



CSIR-INDIAN INSTITUTE OF PETROLEUM (Training)



ITEC Program on

“Present and Future Automobile Fuels”

Duration: April 29 to May 5, 2026

Sponsored By MEA, New Delhi, India

Venue: CSIR-Indian Institute of Petroleum, Dehradun India

Program Objectives

The objective of this program is to enhance the knowledge and technical understanding of participants on present and future automotive fuels, their quality specifications, emission challenges, and emerging sustainable fuel alternatives. The program aims to:

- Provide a comprehensive overview of **current automotive fuels** and international quality specifications for gasoline and diesel
- Explain the **relationship between fuel properties and vehicular emissions**
- Build understanding of **key fuel parameters** affecting engine performance, efficiency, and compliance with emission norms
- Introduce **new-generation and alternative fuels** such as renewable fuels, ethanol blends, DME, hydrogen, and biofuels
- Familiarize participants with **electric and hybrid vehicle technologies** from a fuel and emissions perspective
- Highlight the role of **green diesel and Bio-CNG** in reducing emissions and supporting sustainable transportation
- Enable participants to appreciate **global trends, policies, and future pathways** for cleaner automotive fuels and mobility

Course Contents

1. Present Automotive Liquid Fuels
2. Emission Issues with Conventional Fuels
3. Key Parameters of Automotive Liquid Fuels
4. Future and New-Generation Automotive Fuels
5. Electric Vehicles (EVs) and Hybrid Electric Vehicles (HEVs):
6. Sustainable Fuels
7. Lab demos / pilot plant visits

Outcomes of the Training Program

Participants will gain a comprehensive understanding of present and future automotive fuels. The course will provide knowledge of fuel quality–emission relationships and insights into emerging fuel technologies and sustainable mobility options. The awareness of global trends and policy directions in automotive fuels

Who Should Attend

The program is intended for **mid-career and senior-level professionals** from ITEC partner countries, including:

- Officers and engineers from Ministries of Petroleum, Energy, Transport, and Environment
- Professionals from oil refineries and fuel marketing organizations
- Engineers and technical officers from automotive and auto-component industries
- Officials from transport authorities and regulatory bodies
- Professionals working in vehicle emission testing, fuel quality monitoring, and certification agencies
- Scientists, researchers, and academicians from R&D institutions, technical universities, and research laboratories
- Professionals involved in alternative fuels, biofuels, hydrogen energy, and e-mobility projects
- Policy planners and decision-makers associated with sustainable mobility and energy transition

Eligibility

- Educational qualification in **Engineering / Science / Technology**
- Preferably **5–10 years of relevant professional experience**

Contact

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