

Global Perspectives on Robotics and Autonomous Systems: Development and Applications

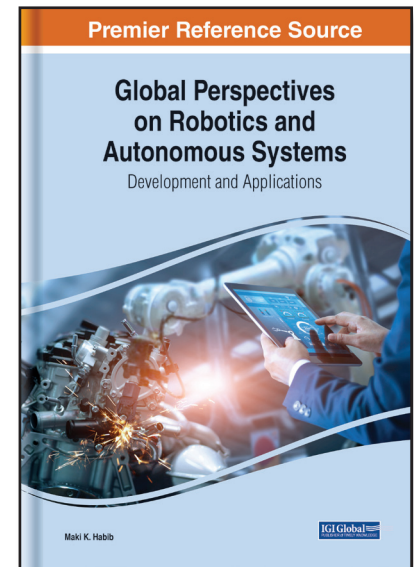
Part of the Advances in Computational Intelligence and Robotics Book Series

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Description:

There is an increasing demand to develop intelligent robotics and autonomous systems to deal with dynamically changing and complex, unstructured, and unpredictable environments. Such robots should be able to handle task varieties, environment dynamics and goal variations, and their complexity. This also highlights the need for having intelligent robotics and autonomous systems with capabilities assuring reliable and robust functions resolving real-time complex problems that are associated with many applications across diverse domains. This requires unconventional ways to develop creative and innovative, energy-efficient, and eco- and environmentally friendly solutions that consider new ways of creative thinking while drawing inspiration from nature as a model leading to creating new designs, intelligent systems, intelligent structures/mechanisms, reconfigurability, and more.

Global Perspectives on Robotics and Autonomous Systems: Development and Applications describes the evolution of robotics and autonomous systems, their development, their technologies, and their applications. This book discusses the concept of autonomy, requirements, and its role in shaping the behavior of these robots so that they can make their own effective and safe decisions and act on them reliably while assuring real-life requirements. Covering topics such as digital transformation, fused deposition modeling (FDM), and organizational unbundling process, this premier reference source is an essential resource for engineers, computer scientists, industry professionals, manufacturers, smart systems developers, data analysts, students and educators of higher educations, researchers, and academicians.



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