

# Hyderabad 2010

The Society of Petroleum Geophysicists, India (SPG) organised its 8<sup>th</sup> International Conference and Exposition on Petroleum Geophysics on 1-3 February, 2010 at Hyderabad International International Conventional Centre (HICC), Hyderabad. The biennial event of SPG, 'Hyderabad2010' was supported by SEG, USA and EAGE, Netherlands. SEG had extended level III support to the conference. The Convention Centre is located in the centre of a dedicated industrial area of the emerging high-tech city.

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, 'Challenges in Matured to Frontier Basins – Geophysical solutions'" very aptly chosen.



Fig.1 : Dignitaries on the Dais inaugurating the Conference by lighting of lamp in Indian tradition.



Fig.2 : Chief Guest Shri R.S. Sharma addressing the Delegates.

The conference was inaugurated by Mr. R S Sharma, CMD, ONGC and Patron-in-Chief of the Society. Mr D K Pande, Director (Exploration), ONGC and Patron of the Society, Mr. Stephen J. Hill, President, SEG and Mr. Mahmoud Abdulbaqi, President, EAGE were the guest of honour.

The conference turned out to be the major geophysical event in India and attended over 1550 delegates from all over the world (excluding number of student visitors and more than 500 participants attended Pre / Post Conference Workshop) which includes more than 300 overseas delegates.



Fig.3 : Participants attending the Inaugural Session..

In his inaugural speech, Mr. Sharma emphasised that the industry is at cross roads due to challenges like, volatility of business, rising costs, replenishment of depleting reserves, managing production from matured fields, environment protection and exploring in difficult and hostile areas to add new reserves. He also said the demand of petroleum products in developing economics is increasing much faster. The R & D technology and the young innovative minds will be in demand to mitigate these challenges. Lastly, he urged Geoscientists and students to seek information continuously and never be content as there is no end to knowledge innovation and exploration. Mr. Pande in his address, spoke about energy requirements of the country, challenges and opportunities in E & P industry. He opined that cutting edge technology and R & D can only play in addressing these issues including the environmental protection. The Guests of honour, Mr. Stephen & Mr. Abdulbaqi also spoke on the occasion.

Welcoming the distinguished guests and delegates Mr. Saha, President, SPG-India gave a brief overview of the conference and emphasized the initiatives taken by the society in promoting geosciences amongst the students of Indian Universities and also bring awareness of Earth Sciences Subject amongst school children so as to pursue them as professional career.



Fig.4 : President, SPG, India Mr. Saha welcoming the Delegates.



Fig.5 : Society conferring the convention Gold Medal to Mr.D.N.Avasthy.

The Society conferred 'B S Negi Convention Gold Medal' to Mr. D N Awasthi for his exemplary lifetime contribution in the field of Petroleum Geophysics in India. Mr. Y B Sinha, Mr. A G Pramanik, Mr. M M Goswami and Mr Gurucharan Singh were also bestowed with the Lifetime Honorary Membership Awards.

Earlier on 31st January, "Hyderabad2010" 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. D K Pande, Director (Expl), ONGC and many delegates; notable among them are : Mr Stephen J Hill, Md. Abdulbaqi, Mr. Prem Vashist from PGS Exploration, Dr. James Peters, OVL, Mr. B.C. Nayak, DG(Security), Mr. David Graham from Fugro, Mr. David Klug from Rolls Royce and others.



Fig.6 : Chief Guest Mr.D.K.Pande in action



Fig.7 : EAGE President delivering talk in “Theme Session”.

Mr.Pande in the theme session said that efforts must continue to enhance recovery from the existing fields as the majority of share will still to come from such fields. President SEG told the audience on India’s energy needs and the potential of hydrocarbon exploration in India. He emphasised on application of new technology for finding/production of more oil. EAGE President told that the EAGE is focusing on Promoting development and application of geosciences, accelerating Innovation and strengthening ties with the local societies.

IAGC President, Mr G. C. ‘Chip’ Gill talked on “HSE&S in Geophysical Operations Today”. He concluded with HSE&S has costs; and commercial implication. Client commitment best demonstrated through participation with industry-wide opportunities.

