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Altri autori (Persone)	BradleyDavid
Disciplina	621
Soggetti	Automatic control Robotics Automation Engineering design Mathematics - Data processing Internet of things Computer networks - Security measures Artificial intelligence Control, Robotics, Automation Engineering Design Computational Science and Engineering Internet of Things Mobile and Network Security Artificial Intelligence
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Nota di contenuto	System Integration -- Design -- Demographics -- Human -- Machine Interaction -- Ethics -- Manufacturing Technology -- Sustainability -- Education -- Future Application Domains.
Sommario/riassunto	This book, a new and revised edition of "Mechatronic Futures", sets out to identify and discuss the key issues likely to impact on the design and implementation of future mechatronic systems. In doing so, it offers a comprehensive overview of the challenges, risks and options that define the future of mechatronics and provides insights into how these

issues are currently being assessed and managed. The book aims to support mechatronics practitioners in identifying key areas in design, modelling and technology and to place these in the wider context of concepts such as cyber-physical systems, Digital Twins and the Internet of Things and alongside issues such as privacy, security and sustainability. For educators, it considers the potential effects of developments in these areas on mechatronic course design, and ways of integrating these. Written by experts in the field, it explores topics including systems integration, design, modelling, privacy, ethics, lifecycle monitoring, sustainability and other potential future application domains. This new edition contains many new chapters as well as updated and revised chapters from the previous edition, and takes into account how recent significant developments in artificial intelligence and cyber-security are changing how current mechatronic systems are designed, manufactured, operated, used and potentially recycled. Highlighting novel innovations and directions, the book is intended for academics, engineers, managers, researchers and students working in the field of mechatronics, particularly those developing new concepts, methods and ideas.
