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One Week Online Faculty Development / Training Program On “Process Optimization”

October 14-18, 2024



Organized by
**Chemical Engineering Department
& IChE Student Chapter- SRICT**



UPL University of Sustainable Technology

Block No. 402, Ankleshwar-Valia Road, Ta: Valia,
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Chemical Engineering

About UPL University

UPL University of Sustainable Technology is the first private University of Sustainable Technology of Gujarat and India. University's vision is to be a world class university to impart knowledge, quality education and develop leaders required by allied industry. Shroff S R Rotary Institute of Chemical Technology (SRICT) was affiliated to GTU since 2011, is now affiliated to "UPL University of Sustainable Technology" from academic year 2021-22. UPL University of Sustainable Technology offers Diploma Engineering, Bachelor of Engineering, and Master of Engineering under Shroff S.R. Rotary Institute of Chemical Technology and. B.Sc. Chemistry. Microbiology & M.Sc. Chemistry under Institute of Science & Research from academic year 2021-22. The University also provides education in Process Safety, Environmental Sustainability, Automation & Robotics and PhD in various streams of science and engineering.

About Chemical Engineering Department

The department of Chemical Engineering was founded in 2011 and accomplished great things in attaining educational excellence in a short period of time. The department offers DE, BE, ME, and PhD degrees in Chemical Engineering. The

department is well equipped with cutting-edge laboratories. For mutual advantage, the department has also established R&D Laboratories with generous support from companies located in and around Ankleshwar and the Bharuch Chemical Industrial Hub. The department has well qualified and experienced (Academic and Industrial) faculty members having their PhDs from various reputed institutes i.e., IITs, NITs, ICT and renowned foreign universities. With a strong Industry-Institution-Interaction, the department provides a range of training programs for industry personnel which includes Chemical Engineering for Non-Chemical Engineers, Performance Acceleration in Chemical Engineering, Piping Engineering, Plant Operator and Refresher Courses on various unit operations.

About FDP/ Training Program

Process Engineering, which covers scheduling, design, control, operations, and parameter estimates, is the area of Chemical Engineering where optimization has the biggest impact. This FDP is intended to learn: theoretical underpinnings of optimization fundamentals, Hybrid models and multi objective modelling, Optimization of chemical engineering problem using MATLAB, Machine learning for modelling, control and optimisation for various sectors like energy, environment, healthcare, and Significance of process optimization in R & D and technology scale up.

Outline of contents

The program include introduction to process optimization, fundamental concepts of process optimization, modelling of chemical engineering system, software tools for finding the optimum solution using different techniques.

Participants

Faculty members, Professional from Industry, Researchers and Students.

How to apply

The participants are required to fill-up the personal, institute details should and attach screenshot of payment in the Google form <https://forms.gle/LQFxpTEorfF8bdBHA> on or before - 12th October 2024.

Note: Seats are limited. Faculty members will receive FDP certificate, Professional from Industry, Researchers and Master's Students will receive Training Program certificate at the end of program. The online platform will be **Microsoft Team** for the FDP.

FDP Schedule

Date	Program
14/10/2024 2.30pm to 5.00pm	Inauguration (2.30pm to 3.00pm)
	Chief Guest: Mr Sunil Thakar , National President, Indian Institute of Chemical Engineers-IICHe
	Basics of Process Optimization Dr Rakesh Sinha UPL University, Ankleshwar
15/10/2024 3.00pm to 5.00pm	Hybrid Models and Multi-objective Modelling using Aspen HYSYS Dr Ratnadip R Joshi MIT, World Peace University, Pune
16/10/2024 3.00pm to 5.00pm	Optimization of Chemical Engineering Problem: MATLAB Applications and Case Studies Prof Milind Joshipura Nirma University, Ahmedabad
17/10/2024 3.00pm to 5.00pm	Machine Learning for Modelling, Control and Optimisation for Energy, Environment, and Healthcare Systems Prof Vivek Dua University College London, London
18/10/2024 3.00pm to 5.00pm	Process optimization: Significance in R&D and Technology Scale up Prof Abhishek Sharma Manipal University, Jaipur



Course Registration Fees: Rs. 300/-
Scan QR Code for Payment of
Registration Fees
Last Date of Registration: 12/10/2024

About Speakers



Prof Vivek Dua

for solving complex optimisation problems under uncertainty for process, energy, environment and healthcare systems engineering problems. He has disseminated his research through more than 200 papers, conference proceedings, book chapters and presentations. His teaching activities include modules related to computational modelling and process design.



Prof Abhishek Sharma

and development in the oil and gas sector. His current focus on converting waste such as industrial sludge, tyre, plastic, agricultural residue and MSW to value added products at decentralized level, as part of sustainability and the circular economy.

For further details, contact

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Prof Milind Joshipura

includes Thermodynamics, Process Simulation & Process Integration. His area of research includes phase equilibrium studies, process simulations & green solvents.



Dr Ratnadip Joshi

Assignments from Industry. He worked in the diversified field of Chemical Engineering which includes Chemical, Petrochemical, Petroleum, Polymer, Paints etc. Applications of advanced modular simulators as Aspen Plus, HYSYS, Honeywell's UniSim, OLGA.



Dr Rakesh Sinha

optimization. Core area includes Pinch Technology, Multi objective and multi criteria decision making, carbon and energy minimization. Applications of GAMS and ASPEN simulations.

Professor **Milind Joshipura** is working as a Professor and Head of Chemical Engineering Department, Nirma University, Ahmedabad, India. He has more than 20 years of experience in teaching. His teaching interest

Dr Ratnadip Joshi is working as associate professor and has a wide experience of 20 years of teaching, 2 years in industry with simultaneous 15 years of consultancy. He is engaged in R & D activities and consultancy

Dr Rakesh Kumar Sinha is working as assistant professor and has completed his PhD in Optimization Techniques for Sustainable Planning in Process Industries from IIT Patna. His area of expertise is mathematical modelling and