***•••• Engineering Mechanics**

Basic principles, forces and components of forces in space, principle of moments, Couples, Resultants of force system, Equilibrium of force system (planar systems), free body diagram, Equations of equilibrium, trusses, method of joints, method of joints, trusses, method of sections, friction, law of friction, applications, centroids of area, centroids determined by integration, centroids of composite figures, moments of inertia, definition of moment of inertia, polar moment of inertia, radius of gyration, transfer theorem for moment of inertia, moment of inertia by integration, product of inertia, linear motion, angular motion, projectile, curvilinear motion, Kinetics – Force, Mass, and Acceleration.