

UG	Department: Chemical Engineering
Course Code: CHP316	Course Name: Process Dynamics and Control Lab
Credit: 2	L-T-P: 0-0-3
Version: 1	Approved on:
Prerequisite Course: Nil	
Any Eight experiments are to be performed from the following List of Experiments:	
<ol style="list-style-type: none"> 1. Study of First order Tank level Dynamics 2. Study of Control Valve Characteristics, to obtain Control valve Flow Co-efficient (C_v) 3. Study of Hysteresis of Control valve and the Rangeability of Control valve 4. Study of second order Process Dynamics of U-Tube Manometers 5. Study of second order Process Dynamics of U-Tube Manometers for different manometric fluids 6. Study of Flow Control trainer to study the Open Loop control, closed Loop (auto mode) control / On/Off control. 7. Study of Flow Control trainer to study the proportional control. 8. Study of Flow Control trainer to study the proportional +integral control. 9. Study of Flow Control trainer to study the proportional +integral + derivative control. 10. Study of Process Dynamics of a Two Tank Noninteracting System 11. Study of Process Dynamics of a Two Tank Interacting System 12. Study of temperature Control trainer to study the proportional control. 13. Study of temperature Control trainer to study the proportional +integral control. 14. Study of temperature Control trainer to study the proportional +integral + derivative control. 15. Study of Ziegler–Nichols Tuning Technique to identify the best value of K_c, τ_i, τ_D for a PID controller 16. Study of Cohen Coon tuning technique to identify the best value of K_c, τ_i, τ_D for a PID controller 	