

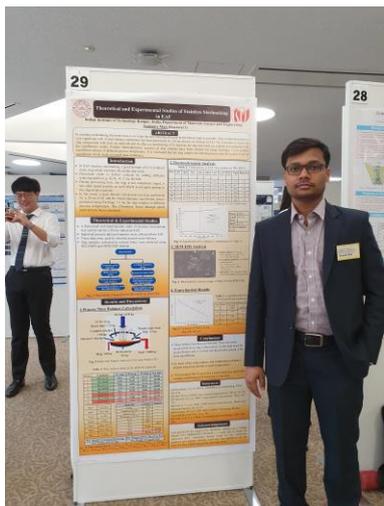
A report on the first India-Japan workshop on “Science and Technology in Ironmaking and Steelmaking” held at Okayama, Japan on the 10th of September, 2019

India has emerged as the second largest steel producer surpassing Japan in 2018. The growth in steel production, in India, during the last 10 years (2008-2018) has been the highest and productivity increased nearly 1.6 times. Steel production in the country is expected to increase further during the next decade to reach the planned annual target of 300MMT by 2025. The growth in iron and steel sector as well as challenges in the market place warrants that mineral, iron and steel education and research in the country is strengthened further. Quality technical manpower is a precursor to innovation, the production of high quality steel and development of environmental friendly, energy efficient future mineral, iron and steelmaking processing routes.

Mineral, iron and steel centric research and development activities are currently predominantly carried out in the Asian countries (viz., China, India, Japan and Korea) where nearly 70% of global steel is produced. Japan has been and is a leader in iron and steel manufacturing arena and contributed immensely to the science and technology of iron and steelmaking through world class R&D activities. Although Nordic countries, USA, China, Australia as well as many other countries have taken advantage of this unique position of Japan through bi-lateral educational exchange programme and collaborative academic research, such programmes remained yet to be worked out between India and Japan. It is to encourage and strengthen academic research and interactions and to exchange thoughts and views on mineral, iron and steel education and research, an annual workshop with Indian and Japanese researchers have been contemplated. Prof. Shin-ya Kitamura (Chairperson of the 1st workshop) of Tohoku University spearheaded the activity and the first India-Japan workshop in this area was successfully organised at Okayama City in Japan, in collaboration with IMRAM (Institute of Multidisciplinary Research for Advanced Materials, Tohoku University) and ISIJ, on the 10th of September, 2019.



The workshop was attended by forty five academicians, researchers from industries as well as students from both the countries. Of these, while thirty delegates participated from the Japanese Universities and industries, fifteens from India participated to present their work. All Indian delegates were from various academic institutions (IITs and IISc) and comprised of eight professors and seven graduate students. Most of Indian professors working in the



area of mineral, iron and steelmaking including, Profs. Govind S. Gupta (Co-chair of the workshop, IISc), Amarendra Singh (IITK), N.N. Viswanathan (IITB), G.G.Roy (IITKgp), Sabita Sarkar (IITM), Ajay Shukla (IITM), Nikhil Dhawan (IITR) and D.Mazumdar (Co-chair of the workshop, IITK) attended and delivered lectures on diverse research problems. Some of the professors presented their work in the workshop while others, in the parallelly ongoing, 178th meeting of the ISIJ (in the international session titled *contribution of steelmaking technology for the sustainable development in Asia*). Graduate students from India presented their research work in poster session of the ISIJ meeting.

The workshop was generously supported by ISIJ. To celebrate the successful completion of the first India-Japan workshop, a dinner get-together was organized on 10th evening by the workshop chair, Prof. Kitamura at a well-known Indian restaurant “Namaste Ganesh” in Okayama City. In-formal discussions were made in the get together to workout future plans and paths for formulating definitive academic collaboration and exchange programmes between the two countries. The success of the workshop and interests among both Indian and Japanese researchers provided enough indication that the effort must continue and concrete plans worked out to strengthen academic ties among Universities and researchers, publicly and privately, in these two countries further. It was generally agreed to organize the workshop on a yearly basis, alternating between the two countries. Accordingly, it is planned to host the 2nd India –Japan workshop in India and a mutually convenient time and date is planned to be worked out soon.

