

Central Institute of Petrochemicals Engineering & Technology Department of Chemicals &

Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India

ANNUALCALENDAR

FOR REGULAR SHORT TERM COURSES 2023-24



CIPET:CENTRE FOR SKILLING & TECHNICAL SUPPORT

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About CIPET:

Central Institute of Petrochemicals Engineering & Technology (CIPET) was established in 1968 by Government of India with the assistance of United Nations Development Programme (UNDP) at Chennai.Today CIPET is a premier Academic institution for higher & technical education under the Ministry of Chemicals & Fertilizers, Govt. of India fully devoted in all the domains of plastics viz:- Design, CAD/CAM/CAE, Tooling & Mould Manufacturing, Production Engineering, Testing and Quality Assurance. CIPET operates from 37 locations spread across the country to cater the needs of the polymer and allied industries.

CIPET : Centre for Skilling & Technical Support (CSTS) - Hyderabad is an ISO 9001:2015 certified, NABL & NABCB accredited institute established in the year of 1987. CIPET:CSTS-Hyderabad caters the needs of polymer industries through Managerial and Supervisory Manpower Training and provide Technology Support Services in the field of Design, Tooling, Processing and Testing. CIPET also renders Consultancy, Advisory and Development Services and other technical support services to polymer industries in and around Telangana state.

Academic Courses at CIPET : CSTS – Hyderabad :

CIPET : CSTS – Hyderabad is offering the following Academic Courses.

- Post Graduate Diploma in Plastics Processing & Testing (PGD-PPT)
- Post Diploma in Plastics Mould Design with CAD/CAM
- Diploma in Plastics Technology (DPT)
- Diploma in Plastics Mould Technology (DPMT)

Skill Development Initiatives:

Skill & Knowledge are the driving forces of economic growth and social development. CIPET is acting as a facilitator to bridge the gap between demand and supply of skilled workforce in the polymer and allied sectors. In order to cater to the needs of the ever-growing polymer and allied industries, CIPET has evolved a range of training programs in the following areas.

- ✓ Design/ CAD/CAM/CAE
- ✓ CNC Programming & Operations
- ✓ Product & Tool Development

- ✓ Plastics Materials / Additives/ Compounding
- ✓ Injection/ Compression/ Blow/ Roto Moulding, Extrusion and Thermoforming
- ✓ Testing and QA / Characterization
- ✓ Composite/ Bio-composite Materials
- ✓ Plastics Recycling/ Waste Management

Target Participants for Skill Training Courses:

Business Owners / Aspiring Entrepreneurs/ Managers / Supervisors / Sales & Marketing Executives / Project & Process Engineers / Quality Assurance Engineers / Technical Personnel from Industries / Researchers & Students from Colleges

Methodology:

Classroom Training using PPT & AV Content and Hands-on Practical Training using Machinery /Equipment / Instruments.

Intake Capacity: 20 Nos. per batch.

Basis of Selection: First-Come, First-Served.

Registration: For registration, please contact us / send Email to vtc-hyderabad@cipet.gov.in

Mode of Payment:

IMPS/ NEFT to the following account or Demand Draft drawn in favour of "CIPET:CSTS Hyderabad " payable at Hyderabad. Account Name : CIPET Extension Centre Account No. : 124911011000079 Union Bank of India, Cherlapally branch IFSC Code: UBIN0812498 Note: All correspondence shall have to be made only to the Training In-charge – STC, CIPET : CSTS – Hyderabad. Contact: 8978480207 E-Mail: vtc-hyderabad@cipet.gov.in

DESIGN

1.Plastics Product and Mould design using AutoCAD (Code:D-1)

Duration: 360 hrs Date of commencement: 3 rd week of July and December Course Fee: Rs.25, 000 / person + Tax Cordinator: SyamSundaram Mobile No: 9941404804

Contents: Engineering Drawing - GD&T, Plastic Product Design, Mould design- Mould Manufacturing Techniques using CNC Machines-Application-Plastic Processing Technique- DFMA-Rapid prototyping - Reverse Engineering PreRequisite: Knowledge in AutoCAD.

2.Plastics Product and Mould design using Unigraphics (Code:D-2)

Duration: 360 hrs

Date of commencement: 3rd week of July and December Course Fee: Rs.40,000/ person + tax Co-ordinator: Mr. B.Srikar Mobile No: 8978480207

Contents: Engineering Drawing- GD&T, Plastic Product Design, Design concepts - Mould design- Mould Manufacturing Techniques using CNC Machines, CAM Milling, Application of plastic materials Plastic Processing Techniques- DFMA, Rapid prototyping and Reverse Engineering Pre-Requisite: Knowledge in UG.

