Dynamic of Structures:


Earthquake Motion And Response: Introduction, Strong motion earthquake, Numerical method for spectra, Elastic spectra, Ground velocity and displacement, Inelastic spectra, Equivalent linear system, Comparison of an elastic and inelastic system.

A seismic Design of Structures: Design data and philosophy of design, Seismic co-efficient, permissible increase in stress and load factor for multistoreyed buildings, Base shear, Fundamental time period of buildings, Distribution of forces along the height, Dynamic analysis using IS:13912, Earthquake resistant construction of buildings, Ductility provision in reinforced concrete construction of structures, Design of water towers, Stack like structures.

Introduction to Machine Foundation Design: Introduction, Design criteria for satisfactory action of machine foundation, Design of reciprocating and impact machines as per IS : code provision, Dynamic analysis of block foundation,


References:
1. Dynamics of Structures by John’s Biggs.
2. Elementary Earthquake Engineering by Jai Krishna & Chander Shekhran.
3. Dynamics of Structures by Janes Biggs.
4. Earthquake Resistant Design by Dowrick-Wiley.
6. Dynamics of structures by Anil K. Chopra.
Dynamic of Structures by Clough and Penzein.