderabad. The causatives of the stress in our day-to-day life, their effect on our body and the ways to combat the stress were explained in a lucid manner by Dr Savitha.





One of the major highlights of the conference and a significant GAC development was marked by signing of a Memorandum of Understanding (MOU) by SEG and SPG presidents for a close cooperation between the two societies including a Joint Program Office (JPO) at Mumbai in India. The JPO proposal has two general objectives – this first is to enhance existing service levels for Indian constituents and second goal is to establish the capability to cultivate and serve regional, non-resident constituents through programmes and activities. It is expected that the said goal of establishing a JPO would be achieved within a year.



The spouses attending the conference were treated to a wide variety of entertaining activities ranging from cooking lessons at Taj hotel to sightseeing and shopping in the historical city of Hyderabad. The delegates particularly liked the visit to Ramoji film city, world's largest film studio complex. Containing both natural and artificial attractions, Ramoji film city is a magical tourist destination.

Spectacular cultural programmes are the integral part of SPG conferences. This year's cultural nights offered a fine mix of Indian classical, folk and popular dance & music. Noted Kuchipudi danseuse Swathi Somnath and Child artists from the Hindu Anathashram Nadiad entertained the audience on 14<sup>th</sup> January at Falaknuma palace with their classical and folk

displays respectively. On 15<sup>th</sup> January at Rock Heights, it was young but talented dancer Mandira Dutta and sensational singer Karunya who made the people dance with their electrifying performances.



The Valedictory Function was equally impressive as the rest of the event and was indeed a befitting conclusion of the grand event, which was chaired by Mr A K Hazarika, Director Onshore, ONGC. Dr C H Mehta, Vice President of SPG summarised the highlights of the Conference followed by Mr Saha presenting the awards for the best paper, best poster, best exhibitor and to the winners of various student programmes.



Sharing his views on the conference, Dr Finn Roar Aamodt described it as most rewarding experience and top quality programme. He added that EAGE is committed to be more present in India than in the past. Dr Fred Aminzadeh said that he was truly impressed by the way this conference was organised and run. He described it truly a world class show. He also announced signing of the MOU between SPG and SEG for a close collaboration along with establishing JPO at Mumbai. Dr Aminzadeh emphasized that more than just an office, SEG desired to accomplish a close interaction with Geophysical community in India.



Emphasizing Society's commitment towards the students' welfare, SPG President Mr Apurba Saha informed the house that SPG has been considering a research fellowship in a field related to Petroleum Geophysics for quite some time. He told the audience that a concrete step has been taken in this direction and four students have been shortlisted for the fellowship. SPG will now finalise the modalities with the



universities and Industry on how this fellowship can be rolled out from next academic year. He also expressed happiness over the MOU signed with SEG for a close cooperation and a joint Programme Office. Mr A K Hazarika said that this type of conference provide a business platform for sharing knowledge and experience between the service providers and service takers. He emphasised that a time-bound implementation of the knowledge shared in the conference is necessary for reaping benefits of such type of conventions.

B S Bora, Secretary SPG proposed the vote of thanks and then the proceedings of Hyderabad 2008 came to an end with a spell binding musical performance, 'Rhythmscape' by Grammy award winner and celebrated music maestro Bickram Ghosh and his troupe.

Hyderabad 2008 has been indeed a land mark event and a harbinger of the growth of Petroleum Geophysics in India .

