1. Record Nr. UNISA996217776603316

Titolo	Small-Scale Robotics From Nano-to-Millimeter-Sized Robotic Systems and Applications [[electronic resource]] : First International Workshop, microICRA 2013, Karlsruhe, Germany, May 6-10, 2013, Revised and Extended Papers / / edited by Igor Paprotny, Sarah Bergbreiter
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2014
ISBN	3-642-55134-3
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (X, 101 p. 84 illus.)
Collana	Lecture Notes in Artificial Intelligence ; ; 8336
Disciplina	629.8932
Soggetti	Artificial intelligence Special purpose computers Health informatics Nanotechnology Nanoscale science Nanoscience Nanostructures Computer science Artificial Intelligence Special Purpose and Application-Based Systems Health Informatics Nanotechnology and Microengineering Nanoscale Science and Technology Computer Science, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Small-Scale Robotics: An Introduction -- Tubular Micro-nano robots: Smart Design for Bio-related Applications -- Addressing of Micro-robot Teams and Non-contact Micro-manipulation -- Progress Toward Mobility in Micro fabricated Milli robots -- From Nano helices to Magnetically Actuated Micro drills: A Universal Platform for Some of the Smallest Untethered Micro robotic Systems for Low Reynolds Number

	and Biological Environments -- Micro Stress Bots: Species Differentiation in Surface Micro machined Micro robots -- Towards Functional Mobile Magnetic Micro robots.
Sommario/riassunto	This book contains selected contributions from some of the most renowned researchers in the field of small-scale robotics, based in large part on invited presentations from the workshop “The Different Sizes of Small-Scale Robotics: from Nano-, to Millimeter-Sized Robotic Systems and Applications,” which was held in conjunction with the conjunction with the International Conference on Robotics and Automation (ICRA 2013), in May 2013 in Karlsruhe, Germany. With many potential applications in areas such as medicine, manufacturing, or search and rescue, small-scale robotics represent a new emerging frontier in robotics research. The aim of this book is to provide an insight to ongoing research and future directions in this novel, continuously evolving field, which lies at the intersection of engineering, computer science, material science, and biology.