

## About MNIT Jaipur

Malaviya National Institute of Technology (MNIT), Jaipur is one of the premier NITs designated with the status of "Institute of National Importance" by MHRD located in a central part of Jaipur city and spread over 325 acres of lush green area. This institute was established in the year 1963 as a joint venture of the Government of India and Government of Rajasthan. The college was inspired by the great educationist and freedom fighter Pt. Madan Mohan Malaviya and thus named as Malaviya Regional Engineering College (MREC). The institute was upgraded to National Institute of Technology and was declared deemed university on June 26, 2002. Since then, the Institute started offering B. Tech. (Bachelor of Technology) degree instead of B.E. (Bachelor of Engineering) degree. MREC now known as MNIT, aims to set higher standards of academics to become a world class Institute.

## About Metallurgical & Materials Engineering Department

Department of Metallurgical and Materials Engineering is one of the oldest departments established in 1965. The department offers B.Tech, M.Tech and Ph.D programmes in all frontiers areas of engineering. The basic motto of department is to provide quality technical education through its highly qualified and experienced faculty members. The faculty is continuously motivated to keep abreast with state-of-the-art technology. Alumni of this department hold important position in academia, R&D organizations and industries in India as well as at international level. Students of this department are certain to have bright career prospects across the globe due to recent ambitious growth plans of ferrous and non-ferrous sectors, and great quest for high-tech materials worldwide.

## PATRON

**Prof. Udaykumar R. Yaragatti**

**Director, MNIT Jaipur**

## Coordinators

**Prof. A.K. Bhargava**

**Prof. U. Pandel**

## Organizing Secretaries

**Dr. Y.V.S.S. Prasad**

**Dr. R.K. Duchaniya**

## Contact Person

**Prof. A. K. Bhargava**

Department of Metallurgical & Materials Engineering

Malaviya National Institute of Technology

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## MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

TEQIP Sponsored

One Week Short Term Course  
on

Metallurgy for Non-metallurgists  
(December 11-15, 2017)



Organized by

Department of Metallurgical & Materials Engineering  
Malaviya National Institute of Technology  
J. L. N. Marg, Jaipur-302017

## About Short Term Course

This course will provide an explanation of the unique physical and mechanical characteristics of metals and how do these metals differ from non-metals, and how metals are alloyed to achieve the desired properties. This course is aimed to cover basic understanding of phase diagrams, Steels and their heat treatments to achieve various combinations of mechanical, physical and chemical properties and their correlation with microstructure. This course is also focused on mechanical testing of materials for non-metallurgical, students and faculties and industrial stake holdersto enhance their basic skills and knowledge in thefield of metallurgical engineering. This STC provides the in-depth practical knowledge of metallurgical phenomena.

## Course Content

- Basic principles of metal extraction
- Solidification of Metals
- Alloying and Phase diagrams
- Mechanical properties and their measurement.
- Strengthening of metals
- Important heat treatment processes of steels
- Case hardening of steels
- Some important steels: low carbon steels, stainless steels, tool steels
- Important cast irons
- Heat treatment of nonferrous alloys
- Corrosion and its prevention

## Resource Persons

Faculty members from Malaviya National Institute of Technology Jaipur and some experts from other organizations.

## Registration Fee

Students/Research scholars: Rs1500/-

Faculty from academia: Rs.2500/-

Professionals from Industries and R & D:Rs4000/-  
The fee should be submitted, along with the filled-in registration form through A/C payee Demand Draft drawn in favour of “**Registrar, MNIT Jaipur**”.

Last date of Registration: **December 04, 2017.**

Brochure is available on institute web site <http://mnit.ac.in>.

## General Information

Accommodation and travelling expenses are to be borne by the participants/ sponsoring agency. Limited accommodation on actual charges may be available at MNIT Guest House II/ Hostels. A request for this need to be made in advance as per Institute norms. The participants will not be paid any TA/DA. Working lunch will be provided by the organizers.

## Registration Form

One Week Short Term Course  
On

## Metallurgy for Non-metallurgists

(11<sup>th</sup> -15<sup>th</sup>December, 2017)

Name .....  
(In block letters)

Designation .....

Organization.....

Academic Qualification .....

Specialization .....

Mailing Address .....

.....

.....

Telephone No. (with STD code) .....

E-mail .....

Accommodation required Yes/No

Details of registration fee-

DD No. .... Date .....

Bank Name .....

Amount Rs.....

Date ..... Signature of Applicant

Signature of Sponsoring Authority with seal