Biomedical Technology and Devices, Second Edition (Handbook Series for Mechanical Engineering)

George Zouridakis
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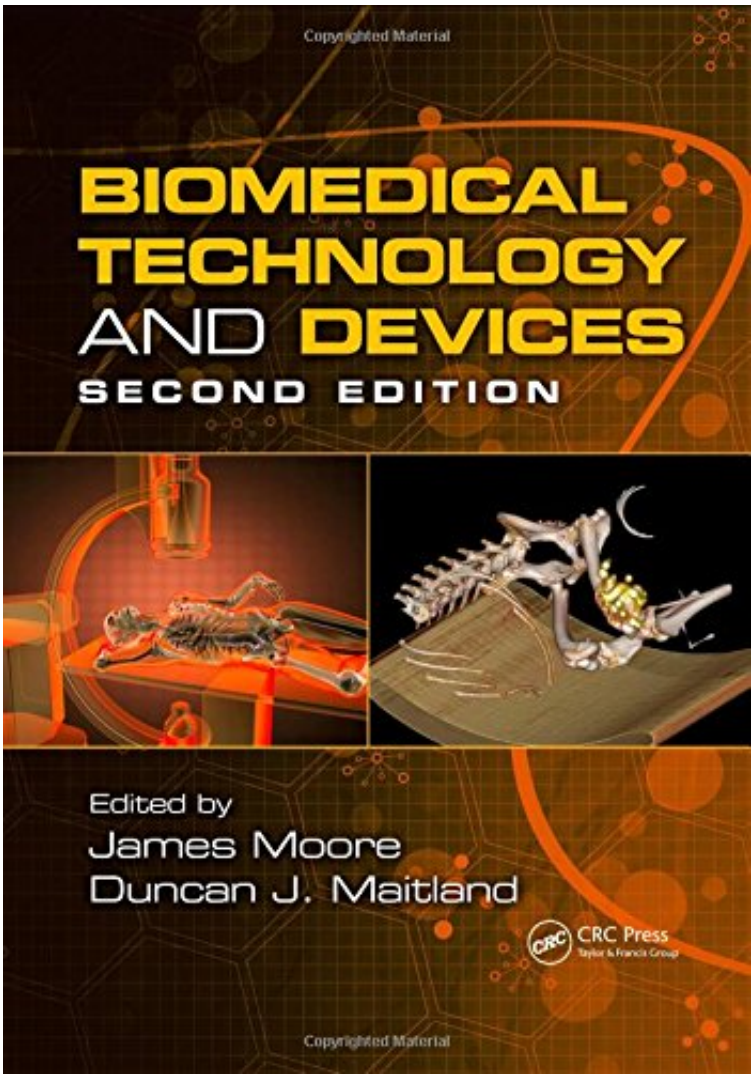

#5997524 in Books imusti 2013-06-25Original language:EnglishPDF # 1 1.70 x 7.00 x 10.10l, .0 #File Name: 1439859590820 pagesCRC Press | File size: 64.Mb

George Zouridakis : Biomedical Technology and Devices, Second Edition (Handbook Series for Mechanical Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Biomedical Technology and Devices, Second Edition (Handbook Series for Mechanical Engineering):

Biomedical Technology and Devices, Second Edition focuses on the equipment, devices, and techniques used in

modern medicine to diagnose, treat, and monitor human illnesses. Gathering together and compiling the latest information available on medical technology, this revised work adds ten new chapters. It starts with the basics, introducing the history of the thermometer and measuring body temperature, before moving on to a medley of devices that are far more complex. This book explores diverse technological functions and procedures including signal processing, auditory systems, magnetic resonance imaging, ultrasonic and emission imaging, image-guided thermal therapy, medical robotics, shape memory alloys, biophotonics, and tissue engineering. Each chapter offers a description of the technique, its technical considerations, and its use according to its applications and relevant body systems. It can be used as a professional resource, as well as a textbook for undergraduate and graduate students.

"...I feel that this book could be a valuable compendium and introduction to the various extant biotechnologies in healthcare management and will be a highly useful reference source to the multitude of researchers working at the interface of life sciences and engineering."Dr. Sriram Shankar, Biotechnology Innovator and Entrepreneur "The book provides chapters on a variety of areas specializing in biomedical technologies and devices. Each chapter has a very comprehensive list of references which readers will find more than adequate to gain further understanding. There is a chapter which contains extremely helpful data on common biomaterials used in the current clinical setting. For the undergraduate this book is a good place to start on the long road to understanding not only the successes but also the engineering and design difficulties that we have to face in developing tools and devices in a clinical setting."Tim David, University of Canterbury, Christchurch, New Zealand "Each chapter offers a comprehensive overview of the topic, allowing a reader who has little experience in it to quickly acquire the basic knowledge necessary and decide which area to focus on for future research. This handbook represents an excellent source of information for biomedical engineers in industry and biomedical engineering students looking for current, state-of-the-art information on a wide variety of topics related to biomedical devices and their clinical use. It should be recommended reading material for all Biomedical Engineering Senior Design courses." Ender A. Finol, Department of Biomedical Engineering, The University of Texas at San Antonio, USA "I found this book to fill a void in the approach to teaching bioinstrumentation and the clinical applications of various bioinstruments and devices. The subject matter is treated in an exhaustive yet easy to understand manner."Joel L. Berry, Ph.D., Department of Biomedical Engineering, The University of Alabama at Birmingham, USAAbout the AuthorJames E. Moore, Jr., PhD, received his bachelors in mechanical engineering with highest honor from the Georgia Institute of Technology, followed by an MS and a PhD from the same school and institute. Following a postdoctoral fellowship at the Swiss Institute of Technology in Lausanne, he has held faculty positions at Florida International University, Texas AM University, and now Imperial College London. His research focuses on the biomechanics of the cardiovascular and lymphatic systems. Duncan J. Maitland, PhD, has worked as an engineer in aerospace, national defense, and biomedical applications since 1985. He received his BEE (electrical engineering) and MS (physics) from Cleveland State University. He received his PhD in biomedical engineering from Northwestern University. After his PhD, he worked at Lawrence Livermore National Laboratory for 12 years and subsequently joined the Department of Biomedical Engineering at the Texas AM University in 2008. His research projects include endovascular interventional devices, micro actuators, optical therapeutic devices, and basic devicebody interactions/physics, including computational and experimental techniques.