Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956

SCHOOL OF ELECTRICAL ENGINEERING

Value Added Courses (2019 -2020)

Introduction to Process Simulation & Dynamics

Course Objective

Process simulation is based on models. A model should mirror the reality at the degree of accuracy required by the application. Having a good knowledge of the modeling background is compulsory for getting reliable results and using the software effectively. The course content covers the basic needs of dynamic process simulation users. The attendees will learn the fundamentals of dynamic process modeling using commercial dynamic simulators and the main differences between steady-state and dynamic modeling will be introduced. In addition, the necessary basic control theory will be reviewed briefly. To facilitate an efficient learning experience, all concepts will be studied using simple and practical hands-on examples. The basic unit operations are introduced in a stepwise manner with the objective of being able to build dynamic process flowsheets by the end of the course. The theory is used to introduce the objectives of every module in the course as well as to help attendees to understand how the underlying calculations are performed. The use of several software functionalities will show users how to explore operating alternatives for the processing plant units that are being studied.

Resource Persons:

1. Dr.S.Arulselvi
2. Ms.M.Ramya
3. Ms.S.Philomina

Convener:

Dr.M.Sangeetha

HOD/ECE

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Requisition Letter Date: 21.01.2020

From

The HOD,
ECE Department,
Bharath Institute of Higher Education and Research,
Selaiyur, Chennai.

To

The Dean Engineering,
Bharath Institute of Higher Education and Research,
Selaiyur, Chennai.

Respected Sir,

SUB: Requisition for conducting Value Added Course-Regd

School of Electrical Engineering has planned to conduct Value added Course on **"Introduction to Process Simulation & Dynamics"** on 03.02.2020. In this regard, we kindly request you to grant permission for the same.

Thanking you

HOD/ECE

Dean Engineering

DEAN (Engineering)
Bharath Institute of Science & Technology
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Selaiyur, Chennai-600 073.

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CIRCULAR

SCHOOL OF ELECTRICAL ENGINEERING

Date: 23.01.2020

The course on **"Introduction to Process Simulation & Dynamics"**is planned by the School of Electrical Engineering which commences on 03-02-2020(Monday).In this regard, the students are requested to give their will to the Course Coordinator. It is instructed to actively participate and get benefitted from the certified course.

Course Coordinator: G.Meena kumari
Contact No: 9001485989
Email id : meenakumari.ece@bharathuniv.ac.in

(Dr.M.Sangeetha)
HOD/ECE

To,
Copy to ECE Department,
Copy to EEE Department,
Department Notice Board

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SCHOOL OF ELECTRICAL ENGINEERING

Introduction to Process Simulation & Dynamics

SCHEDULE

Contact Hours: 32 hrs

DATE	SESSION	Contact Hours	TOPICS	Resource person
03-02-2020	FN	9.00 am to 12.30 pm	Principles of model formulation, Role and importance of steady-state and dynamic simulation.	Dr.S.Arulselvi
	AN	1.30 pm to 4 pm	Classification of models, Model building, Modeling difficulties.	Dr.S.Philomina
04-02-2020	FN	9.00 am to 12.30 pm	Degree-of-freedom analysis, Selection of design variables, Review of numerical techniques	Dr.S.Arulselvi
	AN	1.30 pm to 4 pm	Equations of continuity, energy, momentum, and state, Transport properties, Equilibrium and chemical kinetics,	Ms. M.Ramya
05-02-2020	FN	9.00 am to 12.30 pm	Review of thermodynamic correlations for the estimation of physical properties.	Dr.S.Philomina
	AN	1.30 pm to 4 pm	Constant and variable holdup CSTRs under isothermal and non-isothermal conditions, Stability analysis, Gas phase pressurized CSTR, Two phase CSTR	Ms. M.Ramya
06-02-2020	FN	9.00 am to 12.30 pm	Heat conduction in a bar, Laminar flow of Newtonian liquid in a pipe, Gravity flow tank, Single component vaporizer.	Dr.S.Arulselvi
	AN	1.30 pm to 5 pm	Multi-component flash drum, Absorption column, Ideal binary distillation column.	Dr.S.Philomina
07-02-2020	FN	9.00 am to 12.30 pm	Simulation: Simulation of the models, Sequential modular approach, Equation oriented approach.	Ms. M.Ramya
	AN	1.30 pm to 5 pm	Partitioning and tearing, Introduction and use of process simulation software (Aspen Plus/ Aspen Hysys) for flow sheet simulation.	Dr.S.Philomina

