

MECHANICS AND DYNAMICS OF MACHINERY– 9 CFU LM

Logozzo/Castellani (72 ore)

DYNAMICS AND BALANCING OF MACHINES AND MECHANISMS. Dynamics and balancing of motors; Dynamics and balancing of rotors

STUDY OF TRANSIENT REGIMES OF MECHANICAL SYSTEMS. Systems in absolute regime conditions; Systems in periodic regime conditions

MECHANISMS' MOTION STUDY AND SIMULATION. Functional 3D design of mechanisms; 3D motion simulation; 3D kinematic study

LUBRICATION THEORY, MECHANICAL SEALS AND WEAR EVALUATION METHODS. Fundamentals of tribology; Wear evaluation methods; Hydrodynamic lubrication; Hydrostatic lubrication

APPLICATIONS OF HYDRAULIC AND PNEUMATIC SYSTEMS. Hydraulic systems design; Valves and power units; Design of servomotors; Introduction to pneumatic systems

ANALYSIS AND APPLICATION OF VISCOUS SHOCK ABSORBERS. General characteristics and design of mechanical dampers; Tuning and control of damping systems in mechanical applications

MECHANICAL CONTROL SYSTEMS. Theoretical introduction; Numerical analysis for control systems

ANALYSIS AND NUMERICAL MODELLING OF NON-LINEAR MECHANICAL SYSTEMS. Dynamics of non-linear mechanical systems; Numerical simulation of non-linear systems with examples.