

One-Week Short Term Course
on
Metallurgy for Non-Metallurgists
For Senior Executive/Engineers of Hindustan Zinc Ltd.

(Date: 19 – 25 January, 2023)

Jointly Organized
By



Department of Metallurgical and Materials Engineering
Malaviya National Institute of Technology Jaipur
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&
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Brochure is available on Department website https://mnit.ac.in/dept_mme/

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- **Dr. Krishna Kumar, Assistant Professor, MME Department MNIT Jaipur**
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Coordinators

- **Dr. Randhir Kumar Singh, Assistant Professor, MME Department, 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 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. MNIT Jaipur ranked at 46th position in NIRF 2022 ranking.

About the Department

Department of Metallurgical and Materials Engineering is one of the oldest departments established in 1965. The department offers B.Tech, M.Tech and PhD programmes in all frontier areas globally. The UG and PG programmes of the department are NBA accredited. The basic 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. 550 lakhs during 2015-2022. Department received a funding of Rs. 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, highest priority to safety of people and conservation of scarce natural resources through technology and innovation. With a reserve base of 150.3 million MT and an average zinc-lead grade of 7.8% and mineral resources of 297.6 million MT, with mine life of over 25 years. With fully integrated zinc operations currently hold 78% market share in India's primary zinc industry. They are the 6th largest silver producers globally with an annual capacity of 800MT.

About Short Term Course (STC)

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

This STC is specially designed on development and build concept for non- metallurgy senior executives & non-metallurgical personnel of Hindustan Zinc Udaipur to enhance their basic skills and knowledge in the field of metal extraction. This course is also designed to cover from source of metals, its extraction to the final products of Hindustan Zinc Limited.

Course Content

- Ore/Mineral and their beneficiation
- Basic principles of metal extraction
- Thermodynamics & kinetics
- Unit processes and unit operations of metal extraction
- Pyrometallurgical processes of metal extraction
- Hydrometallurgical processes of metal extraction
- Refining of metals
- Environmental Hazards in Non-Ferrous Industry

Resource Persons

Faculty members from IISc, MNIT Jaipur & prominent personalities from other Institutions and experts from Hindustan Zinc, Udaipur & other Organizations.

Contact Person

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