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	Transfer Francisco d'Al Basino		
2	Effect of Feedback on DC Servo Motor	DC Servomotor P & PI Controller kit Voltmeter Ammeter Connecting wires	Black of Feedback on 10° Serve I		

3	Characteristics of AC Servo Motor	AC Servomotor Tachometer Multimeter Connecting Wires	Characteristics of 10 Servo Motor -
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	Effect of P. Ph. Ph. Pin Controller on a Second Order Systems William

5	Lag and Lead Compensation – Magnitude and Phase Plot	Lag Compensation Lead Compensation Controllers Connecting Wires Patch Cards	Lead-Lag Compensation Lag and Lead Compensation	
6	Temperature Controller Using PID	Temperature Controller Kit PID Controllers Power Cards Patch Cards	Temperature Controller Using PID Stripe is a second of the second of th	
	Simulation Experiments			

1	State Space Modeling of DC Motor and validation of its characteristics using Simulation Software	Desktop MATLAB college wide license	Compensator design and controllers Soluting longists Bade. Boat Local Applied # Unser Time Invariant System Rising MATLA ### Compensator design and controllers #### Compensator design and controllers ###################################
2	Stability analysis (Bode, Root Locus, Nyquist) of LTI system using Simulation Software	Desktop MATLAB college wide license	Compensator design and simulation using Simulation using Simulation using Simulation Software- PI and Pilo controllers Stability Logic Book faul (suck lymist) of these Time Invariant System Using BUTUB Ultrical Time Invariant System Using BUTUB

3	Compensator design and simulation using Simulation Software - PI and PID controllers	Desktop MATLAB college wide license	Compensator design and stoudardon using Stoudardon using Stoudardon Software-P1 and PID controller. Stability lealysis Bode. Bool Lecus, Papers is in Harris in times time invariant System Using MATALD.
4	State feedback Controller design for Inverted-pendulum using Simulation Software	Desktop MATLAB college wide license	Compensator design and software PI and PID controller. Stability landysk (Bod. Boot Lees, Nyger) (I their Time lever) and System Using MATIAB (I their Time l

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

Desktop

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