Record Nr. UNINA9910299683303321 Autore Ghosh Amitabha Titolo Introduction to Micromechanisms and Microactuators / / by Amitabha Ghosh, Burkhard Corves New Delhi: ,: Springer India: ,: Imprint: Springer, , 2015 Pubbl/distr/stampa **ISBN** 81-322-2144-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (169 p.) Collana Mechanisms and Machine Science, , 2211-0992;; 28 Disciplina 620 620.5 621.8 629.8 Soggetti Machinery Mechatronics Microtechnology Microelectromechanical systems Multibody systems Vibration Mechanics, Applied Machinery and Machine Elements Microsystems and MEMS Multibody Systems and Mechanical Vibrations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction -- Miniaturization and Microsystems -- Scaling Laws: Science of Miniaturization -- Micromechanisms -- Design of Micromechanisms -- Dynamics of Micromechanisms -- Microactuators -- Microfabrication and Futuristic Issues. Sommario/riassunto This book presents a basic introduction to micromechanisms and microactuators, particularly to their basic configurations and design. This book fills the persisting gap in the published literature on the mechanical manipulative aspects of micromechanisms. It also helps in

offering specialized introductory courses on micromechanisms and microactuators not as part of MEMS sensing devices, but as mechanical

manipulative systems. The level of the book is suitable for use in both undergraduate and introductory graduate programmes. The book presents an overview of miniaturization and scaling laws, basic design principles of micro-sized mechanisms and actuators, micro-fabrication processes, and some futuristic issues. The volume contains a large number of figures and illustrations for easy understanding by the readers. It will also be useful to researchers and professionals looking for an introduction to the topic.