




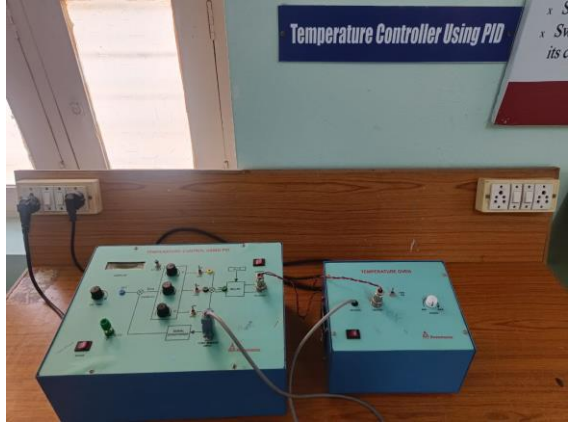
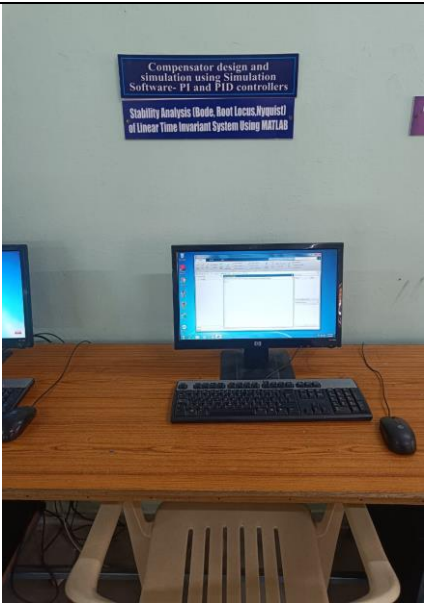
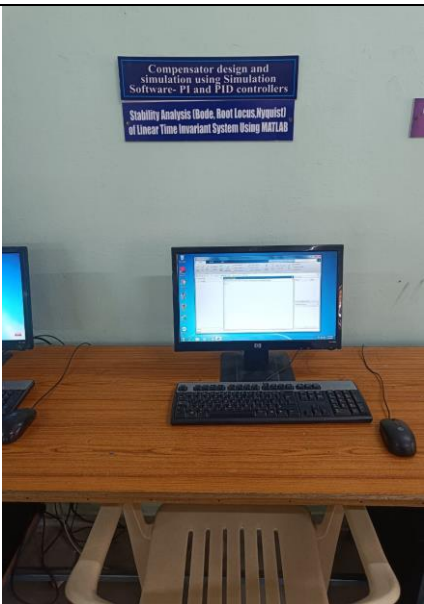


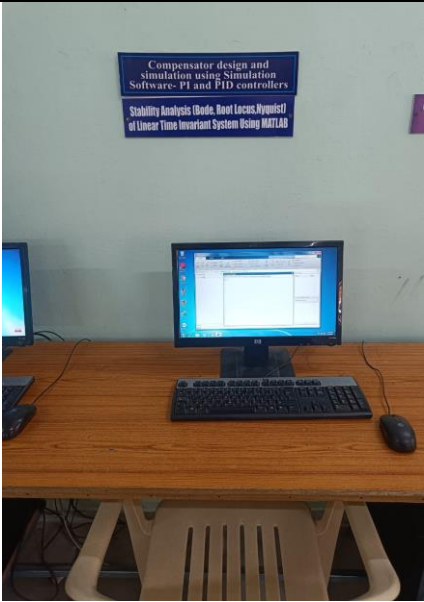
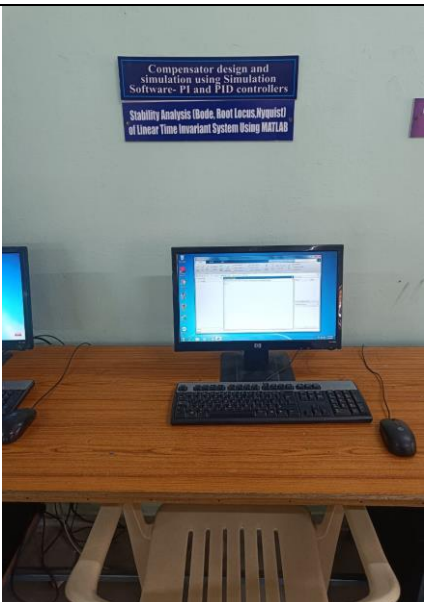
MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
B. Tech II Year II Semester – R 20
CONTROL SYSTEMS LABORATORY – 20EEE207
LIST OF EXPERIMENTS

SI NO	NAME OF THE EXPERIMENTS	Equipment details	Image
Hardware Experiments			
1	Transfer Function of separately excited D.C. Machine	Separately Excited DC Machine Ammeter Voltmeter Connecting wires	
2	Effect of Feedback on DC Servo Motor	DC Servomotor P & PI Controller kit Voltmeter Ammeter Connecting wires	

3	Characteristics of AC Servo Motor	AC Servomotor Tachometer Multimeter Connecting Wires	
4	Effect of P, PD, PI, PID Controller on a Second Order Systems	Effect of P Controller Effect of PI Controller Effect of PD Controller Effect of PID Controller	

5	Lag and Lead Compensation – Magnitude and Phase Plot	<p>Lag Compensation</p> <p>Lead Compensation</p> <p>Controllers</p> <p>Connecting Wires</p> <p>Patch Cards</p>	
6	Temperature Controller Using PID	<p>Temperature Controller Kit</p> <p>PID Controllers</p> <p>Power Cards</p> <p>Patch Cards</p>	
Simulation Experiments			

1	State Space Modeling of DC Motor and validation of its characteristics using Simulation Software	Desktop MATLAB college wide license	
2	Stability analysis (Bode, Root Locus, Nyquist) of LTI system using Simulation Software	Desktop MATLAB college wide license	

3	Compensator design and simulation using Simulation Software - PI and PID controllers	Desktop MATLAB college wide license	
4	State feedback Controller design for Inverted-pendulum using Simulation Software	Desktop MATLAB college wide license	

5

Study of stable and unstable limit cycle behaviors of nonlinear systems using Simulation Software

Desktop
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