

The focus of our series is to introduce current and emerging technologies to biomedical and electrical engineering practitioners, researchers, and students. This series seeks to foster interdisciplinary biomedical engineering education to satisfy the needs of the industrial and academic areas. This requires an innovative approach that overcomes the difficulties associated with the traditional textbooks and edited collections.

Series Editor: Metin Akay, University of Houston, Houston, Texas

- 1. Time Frequency and Wavelets in Biomedical Signal Processing Metin Akay
- 2. Neural Networks and Artificial Intelligence for Biomedical Engineering Donna L. Hudson, Maurice E. Cohen
- 3. Physiological Control Systems: Analysis, Simulation, and Estimation Michael C. K. Khoo
- 4. Principles of Magnetic Resonance Imaging: A Signal Processing Perspective Zhi-Pei Liang, Paul C. Lauterbur
- 5. Nonlinear Biomedical Signal Processing, Volume 1, Fuzzy Logic, Neural Networks, and New Algorithms

 Metin Akay
- 6. Fuzzy Control and Modeling: Analytical Foundations and Applications Hao Ying
- 7. Nonlinear Biomedical Signal Processing, Volume 2, Dynamic Analysis and Modeling

Metin Akay

- 8. Biomedical Signal Analysis: A Case-Study Approach Rangaraj M. Rangayyan
- 9. System Theory and Practical Applications of Biomedical Signals Gail D. Baura
- 10. Introduction to Biomedical Imaging

Andrew G. Webb

11. Medical Image Analysis

Atam P. Dhawan

 $12.\ Identification\ of\ Nonlinear\ Physiological\ Systems$

David T. Westwick, Robert E. Kearney

- 13. *Electromyography: Physiology, Engineering, and Non-Invasive Applications* Roberto Merletti, Philip Parker
- 14. Nonlinear Dynamic Modeling of Physiological Systems Vasilis Z. Marmarelis

- 15. Genomics and Proteomics Engineering in Medicine and Biology Metin Akay
- 16. *Handbook of Neural Engineering* Edited by Metin Akay
- 17. Medical Image Analysis, Second Edition
 Atam P. Dhawan
- 18. Advanced Methods of Biomedical Signal Processing Edited by Sergio Cerutti, Carlo Marchesi
- 19. Epistemology of the Cell: A Systems Perspective on Biological Knowledge Edward R. Dougherty, Michael L. Bittner
- 20. Micro and Nanotechnologies for Engineering Stem Cells and Tissues Murugan Ramalingam, Esmaiel Jabbari, Seeram Ramakrishna, Ali Khademhosseini
- 21. Introduction to Neural Engineering for Motor Rehabilitation Dario Farina, Winnie Jensen, Metin Akay
- 22. Introduction to Tissue Engineering: Applications and Challenges Ravi Birla