

**17<sup>th</sup> Convention of the Indian Geological Congress and International Conference on 'New Paradigms of Exploration and Sustainable Mineral Development: Vision 2050,' held at the Indian School of Mines (ISM), Dhanbad, during November 10-12, 2011**

**A REPORT**

17<sup>th</sup> Convention of the Indian Geological Congress and International Conference on 'New Paradigms of Exploration and Sustainable Mineral Development : Vision 2050' was organised by the Department of Applied Geology, ISM Dhanbad, jointly with Indian Geological Congress, during November 10-12, 2011. The event had focussed on various issues related to India's growing need of minerals for raw-materials and energy resources and also to foster a greater cooperation between the mineral industry, academia and research institutions. The Convention also deliberated on conservation of raw-material resources, health, security & safety and environmental safeguards to enhance the quality of life and to fostering innovation and sustained economic and social developments to meet ever-growing demands of minerals and raw-materials for the future. The Convention was attended by more than 275 delegates, including 10 from abroad, viz. UK, USA, Italy and Austria. Foreign delegates included Prof. Jon Gluyas, Prof. K J W McCaffrey, Mr. Peter Mackenzie Smith, Brinda Thusu and Prof. J. Thurow of U.K.; Prof. Milind Deo and Dr. A R Samal of USA, Prof. Jonathan Craig of Italy and Dr. Guinter Tiess of Austria.

Inaugural Address at the Convention was delivered on the 10<sup>th</sup> November, 2011 by the Chief



**Shri N M Borah**

Guest, Shri Satish Puri, Director General, Directorate General of Mines Safety. Shri N M Borah, Chairman & Managing the Director, Oil India Limited and President, Indian Geological Congress delivered his Presidential Address on 'Indian Upstream Hydrocarbon Sector: Challenges and Opportunities. Dr. M.

Sudhakar, Adviser, Ministry of Earth Sciences, Govt. of India, was the Guest-of-Honour at the Inaugural Function. Prof. D.C. Panigrahi, Patron of the 17<sup>th</sup> IGC Convention and the International Conference NPESMD and Director, Indian School of Mines, shared his ideas on this occasion.



Shri Prof V.K.S Dave

Others, who addressed the audience, included Prof. V.K.S. Dave, Secretary IGC, Prof. B.C. Sarkar, Vice-President and Convener of the programme. Prof. Atul K. Varma Organising Secretary proposed a Vote of Thanks on behalf of the organisers.



Shri Prof. B.C. Sarkar

The conference deliberations comprised of a plenary session and eleven technical sessions organised in two parallel sessions with 124 papers, including keynote addresses, contributory papers and a half day of Brainstorming Session on '*Opportunities in National and Global Academia-Industry Collaborative Research Alliance in Conventional and Unconventional Energy Resources*'. A Poster Session was held with 14 posters being on display, apart from the poster stalls displayed by the Ministry of Earth Sciences.

In the Plenary Session, Prof. B. B. Bhattacharya of S. N. Bose National Centre for Basic Sciences, Kolkata, and Former Director, Indian School of Mines, spoke on 'Carbon sequestration for the mitigation of global warming and assurance to energy security'. Dr. Rabi Bastia, Senior Vice President, Reliance Industries Ltd., Mumbai delivered his address on 'Fossil fuel in energy resources : prospects and challenges ahead'. Various themes of the technical sessions included: (i) Exploration Geology, (ii) Petroleum Geology, (iii) Geomathematics, (iv) Sedimentology and Paleontology, (v) Mineral Development Policy and IT Applications, (vi) Environmental aspects, (vii) Coal, CBM, Shale Gas and Gas Hydrate, (viii) Geophysical Techniques, R&R Policy, Mining and Beneficiation, (ix) Opportunities on National and Global Academic Industry Collaborative Research Alliance in Conventional and Unconventional Energy Resources, (x) Petrology, Structure and Tectonics, and (xi) Engineering Geology and Ground Water Geology.

