

### **Course Objectives**

Training is aimed at providing knowledge and hands on experience on catalyst preparations & evaluation to those new to the hydrocarbon & petrochemical industry / R&D institute/academics.

### **Contents**

#### **Theory**

- Introduction to Catalysts and Catalysis
- General properties of the materials required for catalysis; Pre and post modification of catalytic properties
- Overview of refining process working on catalysts
- Important refining reaction such as
- Reforming and BTX production from low value feedstocks

#### **Practicals**

- Basic work for catalyst preparation
- Selection of raw materials and their preparation
- Preparation of Alumina/zeolite etc based materials
- Extrudates formation/ shaping of catalyst support
- Thermal treatments involved in catalyst finishing such as Drying and calcination
- Pre and post modification of catalytic materials
- Metal incorporation/ support functionalization in catalyst preparation
- Reaction studies of all the prepared catalyst