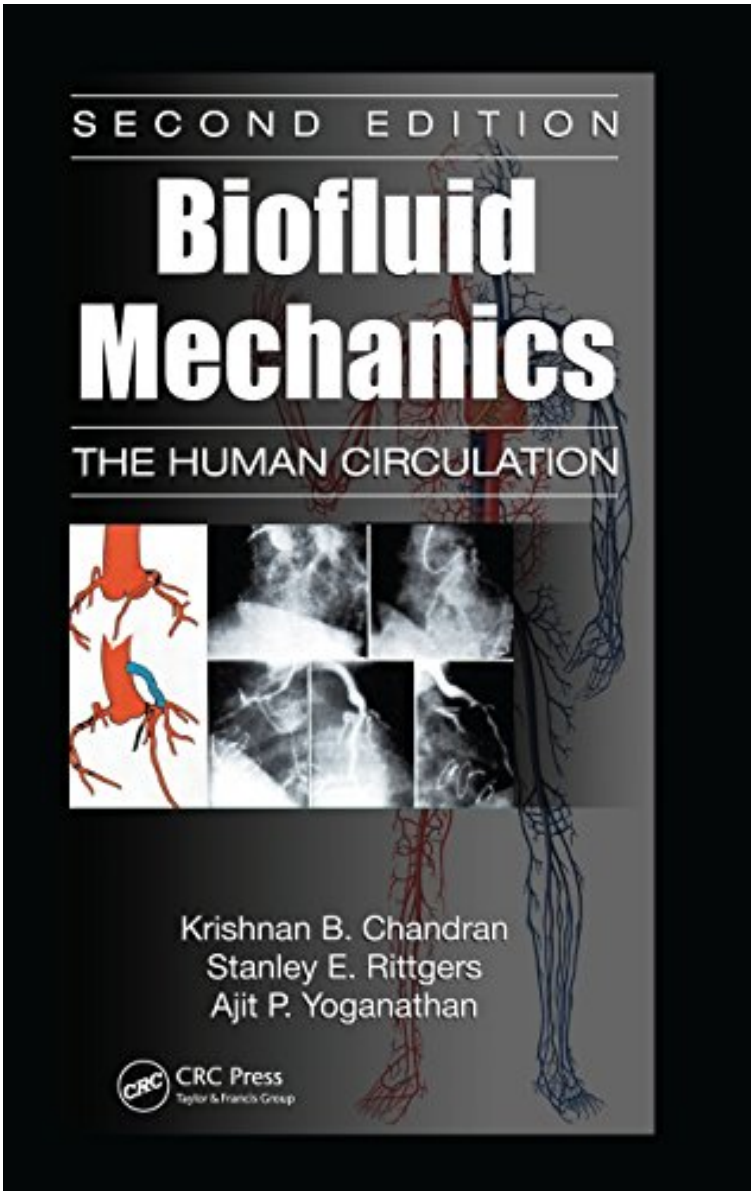
Biofluid Mechanics: The Human Circulation, Second Edition

Krishnan B. Chandran, Stanley E. Rittgers, Ajit P. Yoganathan
*DOC | *audiobook | ebooks | Download PDF | ePub*



#1108096 in Books 2012-02-24Original language:EnglishPDF # 1 9.21 x 1.00 x 6.14l, 1.67 #File Name: 1439845166451 pages | File size: 19.Mb

Krishnan B. Chandran, Stanley E. Rittgers, Ajit P. Yoganathan : Biofluid Mechanics: The Human Circulation, Second Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Biofluid Mechanics: The Human Circulation, Second Edition:

0 of 0 people found the following review helpful. Five StarsBy Victor K.The book is inspiring to study it very

attentively

Designed for senior undergraduate or first-year graduate students in biomedical engineering, Biofluid Mechanics: The Human Circulation, Second Edition teaches students how fluid mechanics is applied to the study of the human circulatory system. Reflecting changes in the field since the publication of its predecessor, this second edition has been extensively revised and updated. New to the Second Edition Improved figures and additional examples More problems at the end of each chapter A chapter on the computational fluid dynamic analysis of the human circulation, which reflects the rapidly increasing use of computational simulations in research and clinical arenas Drawing on each authors experience teaching courses on cardiovascular fluid mechanics, the book begins with introductory material on fluid and solid mechanics as well as a review of cardiovascular physiology pertinent to the topics covered in subsequent chapters. The authors then discuss fluid mechanics in the human circulation, primarily applied to blood flow at the arterial level. They also cover vascular implants and measurements in the cardiovascular system.

"... the book provides a good platform in fluid mechanics prior to progressing to the physiological applications which make it an appropriate textbook for BME students."Professor Tim McGloughlin, Centre for Applied Biomedical Engineering Research and Department of Mechanical Aeronautical and Biomedical Engineering, University of LimerickAbout the AuthorKrishnan B. Chandran is the Lowell G. Battershell Chair and professor in biomedical engineering, professor in mechanical and industrial engineering, and faculty research engineer in IIHRHydroscience Engineering at the University of Iowa. His current research interests include vascular prosthesis and artificial heart valve dynamics, fluid dynamics and mass transport in arteries, and fluid dynamics and atherosclerosis. Stanley E. Rittgers is a professor emeritus in biomedical engineering at the University of Akron. His research interests include cardiovascular hemodynamics, noninvasive diagnostics, ultrasound Doppler techniques, in vitro flow modeling, arterial bypass grafting, blood shear and vascular hyperplasia, and cardiovascular drug delivery. Ajit P. Yoganathan is Regents Professor and associate chair for research, Wallace H. Coulter Distinguished Faculty Chair in biomedical engineering, and director of the Cardiovascular Fluid Mechanics Laboratory at Georgia Institute of Technology. His research areas include cardiovascular fluid dynamics, optimization of cardiovascular surgeries, surgical planning, tissue engineering of heart valves, and the use of MRI and 3D Echo to study blood flow patterns in cardiovascular structures.