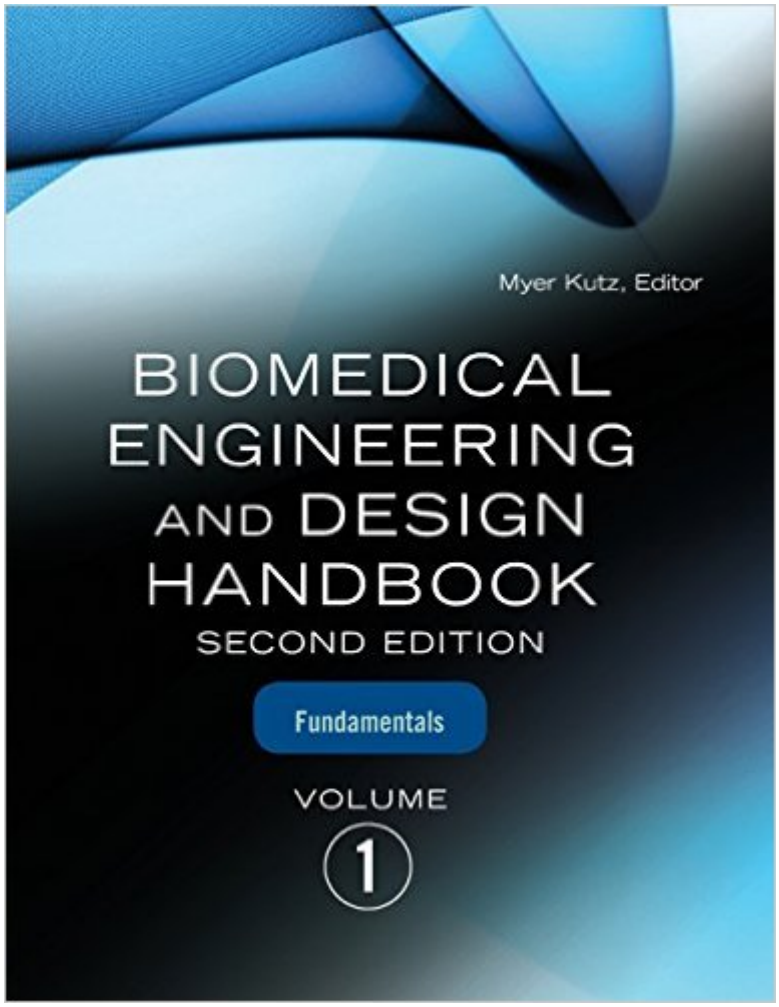
Biomedical Engineering And Design Handbook, Volume 1: Volume I: Biomedical Engineering Fundamentals



Synopsis

A State-of-the-Art Guide to Biomedical Engineering and Design Fundamentals and ApplicationsThe two-volume Biomedical Engineering and Design Handbook, Second Edition offers unsurpassed coverage of the entire biomedical engineering field, including fundamental concepts, design and development processes, and applications. This landmark work contains contributions on a wide range of topics from nearly 80 leading experts at universities, medical centers, and commercial and law firms. Volume 1 focuses on the basics of biomedical engineering, including biomedical systems analysis, biomechanics of the human body, biomaterials, and bioelectronics. Filled with more than 500 detailed illustrations, this superb volume provides the foundational knowledge required to understand the design and development of innovative devices, techniques, and treatments.Volume 1 covers:Modeling and Simulation of Biomedical SystemsBioheat TransferPhysical and Flow Properties of BloodRespiratory Mechanics and Gas ExchangeBiomechanics of the Respiratory MusclesBiomechanics of Human MovementBiomechanics of the Musculoskeletal SystemBiodynamicsBone MechanicsFinite Element AnalysisVibration, Mechanical Shock, and ImpactElectromyographyBiopolymersBiomedical Composites BioceramicsCardiovascular BiomaterialsDental MaterialsOrthopaedic BiomaterialsBiomaterials to Promote Tissue RegenerationBioelectricityBiomedical Signal AnalysisBiomedical Signal ProcessingIntelligent Systems and BioengineeringBioMEMS

Book Information

Hardcover: 688 pages

Publisher: McGraw-Hill Education; 2 edition (July 13, 2009)

Language: English

ISBN-10: 0071498389

ISBN-13: 978-0071498388

Product Dimensions: 7.6 x 1.3 x 9.5 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,303,092 in Books (See Top 100 in Books) #166 inÂ Books > Engineering & Transportation > Engineering > Design #193 inÂ Books > Textbooks > Medicine & Health Sciences > Medicine > Biotechnology #295 inÂ Books > Textbooks > Medicine & Health Sciences > Medicine > Clinical > Radiology & Nuclear Medicine > Diagnostic Imaging

Biomedical Engineering and Design Handbook, Volume 1: Volume I: Biomedical Engineering Fundamentals Biomedical Ethics for Engineers: Ethics and Decision Making in Biomedical and Biosystem Engineering (Biomedical Engineering Series) Quantitative Biomedical Optics: Theory, Methods, and Applications (Cambridge Texts in Biomedical Engineering) Medical Aspects of Proteases and Proteases Inhibitors (Biomedical and Health Research, Vol. 15) (Biomedical and Health Research, V. 15) Dopamine Receptor Sub-Types: From Basic Sciences to Clinical Applications (Biomedical and Health Research, Vol. 19) (Biomedical and Health Research, V. 19) Laser-Tissue Interactions: Fundamentals and Applications (Biological and Medical Physics, Biomedical Engineering) Design of Pulse Oximeters (Series in Medical Physics and Biomedical Engineering) An Introduction to Rehabilitation Engineering (Series in Medical Physics and Biomedical Engineering) Fundamentals of Nursing: Human Health and Function (Craven, Fundamentals of Nursing: Human Health and Functionraven, Fundamentals of Nurs) Principles of Protection: U. S. Handbook of NBC Weapon Fundamentals and Shelter Engineering Design Standards Fundamentals of Earthquake Engineering (Civil engineering and engineering mechanics series) Feng Shui: Wellness and Peace- Interior Design, Home Decorating and Home Design (peace, home design, feng shui, home, design, home decor, prosperity) Algorithms: C++: Data Structures, Automation & Problem Solving, w/ Programming & Design (app design, app development, web development, web design, jquery, ... software engineering, r programming) Laser Technology in Biomimetics: Basics and Applications (Biological and Medical Physics, Biomedical Engineering) Spellman’s Standard Handbook for Wastewater Operators: Fundamentals, Volume I (Spellman’s Standard Handbook for Wastewater Operators Series) Photonics of Biopolymers (Biological and Medical Physics, Biomedical Engineering) Bioimpedance and Bioelectricity Basics (Biomedical Engineering) Interior Designer’s Portable Handbook: First-Step Rules of Thumb for the Design of Interiors: First-Step Rules of Thumb for the Design of Interiors (McGraw-Hill Portable Handbook) Diagnostic Ultrasound Imaging: Inside Out, Second Edition (Biomedical Engineering) Introduction to Biomedical Engineering