PROCESSING 3.Injection Moulding Process (Code:P-1)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator : Mr. K. Muni Babu Mobile No: 9047179981 **Contents:**

Plastics Materials Application Injection Molding Process -Advanced Injection Molding-Effect of Polymer Property on process techniques process - Process effects, Trouble Shooting – Mould and Product Design -Processing Practical on injection molding.

4.Injection Moulding & Blow Molding Process (code: p-2):

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Mr.D.Vijayakumar Mobile No: 8978581043

Contents:

Processing Overview – Plastic Materials & its application –plastic processing techniques injection Moulding Process - Advanced Injection Moulding – Blow Moulding Process Types – Stretch blow moulding—Extrusion blow moulding- parison programming Effect of Polymer Property on Process Techniques - Process variables & its effects in Injection Molding & Blow Moulding - Trouble Shooting - Mould & Product Design - Processing Practical on Injection Moulding & Blow Molding.

TESTING

5.Thermal Analysis of Polymers using DSC, TGA and DMA (Code:T-1)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Dr. Anjali Devi Mobile No: 9800015135

Contents:

DSC analysis of polymers and blends – Thermal transitions – Tg, Tm, weight loss & degradation study using TGA.

6.Identification of Plastic Materials selection and criteria for End Applications (code :T2)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Mr. CH Venkatesh Mobile No: 9677123891

Contents:

Introduction to Plastics Materials, Identification of Plastics by simple methods – Application of instrumental methods for identification of plastics – chemical methods for identification and confirmation of plastics – Plastics selection criteria for end use applications.

7. Testing of Thermal and Flammability property of plastics (code: T-3)

Duration:Two days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Dr. Anjali Devi Mobile No: 9800015135

Contents:

Plastic materials and characteristics, Thermal properties such as HDT, VSP Brittleness Temperature, Flammability, Rate of Burning as per ASTM D-6385, UL-94, Heat release rate (ISO 5660) using Cone calorimeter, Limiting Oxygen Index.

8. Evaluation of mechanical properties of plastics materials & products(code: T-4)

Duration:Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Mr. CH Venkatesh Mobile No: 9677123885

Contents:

Plastic materials and characteristics, Thermal properties such as HDT, VSP, Flammability, Rate of

Burning as per ASTM D-6385, UL-94, Heat release rate (ISO 5660) using Cone calorimeter, Limiting Oxygen Index.

10. Testing and Quality Control of Plastics materials and products (Code: T-5)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: D.Anjaneya sharma Mobile No 8093140230

Contents:

Introduction to Plastics Materials - various standards and specifications – Testing for mechanical, thermal, Electrical and permanence properties – Plastic product testing – Practical on Testing of Plastics Materials

11. Testing and Quality Control of PVC & HDPE Pipes (Code: T-6)

Duration: TwoDays Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Mr. CH Venkatesh Mobile No. 9444080691 <u>Contents:</u>

Introduction to plastic material Additives & compounding of plastics Testing of PVC Pipes - As per

IS: Standard- Testing of HDPE PipesRole of plastics in Agriculture and Products

14. Programming & Operations of CNC EDM & WEDM (Code:TR-2)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Course Co-ordinator: Mr.Jayaramulu Mobile No:8978581041

Contents:

Job & Tool setting and CNC Programming .

12. Recycling of plastic materials & Plastic Waste Management (Code: T-7)

Duration: Two days Course Fee: Rs.5,000/person/day +Tax Co-ordinator: Mr.K.Muni Babu Mobile No: 9444930208 **Contents:**

Plastic material- properties and applications Identification- plastic processing techniques practical exposure- plastic waste management overview and Indian perspective- development of value added recylates- challenges & opportunities applications of recycled plastics.

TOOL ROOM

13. Advanced Mould Manufacturing Techniques (Code: TR-1)

Duration: Two Days Course Fee: Rs.5,000/person/day +Tax Course Co-ordinator: Mr.K Srinivas Mobile No:7358382001

Contents:

Mould Material and heat treatment Technology Development in CNC MachineTools, Cutting Tools and CNC Programming

TAILOR MADE COURSES

CIPET, Hyderabd also conducts Tailor Made Courses exclusively for the participants from any company either at company's premises or at CIPET, Hyderabad. The contents of the course can be framed by the customer or by CIPET as per company's requirements

Course Co-ordinators: Mr. B.Srikar Mobile No: 8978480207

Mr. R.Manikandan Mobile No: 9092637088