The conference was the largest so far in terms of the technical content too. The technical programme spanned through 28 technical sessions and 5 poster sessions spread over three days.

A wide range of topics like Deep Water Exploration, Non-Seismic Methods, Advanced Methods for reservoir characterization, Sub-basalt imaging, Velocity modelling & depth imaging, Alternate energy resources, AVO, Multi Component Seismic, Well logging, Business opportunity, IT & Data Management in E & P companies and many more were covered by distinguished speakers from India and abroad.

A total of 278 technical papers (including 70 technical papers from abroad) were presented in the conference. Out of 278, 140 were oral and 138 poster presentations. The poster session which displayed more than 40 posters on varied subjects viz. Exploration in Frontier Areas, Petrophysics & Borehole Geophysics, AVO & Inversion, New E&P Technology, Alternative Energy Resources, etc. was inaugurated (immediately after the main inauguration of Conference) by Mr. Stephen J. Hill, President, SEG, USA.



Fig.8 : Mr. Stephen J. Hill inaugurating the Poster Session



Fig.9 : President SPG welcoming Prof. S. Mallick in one of the Pre-Conference.

Another highlight of the rich technical content of the conference was the pre & post conference courses under continuing education programs. A total of 22 courses conducted at different locations like Hyderabad, Mumbai, Chennai, Jorhat, Kolkata and Vadodara where the Society has regional chapters. Besides the SEG/EAGE Distinguished Lecture Program (DLP) for 2010 was arranged at Hyderabad immediately after the Conference.

The programmes 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.



Fig.10 : Mr. Brian Russel, Past President of SEG as Faculty Member

The details of the Pre & Post Conference Continuing Education Courses conducted by the Society during “Hyderabad 2010”

Course	Title	Faculty	Venue & Date
CE 1	Water Flood Analysis and Performance Evolution in Mature Field	Dr. Deepankar Biswas, LLC, USA	Mumbai 5-6th Feb 2010
CE 2	Deep water depositional environment and geophysical signatures: Indian Offshore	Dr. Rabi Bastia & Mr. Ajoy Biswal, RIL	Hyderabad 31st Jan 2010
CE 3	Introduction to Inversion & AVO	Dr. Brian Russell	Hyderabad 4th Feb 2010
CE 4	Methane Hydrates	Dr. Warren T Wood	Hyderabad 31st Jan 2010
CE 5	Seismic Modelling	Prof. Subhashis	Hyderabad

		Mallick, & Mr.Pradip Mukhopadhyay	29-30 Jan 2010
CE 6	Reservoir Model Building : Seismic to Stimulation	Prof. Mrinal Sen & Prof. Sanjay Srinivasan	Hyderabad 30-31 Jan 2010
CE 7	Seismic Attributes	Dr. Satinder Chopra	Hyderabad 31st Jan 2010
CE 8	Pore and Fracture Pressure Prediction	Dr. Raghu Chunduru	Hyderabad 30th Jan 2010
CE 9	An Introduction to Velocity Model Building	Mr. Ian Jones	Mumbai 30th Jan 2010
CE 10	Role of Magnetic Data in Exploration for Hydrocarbons	Dr. Mita Rajaram & Dr. S P Anand	Hyderabad 31st Jan 2010
CE 11	EM Methods for Exploration & Production	Dr. Kurt M Strack	Hyderabad 31st Jan 2010
CE 12	EM solutions for Hydrocarbon prospecting and monitoring	Terje Hauan & Dr Stefan Helwig	Chennai 29-30 Jan 2010
CE 13	Challenges in Deep-Water Petroleum Exploration	Dr. Ganapathy Shanmugam	Hyderabad 30-31 Jan 2010
CE 14	Application of AVO in Carbonate Reservoirs/Inversion for thin -bed carbonates	Dr. Nader C. Dutta	Kolkata 30th Jan 2010
CE 15	Rock & Fluid Physics	Dr. Manika Prasad, Colorado School of Mines	Hyderabad 30th Jan 2008
CE 16	How Rock Physics bridge the gap between Qualitative Geology & Quantitative Geophysics	Prof. Tapan Mukherjee	Jorhat 30th Jan 2010
CE 17	Integrated Pore Pressure, Fracture Gradient Analysis and Rock Physics in Deep water exploration	Dr. Gopal Amruthapuri & Mr. Arthur Cheng	Hyderabad 4th Feb 2010
CE 18	Production Technology	Dr. James P L Lau	Mumbai 5th Feb 2010
CE 19	New Trends in Geophysical	Mr. Romain	Hyderabad

