

1.3.2 Number of Value-added courses imparting transferable and life skills

Department of Chemical Engineering

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HoD Chem
HEAD OF THE DEPT. OF
CHEMICAL ENGINEERING
GMRIT, RAJAM.

Dr M Krisna Prasad

GMR INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CHEMICAL ENGINEERING

Ref: GMRIT/CHEM/CIR/2020


23.03.2021

Sub: Value Added Course Registration-Reg

Our Department is organizing value added course on “**Chemical Process Simulation using DWSIM**” during 30.03.2021 to 11.04.2021 for the 3rd Year students on **online mode**. The industrial expert Dr Pavan Kumar V, Principal Product Assurance Engineer, Cognigent, Hyderabad. The students who are interested can register the names with Dr. H Joga Rao on or before 28th March 2021, the detailed syllabus and course Schedule displayed in the Notice board



Value Added/AddOn/OneCredit
Course Coordinator



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Dr M Krishna Prasad

CC: Principal
3rd Year Class
Hostel office
Department Notice board

Chemical Process Simulation using DWSIM (Value Added Course)

Intended Learning Outcome (s)

1. Enable to create flow sheet for given process manufacturing unit
2. Simulate the flow sheet and get the Optimized process operating parameters

Preamble: DWSIM allows chemical engineering students and practicing engineers to model process plants by using rigorous thermodynamic and unit operations models. Since DWSIM is free/library and open-source, they can see how the calculations are actually being done by inspecting the code behind during execution using tools available

Syllabus/Topics to be covered

1. Create a material stream
2. Simulate pressure changers
3. Simulate heater/cooler/heat exchangers
4. Create binary phase envelope
5. Simulate reactors
6. Perform sensitivity analysis and adjust
7. Simulate separation columns
8. Simulate process flow sheets using DWSIM

15 Hours

Useful Material (s)

1. <https://forums.spoken-tutorial.org/filter/DWSIM/>



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Dr M Krisna Prasad


Department : Chemical Engineering
Year & Semester : B. Tech - 5th Semester

Value Added Course on Chemical Process Simulation using DWSIM

S.No	JNTU No	Name of the Student	30.03.21		31.03.21		01.04.21		02.04.21		03.04.21		04.04.21				05.04.21		06.04.21		07.04.21		08.04.21		09.04.21		10.04.21		11.04.21			
			S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S11	S12	S13	S14
1	18341A0801	ANKINAPALLI VISHNU VARDH	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	18341A0802	ANUMUKONDA N V RAMAKRIS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P
3	18341A0803	BADUGU SRIKANTH	A	A	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	18341A0804	BUSAYAVALASA RAMAKRISH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	18341A0806	CHENCHALI ESWARA RAO	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	18341A0807	CHINTADA SATISH	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	18341A0808	DANNANA BURN BOSS	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	18341A0809	DANTULURI SAI PHANINDRA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	18341A0810	KANAPARTHI TEJASWINI	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	18341A0811	MUNGAM DAMODHARA RAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	18341A0812	PATSA RESHMA SAI SAMBHA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	18341A0813	POLUMURU HRUTHIK KESAV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
13	18341A0814	POTHINA NEELESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
14	18341A0815	PULAVARTHI HARINISRI MANI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	18341A0816	RAKESH PATNAIK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	18341A0817	SIVAKOTI KIRAN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	18341A0818	THUMMALA DINESH	P	P	P	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	18341A0819	VAKA VENKATESH	A	A	P	P	A	A	P	P	P	P	A	A	A	A	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P
19	18341A0820	VEMPALA DURGA PRASAD	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P
20	19345A0801	MUDUNURU KIRAN KUMAR	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	19345A0802	GULLA KALYAN REDDY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Coordinator Value Added Courses



HoD Chem
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GMRIT, RAJAM,
Dr M Krisna Prasad

GMR INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CHEMICAL ENGINEERING

Ref: GMRIT/CHEM/CIR/2020

23.01.2021


Sub: Value Added Course Registration-Reg

Our Department is organizing value added course on “**SCI Lab for Chemical Process Application**” during 07.02.2021 to 19.02.2021 for the 2nd Year students on **online mode**. The industrial expert Mr Gopee Krishna K, Lead Process Engineer, Dow Chemical’s International, Chennai. The students who are interested can register the names with Dr. H Joga Rao on or before 4th December 2020, the detailed syllabus and course Schedule displayed in the Notice board



