

Hyderabad 2012

The Society of Petroleum Geophysicists, India (SPG) organised its 9th Biennial International Conference and Exposition on Petroleum Geophysics on 16-18 February, 2012 at Hyderabad International Convention Centre (HICC), Hyderabad, the state of the art and best venue in India. The event, '**Hyderabad2012**' was supported by SEG, USA and EAGE, Netherlands. The Convention Centre is located in the centre of a dedicated industrial area of the emerging high-tech city.

The society has now expanded its realm by focusing on various facets of energy business through introduction of new technology, which translates these resources into tangible Oil & Gas revenues. The theme of the conference '**Reservoir Grade 3D API-Exploration to Exploitation**' has been chosen considering the fact that the back bone of any E&P company is Seismic acquisition, processing & Interpretation (API). It covers full wave from inversion, delineation of geomechanical parameters and petrophysical parameters to understand petroleum systems with the help of all available G&G and production data. Reservoir grade 3D API helps understanding the details of petroleum system, plays and issues of field development. It also facilitates designing of exploration & exploitation strategy.

Oil exploration has become more difficult, mature and new discoveries have become a rarity from complex geological and frontier areas. Successful optimization of mature assets, offshore in particular, will require skilled application of the most advanced technologies. There is no "one-size-fits-all" solution. The conference is aimed to help the geoscientists to find the most suitable solution to meet the challenges.



Dignitaries on the Dais inaugurating the Conference by lighting of lamp.

Presently, Global E&P companies are facing great challenges. They are striving hard to meet the rising demand with declining production from existing matured/ageing fields and further big commercial discoveries are eluding them. In this current scenario, the theme of the conference, '**Reservoir Grade 3D API-Exploration to Exploitation**' is aptly justifies.

The conference was inaugurated by Mr. Sudhir Vasudeva, CMD, ONGC and Patron-in-Chief of the Society. Mr. S V Rao, Director (Exploration), ONGC and

Patron of the Society, Dr. Ganesh Thakur, President, SPE, 2012 and Dr. Craig J Beasley, Former SEG, President were the guests of honour.



The conference turned out to be the major geophysical event in India and attended over 2300 delegates across the globe. In his inaugural speech, Mr. Vasudeva quoted current thinkers that the low-hanging fruits in E & P business are over and “we need to graduate to geologically challenging frontiers”.

Chief Guest, Mr Sudhir Vasudeva addressing the delegates.

He emphasised that the E&P industry has to be driven by new seismic solutions for better management of economic risks and technological challenges. He further said that we are entering into a critical phase of E&P industry marked by reduced finds and depleting production from matured fields. To manage such challenges, we have to enhance our understanding of reservoirs and hence augment investments in seismic R&D. Flagging the importance of international conferences by professional societies like SPG & SPE, he said “Global geo-politics and global competition for resources have given rise to an environment for cooperation. While E & P industry has to progress to geologically complex domains, the evolving scenario also offers more opportunities for growth of the industry”.

Mr. Rao said SPG has adopted a very contextual theme and structured the technical sessions which has diverse coverage. He opined that the focused education, new technology, new discoveries in deep water, ultra deep water & frontier area will be the key driver of future E& P Business.



Patron SPG, Mr S V Rao addressing the delegates.

The guests of honour, Dr Ganesh Thakur & Dr. Craig J Beasley also spoke on this occasion.

Welcoming the distinguished guests and delegates, Mr. Saha, President, SPG-India gave a brief overview of the conference and emphasized the initiatives



President SPG, Mr Apurba Saha Welcoming Delegates.

taken by the society in promoting geosciences amongst the students of Indian Universities and also being awareness of 'Earth Sciences' amongst school children so as to pursue them as professional career. He said that the theme of the conference dwells on in-depth understanding of petroleum systems so that the E&P industry can design exploration & exploitation strategies better. Looking at the future, he said that today's geoscience students are the future India's Special Protection Group (SPG), hence SPG makes all out efforts to impart professional edge to Geoscience students.

The Society conferred 'B S Negi Convention Gold Medal' to Mr. Ananda Gopal Pramanik for his commendable lifetime contribution in the field of Petroleum Geophysics in India and to the society, in particular. The award was received by Mr. G C Katiyar on behalf of Mr Pramanik. In addition, Mr. Chudamani Ratnam, Prof. Mrinal K Sen, Mr. Kharak Singh, Mr. S N Badola and Prof B V S Murthy were also bestowed with the "Lifetime Honorary Membership Awards" during the conference.



