

EE653 Modeling and Simulation of Dynamic Systems

L-T-P-C: **3-0-0-6**

Pre-Requisite: **EE250 Control Systems or Equivalent**

Course Content/ Syllabus

Dynamic systems, Types of dynamic models, Frequency domain based modelling, Time domain based modelling, State space modelling of discrete time systems, Modelling examples of various practical systems. Simulation diagrams of state space models, Simulation of dynamic systems using MATLAB SIMULINK toolboxes.

References:

1. N. S. Nise, *Control Systems Engineering*, John Wiley & Sons, 2008
2. Johnson and H. Moradi, *New Identifications and Design Methods*, Springer-Verlag, 2005
3. S.Majhi, *Advanced Control Theory-Relay Feedback Approach*, Cengage Asia/India Pvt.Ltd, 2009