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Titolo	Cybernics [[electronic resource]] : Fusion of human, machine and information systems / / edited by Yoshiyuki Sankai, Kenji Suzuki, Yasuhisa Hasegawa
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Descrizione fisica	1 online resource (338 p.)
Disciplina	003.5 629.8
Soggetti	Robotics Automation Management information systems Computer science Nursing Neuropsychology Biomedical engineering Robotics and Automation Management of Computing and Information Systems Biomedical Engineering and Bioengineering
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 and index.
Nota di contenuto	Cybernics: Fusion of Human, Machine and Information Systems -- Wearable Robot Technology -- Robot Motion Control for Physical Assistance -- Motor Control and Learning -- Movement Disorder and Rehabilitation -- Regenerative Medicine for Spinal Cord Injury Using Olfactory Mucosa Autografts -- Augmented Human Technology -- Haptic Interface and Cybernics -- Introduction to Mediated Communication -- Robotics for Supporting Childhood Education -- Subjectivity-Kansei Computing -- Human–Machine Coagency for Collaborative Control -- Electroneurophysiology and Brain Functional Imaging for Brain-Machine-Interface -- Roboethical Arguments and Applied Ethics: Being a Good Citizen -- Safety and Ethical Issues in the

	Development of Human Assistive Robots -- Standards and Statutes: ‘Soft’ Law and ‘Hard’ Law.
Sommario/riassunto	Cybernics plays a significant role in coping with an aging society using state-of-the-art technologies from engineering, clinical medicine and humanities. This new interdisciplinary field studies technologies that enhance, strengthen, and support physical and cognitive functions of human beings, based on the fusion of human, machine, and information systems. The design of a seamless interface for interaction between the interior and exterior of the human body is described in this book from diverse aspects such as the physical, neurophysiological, and cognitive levels. It is the first book to cover the many aspects of cybernics, allowing readers to understand the life support robotics technology for the elderly, including remote, in-home, hospital, institutional, community medical welfare, and vital-sensing systems. Serving as a valuable resource, this volume will interest not only graduate students, scientists, and engineers but also newcomers to the field of cybernics.