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Descrizione fisica	1 online resource (141 p.)
Collana	Lecture Notes in Mechanical Engineering, , 2195-4364
Disciplina	621
Soggetti	Machinery Mechanics, Applied Solids Mathematics - Data processing Machinery and Machine Elements Solid Mechanics Computational Science and Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Rotary forging of hollow components with flanges -- On the research technique of mesogene lubrication layer optical properties -- Auto-ignition problem titanium of oxygen and possible ways of solving -- Control of biped walking robot using equations of the inverted pendulum -- An efficient model for the orthogonal packing problem -- Designing a power converter with an adaptive control system for ultrasonic processing units -- Features of multicomponent saturation alloyed by steels -- New modelling and calculation methods for vibrating screens and separators -- Remote monitoring systems for quality management metal pouring -- Acoustic Emission Monitoring of Leaks -- Dynamic model of the two-mass active vibroprotective system -- Structural and Phase Transformation in material of Blades of Steam Turbines from titanium Alloy after Technological Treatment -- Conflicts In Product Development and Machining Time Estimation at Early Design Stages -- Vibrations excitation in cyclic mechanisms due

to energy generated in nonstationary constraints -- Dynamics, Critical Speeds and Balancing of Thermoelastic Rotors -- Influence of plastic deformation on fatigue of titanium alloys.

Sommario/riassunto

This book draws together the most interesting recent results to emerge in mechanical engineering in Russia, providing a fascinating overview of the state of the art in the field in that country which will be of interest to a wide readership. A broad range of topics and issues in modern engineering are discussed, including dynamics of machines, materials engineering, structural strength and tribological behavior, transport technologies, machinery quality and innovations. The book comprises selected papers presented at the conference "Modern Engineering: Science and Education", held at the Saint Petersburg State Polytechnic University in 2013 with the support of the Russian Engineering Union. The authors are experts in various fields of engineering, and all of the papers have been carefully reviewed. The book will be of interest to mechanical engineers, lecturers in engineering disciplines, and engineering graduates.
