Greetings from CMTI

We are pleased to inform you that we are conducting a 03 day Non-Residential Training programme on **"Thin Film Surface Deposition & Characterization", course code 0380**

Highlights / Overview of the Program:

Thin film deposition is a technology encompassing deposition processes of thin film surface layers by Physical & Chemical Vapour Deposition methods for enhancement of surface properties and surface structure, chemistry for durability of components with properties better than those of the base material. The deposition has a wide range of applications related to corrosion, fatigue, wear and aesthetics. This course focuses on the deposition process (with emphasis on PVD & CVD processes), characterisation techniques of these films and demonstration of these processes. Thin film deposition has high demand in aerospace, automobile, electrical & electronics, textile, medical, defence and other sectors. This course also covers the process of preparation of masks using laser based systems used in metrology, MEMS and semiconductor applications.

Target Participants:

Scientists, Engineers, Managers, Designers & Middle management personnel involved in the functions of Design & Development, R&D, Manufacturing, Quality Assurance and other related areas

Programme Schedule

It is 03 day Non Residential Training Programme scheduled during **16th – 18th October 2023.** The Programme will be held at Central Manufacturing Technology Institute, Bangalore

Participation Fees

Rs. 11,700/- 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
Thin Film Surface Deposition & Characterization

Tentative programme contents

Day	Particulars
Day 1	Introduction to Thin Films
	Nano composites development using PVD
	DLC and CNT using PECVD
	Nano Indentation
	Atomic Force Microscopy
	Demo – Nano Indentor & Atomic Force Microscope
Day 2	Characterization using Raman Spectroscopy, Ellipsometry and FTIR
	Electron Microscopy
	Thermal Spray Coating (HVOF)
	Demo – PVD/PECVD
Day 3	Chrome Plating & Electroless Coating
	Demo at Chemical Lab
	Demo on Raman Spectroscopy, Ellipsometry and FTIR
	Demo- Electron Microscopy

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