	Technologies	Soubeyarn	31st Jan 2010
CE 20	Water Flooding	Mr. Oneil Sadhu & Samuel Kirubahar Chelladurai	Vadodara 30th Jan 2010
CE 21	Imaging in Fracture Carbonate Reservoir	Dr. Zvi Koren	Hyderabad 31st Jan 2010
CE 22	A New look at Prestack Depth Migration and Velocity Estimation using Common Focus Point Method	Dr. Chandan Kumar	Hyderabad 31st Jan 2010
SEG/EAGE DL	Robust Workflows for Seismic Reservoirs Characterization	Dr. Patrick Connolly, BP, London	Hyderabad 4th Feb 2010

Yet another special event under the technical programme was a joint session of Indian Associated Societies, viz., SPG, APG and SPWLA on 3<sup>rd</sup> February, 2010. Four speakers representing different societies put forth their ideas on “Role of society to E & P Industry & Academic institute mitigating Exploration/Exploitation challenges” before the delegates. The session re-defines the greater co-operation amongst the Societies.



Fig.11 : Mr. Sharma inaugurating the Exposition alongwith other Patrons of the society

The Exposition is an integral part of conference. The exposition arena had grown bigger to 108 booths as compared to 84 last time. 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 and Petrotech. More than 49 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 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. Schlumberger and M/s CGGVeritas & Fugro Geoscience were adjudged as the best and second best exhibitors respectively.



Fig.12 : VIPs visiting the Exhibition Stalls



Fig.13 : Media Interaction on the eve of “Hyderabad 2010”.

Media Interaction was held on the eve of 31<sup>st</sup> January, 2010 at the Convention Centre. The media interaction was chaired by Mr. Sharma, Patron-in-Chief, SPG, India, Other Directos on the Board of ONGC & Patrons of SPG Mr. D.K. Pande, Mr. U.N.Bose, Mr. Sudhir Vasudeva & other, Mr. Stephen J Hill, President, SEG, Mr. Mahmoud Abdulbaqi, President, EAGE and Mr. Apurba Saha, President, SPG, India.

While welcoming the media, President, Mr. Saha informed that society has taken initiative through University Grant Commission to suitably re-structure the university curriculum catering to the industry requirements. Addressing the media persons, Mr. Sharma said that large area in India is still remains under-explored and there are enormous opportunities available to E & P companies, Service providers, R&D institutions and technological companies. He said that the petroleum industry today need fresh minds and invited students to pursue their careers in Geosciences and Engineering in the industry. 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 Geoscience’s students have always been a centre of attention for SPG and the students’ programme of the conference clearly highlighted this fact. Apart from the program for university students, separate program organised for school going children were aimed to create awareness amongst the young students towards the Earth Sciences, in general, and Geophysics, in particular, and its impact in energy sector.



Fig.14 : School Children across Hyderabad attending the conference

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, video film on geophysical activities, model display depicting oil exploration and live demonstration of seismic data acquisition. President, SPG informed that a new event “Quiz” for school going children is being introduced in this conference for the first time.

President, EAGE, Md. Abdulbaqi and Prof. B B Bhattacharya of S N Bose National centre for Basic Sciences, Kolkata addressed to the young children. President EAGE advised the students to choose subjects depending upon their aptitude and liking. One need not to choose conventional subjects as more interested subjects like earth science is available. Prof. Bhattacharya explained about Plate Tectonics (“Dancing Earth”), oil generation and accumulation. The students raised issues related to pollution due to oil exploration, oil spilling and related activities. The panellists replied all doubts, which were raised by the children.

