



Optimisation of Iron and Steelmaking Operations

Steel production in India is carried out using a panorama of different processes – induction furnaces, electric arc furnaces and BOFs. DRI, scrap and hot metal from blast furnaces or from Corex units are used in various proportions for steelmaking.

The theme of the fourth annual conference organised by the Kolkata based publication, Steel Tech was Optimisation of Iron and Steelmaking Operations. The event was held in Kolkata's oldest major hotel, the Oberoi Grand. Greater international participation was sought through a cooperation agreement with Steel Times International which marketed the event on an international scale and organised a modest exhibition. The event attracted more than 500 attendees from the steel industry. In all, 35 papers were presented aimed chiefly at primary metals production. Dr Amit Chatterjee (formerly Technical Director and Advisor to the MD, Tata Steel) and now Chief Editor of Steel Tech organised the conference and Mr Bishnu P Sarkar, Publisher of Steel Tech, was Convenor of the event.

The event focussed on 21st Century technology with various references to the specifics of Indian steel production. 15 of the 35 presentations were made by speakers representing Indian companies. While the international contribution just outweighed the local – several of the international speakers were located in India as plant providers increasingly set up local offices to meet the needs of the rapidly expanding steel sector in India. Of the international companies supporting the event, those from Germany and Austria were the most prolific – each presenting four papers, this reflecting the dominance of the two major plant providers Siemens VAI MT (Austria/Germany) and SMS Siemag (Germany). Italy followed with three presentations (two from Danieli and one from Tenova) and The Netherlands two, both from the Danieli/Corus joint venture company.

Following an opening address by Andreas Flick STO Siemens VAI, a keynote presentation was made by Bimlendra Jha, VP Long Products Tata Steel (standing in for H M Nerurkar, MD Tata Steel). He identified three megatrends influencing industrial activities today; Climate change; Demographic change and Globalisation. Steel, and its competing materials, all rely on fossil fuels for production and so none have an edge on steel when considering climate change. Bio-fuel production is also no answer since the land used competes with that required for food production. Consumption was growing exponentially – in the past 30 years global consumption has matched that of the previous 3000 years. People have a right to lead a better life. Presently half of the population of India live in poverty. However, the rate of discovery to alleviate the situation is also accelerating and global communications are playing an important role in this, but we are only just beginning to understand how to use them. Communication and IT make many present business models redundant as supply chains become more efficient.

On the financial crisis, Mr Jha said that money had replaced barter of goods and had proved an efficient method of conduction transactions but now financial derivatives have replaced money – and the result was a global financial crisis.

A full report on the technical proceedings was published in the October 2012 edition of Steel Times International. For more information please contact: