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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Dynamic Analysis of Pre-Cast RC Telecommunication Towers Using a Simplified Model -- Materials' Damages Observation for Educational Purposes at BSc Level -- Robust to Illumination Variations Preprocessing for Image Sequence Visualization -- A Parametric Finite-Volume Formulation for Linear Viscoelasticity -- Efficient crack propagation simulation using the superimposed finite element method and cohesive zone model -- New procedure for determination of main technological parameters of rolling mill -- Design of driveline Test Bench for NVH Improvement of Automotive Chassis Components System -- Methodology of Quantitative Evaluation of Structure in Cast Magnesium Alloys -- 3D Mesh Extraction for Transmission Line Matrix (TLM) Modelling -- Different Analysis Strategies for RCC Dam Design -- Forward Modelling of Seabed Logging by Finite Integration (FI) and

	Finite Element (FE) Methods.
Sommario/riassunto	The idea of this monograph is to present the latest results related to design and analysis of materials and engineering structures. The contributions cover the field of mechanical and civil engineering, ranging from automotive to dam design, transmission towers and up to machine design and exmaples taken from oil industry. Well known experts present their research on damage and fracture of material and structures, materials modelling and evaluation up to image processing and visualization for advanced analyses and evaluation.