Chief Guest, Mr. Swaranjit Sain in action

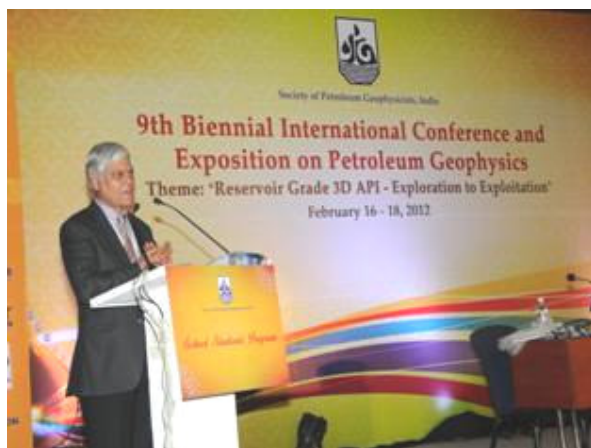
Earlier on 15th February, "Hyderabad2012" was teed off to a Green start with a Golf Tournament at Boulder Hills Golf and Country Club, Hyderabad. The event was inaugurated by Mr. Swaranjit Sain, Former DGP Andhra Pradesh and many delegates; notable among them are: Mr B McLaughlin & Mr. A Sen from McDermott, Mr. Prem Vasistha from PGS, Mr. S Ramamurthy & Jayanta Malhotra, from Schlumberger, Mr. J G Chaturvedi, Mr. A A Khan & Mr. P B Pandey from ONGC and others.

Dr Ganesh Thakur, President SPE said that Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR) are set to occupy centre-stage in the near future. Flagging the importance of such secondary recovery techniques, he said that the amount of additional oil produced from IOR and EOR almost equals the oil being accreted from new discoveries. He further added that an integrated approach of geosciences, reservoir engineering & Management and production engineering is required to apply IOR and EOR techniques professionally. SPE President, Dr Thakur delivering talk in "Theme Session"; even 10% gain from EOR may lead to substantial oil gain.



Mr. R S Sharma, former CMD ONGC, gave a talk on Risk Management in the context of E&P industry, citing a case study of the financial melt down of 2008 to explain the adverse effects of improper risk management.

Dr Narendra Taneja, Energy Affairs Commentator gave a special talk on



“Building Energy security for India and beyond” which left the students spell bound with giving lot of exposure about the present energy scenario in the country. It also brought out the importance of Oil & Gas industry in the nation's economic progress and the pivotal role played by it in the nation's security. More than 300 students attended his talk and students were participative.

Dr Narendra Taneja addressing the students'.

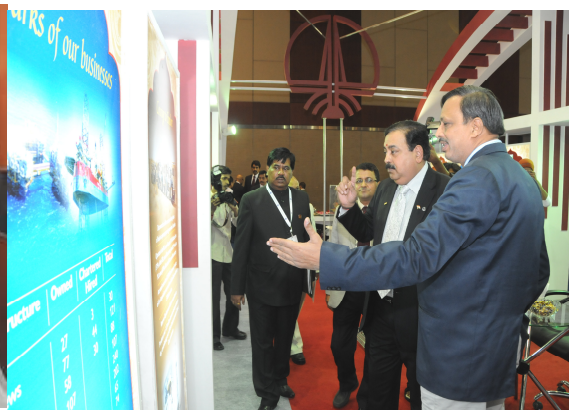
The conference was the largest so far in terms of the technical content too. The technical programme spanned through 32 technical sessions and 5 poster sessions spread over three days. A wide range of topics like Seismic API, Non-Seismic Methods, Advanced Methods for reservoir characterization, Advancement in imaging, Velocity modelling & depth imaging, Alternate energy resources, Energy Security, Project Management in E & P companies and many more were covered by distinguished speakers from India and abroad. A total of 285 technical papers (including 56 technical papers from abroad) were presented in the conference. Out of 285, 129 were oral and 156 poster presentations. The poster session was inaugurated by Dr Ganesh Thakur, President, SPE, 2012.

E&P companies participated in the conference are ONGC, OIL, CAIRN and major service providers like Seabird, CGGVeritas, Schlumberger, Fugro, PGS, Pangea, Sercel, ION etc.- in total 26 foreign companies participated in the exposition. These E&P Companies and Service providers across globe showcased their technology in 108 exhibition stalls. The exposition was inaugurated by the Chief Guest, Mr. Sudhir Vasudeva.

