Manufacturing Technology Training
An IMTMA initiative

Surface Finishing
Date : 5 February, 2026
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

Improving the performance, extending the life, and enhancing the appearance of materials used for engineering components are fundamental and increasingly important--concerns of quality assurance work force in any industry. The technique adopted for achieving this is through surface finishing/engineering process.

As per ASTM surface finishing/engineering is defined as "treatment of the surface and near-surface regions of a material to allow the surface to perform functions that are distinct from those functions demanded from the bulk of the material." These surface-specific functions include protecting the bulk material from hostile environments, providing low- or high-friction contacts with other materials, serving as electronic circuit elements, and providing a particular desired appearance.

In many instances, it is either more economical or absolutely necessary to select a material with the required **bulk properties** and specifically engineer the surface to create the required interface with the environment, rather than to find one material that has both the bulk & **surface properties** required for the job.

This training course is intended to impart basic knowledge on various surface finishing technique which helps the participants in selecting appropriate process of surface finishing and also to assess the quality of treated product for its usefulness for intended application.

FOCUS AREAS

- Definition of surface finishing.
- Purpose of surface finishing
- Types of surface finishing
- Selection of surface finishing process
- Facilities needed for surface finishing
- Various stages involved in surface finishing
- Typical case studies
    - Chromium plating & Electro-less plating
    - Anodising of Al
    - Painting
- Inspection of surface treated components

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to -

- Over view of various types of surface finishing/engineering process.
- Selection of appropriate surface engineering process for an engineering component.
- Approaches in acceptance of surface engineered products as part of quality control.
- Deciding the tolerance level for dimensions of the component.

PARTICIPATION FEE

Rs. 2999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 120/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

PARTICIPANT PROFILE

This programme will benefit practicing engineers involved in the functions of Design and Development, Process Planning, Product Engineering, Application engineering, **Quality Assurance**, R&D, Manufacturing, Servicing etc., In order that the participation is effective and beneficial, it is recommended that participating companies depute a multi-disciplinary team of 2 or 3 people from the above functions.

FACULTY

This programme will be conducted by **Mr. S.S.Avadhani,**

Mr. S.S.Avadhani, is a former Scientist-E from CMTI, Bangalore with 37 years of experience in the field of surface treatment, material characterisation and quality control. Mr. S.S.Avadhani was one of the key faculties at CMTI during his 37 years of his tenure to handle various topics. He delivered lectures on topics such as GLP, UOM, method validation, surface engineering etc., at industries both in India and Abroad.

For Registration Contact

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REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.