Lesson Plan

Name of faculty : Raman Kamboj

Discipline : Electrical Engineering

Semester : 5th

Subject : Control System Lab

Lesson plan duration : 15 weeks

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| Week | Experiment Planned | Actually performed on (date) | Faculty Sign. | HOD ̍s Sign. | DP̛s Sign. |
| 1st | Study of Step Response and Feed Back Properties for first and second order system.  |  |  |  |  |
| 2nd | Error Detector Characteristics and Control Applications of the following. (i) LVDT, (ii) Potentiometer |  |  |  |  |
| 3rd | Performance Analysis of Thermal System and Design using PID/Relay Control |  |  |  |  |
| 4th |  To study the characteristics (using DIGIAC 1750) of (i) Voltage to Current Converter  |  |  |  |  |
| 5th |  To obtain the Frequency Response Characteristics and Design of Compensator for a given system.  |  |  |  |  |
| 6th | To obtain the Transfer Function and Control Characteristics of Servo Motor of DC/AC.  |  |  |  |  |
| **7th** | **1stSessionals** |  |  |  |  |
| 8th | To obtain the Operational Characteristics for the Control Application of the following devices. (i) Stepper Motor, (ii) Temperature Detectors (Thermister, Thermo couple etc.)  |  |  |  |  |
| 9th | Simulation of control systems using MATLAB.  |  |  |  |  |
| 10th |  To obtain the Position Control performance of DC Servo Motor |  |  |  |  |
| 11th | Comparison of different Control Action (P/I/D/Relay) on Industrial Process (Pneumatic/Simulated System.  |  |  |  |  |
| 12th | To study the characteristics (using DIGIAC 1750) of Current to Voltage Converter |  |  |  |  |
| 13th |  To study the characteristics (using DIGIAC 1750) of Voltage to Frequency Converter |  |  |  |  |
| **14th** | **2ndSessionals** |  |  |  |  |
| 15th |  To study the characteristics (using DIGIAC 1750) of Frequency to Voltage Converter |  |  |  |  |