

Greetings from CMTI

We are pleased to inform you that we are conducting a 02 day Non-Residential Training programme on "**Chemical, Mechanical & Metallographic Testing of Metallic Materials**", course code **0910**

Highlights / Overview of the Program:

Designers select the material considering the design aspects & the functional requirement. Once the material is identified and purchased it is to be tested for chemical composition and physical properties to establish its suitability for the intended application. The testing laboratory plays an important role in furnishing quality result. Quality result can be achieved through selection of appropriate test methods and possessing adequate technical knowledge by the technician/chemist. Several methods are available for conducting chemical and metallographic tests which have different accuracy and repeatability limits.

The course covers the following topics :

- Factor which influence accuracy & repeatability.
- Selection of test methods

Target Participants:

Laboratory Technicians & Chemists with qualifications BE/Diploma, M. Sc/ B. Sc with or without experience.

Programme Schedule

It is 02 day Non Residential Training Programme scheduled during **04th – 05th September 2024**. The Programme will be held at Central Manufacturing Technology Institute, Bangalore

Participation Fees

Rs. 7,800/- plus GST @ 18%*, per participant. This includes Course Kit, working veg lunch, midsession tea.**

Course Fee can be paid through **NEFT / RTGS / Demand Draft**. Demand Draft to be drawn in favor of "Central Manufacturing Technology Institute", payable at Bangalore and should reach CMTI one week before the actual date of commencement of the course.

Beneficiary for RTGS/NEFT

- a) **Name : Central Manufacturing Technology Institute**
- b) **GST No: 29AAATC2085K1ZJ**
- c) **Account No :10521862015**
- d) **Bank Name & Branch: State Bank of India, Yeshwanthpur Branch**
- e) **IFSC Code :SBIN0003297**
- f) **MICR Code : 560002055**

Additional Information:

1. A 10% rebate on course fee will be given to organizations nominating 3 or more participants for each programme, only if payment is made in advance, ten days before the commencement of the course.
2. Individuals/ Companies interested in participation are requested to fill in the enclosed Enrollment Form and submit at the earliest.
3. Participants are advised to proceed for the programme only after the nominations / Programme confirmed by us (by Fax / Letter / Phone / E-Mail).
4. Participants should report at CMTI on the day of commencement of the course. Participants are advised to reach Bangalore the previous day evening/ night.
5. Course will be conducted from 09:00 to 17:00 hrs. Participants may plan their return journey accordingly.
6. Participants will be given Certificate after the completion of the Training Programme
7. Enclosed are the tentative programme contents for ready reference
8. GST No. to be shared while sending your nomination / Registration (If a company is exempted from GST they have to provide GST Exemption certificate).
9. Please note that Course fee once paid will not be refunded. However, change in nomination will be permitted.

Note: * Taxes and other levies will be charged as per the prevailing rates at the time of Billing**

For further enquiries / registration / nominations, please contact:

Asha R Upadhyaya, Centre Head – AEAMT,

09449842686 / 78 Fax: (080) 2337 0428

E-mail– training@cmti.res.in, vinay@cmti.res.in

CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE

Tumkur Road, Bangalore 560 022

Training Programme

On

“Chemical, Mechanical and Metallographic Testing of Metallic Materials”

Tentative Programme Schedule

Days	Topic
Day 1	Engineering materials and approaches in characterizing them
	Uncertainty concept and Good laboratory practices as per ISO 17025-2005
	Wet chemical and spectrometric analysis of metals & alloys.
	Lab visit: <u>NMTC lab visit</u> - Demo of XRD, SEM, Raman spectra, Nano Indentor & Ellipsometer. <u>Chemical lab</u> : Demo of OES, Portable OES, Coating thickness measuring equipment, Corrosion test (Salt spray test)
Day 2	Significance of mechanical testing. Measurement of tensile and hardness values & Parameter that influence these measurement
	Test method standards (ASTM/ISO/IS). Comparison of ASTM and IS standards
	Importance of microstructure analysis in qualifying the material
	Lab Visit: Mechanical lab Demo of Tensile, Hardness and microstructure analysis
	Interactive session
	Concluding session

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