



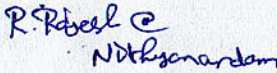
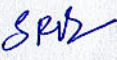
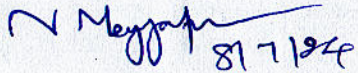
Department of Chemical Engineering		LP: CH18712
B.E/B.Tech/M.E/M.Tech : B.Tech		Rev. No: 00
Regulation:2018A		Date: 08.07.24
PG Specialisation : NA		
Sub. Code / Sub. Name : CH18712 Process Simulation Laboratory		

Session No*	List of Experiments
CYCLE-I	
1	Thermodynamic property estimations using property estimation and property analysis using Aspen Plus
2	Simulation of mixer, splitter, heat exchanger and reactive distillation column using Aspen Plus
3	Comparing the conversion efficiency of various reactors using Aspen Plus
4	Simulation of an ideal binary distillation column using Aspen Plus
5	Simulation of methane combustion reaction using Aspen Plus
6	Dynamic simulation of a continuous stirred tank reactor using Aspen HYSYS
CYCLE-II	
7	Determination of design parameters of packed bed absorption column using Aspen HYSYS
8	Steady state tray composition profile for an absorption column using MATLAB
9	Liquid phase series reactions in a batch reactor – concentration profile estimation using MATLAB
10	Step response and sinusoidal response of a first order system using MATLAB-Simulink
11	Heat Transfer Through a Plane Wall Using MATLAB Simulink-Simscape
12	Laminar pipe flow – 3D profile analysis using SIMFLOW
Content beyond syllabus (if any):	
Temperature profile of double pipe heat exchanger operating co-current and counter current using MATLAB.	

* Session Duration: 150 minutes



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	Prepared by		Approved by
Signature			
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Designation	Associate Professor	Assistant Professor	Professor and Head of the Department
Date	08.07.2024		08.07.2024
Remarks* :			
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* If the same lab plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD