

1. Record Nr.	UNINA9910299348703321
Titolo	Robotic Building // edited by Henriette Bier
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-70866-X
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (225 pages) : illustrations
Collana	Springer Series in Adaptive Environments, , 2522-5537
Disciplina	690.0688
Soggetti	Artificial intelligence Human-machine systems Control engineering Robotics Automation Buildings - Design and construction Artificial Intelligence Interaction Design Control, Robotics, Automation Building Construction and Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	From Architected Materials to the Development of Large-scale Additive Manufacturing -- Robotic Fabrication Beyond Factory Settings -- Exploring the Industrial Ramifications of Architectural Robotics -- Human-Robot Collaboration -- Robotic Building as Integration of Design-to-Robotic-Production & Operation -- Swarm Robotics, or: The Smartness of 'a bunch of cheap dumb things' -- Adaptive Structures -- Why Make the World Move? -- Inhabiting Adaptive Architecture.
Sommario/riassunto	The first volume of the Adaptive Environments series focuses on Robotic Building, which refers to both physically built robotic environments and robotically supported building processes. Physically built robotic environments consist of reconfigurable, adaptive systems incorporating sensor-actuator mechanisms that enable buildings to interact with their users and surroundings in real-time. These require

Design-to-Production and Operation chains that are numerically controlled and (partially or completely) robotically driven. From architected materials, on- and off-site robotic production to robotic building operation augmenting everyday life, the volume examines achievements of the last decades and outlines potential future developments in Robotic Building. This book offers an overview of the developments within robotics in architecture so far, and explains the future possibilities of this field. The study of interactions between human and non-human agents at building, design, production and operation level will interest readers seeking information on architecture, design-to-robotic-production and design-to-robotic-operation. The chapter "Robotic Building as Integration of Design-to-Robotic-Production and -Operation" of this book is available open access under a CC by 4.0 license at link.springer.com .
