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Sommario/riassunto

"Microsystems, or Micro Electromechanical Systems (MEMS), are miniaturized devices with components in the micrometer range that perform complex functions like sensing and actuation. These systems often combine mechanical and electrical parts, such as read-write heads in storage devices or cantilevers in atomic force microscopes. Dynamics studies the movement of interconnected bodies under external forces, with systems modeled as rigid or flexible bodies. Rigid body dynamics use Newton-Euler or Lagrangian equations, while structural dynamics includes stress and strain relations. Vibration examines oscillatory motion around equilibrium. Microsystem dynamics

focuses on the mechanical behavior and response of MEMS to external forces, considering multi-scale and multi-physics factors."-- Provided by publisher.