

One Week Short Term Course (STC)

on

Metallurgy for Non-Metallurgists

For Senior Executive/Engineers of Hindustan Zinc Ltd.

(Date: 18 – 23 November, 2024)

Jointly Organized

by



HINDUSTAN ZINC
Zinc & Silver of India

Department of Metallurgical and Materials Engineering
Malaviya National Institute of Technology Jaipur
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- ❖ **Dr. Krishna Kumar, Assistant Professor, Department of MME, MNIT Jaipur**
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About MNIT Jaipur

Malaviya National Institute of Technology (MNIT) Jaipur is one of the NITs established by Ministry of Human Resource Development, Government of India. The Institute, earlier known as MREC, was established in 1963 as a joint venture of the state and central Governments. Later in 2002, the college was given the status of National Institute of Technology and on August 15, 2007, proclaimed Institute of National Importance through Act of Parliament. MNIT campus spreads over 325

acres of lush green area in the prime location of Jaipur city. The institute offers various academic activities in addition to research, consultancy and development. The Institute offers UG and PG (M. Tech./M.Sc. & Ph.D.) level courses to about 5000 students in almost all leading fields of engineering, technology, management, and sciences. The MNIT Jaipur's NIRF ranking for 2024 is 43 for engineering.

About the Department

Department of Metallurgical and Materials engineering is one of the oldest departments established in 1965. The department offers B. Tech and M. Tech and PhD programme in all frontier areas globally. The UG and PG courses of the department are NBA accredited. The basis motto of the department is to provide quality education through highly qualified and experienced faculty members. The department has received total sponsored funding of Rs. 650 lakhs during 2017-2024. Department also received a funding of 141 Lakhs under FIST-2021 from DST.

About Hindustan Zinc, Udaipur

Hindustan Zinc is India's largest and world's second largest zinc-lead miner. With more than 50 years of operational experience, we give highest priority to safety of our people and conservation of scarce natural resources through technology and innovation. With a total R&R base of 456.3 million tonnes and an average zinc-lead grade of 6.8%, our mine life is over 25 years. Our fully integrated zinc operations currently hold 78% market share in India's primary zinc industry. We are the 6th largest silver producers globally with an annual capacity of 800 MT.

About Short Term Course

This course will give a broad review of the general principles which apply in the extraction of metals from their ores. This course is aimed to cover basic understanding of thermodynamics & kinetics and engineering principles in context of extraction and refining of metals from their ore economically. This

STC is also focused on development of basic concepts for non-metallurgical, industrial professionals to enhance their basic skills and knowledge in the field of metal extraction.

Course Content

- Basic principles of metal extraction
- Thermodynamics & Kinetics
- Unit processes and Unit operations of Non-ferrous metal extraction
- Pyrometallurgical processes of Non-ferrous metal extraction
- Hydrometallurgical processes of Non-ferrous metal extraction
- Refining of metals
- Corrosion and its prevention
- Environmental related issues in Non-ferrous industries

Resource Persons

Faculty members from Malaviya National Institute of Technology Jaipur & prominent personalities from other institutions and experts from Hindustan Zinc, Udaipur & other organizations.

Contact Persons

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Registration

The registration fees for industrial professionals is Rs 13,000/- (incl. of boarding charges) per participant. Brochure is available on institute website <http://mnit.ac.in>