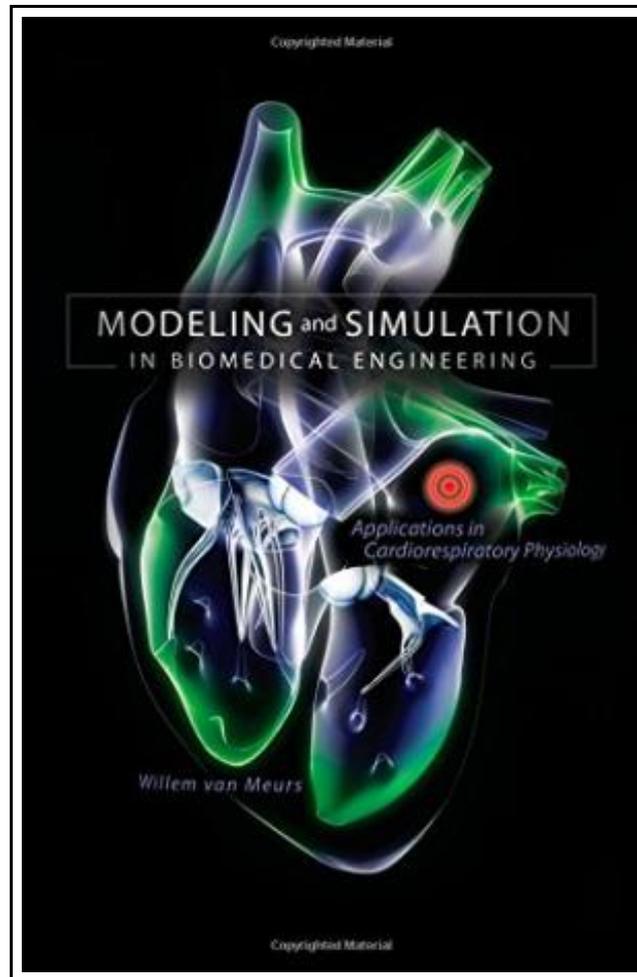


Modeling and Simulation in Biomedical Engineering: Applications in Cardiorespiratory Physiology



Filesize: 1.19 MB

Reviews

It is one of the best books. Indeed, it really is a play, nevertheless an amazing and interesting literature. It is extremely difficult to leave it before concluding, once you begin to read the book.
(Sofia Yundt)

MODELING AND SIMULATION IN BIOMEDICAL ENGINEERING: APPLICATIONS IN CARDIORESPIRATORY PHYSIOLOGY

DOWNLOAD



McGraw-Hill Professional. Hardcover. Book Condition: New. Hardcover. 224 pages. Dimensions: 9.1in. x 5.9in. x 0.8in. THEORY AND PRACTICE OF MODELING AND SIMULATING HUMAN PHYSIOLOGY Written by a coinventor of the Human Patient Simulator (HPS) and past president of the Society in Europe for Simulation Applied to Medicine (SESAM), Modeling and Simulation in Biomedical Engineering: Applications in Cardiorespiratory Physiology is a compact and consistent introduction to this expanding field. The book divides the modeling and simulation process into five manageable steps--requirements, conceptual models, mathematical models, software implementation, and simulation results and validation. A framework and a basic set of deterministic, continuous-time models for the cardiorespiratory system are provided. This timely resource also addresses advanced topics, including sensitivity analysis and setting model requirements as part of an encompassing simulation and simulator design. Practical examples provide you with the skills to evaluate and adapt existing physiologic models or create new ones for specific applications. Coverage includes: Signals and systems Model requirements Conceptual models Mathematical models Software implementation Simulation results and model validation Cardiorespiratory system model Circulation Respiration Physiologic control Sensitivity analysis of a cardiovascular model Design of model-driven acute care training simulators Uniquely qualified to author such a text, van Meurs is one of the original developers of CAE Healthcare's Human Patient Simulator (HPS). His understanding of mathematics, human physiology, pharmacology, control systems, and systems engineering, combined with a conversational writing style, results in a readable text. The ample illustrations and tables also break up the text and make reading the book easier on the eyes. concise yet in conversational style, with real-life examples. This book is highly recommended for coursework in physiologic modeling and for all who are interested in simulator design and development. The book pulls all these topics together under one cover and is an important contribution to biomedical literature. --IEEE...



[Read Modeling and Simulation in Biomedical Engineering: Applications in Cardiorespiratory Physiology Online](#)



[Download PDF Modeling and Simulation in Biomedical Engineering: Applications in Cardiorespiratory Physiology](#)

You May Also Like



Scholastic Discover More Animal Babies

Scholastic Reference. Hardcover. Book Condition: New. Hardcover. 32 pages. Dimensions: 9.1in. x 7.6in. x 0.5in.Scholastic Discover More is a revolutionary new nonfiction line pairing stunning print books with corresponding interactive digital books that extend the...

[Read Book »](#)



The Whale Tells His Side of the Story Hey God, Ive Got Some Guy Named Jonah in My Stomach and I Think Im Gonna Throw Up

B&H Kids. Hardcover. Book Condition: New. Cory Jones (illustrator). Hardcover. 32 pages. Dimensions: 9.1in. x 7.2in. x 0.3in.Oh sure, well all heard the story of Jonah and the Whale a hundred times. But have we...

[Read Book »](#)



Scholastic Discover More My Body

Scholastic Reference. Hardcover. Book Condition: New. Hardcover. 32 pages. Dimensions: 9.1in. x 7.7in. x 0.6in.Scholastic Discover More is a revolutionary new nonfiction line pairing stunning print books with corresponding interactive digital books that extend the...

[Read Book »](#)



Multiple Streams of Internet Income

Wiley. Hardcover. Book Condition: New. Hardcover. 279 pages. Dimensions: 9.3in. x 6.2in. x 1.2in.Praise for MULTIPLE STREAMS OF INTERNET INCOMEIf ever the world needed some help to succeed on the Internet, this is the moment....

[Read Book »](#)



Early National City CA Images of America

Arcadia Publishing. Paperback. Book Condition: New. Paperback. 128 pages. Dimensions: 9.1in. x 6.4in. x 0.4in.Below the surface of bustling National City lies the story of olive and citrus orchards, grand Victorian homes, great wealth, and...

[Read Book »](#)