A Report on

International Conference on Advances in the Theory of Ironmaking and Steelmaking (ATIS)

An International Conference on Advances in the Theory of Ironmaking and Steelmaking (ATIS) was held at Indian Institute of Science (IISc), Bangalore, India, from 9th to 11th December, 2009.

Since India did not have an International Conference in this area during the past two decades, the conference bridged an important gap and provided much needed input to research and teaching. It provided global industrial awareness and highlighted the Indian perspective on major new developments.

Eminent scientists (Professors H.Y. Sohn (USA), Henrik Saxen (Finland), H.G. Lee (Korea), Bart Blanpain (Belgium), P.R. Scheller (Germany), D.G.C. Robertson (USA), T. Ariyama, S. Kitamura (Japan), M. Kuwabara (China), J. Alexis (Sweden), etc) in the Ironmaking and Steelmaking field from all over the world participated in this event.

The conference themes were deliberately restricted to cover the range from raw materials processing to steelmaking as they need more attention. A high standard was maintained at the conference; about 50% of the papers were either plenary or invited. Even contributed papers were of high quality. There was high audience participation in discussions and attendance was high throughout the conference.

A conference proceeding has been brought on the occasion containing all plenary, invited and contributed papers. Selected papers from this proceeding are being published in the journals Ironmaking & Steelmaking, Steel Research International, Materials and Manufacturing Processes, and International Journal of Engineering Systems Modelling and Simulation.

The chairman of the conference Dr. A. Ghosh (Former Professor of IIT Kanpur) stressed that a comprehensive theory of Ironmaking and Steelmaking is lacking in present scenario which is dominated by technology advancement in industries and research and development work for providing cost effectiveness solution to practical problems. Therefore, this conference focused exclusively on theory and we have to visualize now how it should be developed in the next decade. Professor P. Balaram, the director of IISc also emphasised the need for fundamental research which is very crucial for the development of nation. In the past, IISc had played a lead role in this by producing eminent scientists like Prof. Brahm Prakash.

Dr. Nowal, CEO, JSW Steel Ltd., Bellary, mentioned that by year 2020 India’s steel production will touch about 300 MT. Major contribution would be through BF / BOF route. JSW steel would be aiming to achieve 16 MT steel productions by year 2015.
He mentioned that India spends a minuscule amount on R & D activities and this should be increased.

Mr. P.K. Bishnoi, CMD, RINL, Visakhapatnam, dealt in great detail about the research & development expenditure of major companies which range from 0.15 to 0.21% of turnover. He argued for and stressed the need for substantial increase in research expenditure to catch up with rest of the world and be at the forefront of knowledge-based technology.

Mr. A.C.R. Das, Industrial Advisor, Ministry of Steel, also stressed about R & D efforts in Ironmaking and Steelmaking which needs augmentation in India. He informed about the various initiatives which the Ministry of Steel has taken to improve the situation and urged the scientific community to use the opportunities provided for more R & D and teaching activities and train quality manpower.

Conference was concluded with a note that it should be organized once in every three to four years in India.