Two Day Workshop on

"Control Of Electrical Drives"

Contents:

DC drives

Speed-torque characteristics: DC separately excited, shunt and series motors; Modified speed-torque characteristics with resistive control; Analysis for speed-torque equations in terms of firing angle and duty cycle; Modified speed-torque characteristics with phase controlled converters and DC-DC converters for continuous conduction and discontinuous conduction; Closed loop speed control schemes; Dynamic model of DC machine; Speed and position control scheme using the dynamic model

Dynamic Modelling and Vector control

Dynamic model of induction motor: ABC reference frame, Arbitrary reference frame, stationary reference frame, rotating reference frame; Principle of Vector control, Field oriented control: Stator Flux Control and Rotor Flux Control; Direct torque control; Comparison of FOC and DTC, Introduction to Synchronous motor and BLDC machine drive