



## ITEC –TRAINING PROGRAMS (2022-2023)



### About CSIR-IIP

The Indian Institute of Petroleum, one of the constituent laboratories under the umbrella of Council of Scientific & Industrial Research (CSIR), was established on September 26, 1960. The Institute has continued its efforts to grow into an internationally renowned R&D organization, providing quality research and innovative technologies for the national and international market place and to produce technical support to the industry. Accredited with ISO 9001: 2015 certificate, Institute is devoted to multidisciplinary areas of Research and Development in the downstream sector of hydrocarbon and related industry.

Institute has experience and expertise in the process and product development (lab / bench / pilot scale), process scale-up, process design, process optimization, process improvement and revamping. The institute is also involved in techno-economic feasibility studies, technology assessment, energy audit and conservation in chemical plants, vehicular pollution abatement, use of alternative fuels in IC engines and product characterization.

Some of IIP's major activity areas are Petroleum Refining, Catalytic Refining and Catalysis, Separation Process, Solvent Extraction, Adsorption, Membranes, along with evaluation and characterization of Lubrication Oil and Modified Bitumen and Carbon Materials. Other areas of expertise are Thermal Conversion Process, Modeling and Simulation, Chemicals /Petrochemicals, Intermediates and Additives for relevant industries. Process and product development for Specialty Chemicals, Petrochemical intermediates, Bio-processing of petroleum streams; Fuel, Lubes and Chemicals from Biomass are recently introduced. The institute is bestowed with many prestigious awards in recognition of excellence in various fields.

### CSIR-IIP offers the following Training Programs under ITEC, Sponsored by MEA, New Delhi, India

#### Aims and Objectives

These course are demand-driven, response-oriented that focuses on addressing the needs of developing countries in the areas of Petroleum Refining, Analysis of Petroleum Products and Fire Safety. The main objectives of these programs to develop full competency in the processes, equipment, operation, safety and economic aspects in the petroleum refineries. To understand the role of various processing units, process controls, safety & environmental issues and various techniques in characterization of petroleum products. The courses impart finishing touch to knowledge and latest technology and operation of equipments through innovative technological cooperation between India and the partnering nation.

S No	Title of ITEC Course	Duration/Dates	Mode	Qualification	Participant's Profile
1	Petroleum Refining Technology	7 Weeks (Aug 22 to Oct 7, 2022)	Physical at CSIR-IIP	Masters degree in Chemical Sciences/ Chemistry or Graduate degree in Chemical Engineering/ Petroleum Engineering / Petroleum Technology	Engineers and professionals interested to build up career in refining and petrochemical industry or professionals working in government Hydrocarbon and Petroleum departments with limited experience in refining industry wishing to broaden their capacity
2	Analysis of Petroleum Products and Operation & Maintenance of CFR Engines	7 Weeks (Oct 31 to Dec 16, 2022)	Physical at CSIR-IIP	Degree In Chemistry/ Chemical Sciences/ Chemical Engineering/ Diploma In Chemistry	Quality Control Officers, Chemists/ Chemical Engineers involved in analysis of crude oil and petroleum products. Technical managers and

					technicians from laboratories in power plant and research centers. Engineers/Quality Control Officers working in the process and operation units in refining and other hydrocarbon industry
3	Instrumentation and Process Control	3 Weeks (Jan 9 to 27, 2023)	Virtual Mode	Masters degree in Chemical Sciences/ Chemistry or Graduate degree in Chemical Engineering/ Petroleum Engineering / Petroleum Technology	Refinery Engineers working on Process Control Instrumentation testing, Calibration & Maintenance Procedures.
4	Industrial Safety and Chemical Emergencies	1 week (Feb 20 to 24, 2023)	Virtual Mode	Masters degree in Chemical Sciences/Chemistry or Graduate degree in Chemical Engineering/ Petroleum Engineering / Petroleum Technology	Refinery Engineers, managers and commercial or technical staff whose activities are related to petroleum refinery production, storage, purchasing, marketing or use of petroleum products. Also suitable engineers and manager in the refining industry/ R&D institutes interested in improving their knowledge of petroleum products.

**CSIR IIP also organizes the following regular Training Programs**

- Petroleum Refining Technology (2 to 7 weeks)
- Analysis of Petroleum & Petroleum Products
- Vehicular Emission & Control
- Operation and Maintenance of CFR Engines
- Electric Vehicle for Future Urban Mobility - Challenges and Opportunities
- Laboratory Practicals - Analysis of Petroleum Products used in Power Plants
- Advances in Petroleum Refining Industry for Senior Executives
- Deposit Rating of Small S.I. Engine Components
- Testing of Bitumen & Bitumen Binders
- Advances in Processing & Handling of Challenges Crudes
- Advanced Automotive Technology & Indian Road Traffic Pattern – Challenges & Opportunities
- Crude Assay Using Physico-chemical and Analytical Methods
- Solvent Extraction Technology
- Heat Exchanger: Design, Operation and Trouble Shooting
- Alternative Fuels for Road Transportation
- Analytical Instrumentation Techniques - Application to Forensic Science
- Corrosion Control & Material Selection in Refineries
- Analytical Methods for Fuel Adulteration and Testing of Petroleum Products
- Compositional Analysis of Lignocellulosic / Biomass Feedstock
- Laboratory safety