Studies in Computational Intelligence 177

Dikai Liu
Lingfeng Wang
Kay Chen Tan (Eds.)

Design and Control of Intelligent Robotic Systems

Springer

Springer

1st edition

2009, XXIV, 478 p.

Printed book
Hardcover

Printed book
Hardcover
ISBN 978-3-540-89932-7
£ 249,99 | CHF 354,00 | 299,99 € |
329,99 € (A) | 320,99 € (D)
Available

Discount group
Science (SC)

Product category
Monograph

Series
Studies in Computational Intelligence

Other renditions
Softcover
ISBN 978-3-642-10066-6

Engineering : Robotics and Automation

Liu, D., Wang, L., Tan, K.C. (Eds.)

Design and Control of Intelligent Robotic Systems

- **Presents current applications of computational intelligence in autonomous robotic systems**

With the increasing applications of intelligent robotic systems in various ?elds, the - sign and control of these systems have increasingly attracted interest from researchers. This edited book entitled "Design and Control of Intelligent Robotic Systems" in the book series of "Studies in Computational Intelligence" is a collection of some advanced research on design and control of intelligent robots. The works presented range in scope from design methodologies to robot development. Various design approaches and al- rithms, such as evolutionary computation, neural networks, fuzzy logic, learning, etc. are included. We also would like to mention that most studies reported in this book have been implemented in physical systems. An overview on the applications of computational intelligence in bio-inspired robotics is given in Chapter 1 by M. Begum and F. Karray, with highlights of the recent progress in bio-inspired robotics research and a focus on the usage of computational intelligence tools to design human-like cognitive abilities in the robotic systems. In Chapter 2, Lisa L. Grant and Ganesh K. Venayagamoorthy present greedy search, particle swarm optimization and fuzzy logic based strategies for navigating a swarm of robots for target search in a hazardous environment, with potential applications in high-risk tasks such as disaster recovery and hazardous material detection.

Order online at springer.com/booksellers
Springer Nature Customer Service Center GmbH
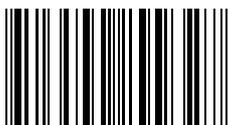Customer Service
Tiergartenstrasse 15-17
69121 Heidelberg
Germany
T: +49 (0)6221 345-4301
row-booksellers@springernature.com