



**DEPARTMENT OF CHEMICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY,
TIRUCHIRAPPALLI**

COURSE PLAN – PART I			
Course Title			
Course Code	CLLR17	No. of Credits	2
Course Code of Pre-requisite subject(s)	CLPC25		
Session	July, 2018 2019 <i>EP</i>	Section (if, applicable)	A / B
Name of Faculty	Dr. T.K. Radhakrishnan Dr.N.Samsudeen	Department	Chemical Engineering
Email	radha@nitt.edu / samsudeen@nitt.edu	Telephone No.	04312503104 / 04312503119
Name of Course Coordinator(s) (if, applicable)	Dr. Meera Sheriffa Begum		
E-mail	meera@nitt.edu	Telephone No.	0431-2503109
Course Type	<input checked="" type="checkbox"/> Core course <input type="checkbox"/> Elective course		
List of Experiments (approved in BoS)			
1. I & II Order System Dynamics 2. Interacting & non interacting Systems 3. Flapper - Nozzle system and I/P and P/I 4. Control valve characteristics 5. Pressure control Trainer 6. Flow control system 7. Temperature control system 8. Level Control System 9. PID control Design experiment using MATLAB			
REFERENCE BOOKS			
1. Process Control Laboratory Manual 2. D.R. Coughanowr and S. E. LeBlanc, 'Process Systems Analysis and Control', Mc.Graw Hill, III Edition, 2009.			
COURSE OBJECTIVES			
To impart hands on experience on various process control systems and instrumentation			
COURSE OUTCOMES (CO)			
Course Outcomes	Aligned Programme Outcomes (PO)		



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1. Able to apply the theoretical knowledge while performing experiments for different chemical engineering processes	PO1, PO3, PO4, PO5, PO8, PO9, PO10, PO11, PO12
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COURSE PLAN – PART II

COURSE OVERVIEW

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week /Contact Hours	Topic	Mode of Delivery
1.	1 st week	Introduction about Process Dynamic Control Laboratory	Chalk and Talk
2.	2 nd week	I & II Order System Dynamics	Experiment will be carried out by students
3.	3 rd week	Interacting & non interacting Systems	Experiment will be carried out by students
4.	4 th week	Flapper - Nozzle system and I/P and P/I	Experiment will be carried out by students
5.	5 th week	Control valve characteristics	Experiment will be carried out by students
6.	6 th week	PID Control	Experiment will be carried out by students
7.	7 th week	Pressure Control Trainer	Experiment will be carried out by students
8.	8 th week	Flow control System	Experiment will be carried out by students
9.	9 th week	Temperature Control System	Experiment will be carried out by students
10.	10 th week	PID controller Design experiment using MATLAB	Experiment will be carried out by students

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Internal Assessment	Every week during lab hours	During lab hours	50
2	Practical Lab examination	After 10 th week	1 hours test	30
3	Viva voce examination	After Practical examination	3 hours	20

***mandatory; refer to guidelines on page 4**

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)



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Feedback from students at the end of the each assessment

COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment, , academic honesty and plagiarism etc.)

MODE OF CORRESPONDENCE (email/ phone etc), Students may be contacted to my mail id (radha@nitt.edu) for queries related to PDC Lab.

ATTENDANCE

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

COMPENSATION ASSESSMENT

No compensation assessment will be given.

ACADEMIC HONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

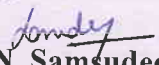
The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION

Apart from the books mentioned in the syllabus, students may follow any other relevant books for the viva voce examination

FOR APPROVAL


Dr. T. K. Radhakrishnan


Dr. N. Samsudeen
Course Faculty


CC-Chairperson

HOD


9/8/2019