The Exposition is an integral part of conference. The exposition arena had grown bigger to 108 booths. It was a spectacular display by E&P companies, Service Providers and professional societies. Along with the displays by professional societies like SEG, EAGE, ASEG, APG, SPWLA, SPE and Petrotech, more than 50 companies showcased their products, new technologies and solutions to various E&P challenges. The exposition attracted the students.



Mr Vasudeva inaugurating the exposition.



VIPs visiting the exhibition stalls.

Inaugurating the Expo, the Chief Guest expressed his immense happiness to see the technical capabilities of E & P companies and service providers to mitigate the exploration/Exploitation challenges. M/s ONGC, M/s. Schlumberger and M/s OIL were adjudged as the first, second and third best exhibitors respectively.

Another highlight of the rich technical content of the conference was the pre & post conference courses under continuing education (CE) programs. A total of 27 courses conducted at different locations like Hyderabad, Mumbai, Chennai, Duliajan, Kolkata, Ahmedabad, Dehradun and Vadodara where the Society has regional chapters.



Dr. Robert R. Stewart on Multi Component Seismics.

The technical workshop under Continuing Education (CE) was the largest ever were well attended by the representatives of various E&P companies, Service provider, the students, academicians, etc. and every participant appreciated the course content as well as the faculty members.

Besides, the SEG/EAGE Distinguished Lecture Program (DLP) and Honorary Lecture Program (HLP) for 2012 were arranged at Hyderabad during the Conference in a special technical session.

Yet another special event under the technical programme was a joint session of Indian Associated Societies, viz., SPG, APG SPWLA and SPE on 18th February, 2012. Four speakers representing different societies put forth their ideas on “Role of Society to E&P Industry & Academic Institute for mitigating Exploration/Exploitation Challenges”. The session was seen as an indicator of greater co-operation amongst the Societies. The speakers were Mr N K Mitra, former chairman SPE, India, Prof Mrinal Sen on behalf of SPG, Dr S K Biswas on behalf of APG and Dr. Nate Bachman, on behalf of SPWLA.

The Curtain-raiser “Media Interaction” was held on the evening of 15th February, 2012 at the Convention Centre. The media interaction was attended by Mr. Sudhir Vasudeva, Patron-in-Chief, SPG, India, Other Patrons / Advisors S/Shri A K Hazarika, S V Rao, U.N.Bose, K S Jamestin, Dr. Ganesh Thakur, President, SPE, and Mr. Apurba Saha, President, SPG, India.



While welcoming the media, Dr. Rahul Dasgupta presented the SPG history, activities & schedule for “Hyderabad 2012” and various activities of the society and special emphasis has taken to motivate & encourage the students to pursue geosciences as their profession, through workshop and lecture.

Media interaction on the eve of “Hyderabad 2012”.

Addressing the media persons, Mr. Vasudeva said that there are enormous opportunities available to E & P companies, Service providers, R&D Institutions and technological companies for exploration in India. He said that the students are future of petroleum industry, we need fresh minds and invited students to pursue their careers in Geosciences and Engineering in the industry. He said Ministry of Petroleum & Natural Gas Govt. of India, has been very supportive for “Shale Gas exploration”. A wide range of question related to oil security of the country, role of societies in pursuing industry academic interface, conventional and non-conventional energy resources, etc were answered by the dignitaries on the dais.

The future torch bearer of the nation’s energy security largely lies on the fresh mind and students’. Geoscience students have always been a centre of attention for SPG and it is evident from the various students’ programme organised during the conference. Apart from the program for university students, separate program were organised for school going children which were aimed to create awareness amongst



School Children attending the conference.

the young students towards the Earth Sciences, in general, and Geophysics, in particular, and its impact in energy sector.

In addition to a visit to Exposition at HICC, the young students were appraised on fundamentals depicting the principles of Hydrocarbon generation, exploration and exploitation, different interactive program to make them aware of geosciences. President, SPG informed that national level “Quiz” and “Debate” competition were the “firsts” that brought out by the society during

“Hyderabad 2012”. The topic for debate competition was ‘Global Warming and its Impact on Mankind and Environment’ for school going children.

The Students’ Quiz (University), which is incidentally the inspiration behind SEG Challenge Bowl, was as exciting as ever. Total 12 team participated from different universities/institutes this year. Mr. Apurba Saha, President SPG inaugurated the quiz session. Prof. B. B. Bhattacharya, INAE Distinguished



University Students’ Quiz in competition.

