Greetings from CMTI,

We are pleased to inform you that we are conducting a 04 day Non-Residential Training programme on **"Advanced Materials Characterization Techniques", course code 0390**

Highlights / Overview of the Program:

This course covers a review of materials characterization techniques, which can be used to analyse nanomaterials also. This course includes optical characterization techniques such as Raman and Fourier Transform Infrared Spectroscopy and, Spectroscopic Ellipsometry; electron microscopy techniques such as transmission Electron microscopy and Field Effect scanning Electron Microscopy (FESEM) and its sample preparation processing and, X-ray diffraction (XRD), Atomic Force Microscopy, Surface Area analysis and Nano-indentation techniques. Course also covers Particle size analyzer, Confocal Microscope, Optical Profiler, Rheometer and Microhardness tester.

Target Participants:

Materials science / engineering group, scientist / engineer in Aerospace, Defence Research / Production, Industrial / Public sectors scientist / engineer and academic students.

Programme Schedule

It is 04 day Non Residential Training Programme scheduled during **05th – 08th June 2023.** The Programme will be held at Central Manufacturing Technology Institute, Bangalore

Participation Fees

Rs. 15,600/- 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 to17:00 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:
Mrs. Asha R Upadhyaya, Scientist – F & Centre Head – AEAMT,
09449842686 / 78 Fax: (080) 2337 0428
E-mail– training@cmti.res.in

CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE
Tumkur Road, Bangalore 560 022

Training Programme
On
'Advanced Material Characterization Techniques'

Tentative Programme Schedule

Day	Topic
Day 01	Introduction
	Ellipsometry
	Confocal Microscopy & Optical Profilometry
	Demonstrations
Day 02	SEM
	TEM
	Sample preparation and TEM
	Demonstrations
Day 03	Raman, FTIR and Particle Size Analyser
	X-Ray Diffraction (XRD)
	Characterization by Rheometer
	Demonstrations
Day 04	Nano Indentation
	AFM
	Surface Area Analysis
	Demonstrations
	Concluding Session

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