As regards to university students, they 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, The Quest and The Students’ Quiz, Pre-post conference courses, oral and poster presentations, etc. Geophysics/Geology students from 12 Indian universities and institutes participated.



The Students’ Forum provided an opportunity for interaction with Academia, Industry and Professional societies. A Panel of four distinguished personalities viz., Mr. Stephen J. Hill, President SEG, Mr. U N Bose, Director (Technology & Field Services), ONGC, Prof. NVBBS Prasad, Head of the Department, Andhra University, India and Prof. Subhasish Mallick, Wyoming University,

Fig.15 : Panellists interacting with students.

The Students’ Quiz, which is incidentally the inspiration behind SEG Challenge Bowl, was as exciting as ever. Total 12 teams participated from different universities/ institutes this year. Dr Satinder Chopra from Arcis Corporation, Canada was the adjudicator to the event.



Fig.16 : Quiz Master Rony is in action

The Banaras Hindu University team comprising of Rajnish Kumar Yadav and Ashish Kumar was the winner of the “Students’ Quiz of 2010” whereas Mr. Sandeep Chandra and Mr. Saddip Kumar More from IIT-Roorkee was the runner-up. Similarly for school students’ quiz, the winner and runner-up were Hyderabad Public School and Shreenidhi International School, respectively.

In the Students' Quest, the participants presented their views on the theme, "E&P Industry is Technology savvy. Is Technology the only driver?" The theme of the quest was disclosed to the students just before the event in order to have spontaneous performance by the students. The judges, SEG President, Mr. Stephen J Hill, EAGE President, Mr. Mahmoud Abdulbaqi and Former Director (Exploration), ONGC and Patron, SPG, India, Mr Y B Sinha, appreciated the participants for their extempore performance. Ratnadeep Ghosh from IIT-Kharagpur and K Ashwini Kumar of Andhra University were adjudged the best and second best speakers respectively.



Fig.17 : CEO's of the E&P Companies and Service Providers sharing their views

Another highlight of the conference was CEO's meet on "E&P challenges and technology in 21<sup>st</sup> century". This was participated by the CEO's of ONGC, CGGVeritas, PGS, Fugro, Paradigm and Global Geophysical. Presentations were made on the various aspects of acquisition technology and tools available for Processing and Interpretation for mitigating the challenges like sub-basalt imaging, thin bed imaging and logistically difficult areas, which are not seismic friendly with conventional technology.

Dr. Balyan from ONGC spoke about the demand supply scenario, oil price volatility, capacity build up and the challenges associated with finding new oil pools and improving recovery of oil in existing fields. He emphasised for converting challenges to opportunities and make collaborative efforts to create win-win situation for all stakeholder.

In a well-attended Business Programme session, Mr S K Srivastava, Director General, Directorate General of Hydrocarbons, Govt. of India and other dignitaries from E&P & IT companies talked about future E&P strategies in the global perspective and the thrust areas of business.



Fig.18 DG, DGH addressing Business Session



Fig.19 : Mr. D.K. Pande releasing the Book.

During the conference, a book on "Geophysical Well Logging & Petroleum Reservoir" authored by Mr. V V Rao and Mr. P B Raju was released by Mr. D K Pande, Director (Exploration), ONGC and Patron SPG, India. The book comprehensively address the theory and technical aspects of open hole and cased hole methods in simplistic and user friendly way.

Amidst the serious technical deliberations and strategic discussions focussed on attaining geophysical challenges, 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 2<sup>nd</sup> February, Spiritual discourse by Rishi Nityapragnaji, the foremost disciple of Sri 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.



Fig.20: Rishi Nityapragani receiving cheque from SPG,President

He said that internal environment consists of MIND, MEMORY, INTELLECT and EGO. The external environment is surrounded by PEOPLE, SITUATIONS and THINGS around the human being. He advised to change one's internal environment then only can find the change in one's external environment – That is the essence of happiness. Rishi Ji also demonstrated "Bhashtrika Pranayam" to participants and taught the breathing technique to delete any unwanted thought files from the human hard disk-brain, which are the main sources of the negative creating happiness.



