

DEPARTMENT OF ELECTRICAL ENGINEERING INDUSTRIAL POWER LABORATORY-2

EMBEDDED SYSTEMS APPLICATIONS LAB

List of Compulsory Experiments:

1. Energy Management in Centrifugal pumps by Variable Frequency Drive. (EE6491-M.Tech Industrial Power and Automation, EE6291-M. Tech Power System)
2. DSP Programming Experiments.(EE6491-M.Tech Industrial Power and Automation)
 - a) Speed control of BLDC motor (2812/2407 kit).
 - b) Speed control of Induction motor (2812/2407 kit).
 - c) Speed control of DC motor (2812/2407 kit).
3. Stepper Motor speed control and step angle control using 8051 Microcontroller. (EE6491-M.Tech Industrial Power and Automation)
4. Measuring Force and thrust of a Linear Induction Motor. (EE6491-M.Tech Industrial Power and Automation)
5. Measurement of breaking Torque for Eddy Current Control drive. (EE6491-M.Tech Industrial Power and Automation)
6. Simulation of Pick and Place Robot in robot studio software and implementation in ABB IRB 1200 (EE6491-M.Tech Industrial Power and Automation, EE6191-M.Tech Instrumentation and Control System)
7. Vector control drive for 3 phase Induction motor using FPGA. (EE6491-M.Tech Industrial Power and Automation)
8. 1 HP Switched Reluctance Motor with Eddy Current loading arrangement. (EE6491-M.Tech Industrial Power and Automation, EE6391-M. Tech Power Electronics)

List of Desirable Experiments:

1. Effect of voltage control on a three phase Induction motor.
2. Speed control of three phase Induction motor by variable frequency method.