

Education for excellence
Indian Institute of Technology, Kanpur

A residential, three-day continuing
education program on

Steelmaking and Refractories



**Process and Steel Research Laboratory
Department of Materials Science and Engineering
Indian Institute of Technology, Kanpur
November 18th -20th , 2023**

Continuing education is integral to modern day professional life. It allows an individual to grow with time, empowers one with knowledge and problem-solving skills, essential to propel one's professional life on a fast track. Continuing education is vital to the sustenance of industry. For smooth running of business and maximum profitability, Industry must therefore take active interest in continuing education programs and encourage periodic participation of its employees. With Prof. D.Mazumdar, an eminent educator at the helm, and an infra structure rich, world class academic institution in the back-drop, this is truly a one-time opportunity to learn and master steelmaking and Refractories, subjects vital to the processing and manufacture of quality steel.

Who should attend

The course is intended to cater primarily to the needs of shop floor engineers working in Steel and Refractory industries. A diploma or a Bachelor degree in engineering / Science, with adequate shop floor experience is a pre-requisite to participation.

What to expect from the course

- 18 contact hours and class-room lectures by Prof. Mazumdar and other distinguished experts from industry and academia.
- ***Free in campus AC accommodation (twin sharing basis), local hospitality, stationary, lecture material, and airport transfer (both ways) are included in the package.***
- Certificate from the organizers after successfully completing the course.
- **An e-copy** of the textbook titled "*A first course in iron and steelmaking*".

Registration

Advance registration is mandatory. Maximum number of available seat is twenty-six (26) . Please send request of enrolment as early as possible to avoid disappointment. *Even number of delegates is desirable due to logistics*



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Course content

- Fundamentals of Steelmaking
- BOF and EAF Steelmaking
- Tapping practices and deoxidation of steel
- Ladle and Tundish metallurgy and production clean steel
- Continuous casting, mold powder and defects
- Flow control refractories, formulations, manufacturing and recent developments

Duration

Three days: November 18th -20th, 2023

The three-day program

Day & date	9:00am – 10:30am	11:00am- 12:30pm	2:30pm- 4:00pm	4:30pm- 6:00pm
Saturday 18.11.23	Fundamentals of Steelmaking	BOF and EAF Steelmaking (PKS)	Tapping and Deoxidation practices (PKS)	Ladle Metallurgy
Sunday 19.11.23	Tundish Metallurgy	Continuous casting I (RS)	Flow control Refractories I (TKB)	Continuous casting II (RS)
Monday 20.11.23	Flow control Refractories II (TKB)	Clean steel making	Visit to water modelling laboratory, Flow visualization in some key steelmaking units	

Each lecture 1 hr. 15 minutes and discussion 15 min. **Valedictory session**

Contact information

Please contact Dr. Dipak Mazumdar, Department of Materials Science and Engineering, IIT, Kanpur, 208016. **e-mail:** dipak@iitk.ac.in; and 9415134718 (Cell); for nominations.

Fees

A registration fee of Rs. 40,000 (Forty thousand only)+18% GST, per participant, must be paid to IIT Kanpur, ***in advance***, on or before 10th November, 2023. Tax invoice shall be generated by IIT Kanpur, and necessary details shall be provided for RTGIS/NEFT, once nominations are received and accepted. PAN and GST numbers assigned to Centre of Continuing Education (CCE), IIT Kanpur are AAJJI0169A and 09AAJJI0169A1ZN respectively.

Your instructors

Prof. Dipak Mazumdar

Ph.D.(McGill), FNAE, FIIM

35+ years of research and teaching experiences
Consultant to many domestic steel industries



Prof. Prince Kumar Singh Ph.D.(IIT Kanpur)

10+ years of experience in iron and steelmaking.
Currently Assistant Professor in MSE, IIT Ropar



Prof. Rahul Sarkar Ph.D.(University of Utah, USA)

5+ years of experience in iron and steelmaking
Currently, Assistant Professor in MSE, IIT Kanpur.



Mr. Tarun K. Basu

40+ years of experience with different refractory makers including Vesuvius India Ltd., Kolkata;
Works as consultant for several companies.



COVID 19

Self declaration from each participant on (i) full vaccination shall be needed to attend the residential course. This is a pre-requisite.