

1. Record Nr.	UNISA996218023903316
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Titolo	Nonlinear biomedical signal processing. . Volume 2 Dynamic analysis and modeling / / edited by Metin Akay
Pubbl/distr/stampa	New York : , : IEEE Press, , c2000 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2000]
ISBN	1-60119-407-2
Descrizione fisica	1 PDF (364 pages) : illustrations (some color)
Collana	IEEE Press series on biomedical engineering ; ; 6
Altri autori (Persone)	AkayMetin
Disciplina	610/.285/632
Soggetti	Health & Biological Sciences Biomedical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface. List of Contributors. Nonlinear Dynamics Time Series Analysis (B. Henry, et al.). Searching for the Origin of Chaos (T. Yambe, et al.). Approximate Entropy and Its Applications to Biosignal Analysis (Y. Fusheng, et al.). Parsimonious Modeling of Biomedical Signals and Systems: Applications to the Cardiovascular System (P. Celka, et al.). Nonlinear Behavior of Heart Rate Variability as Registered After Heart Transplantation (C. Maier, et al.). Heart Rate Variability: Measures and Models (M. Teich, et al.). Ventriculo-Arterial Interaction After Acute Increase of the Aortic Input Impedance: Description Using Recurrence Plot Analysis (S. Schulz, et al.). Nonlinear Estimation of Respiratory-Induced Heart Movements and Its Application in ECG/VCG Processing (L. Sornmo, et al.). Detecting Nonlinear Dynamics in Sympathetic Activity Directed to the Heart (A. Porta, et al.). Assessment of Nonlinear Dynamics in Heart Rate Variability Signal (M. Signorini, et al.). Nonlinear Deterministic Behavior in Blood Pressure Control (N. Lovell, et al.). Measurement and Quantification of Spatiotemporal Dynamics of Human Epileptic Seizures (L. Iasemidis, et al.). Rhythms and Chaos in the Stomach (Z. Wang, et al.). Index. About the Editor.
Sommario/riassunto	Featuring current contributions by experts in signal processing and biomedical engineering, this book introduces the concepts, recent advances, and implementations of nonlinear dynamic analysis methods.

Together with Volume I in this series, this book provides comprehensive coverage of nonlinear signal and image processing techniques. Nonlinear Biomedical Signal Processing: Volume II combines analytical and biological expertise in the original mathematical simulation and modeling of physiological systems. Detailed discussions of the analysis of steady-state and dynamic systems, discrete-time system theory, and discrete modeling of continuous-time systems are provided. Biomedical examples include the analysis of the respiratory control system, the dynamics of cardiac muscle and the cardiorespiratory function, and neural firing patterns in auditory and vision systems. Examples include relevant MATLAB(R) and Pascal programs. Topics covered include: . Nonlinear dynamics. Behavior and estimation. Modeling of biomedical signals and systems. Heart rate variability measures, models, and signal assessments. Origin of chaos in cardiovascular and gastric myoelectrical activity. Measurement of spatio-temporal dynamics of human epileptic seizures

A valuable reference book for medical researchers, medical faculty, and advanced graduate students, it is also essential reading for practicing biomedical engineers. Nonlinear Biomedical Signal Processing, Volume II is an excellent companion to Dr. Akay's Nonlinear Biomedical Signal Processing, Volume I: Fuzzy Logic, Neural Networks, and New Algorithms.