Value Added/AddOn/OneCredit

Course Coordinator



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Dr M Krisna Prasad

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3rd Year Class
Hostel office
Department Notice board

SCI Lab for Chemical Process Application (Value Added Course)

Intended Learning Outcome (s)

1. Enable to create flow sheet for given process manufacturing unit
2. Simulate the flow sheet and get the Optimized process operating parameters

Preamble: The Scilab is a scientific software package for numerical computations under development since 1990 by researchers from INRIA and ENPC, and since May 2003 maintained and developed by Scilab Consortium. Scilab provides a powerful open computing environment for engineering and scientific applications including hundreds of mathematical functions with the possibility to add interactively programs from languages such as C, and Fortran. It has a sophisticated data structures (including lists, polynomials, rational functions, linear systems, to name a few), an interpreter and a high level programming language. Amongst the most important available toolboxes are: (a) 2-D and 3-D graphics, (b) linear algebra, (c) polynomials and rational functions, (d) ordinary and algebraic differential Equations solvers (ODE and DAE), (e) control, (f) optimization, (g) System modeler/Simulator (Scicos), (h) Graphs and Networks, (i) signal processing, (j) Parallel calculations, (k) Statistics, (l) interface to several important softwares, (m) Neural networks, and (n) fuzzy logic inference toolbox

Syllabus/Topics to be covered

- | | |
|---|---------|
| 1. Mathematical Modeling | 3 class |
| 2. Simulation of flow sheets | 3 class |
| 3. Estimation of thermodynamic properties | 3 class |
| 4. Chemical process calculations | 3 class |
| 5. Xcos applications of process control | 3 class |

15 Hours

Useful Material (s)

1. Patwardhan, S.,C., Lecture Notes for Computational Methods in Chemical Engineering
2. McCabe, L.,W., Smith, J.,C., Harriott, P., Unit Operations of Chemical Engineering, Fifth Edition, 1993
3. Fogler, H.,S., Elements of Chemical Reaction Engineering, Third Edition, 2004,
4. Luyben, W., L., Process Modeling, Simulation, and Control for Chemical Engineers, Second Edition, 1990


Department : Chemical Engineering
Year & Semester : B. Tech - 3rd Semester

Value Added Course on SCI Lab for Chemical Process Application

S.No.	JNTU No	Name of the Student	07.2.21		08.2.21		09.2.21		10.2.21		11.2.21		12.2.21		13.2.21				14.2.21		15.2.21		16.2.21		17.2.21		18.2.21		19.2.21			
			S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30
1	19341A0801	AAKI UMA MAHESWARA SUBRAHMA	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
2	19341A0802	BALAGA PRAVEEN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A
3	19341A0803	BEVARA BHANUPRAKASH	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	19341A0804	BUDIDA LIKHIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	19341A0805	GEDELA HARSHA SRIRAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	
6	19341A0806	GEDELA YESWANTH	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	19341A0807	INAMALA ADITHYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
8	19341A0808	JAVANA KIRANKUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
9	19341A0809	MADASU PRAKASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
10	19341A0810	NETHALA PAUL SAILAS RAJU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
11	19341A0811	PULAKHANDAM PAVAN KUMAR	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
12	19341A0812	SADI SURESH	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
13	19341A0813	SAI PAVAN KUMAR VANDANA	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
14	19341A0814	SALADI PAUL JOHNSON	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
15	19341A0815	SANTOSH KUMAR LENKA	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
16	19341A0816	URITI BHANUTEJA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
17	19341A0817	VEMIREDDI SATYANARAYANA	P	P	P	P	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
18	19341A0818	VYSYARAJU UDAYA RAJU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
19	20345A0801	BATHULA GNANA PRASUNA	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
20	20345A0802	PEELA RAMESH	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
21	20345A0803	KANITHI S P B SATYA BHASKARA SR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
22	20345A0804	CHEBOLU VAMSI PRAKASH	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
23	20345A0805	KURRU NIKHIL	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
24	20345A0806	G NAGA GAYATRI DEVI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
25	20345A0807	KURITI TARUN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
26	20345A0808	YELLAPU MAHENDRA NAIDU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
27	20345A0809	MUNJARAPU SUHRUDAY KUMAR	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
28	20345A0810	JONNALA ANIL KUMAR REDDY	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	



Co-ordinator Value added Courses



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