An Online AICTE Sponsored Faculty Development Program

# Environmental Audit: A Tool for Sustainable Industrialization

3-8 February 2025

Organized by
Centre of Environmental Research and Technology
&

Applied Science & Humanities Department Pacific School of Engineering, Surat







## **ABOUT INSTITUTE**

Pacific School of Engineering (PSE) has commenced education in Degree and Diploma since 2012 for various discipline of engineering such as computer, chemical, civil, mechanical and electrical along with applied science (MSc IT). The Institute is approved by AICTE, New Delhi and affiliated to GTU, Ahmedabad. The Institute has an energetic team of highly qualified, dedicated, and experienced faculty members. The entire campus is facilitated with Wi-Fi connectivity and equipped with workshops and laboratories as per curriculum and some of them are NABL accredited to take up consultancy projects. The library is furnished with NPTEL open access lecture series to help students in attaining highest standards in academics, research and professional skills. Under the banner of SSIP Policy of Govt. of Gujarat, students are receiving financial support for their Innovative project proposals. The Institute has very good track record of students' placements and internships at various esteemed industries. The Institute has bagged several prestigious awards including ISTE Best Chapter, SGCCI's Outstanding Research & Development and many more.

## **ABOUT DEPARTMENT**

The laboratory of Centre for Environmental Research and Technology (CERT) is recognized as Schedule-I Environmental Auditor by the Gujarat Pollution Control Board, Gandhinagar. The laboratory is NABL accredited for more than 77 parameters as per ISO:IEC 17025:2017. In addition to this, it is ISO 9001:2015 certified. CERT is equipped with state of art equipments. Also, qualified faculties are taking care of various activities that are relevant to environmental pollution control, viz. Environmental audit, monitoring, testing, pollution load calculation, cleaner production assessment, treatability studies, etc. The research cell is also actively associated with various research and development activities in the area of resources recovery from hazardeous waste, Plastic Waste Management, Biogas from napier grass, etc

# **ORGINIZING COMMITTEE**

Chief Patron: Mr.Nkhil Agrawal Administration Head

# **Patron & Coordinator:**



Prof.(Dr.) Yogesh Rotliwala Principal & Professor (Exp > 30 years) Chemical Enggineering Deptt. <u>yrotliwala@yahoo.co.in</u> 9998628041

#### Co-Coordinator:



Dr.Hiral Tailor Associate Prof. & Head, (Exp > 18 yrs) Applied Science & Humanities Deptt. hst.pse@gmail.com 9998439663

## **REGISTRATION**

No Charge for Registration, Course and Certification.

Last date for Registration: 31st January' 2025. Follow the link for Registration:

# https://atalacademy.aicte-india.org/login

- Log in using the credentials created during the sign up.
- After successfully filling general details, please click on "FDPs".
- Apply Filters Type ATAL
   Month February
   Thrust Area Engineering
   Mode Online
- Search for "Pacific" by pressing CTRL+F, you shall find "Title: Environmental Audit: A Tool for Sustainable Industrialization" (Application No: 1730782731). Apply and confirm.



# **OBJECTIVE OF ATAL FDP SCHEME**

The objective of ATAL FDP Scheme is "To Plan and help in imparting quality technical education in the country and to support technical institutions in fostering, research,innovation and entrepreneurship, through training in various emerging fields.

# **ABOUT WORKSHOP**

Many Industrial sectors in India are resource intensive and polluting and are inadequately equipped with pollution control measures leaving a huge negative footprint on the environment. Reduction of these impacts is need of the hour. 'Environmental Audit' is a paramount approach to perform this activity. It is a tool to evaluate the impact of industrial processes on the environment, to identify possible solutions to reduce or eliminate such impacts and to assess the status of compliance to regulatory and other requirements. Environmental Audit also helps to identify solutions for efficient use of resources and greater adoption of clean and environmentally sound technologies for sustainable industrial development.

# WHO SHOULD ATTEND?

In order to gain comprehensive understanding of advanced environmental audit practices for effective sustainable pollution control solutions, the faculty members of AICTE approved institutions, research scholars, PG scholars, participants from industries and staff of host institution can attend the FDP.

# **CONTENTS**

- Introduction to Environment Audit Scheme
- Methodology to conduct Environmental Audit in Industry
- Advanced instrumentation for analytical practices for Environmental parameters
- SI Units and Correction to Stack Analysis
- Environmental Legislation
- Importance of Health and Safety in Industry
- Electrochemical technologies for wastewater treatment
- Concept of Zero Liquid Discharge (ZLD) for Common Effluent Treatment Plant (CETP) operations
- Air Pollution Control Equipments
- Resource recovery from Hazardous Wastes
- Outcome of Environmental Audit: A case study
- Cleaner Production: A tool to Environmental Management System
- Biochemical Reactor: A vanishing technique in industrial wastewater treatment
- Process simulation using ASPEN HYSIS for Solvent recovery from waste water.

## **EMINENT SPEAKERS**



Dr. Sanjay Tewari

Associate Teaching Prof., Env. Engg. Deptt. Missouri University of Science & Tech, USA Years of Exp: > 30 years



Dr.Malvika Safaya

Water Treatment Coordinator, Conuma Resources Limited,Canada Years of Exp: > 11 years



Dr. Rakhi Mehta

Lead Process Engineer,
Maratex Environmental Inc, Canada
Years of Exp: > 25 years



Dr. Bharat Jain

Member Secretary, Gujarat Cleaner Production Centre, Gandhinagar -Years of Exp: > 40 years



Prof. D.J.Parikh

Rtd. Dy Director (SG), National Institue of Occupational Health, Ahmedabad Years of Exp: > 40 years



Prof. Y. H. Oza

Rtd., Professor, L.D. College of Engineering, Ahmedabad Years of Exp: > 40 years



Mrs. Jigna B Pandya

Sr. Env. Engg., Unit Head- Audit Cell, GPCB, Gandhinagar Years of Exp: > 30 years



Shri B.R. Naidu

Ex Director & Officer- In- charge, Regional Directorate, CPCB, Vadodara Years of Exp: > 40 years



Dr. R. A. Christian

Professor & Head, Civil Engg.Dept, SVNIT, Surat Years of Exp: > 40 years



Dr.K.D. Yadav

Associate Prof, Civil Engg.Dept, SVNIT, Surat Years of Exp: > 25 years



Mr. Shankar Karhale

Vice President, M/s. Aarti Industries Ltd, Vadodara Years of Exp: > 40 years



Mr. Ashish Mehta

Vice President, Technical Services, Luthra Group of Industries, Surat Years of Exp: > 25 years



Dr Devang Gandhi

CEO. M/s. Pollucon Laboratories, Surat.

Years of Exp: > 20 years



# ENVIRONMENTAL AUDIT: A TOOL FOR SUSTAINABLE INDUSTRIALIZATION FDP SCHEDULE

3 <sup>rd</sup> February 2025	4 <sup>th</sup> February 2025	5 <sup>th</sup> February 2025	6 <sup>th</sup> February 2025	7 <sup>th</sup> February 2025	8 <sup>th</sup> February 2025
06:00 PM-06:30 PM INAUGURAL SESSION	06:00 PM to 07:30 PM Session-3 DR. DEVANG GANDHI CEO, M/s. Pollucon Laboratories Pvt. Ltd., Surat	06:00 PM to 07:30 PM Session-5 SHRI B. R. NAIDU Ex Director & Officer-in- charge, Regional Directorate, CPCB, Vadodara	06:00 PM to 07:30 PM  Session-7  DR. BHARAT JAIN  Member Secretary,  GCPC, Gandhinagar	06:00 PM to 07:30 PM  Session-9  DR. R.A.CHRISTIAN  Professor & Head, Civil  Engg. Dept., SVNIT,  Surat	02:00 PM to 03:30 PM  Session-11  PROF. Y.H.OZA  Rtd. Prof., L.D. College  of Engineering,  Ahmedabad
	Topic ADVANCED INSTRUMENTATION FOR ANALYTICAL PRACTICES FOR ENVIRONMENTAL PARAMETERS	Topic ENVIRONMENTAL LEGISLATION	Topic CLEANER PRODUCTION: A TOOL TO ENVIRONMENTAL	Topic AIR POLLUTION CONTROL EQUIPMENTS	Topic METHODOLOGY TO CONDUCT ENVIRONMENTAL AUDIT IN INDUSTRY
06:30 PM – 08:00 PM  Session-1  MRS. JIGNA B.  PANDYA  Sr. Env. Engg., Unit  Head- Audit Cell,  GPCB, Gandhinagar	07:30 PM to 09:00 PM Session-4 DR. RAKHI MEHTA Lead Process Engineer, Maratek Environmental Inc., Canada	07:30 PM to 09:00 PM Session-6 PROF. D. J. PARIKH Rtd. Dy Director (SG), NIOH, Ahmedabad	07:30 PM to 09:00 PM  Session-8  DR. MALVIKA  SAFAYA  Water Treatment  Coordinator, Conuma  Resource Ltd, British  Columbia, Canada	07:30 PM to 09:00 PM  Session-10  DR. K.D.YADAV  Associate Prof., Civil  Engg. Dept., SVNIT,  Surat	03:30 PM to 05:00 PM Session-12 MR. SHANKAR KARHALE M/s. Aarti Industries Ltd., Vadodara
Topic INTRODUCTION TO ENVIRONMENT AUDIT SCHEME	Topic PROCESS SIMULATION USING ASPEN HYSIS FOR SOLVENT RECOVERY FROM WASTEWATER	Topic IMPORTANCE OF HEALTH AND SAFETY IN INDUSTRY	Topic ADVANCED METHODS OF WASTEWATER TREATMENT	Topic RESOURCE RECOVERY FROM HAZARDOUS WASTES	Topic OUTCOME OF ENVIRONMENTAL AUDIT: A CASE STUDY
08:00 PM to 00:30 PM					05:00 PM to 06:30 PM
08:00 PM to 09:30 PM Session-2 DR. SANJAY TEWARI Associate Teaching Prof., Missouri University of Science & Tech. USA					Session-13  MR. ASHISH MEHTA  VP, Technical Service,  Luthra Group of  Industries, Surat
Topic ELECTROCHEMICAL TECHNOLOGIES FOR WASTE WATER TREATMENT					Topic CONCEPT OF ZERO LIQUID DISCHARGE (ZLD) FOR COMMON EFFLUENT TREATMENT PLANT (CETP) OPERATIONS
					06:30 PM-07:30 PM ONLINE TEST & FEEDBACK
					07:30 PM-08:00 PM VALEDICTORY SESSION