VALUE ADDED COURSE

SCHOOL OF ELECTRICAL ENGINEERING

Introduction to Process Simulation & Dynamics

List Of Participants

Date: 07.02.2020

S.No	REG.NO	NAME OF STUDENT
1.	U16EC037	SANNUTHI VINAY NAGA PRANEETH .
2.	U16EC038	TELLAMEKALA PRADEEP KUMAR .
3.	U16EC039	MATTAPALLI SAI SRIKANTH YADAV .
4.	U16EC040	PULI NAGANATH REDDY .
5.	U16EC041	KOTTRA ANUSHA GOUD .
6.	U16EC042	RADHAKRISHNA K
7.	U16EC043	KAPULURI MARUTHI RAO .
8.	U16EC044	RAMPRASATH T
9.	U16EC045	KAPULURI VENKATESWARLU
10.	U16EC047	VEMULA SIVA SANKAR VARAPRASAD
11.	U16EC085	AJITH A K
12.	U16EC513	BUSETTY LIKITHESH
13.	U16EC701	RAHUL K
14.	U16EC702	ESWARCHANDRA PRASAD T
15.	U16EC048	GUDLURU SUMANTH
16.	U16EC049	KUCHULA SAIKUMAR REDDY

17.	U16EC050	KOTA VENKATA SIVA PRASAD REDDY
18.	U16EC051	GANGASANI SAI NANDA GOPAL REDDY
19.	U16EC052	POKALA SUDHARSHAN REDDY .
20.	U16EC053	CHINTALA GANESH
21.	U16EC054	TAMATAM HARSHAK REDDY .
22.	U16EC055	DURGAPRASAD M
23.	U16EC056	YANDRA SAI VENKAT .
24.	U16EC057	AKASH KUMAR C
25.	U16EC058	BHASHAKARLA GOPIKRISHNA
26.	U16EC059	MADDIBOINA GIRI BABU .
27.	U16EC060	MASANAM TARUN
28.	U16EC061	ANIL KUMAR N E
29.	U16EC062	KALLURI RAMA KSRISHNA .
30.	U16EC063	YALAMANDALA SANDHYA
31.	U16EC064	RACHARLA VENKATNARAYAN
32.	U16EC065	MAHESH.

(Dr.M.Sangeetha)

HOD/ECE

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SCHOOL OF ELECTRICAL ENGINEERING

VALUE ADDED COURSE

Introduction to Process Simulation & Dynamics

FEED BACK FORM					Date : 7/2/2020
Name	Chintala Ganesh				
Register number	U16EC053				
	Poor	Fair	Good	Very Good	Excellent
Overall Program					
TheSpeaker					
Audio,Visual Aids Technology used					
Presentation hand outs					

Student Signature

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SCHOOL OF ELECTRICAL ENGINEERING

VALUE ADDED COURSE

Introduction to Process Simulation & Dynamics

FEED BACK FORM				Date: 7/2/2020	
Name	Akash Kumar. C				
Register number	U16EC057				
	Poor	Fair	Good	Very Good	Excellent
Overall Program				✓	
The Speaker				✓	
Audio,Visual Aids Technology used					✓
Presentation hand outs				✓	

Student Signature

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SCHOOL OF ELECTRICAL ENGINEERING

Course on "Introduction to Process Simulation & Dynamics " dated on 07.02.2020 conducted by school of Electrical Engineering.

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INSTITUTE OF HIGHER EDUCATION AND RESEARCH

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NAAC

ABET

SCHOOL OF ELECTRICAL ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms. **RADHAKRISHNA K** has attended Values added Course on **"Introduction to Process Simulation & Dynamics"** Organized by the school of Electrical Engineering, BIHER conducted from 03-02-2020 to 07-02-2020.

Dr S Arulselvi
COURSE COORDINATOR

Dr. M.Sangeetha
CONVENOR