A panel discussion was organised on the 12<sup>th</sup> Nov. 2011 afternoon to discuss on the proposed recommendations that emerged from 3-day deliberations. The panel was chaired by Shri A Sundaramoorthy, Director General, Geological Survey of India and co-chaired by Dr. S. C. Dhiman, Chairman, Central Ground Water Board. Members of the panel included eminent geoscientists, viz.

Prof. D. Mukhopadhyay, Prof. Y R Dhar, Prof. V C Tewari, Dr. S M Gandhi, Dr. B. Thusu and Dr. S. K. Haldar. Following recommendations emerged out of the discussions:

- (i) Improvements in the methods, forms and standardisation of data collection are the need of hour and their use in the exploration for minerals, fossil fuels and ground water are imminent.
- (ii) Plans for development of new exploration techniques with regard to concealed or blind category of mineral deposits should be devised with long-range objectives to help the mineral industry. A core group be formed by the Government consisting of experts to finalise such a plan.
- (iii) Improved mineral resources reporting and auditing techniques with special emphasis on stock exchange requirements for international bidding be undertaken by the concerned agencies.
- (iv) Reassessment of mineral resources at lower cutoff grades in the light of improvements in the mineral processing technique be immediately initiated.
- (v) There is urgent need to promote close communication/interaction between the industry and academia — a long-sought need, but with little practice so far to achieve this goal.
  - Academia should encourage adjunct professorships from industry academics.
  - Industry ought to support funding research projects of academic institution and learned societies.
- (vi) Academic curricula should be devised to suite the current needs of the industry with emphasis laid on fundamentals of geosciences; and lastly
- (vii) Student internships in various industries is the need of the hour in order to develop trained manpower, the Panel of experts made a strong plea.

The above recommendations may be sent to various bodies for consideration and implementation.

The Valedictory Function was held on 12<sup>th</sup> Dec. 2011. Prof. B.C. Sarkar, Convener, 17<sup>th</sup> Convention of IGC and Inter. Conf. NPESMD 2011 informed about the activities and recommendation followed by remarks by Prof. V.K.S. Dave, Secretary IGC. Shri B.P. Ahuja Deputy Director General, DGMS and Dr. S.C. Dhiman, Chairman, CGWB, both Guests of Honour addressed the meeting. Shri A. Sundaramoorthy, Director General, Geological Survey of India, delivered the Valedictory Address. Shri Atul Varma, organising Secretary 17<sup>th</sup> Convention. Proposes a Vote of thanks.

The mega-event sparked off with its Pre-Convention registration programme in the evening of 9<sup>th</sup> Nov 2011 followed by dinner. The inaugural function was held on 10<sup>th</sup> Nov 2011 at 10 AM followed by Plenary Session and other Technical Sessions. As a part of IGC promotional activities for the development of earth science related technologies and growth of geosciences in general, a panel of experts decided the best poster contributions by the students in the Poster Session. First prize was shared by Shri Vinay Agrawal and Shri Abhisek Srivastava of ISM for their contribution on ‘Mapping of a Prospective Reservoir in Mumbai High corresponding to Geological Discontinuities using Seismic and Well Log Data’; second prize was bagged by Shri N. Hakhoo of Jammu University for his contribution on ‘A New Potential Proterozoic Petroleum System with Mata vaishnov Devi Mountains, NW Himalaya, Jammu’; while the third prize were awarded to three contributors, viz. (i) Shri M. Hafiz for his contribution on ‘Spatio-Temporal Distribution of the Potential Shale Gas Horizons in Jammu and Kashmir’; (ii) Shri Nishant Gupta for his contribution on ‘Mapping of Potential Coal-Mine Fire Zones in Jharia Coalfields using InSAR’; and (iii) Shri Puneet Saraswat for his contribution on ‘Recent Ice-Mass Variations in the Gangotri of the Western Himalyas from Radar Interferometry’.

Two IGC meetings, namely (i) IGC Executive Council Meeting was held in the afternoon of 10<sup>th</sup> Nov 2011 and (ii) IGC General Body Meeting (GBM) was organised on the 2<sup>nd</sup> day, i.e. on 11<sup>th</sup> Nov 2011. Cultural evenings, viz. Classical and Rockband were organised on 10<sup>th</sup> & 11<sup>th</sup> Nov 2011 by the students of ISM.