Professor, S N Bose National Centre for Basic Science, Kolkata was the adjudicator to the event. Out of twelve team, six team qualified for the final round. The ISMU-Dhanbad team comprising of S/Shri Raj Bhattacharjee and Subrata Borah was the winner of the “Students’ Quiz of 2012”, whereas S/Shri Avinash Gautam and Depabrit Chandra from MIT-Pune was the runner-up.

For the first time in SPG conference, national level quiz competition was organised for school going students. There was quiz and debate competition in all the regional chapters of SPG and each chapter have selected the winner of these competitions comprising of two students for the national level quiz and one for debate.



School Students’ Debate in progress.



School Students’ Quiz in progress.

The students alongwith their teachers participated in the conference. Prof. B. B. Bhattacharya, INAE Distinguished Professor, S N Bose National Centre for Basic Science, Kolkata was the adjudicator to the event. Out of nine team participated the school quiz- SBOA, Chennai team comprising of S/Shri T S Gokul and Aditya Ramakrishnan was the winner of the school “Students’ Quiz of 2012”, whereas S/Shri

Tathagat Uday and B N S Sai Kartik from DPS, Gandhinagar was the runner-up.

The university students, too had an ample opportunity to get a wonderful exposure to the current trends in the industry and also made their presence felt at a number of programs specially structured for them. They are The Students’ Forum/ Students’ Quest, Brainstorming session and the Students’ quiz, pre-post workshop, oral and poster presentations, etc.

Geophysics/Geology students from 13 Indian universities and institutes participated.

The Students' Forum / Quest was organised as industry- Academia interface between the University students' and leading experts from different leading E&P companies & Research Organisation. Students from 12 Universities across the country participated in the interaction which was moderated by Panellists from the E&P industry, Academic Institute and Service Provider. This forum was very much successful to motivate the students on the recent encouraging activities related to petroleum industry and step towards bridging gap between the industry and the academia

In the brainstorming session, the participants presented their views on the theme, "Gas will be game changer and will have the dominant role in the energy security" The topic of the session was disclosed to the students just before the event in order to have spontaneous reactions / inputs from the students. The judges consisting of Former SEG President, Dr. Craig J Beasley and Mr. S Rath, Director (Operation), OIL appreciated the participants for their extempore performance. There was close tie for second position, so the panellist recommended for three prizes; Mahendra Shukla, IIT Kharagpur, Viraj Telang, MIT Pune and Vishal Das, ISM, Dhanbad were adjudged the first, second and third best speakers respectively.

"Job Fair" which is a special attraction for University students was inaugurated by Shri K S Jamestin, Director (HR) ONGC, at the backdrop of SPG "Hyderabad 2012". While addressing the students', he said to the students to take the advantage of the opportunity provided by the SPG India. Mr Rakesh



Mr. Jamestin, Director(HR), ONGC addressing the students

CGGVeritas conducted interviews. Good numbers of students were selected and the "Job Fair 2012", turned out to be boon for the students.

Another highlight of the conference was CEO's meet on "Future E&P Solutions on Ensuring Energy Security in Developing Economics". This was participated by the CEO's of ONGC,

Walia, CGGVeritas also congratulated Society for arranging the Job Fair. Setting the ball rolling, Shri Apurba Saha, President SPG India has elaborated the SPG's endeavour to give an opportunity to the students to set their foot into oil industry through job fair. Bright Students of Geophysics and Geology discipline participated in the 'Job Fair' from 12 Indian institutes / Universities. ONGC and



Dr Taneja moderating CEO's meet

OIL, Cairn India, CGGVeritas, Global Geophysical, Schlumberger and PGS. The event was, moderated by leading personality in oil industry Dr Narendra Taneja, Energy Affairs Commentator.

Mr. Sudhir Vasudeva from ONGC spoke that technology can play a major role in managing both supply and demand sides of the energy matrix; technology is the vital link in stepping up operational efficiency. He said large chunk of India's reserve are prognosticated, the exploration requires state-of the art technologies with big investments. Mr. N M Borah from OIL said that E&P industry requires collaboration and integration of various specializations. Energy security has to be based on three pillars: efficient management of domestic energy resources, ensuring sustainable long term import of energy resources and maximizing the resource base. Mr. Rahul Dhir from Cairn India said that a stable, consistent and investor-friendly energy policy is required to attract investments, which is crucial to develop the energy sector.

In a well-attended Business Programme session, Mr S Roychaudhury, Director (Operation), OVL and Dr Ganesh Thakur, President SPE talked about future E&P strategies in the global perspective, the thrust areas of business & opportunities and energy security.

