1. Record Nr. UNINA9910254990303321

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Titolo	Advanced Technologies in Modern Robotic Applications / / by Chenguang Yang, Hongbin Ma, Mengyin Fu
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2016
ISBN	9789811008306 9811008302
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (428 p.)
Disciplina	004
Soggetti	Artificial intelligence Control engineering Robotics Automation User interfaces (Computer systems) Human-computer interaction Computer vision Artificial Intelligence Control, Robotics, Automation Control and Systems Theory User Interfaces and Human Computer Interaction Computer Vision
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.
Nota di contenuto	1. Kinematics and Dynamics Modeling of Robots -- 2. Intelligent Control of Robot Manipulator -- 3. Visual Servoing Control of Robot Manipulator -- 4. Object Detection and Tracking -- 5. Visual Servoing Control of Robot Manipulator -- 6. Robot Teleoperation Technologies -- 7. Obstacle Avoidance for Robot Manipulator -- 8. Human Robot Interaction Interface -- 9. Indoor/Outdoor Robot Localization -- 10. Multi-agent Robot Systems -- 11. Technologies for Other Robot Applications.
Sommario/riassunto	This book presents in a systematic manner the advanced technologies used for various modern robot applications. By bringing fresh ideas,

new concepts, novel methods and tools into robot control, robot vision, human robot interaction, teleoperation of robot and multiple robots system, we are to provide a state-of-the-art and comprehensive treatment of the advanced technologies for a wide range of robotic applications. Particularly, we focus on the topics of advanced control and obstacle avoidance techniques for robot to deal with unknown perturbations, of visual servoing techniques which enable robot to autonomously operate in a dynamic environment, and of advanced techniques involved in human robot interaction. The book is primarily intended for researchers and engineers in the robotic and control community. It can also serve as complementary reading for robotics at the both graduate and undergraduate levels.