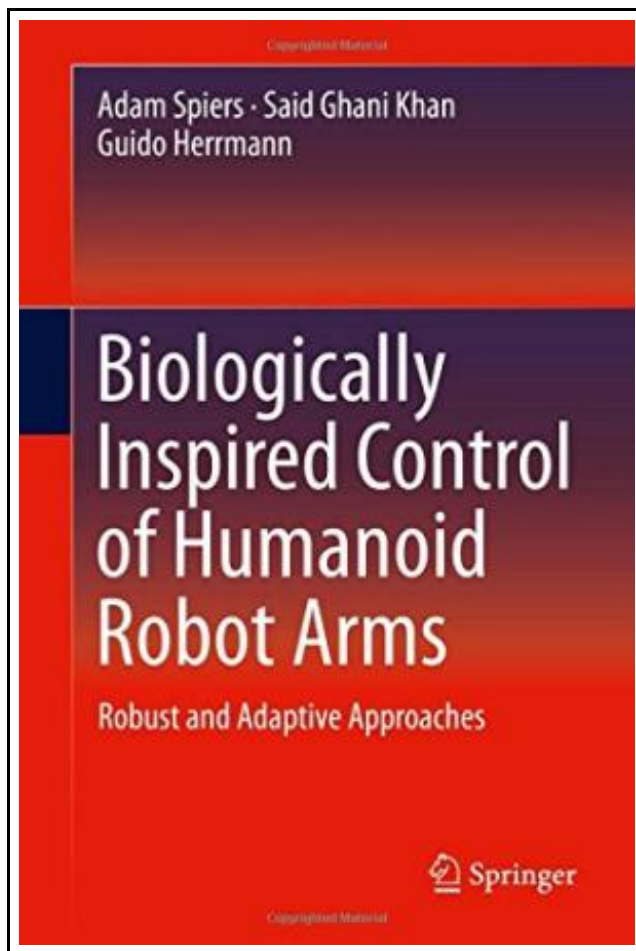


Biologically Inspired Control of Humanoid Robot Arms



Filesize: 3.92 MB

Reviews

The publication is fantastic and great. It can be rally exciting throgh reading period of time. I am just very happy to inform you that this is the greatest publication i actually have read in my very own daily life and could be he very best ebook for at any time.

(Prof. Alvis Wuckert)

BIOLOGICALLY INSPIRED CONTROL OF HUMANOID ROBOT ARMS

[DOWNLOAD](#)

Springer-Verlag Gmbh Jun 2016, 2016. Buch. Book Condition: Neu. 241x159x20 mm. Neuware - This book investigates a biologically inspired method of robot arm control, developed with the objective of synthesising human-like motion dynamically, using nonlinear, robust and adaptive control techniques in practical robot systems. The control method caters to a rising interest in humanoid robots and the need for appropriate control schemes to match these systems. Unlike the classic kinematic schemes used in industrial manipulators, the dynamic approaches proposed here promote human-like motion with better exploitation of the robot's physical structure. This also benefits human-robot interaction. The control schemes proposed in this book are inspired by a wealth of human-motion literature that indicates the drivers of motion to be dynamic, model-based and optimal. Such considerations lend themselves nicely to achievement via nonlinear control techniques without the necessity for extensive and complex biological models. The operational-space method of robot control forms the basis of many of the techniques investigated in this book. The method includes attractive features such as the decoupling of motion into task and posture components. Various developments are made in each of these elements. Simple cost functions inspired by biomechanical 'effort' and 'discomfort' generate realistic posture motion. Sliding-mode techniques overcome robustness shortcomings for practical implementation. Arm compliance is achieved via a method of model-free adaptive control that also deals with actuator saturation via anti-windup compensation. A neural-network-centered learning-by-observation scheme generates new task motions, based on motion-capture data recorded from human volunteers. In other parts of the book, motion capture is used to test theories of human movement. All developed controllers are applied to the reaching motion of a humanoid robot arm and are demonstrated to be practically realisable. This book is designed to be of interest to those wishing to achieve dynamics-based human-like robot-arm motion in academic research,...

[Read Biologically Inspired Control of Humanoid Robot Arms Online](#)[Download PDF Biologically Inspired Control of Humanoid Robot Arms](#)

Relevant Kindle Books



Programming in D

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Download Book »](#)



Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Download Book »](#)



Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

[Download Book »](#)



Crochet: Learn How to Make Money with Crochet and Create 10 Most Popular Crochet Patterns for Sale: (Learn to Read Crochet Patterns, Charts, and Graphs, Beginner s Crochet Guide with Pictures) (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Getting Your FREE Bonus Download this book, read it to the end and...

[Download Book »](#)



Instrumentation and Control Systems

Elsevier Science & Technology. Paperback. Book Condition: new. BRAND NEW PRINT ON DEMAND., Instrumentation and Control Systems, William Bolton, In a clear and readable style, Bill Bolton addresses the basic principles of modern instrumentation and...

[Download Book »](#)

**Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 4: Quick! Quick! (Hardback)**

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 172 x 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK s best-selling home reading series. It

[Read ePub »](#)

**Read Write Inc. Phonics: Blue Set 6 Non-Fiction 2 How to Make a Peach Treat (Paperback)**

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. 205 x 74 mm. Language: N/A. Brand New Book. These decodable non-fiction books provide structured practice for children learning to read. Each set of books

[Read ePub »](#)

**Billy's Booger: A Memoir (sorta)**

Atheneum. 1 Cloth(s), 2015. hard. Book Condition: New. From what might not sound like the most promising title (at least to grown-ups), William Joyce introduces readers 6 to 8 to his younger self Billy Joyce,

[Read ePub »](#)

**Music for Children with Hearing Loss: A Resource for Parents and Teachers (Paperback)**

Oxford University Press Inc, United States, 2014. Paperback. Book Condition: New. 228 x 156 mm. Language: English . Brand New Book. Written by an expert in the field who is both a teacher and a

[Read ePub »](#)

**Kingfisher Readers: What Animals Eat (Level 2: Beginning to Read Alone) (Unabridged)**

Pan Macmillan. Paperback. Book Condition: new. BRAND NEW, Kingfisher Readers: What Animals Eat (Level 2: Beginning to Read Alone) (Unabridged), Brenda Stone, For the first time, Kingfisher brings its expertise in beautifully-designed, trusted non-fiction to

[Read ePub »](#)