Amidst the serious technical deliberations and strategic discussions focussed on attaining geophysical challenges, there were two non-technical programs which though may be out of context but were immensely liked by the participants. Society firmly believe that science and spirituality has a great relationship and they co-exist to each other.



Sri Ghadkeji is felicitated by President SPG

On 17th February, Spiritual discourse by Sri Dinesh Ghadke 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 which depend upon internal and external environment. He talked on fusion of spirituality with science.

The other talk on "Prevention of Cancer".by noted oncologist Dr Vijay Anand Reddy, Specialists from Apollo Group of Cancer Hospital, Hyderabad was well informative and appreciated by the participants. The causatives of the cancers. types of cancer, the symptoms and the remedial measures available / practised were explained in a lucid manner.

Society is not only concerned about creating platform for sharing knowledge, technology and R&D being pursued - in the industry but also showed its genuine concerns for the organisations engaged in the service of deserving

financially challenged people. SPG donated a cheque of Rs. 2.5 lakhs each to “Institute of Transfusion Medicine and Research” (ITMR) and “Home for Cancer Patients”.



Chief Guest Mr. Vasudeva presenting the cheques to Home for Cancer Patients & ITMR .

The other events “Global Affairs Committee” (GAC) meet was attended by Dr. Ganesh Thakur, President SPE, Dr Nadar Dutta SEG representative from USA, Mr. Marcel van Loon from EAGE and Yogaani Bhatiya from SEG, USA, Mr Apuba Saha president SPG and Mr K M Shukla, Secretary from SPG_India on 17th February 2012.

During the common meeting issues like promoting geosciences and solving technological problems in imaging and managing reservoir were discussed. In the said meeting the representatives found merit in regional co-operation. Mr. Saha put forward a proposal to all the representatives of other leading professional society to conduct joint workshop on technology specific issue of wide interest to geoscientists and technocrats in India and other neighbouring countries.



Global Affairs Committee (GAC) meeting in progress.

It was agreed upon by all and it was decided to prepare basic frame work of the workshop for mutual discussion and suggestion. The workshop is slotted to end of February/March 2013 where SPG India will be organiser and other societies will be main participant. It was also decided that SPG would forward the framework by February end, 2012 and each society will intimate their decisions by June, 2012 to make the workshop happen.

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Spouses are the main strengths for all of us, as there is saying behind every successful men there is women. To keep our spouse engaged in such conference, specially structured spouse programme was organised for all three days. The spouses participated in wide variety of entertaining activities ranging from cooking & Mocktail by Novotel Hotel Chef; Housie, Fun Game. Visit to Hussain Sagar Lake, shopping in the historical city of Hyderabad, cultural events and many more...



Spouse Program in progress.

After the day long technical program, the evenings were enjoyed by the participants with spectacular cultural programmes which are the integral part of SPG conferences. This year's cultural night offered on the first day a fine mix of Pandit Hariprasad Chaurasia, world acclaimed flute artist and Pandit Kumar Bose, the legendary Tabla maestro, mesmerised the audience with their divine fusion performance.



Pandit Hariprasad Chaurasia & Pt. Kumar Bose in action.



Tanusree Shankar Troupe performing "The Child"



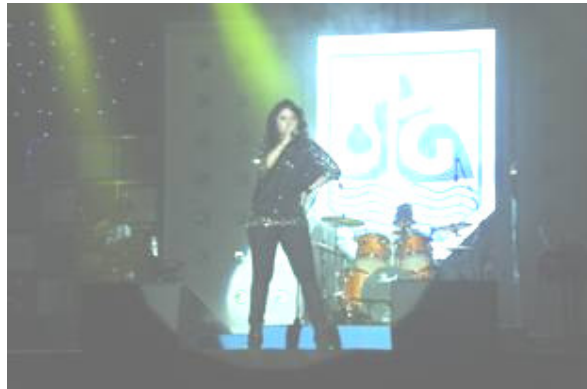
Tanusree Shankar in action with troupe

Tanusree Shankar, world renowned choreographer and known for her unique style of dance form, brought Rabindranath Tagore's "The Child" to life with her inspirational choreography and brilliant performance. 'The Child' is Rabindranath Tagore's only poem written originally in English. Tanusree Shankar's interpretation depicts a flowing, rhythmic, spiritual journey of Man through the ages, from the bondage of ignorance, ultimately to the freedom.

