

# Bipedal Robots: Modeling, Design and Walking Synthesis (Iste)

From Wiley-ISTE



### **Bipedal Robots: Modeling, Design and Walking Synthesis (Iste)** From Wiley-ISTE

This book presents various techniques to carry out the gait modeling, the gait patterns synthesis, and the control of biped robots. Some general information on the human walking, a presentation of the current experimental biped robots, and the application of walking bipeds are given. The modeling is based on the decomposition on a walking step into different sub-phases depending on the way each foot stands into contact on the ground. The robot design is dealt with according to the mass repartition and the choice of the actuators. Different ways to generate walking patterns are considered, such as passive walking and gait synthesis performed using optimization technique. Control based on the robot modeling, neural network methods, or intuitive approaches are presented. The unilaterality of contact is dealt with using on-line adaptation of the desired motion.



Read Online Bipedal Robots: Modeling, Design and Walking Syn ...pdf

# Bipedal Robots: Modeling, Design and Walking Synthesis (Iste)

From Wiley-ISTE

Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE

This book presents various techniques to carry out the gait modeling, the gait patterns synthesis, and the control of biped robots. Some general information on the human walking, a presentation of the current experimental biped robots, and the application of walking bipeds are given. The modeling is based on the decomposition on a walking step into different sub-phases depending on the way each foot stands into contact on the ground. The robot design is dealt with according to the mass repartition and the choice of the actuators. Different ways to generate walking patterns are considered, such as passive walking and gait synthesis performed using optimization technique. Control based on the robot modeling, neural network methods, or intuitive approaches are presented. The unilaterality of contact is dealt with using on-line adaptation of the desired motion.

#### Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE Bibliography

Sales Rank: #3564295 in BooksPublished on: 2009-01-20Original language: English

• Number of items: 1

• Dimensions: 9.50" h x .80" w x 6.30" l, 1.36 pounds

• Binding: Hardcover

• 328 pages

**Download** Bipedal Robots: Modeling, Design and Walking Synth ...pdf

Read Online Bipedal Robots: Modeling, Design and Walking Syn ...pdf

### Download and Read Free Online Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE

#### **Editorial Review**

About the Author

Christine Chevallereau is Director of Research at the National Center for Scientific Research (CNRS) and is a researcher at the Institute of Research in Communication and Cybernetics, Nantes, France. Guy Bessonnet is a Professor at the University of Poitiers and is a researcher at the Laboratory of Solid Mechanics at Poitiers, France. Gabriel Abba is Professor of Automatic Control and Robotics at the National Engineer School of Metz and is a researcher at the Laboratory of Industrial Engineering and Mechanical Production, Metz, France. Yannick Aoustin is an Associate Professor at the University of Nantes and is a researcher at the Institute of Research in Communication and Cybernetics, Nantes, France.

#### **Users Review**

#### From reader reviews:

#### Ana Lopez:

Hey guys, do you wishes to finds a new book to learn? May be the book with the title Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) suitable to you? Typically the book was written by well known writer in this era. The actual book untitled Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) is the main of several books that will everyone read now. This book was inspired a lot of people in the world. When you read this reserve you will enter the new way of measuring that you ever know previous to. The author explained their concept in the simple way, therefore all of people can easily to comprehend the core of this book. This book will give you a wide range of information about this world now. To help you to see the represented of the world within this book.

#### Julio Yates:

The book with title Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) has a lot of information that you can understand it. You can get a lot of gain after read this book. This specific book exist new information the information that exist in this reserve represented the condition of the world right now. That is important to yo7u to understand how the improvement of the world. This particular book will bring you inside new era of the syndication. You can read the e-book with your smart phone, so you can read that anywhere you want.

#### **Emanuel Douglas:**

Beside that Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) in your phone, it may give you a way to get nearer to the new knowledge or facts. The information and the knowledge you can got here is fresh from oven so don't end up being worry if you feel like an old people live in narrow small town. It is good thing to have Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) because this book offers for your requirements readable information. Do you often have book but you do not get what it's facts concerning. Oh come on, that wil happen if you have this within your hand. The Enjoyable set up here

cannot be questionable, including treasuring beautiful island. Techniques you still want to miss the idea? Find this book and also read it from at this point!

#### **Herman Jenkins:**

A lot of reserve has printed but it takes a different approach. You can get it by world wide web on social media. You can choose the most beneficial book for you, science, amusing, novel, or whatever by simply searching from it. It is called of book Bipedal Robots: Modeling, Design and Walking Synthesis (Iste). Contain your knowledge by it. Without causing the printed book, it might add your knowledge and make an individual happier to read. It is most significant that, you must aware about e-book. It can bring you from one location to other place.

Download and Read Online Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE #ZB0U5MXDVFC

## Read Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE for online ebook

Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE books to read online.

Online Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE ebook PDF download

Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE Doc

Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE Mobipocket

Bipedal Robots: Modeling, Design and Walking Synthesis (Iste) From Wiley-ISTE EPub