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Titolo	Smart Maintenance for Human–Robot Interaction [[electronic resource]] : An Intelligent Search Algorithmic Perspective / / by Bo Xing, Tshilidzi Marwala
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-67480-3
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XXIX, 305 p. 68 illus.)
Collana	Studies in Systems, Decision and Control, , 2198-4182 ; ; 129
Disciplina	629.892019
Soggetti	Robotics
	Automation
	User interfaces (Computer systems)
	Artificial intelligence
	Computational intelligence
	Robotics and Automation
	User Interfaces and Human Computer Interaction
	Artificial Intelligence
	Computational Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to Human Robot Interaction -- Introduction to Smart Maintenance -- Introduction to Intelligent Search Algorithms -- Hardware Capacity - Beginning of Life Perspective -- Hardware Capacity Middle of Life Perspective -- Hardware Capacity End of Life Perspective -- Cyberware Capacity Platform and Middleware Layers Perspective -- Cyberware Capacity Applications Layer Perspective -- Cyberware Capacity Energy Autonomy Perspective -- Human Capacity Physiology Perspective -- Human Capacity Biopsychosocial Perspective -- Human Capacity Exposome Perspective -- Conclusion.
Sommario/riassunto	This self-contained book, written by active researchers, presents up-to-date information on smart maintenance strategies for human–robot interaction (HRI) and the associated applications of novel search algorithms in a single volume, eliminating the need to consult scattered

resources. Unlike other books, it addresses maintaining a smart HRI from three dimensions, namely, hardware, cyberware, and hybrid-asset management, covering problems encountered in each through a wide variety of representative examples and elaborated illustrations. Further, the diverse mathematical models and intelligent systems constructions make the book highly practical. It enables readers interested in maintenance, robotics, and intelligent systems but perplexed by myriads of interrelated issues to grasp basic methodologies. At the same time, the referenced literature can be used as a roadmap for conducting deeper researches.