

Finishing School Program (Online Internship)-2021

Name of Department	Department of Chemical Engineering
Module Name	Process Integration & Automation in Chemical Industries
Module Coordinators	1)Prof. Sulochana Nagar 2)Prof. Swati Gupta 3) Dr. Pratap Singh
Module Objective	To develop understanding and equip the learners with the technical know-how about process automation and system oriented, thermodynamics-based, integrated approaches to the analysis, synthesis and retrofit of process plant.
Module Content	i)Introduction to process integration and automation ii)Concepts Related to heat integration iii)Pinch Technology iv)Integration of Distillation Column, Evaporators and furnaces v)Chemical Plant Utilities. vi) Automation in production systems vii) Automation Principles and strategy viii) PLC, DCS and SCADA Basics ix) Live interaction with industry person
Module Methodology	Online learning and Interactive sessions of 2-3 hours per day would be conducted on online learning platforms such as ZOOM/WEBEX/UNACADEMY/Google-Meet. The sessions will be accompanied by tutorials. Assignment would be given on weekly basis. In addition to this, 2 online interactions with industry personnel on the module theme will also be conducted. The performance of the learner would be assess based on the assignment submission and a quiz at the end of the program.
Module Outcome/ Impact	After the successful completion of this finishing school module, the learners would acquire the technical knowledge of Chemical process Integration and Automation. This would enable them to develop a practical understanding of a Process industry setup and have an edge over others while appearing for interviews and selection in the core process industry sector after completion of their professional degree. In addition, this program will help the learners to assimilate the essence of chemical engineering applied to industrial scenario.
Duration	15 days

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Day Wise Schedule				
	Date	Day	Module Contents to be covered/Interactive Session/Assignment/Quiz/Exercises/Daily practice sheets (DPP)/Tutorial/Project etc (10:00 AM onward, 2-3 Hrs./ Day)	Faculty
Week 1	14/05/2021	Fri	Introduction to process integration, Need for process integration, Idea Generation and Tutorial Session	Prof. Sulochana Nagar
	15/05/2021	Sat	Introduction to Process Automation, Current Process Industry scenario, Demonstration Video	Prof. Swati Gupta
	17/05/2021	Mon	Introduction to Chemical Plant Utility and their Features, Demonstration video and Exercise	Prof. Sulochana Nagar
	18/05/2021	Tue	Methods and Applications of Process Integration, Basic concepts of Process Automation, Tutorial	Prof. Sulochana Nagar & Prof. Swati Gupta
	19/05/2021	Wed	Role of sensors and Actuator in automation	Dr. Pratap Singh
	20/05/2021	Thu	Concepts related to Heat Integration & Introduction to Pinch Technology	Prof. Sulochana Nagar
Week 2	21/05/2021	Fri	Process Model & Dynamics Behavior of Process and Exercise	Prof. Swati Gupta
	22/05/2021	Sat	Pinch Technology: Data Extraction & Tutorial	Prof. Sulochana Nagar
	24/05/2021	Mon	Hot Composite Curve, Cold Composite curve & Tutorial	Prof. Sulochana Nagar
	25/05/2021	Tue	Basics of PLC and DCS and its features, Demonstration Video and Exercise	Prof. Swati Gupta
	26/05/2021	Wed	Energy Targeting & Grand Composite curve & Tutorial	Prof. Sulochana Nagar
	27/05/2021	Thu	Basics features of SCADA and Overview of an automatic industrial plant, Live session with industry person	Prof. Swati Gupta Prof. Sulochana Nagar & Dr. Pratap Singh

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Week 3	28/05/2021	Fri	Heat Integration of Evaporators, Distillation Column & Furnace & Demonstration Video	Dr. Pratap Singh
	29/05/2021	Sat	Assessment Quiz	Prof. Sulochana Nagar Prof. Swati Gupta Dr. Pratap Singh
	30/05/2021	Sun	Feedback & Interaction and live session with industry person	Prof. Sulochana Nagar Prof. Swati Gupta Dr. Pratap Singh
Module Coordinators Email Id and Mobile Number		1) Prof. Sulochana Nagar – saloinagar123@mitsgwalior.in , (7248489813) 2) Prof. Swati Gupta – swatig128@mitsgwalior.in , (9977820544) 3) Dr. Pratap Singh- prataphbti@gmail.com (6387675280)		

Eligibility and Important Instructions :-

1. The Online Finishing School Program (Online training/Internship) is designed only for Pre-Final Year students of Chemical Engineering Department.
2. The students may apply online.
3. The Online Finishing School Program/ Summer Internship Program is free for the participants of Pre-Final year students of MITS, Gwalior.
4. The participants outside the Institute may also join the Program on payment basis.
5. This online module will be conducted under the Finishing School Program which will be considered equivalent to Online Internship of Pre-final year students who could not get any Training/ Internship during May – June 2021.
6. Duration of this program will be of 15 days which is equivalent to summer Internship period as per AICTE and the Institute policy. Daily no. of hours of online training may be flexible.
7. Certificates will be issued to candidates who have attendance 75% or more and also score more than 60% in the assessment test.