On the second day, Master Siddharth Nagarajan, 13 years old world fame drummer rocked the evening with stunning sensation with drums. This followed by most charming Nightingale of Bollywood Miss Sunidhi Chauhan with her captivating spells on the audience with her popular numbers that made the audience dance with their electrifying performance.

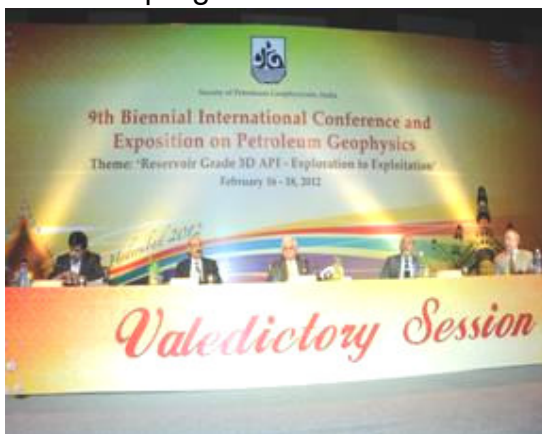


Siddharth Nagarajan in action with drums.



Sunidhi Chauhan mesmerizing the audience.

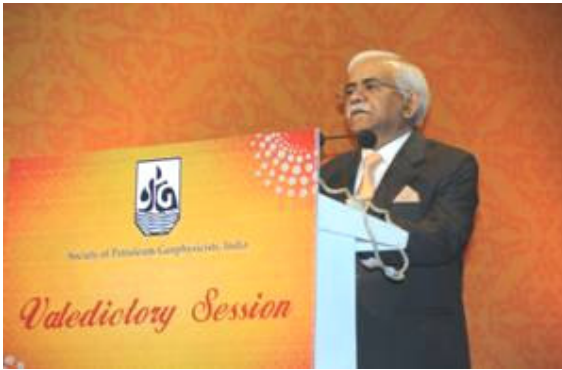
The Valedictory Function was equally remarkable and indeed a befitting conclusion of the grand event, where Shri Sudhir Bhargava, Additional Secretary, MOPNG, Govt. of India was the Chief Guest. Other dignitaries on the dais were S/Shri S V Rao, Patron SPG India, Dr D Chandrasekharam, Chair Prof. IIT Bombay, Dr Craig J Beasley, Former President, SEG and Shri Apurba Saha, President, SPG. While summarising the highlights of the Conference Mr Dipankar Dutta, said that exploration & exploitation play key role to oil industry and economic growth of the country. The conference provided new ideas, new information, new technology and new human relation beyond boundaries. SPG brought all these in one common platform i.e., sharing information, knowledge, technology and experience, the prefer solution for today's challenges faced by any E&P Industry and was followed by remarks by dignitaries on the dais. Mr. Bhargava presented the awards for the best paper, best poster, best exhibitors and to the winners of various students' programmes.



Dignitaries on dais during the valedictory session



Award to winner of school students quiz competition



Chief Guest, Mr Bhargava is addressing.

Chief Guest said that SPG conference is wonderful amalgamation of industry, academia, exhibitor & students. Participants get an opportunity to discuss, share and adopt solution for the problem faced. Geoscientists play greater role to see beyond to identify oil. He also mentioned unconventional energy resources is gaining pace to meet the challenge of country's energy security. He also said the theme of the conference is aptly chosen and objective for E&P Industry. He remarked that this conference is probably the best of all conference held in India so far. Sharing views on the conference, Former President, SEG, Chair Prof. IIT Bombay and Patron, SPG India impressed for good quality exhibition, high quality technical sessions and total structure & organisation of the event including adherence to the time schedule. They described the conference as a world class and terrific successful.

Emphasizing Society's commitment towards the Indian geoscientists and students, SPG President Mr Apurba Saha informed the house that SPG, SEG, SPE and EAGE have agreed, in principle, to organise Joint workshop on technology specific issue of wide interests to geoscientists in India and other neighbouring countries. He described students are the soldiers of our country for energy security. He also announced that students who have come out successfully shall be visiting Europe & USA before Nov, 2012 and society shall bear their expenses towards the tour.

"Hyderabad 2012" has been indeed a land mark event and a forerunner of the growth of Petroleum Geophysics in India. After the grand success of the conference, society has received comments from many participants from India & abroad which include CEO of companies, faculties, delegates, exhibitors, students etc., stating that they have not seen conference so nicely organised and having rich technical coverage on almost all aspects of E&P business. It is really a true international mega event.