



## Environment Technology and Management (ETM)

This program will be offered to the candidates who are admitted in TTM, GTM, or TDQC programs on payment of additional fees. The program will be of one year duration and the classes will be held in the evening hours from 4.30PM to 5.30PM.

The candidates opting for this program will have the additional benefit of receiving a certificate on Environment Technology & Management.

The program has been designed keeping in view that a thorough knowledge on environmental and ecological problems has become essential for the personnel working in textiles, garment and allied industries.

In addition to pollution control and environment management system, the students would also be given practical training on environmental analysis as well as eco-testing of textiles and apparels.

### Program Content

#### Module 1 : Introduction to Environmental Pollution

- Air pollution: Sources, type of pollutants, hazardous effects (green house effect), air quality standards and control of air pollution.
- Water pollution: Sources, classification, type of pollutants, hazardous effects and control of water pollution.
- Noise pollution: Sources, harmful effects, standards and control of noise pollution.

#### Module 2 : Water Quality for Textile Industry

- Water sources, storage, consumption and quality requirements for textile processing.
- Defects due to water quality.
- Water treatment for textile processing.
- Methods of sampling, preservation and analysis of water for Color, Turbidity, pH, Solids, Alkalinity, Hardness, Chlorides, Sulfates, Silica and Iron, Manganese etc.

#### Module 3: Effluent from Textile Process House

- Sources, quantity, characteristics and harmful effects of textile effluents.
- Indian standards for discharge of textile effluents.
- Pollution abatement of textile effluents.
- Methods of sampling, preservation and analysis of effluents for Color, pH, Solids, COD, BOD, Oil and Grease, Chromium, Sulfide, Ammonia, Residual Chlorine etc.

#### Module 4-Eco-testing of Textiles

- German ban and International Norms for Eco-friendly Textiles.
- Eco-labeling of Textiles like Oeko Tex Std.100, MST etc.
- Sources, harmful effects and analysis of Eco-parameters like Banned Amines, Heavy Metals, Formaldehyde (Free and Releasable), pH, Residual Chlorine etc.

#### Module 5 - Environmental Management and Treatment Technologies

- Principles and Technology of Water and Effluent Treatment
- Environmental Management System (ISO-14001)
- Exposure to Actual Environmental Problems through Guest Lectures, Workshops/ Seminars, Industrial visits etc.