Fig.21: Chief Guest presenting the cheque to Lambada Tribe

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 concerned for the marginalised Lambada Tribe of Hyderabad region by presenting a cheque of Rs.5 lakhs for presenting their traditional embroidery art form.

The other non-geophysical session was an informative and interesting talk by noted oncologist Dr. Reddy from Apollo Group of Cancer Hospital, Hyderabad. The causatives of the cancers, Types of cancer, The symptoms and what the remedial measures were explained in a lucid manner by the speaker.

One of the major events of the conference is Global Affairs Committee (GAC) meet. Mr. Stephen J. Hill, President SEG, Mr. Mahmoud Abdulbaqi, President EAGE, Mr. Apurba Saha, President SPG, India, Dr. Nader Dutta, GAC, Mr. Kerry Cosby, SEG and Mr. Rohit Sinha, Seceretary, SPG, India and Country representative on GAC participated in the meeting.



Fig.22: Global Affairs Committee in progress

SEG president informed that India has been districted with Middle East and has taken up due diligence for opening up joint programme office at Mumbai. While welcoming the members of GAC, President SPG, India proposed for a joint work shop of SEG, EAGE and SPG on challenging issues in E & P sector in India, which was agreed in principle. The GAC members appreciated the need to initiate joint R & D Projects involving Industry, Academia and the R&D Institutions all over the world.

The spouses attending the conference were treated to a wide variety of entertaining activities ranging from cooking and beautician lessons at Taj Hotel and Anooos respectively 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.



Fig.23: Tanushree Shankar & her troupe

Spectacular cultural programmes are the integral part of SPG conferences. This year’s cultural night offered a fine mix of Indian classical, folk and popular dance & music. Internationally reputed dancer Tanushree Shankar and her troupe presented “Indian Dance Creations” a modern interpretation of the cultural diversity and richness that India has in the world of dance.

The show was Indian in origin and spirit, modern in presentation, universal and timeless in appeal. Noted playback singers Amit Sana, Ankita Mishra and Priyanka Negi entertained the audience with their electrifying performance which made the people dance.



Fig.24: Bollywood Performers



Fig.25: Tanushree Shankar’s Troupe in action

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 S K Srivastava, Director General, DGH. Mr Dipankar Dutta, 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 students' programme.

Sharing views on the conference, President, SEG, President EAGE and former President ASEG impressed for good quality exhibition and high quality technical session. 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 and EAGE have principally agreed to organise Joint workshop on the challenging issues, which are faced by Indian E&P companies. He described students are the soldiers of our country for energy security. He declared winners of school going students' quiz will be considered to visit NASA, USA with their parents and the winners of students' quest and students' quiz will attend the forthcoming SEG conference at Denver, USA. SPG, India will bear all their expenditures.

He, also announced that SPG, India will extend all help to the new school of petroleum technology and management under Jawharlal Nehru Institute which will start functioning from academic year 2010-11. Mr. Saha was confident enough that SPG conference will be benchmark for all the international conference worldwide in future. In the concluding remark, Mr. S K Srivastava, described the conference as a platform for sharing knowledge and experience between the service providers and service takers. It gives the business opportunity for E &P companies as well as service providers. SPG, India also felicitated Dr. V P Dimri, Director, NGRI for "Padma Shri" award conferred by President, Govt. of India in 2010 for his outstanding performance for science and technology.



Fig.26: Sunehari in Classical Dance



Fig.27: Banyan Tree in Rhythm Scope

Mr. D P Sinha proposed the vote of thanks and then the proceedings of "Hyderabad 2010" came to an end with a spell binding musical performance, 'Rhythmscape' by "Banyan Tree" and dance performance by Ms. Sunheri who besides being Visharati in Kathak and student of Padma Shree Sitara Devi.

"Hyderabad 2010" has been indeed a land mark event and a forerunner of the growth of Petroleum Geophysics in India.