

# Cheminformatic Institute of Science Studies Lucknow

## Diploma Program in Paint & Coating Technology (DPCT)

### Program Curriculum

#### Module 1. Introduction & Principles to Paint Technology

- 1.Part Preparation Processes and Equipment
- 2.Paint Components
- 3.Liquid Organic Coatings
- 4.Paint Manufacturing Process
- 5.Color Matching and Color Control
6. Liquid Paint Application Systems
7. Transfer Efficiency and Spray Technique
8. Testing Paint Materials
9. Cost Analysis for Finishing Systems

#### Module 2. Powder Coating & Its Technology

- 1.Introduction
- 2.Powder Coating Health & Safety
- 3.Powder Coating Pretreatment
- 4.Powder Coating Application
- 5.Powder Coating Quality Control
- 6.Steps To Successful Application
- 7.Powder Coating Special Effects
8. Powder Coating Troubleshooting

#### Module 3: Nano Structured Coatings

- 1.Introduction To Nano Science & Nanotechnologies
- 2.Nano Science In Nature
- 3.History Of Nanotechnologies
- 4.Fundamental 'Nano-Effects'
- 5.Overview Of Nano Material
6. Characterization Methods
- 7.Fabrication Methods
- 8.Applications And Implications
- 9.Environment

#### Module 4: Coatings for Corrosion Protection- Offshore Oil and Gas Operation

- 1.Introduction
- 2.Protection Mechanisms of Organic Coatings
- 3.Generic Types of Anti corrosion Coatings
- 4.Corrosion-Protective Pigments
- 5.Waterborne Coatings

#### Module 5: Introduction to Paint Manufacturing

- 1.Introduction
- 2.Characteristic of paint allied coating Products Industry
- 3.Health and Safety y Hazards during the Manufacturing  
Paint
- 4.Method for Worker Protection

#### Module 6: Emulsion Polymerization and Latex Applications

- 1.Introduction
2. Effect of Chemical Structure on Polymer Properties
3. Step-Growth Polymerization
4. Reaction Engineering of Step-Growth Polymerization
5. Chain-Growth Polymerization
6. Reaction Engineering of Chain-Growth Polymerization