1. Record Nr. UNINA9910298279003321

Titolo	Signal and Image Analysis for Biomedical and Life Sciences / / edited by Changming Sun, Tomasz Bednarz, Tuan D. Pham, Pascal Vallotton, Dadong Wang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-10984-7
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (286 p.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 823
Disciplina	616.0754
Soggetti	Optical data processing Medicine Life sciences Image Processing and Computer Vision Biomedicine, general Life Sciences, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Visual Analytics of Signalling Pathways Using Time Profiles -- Modeling of Testosterone Regulation by Pulse-modulated Feedback -- Hybrid Algorithms for Multiple Change-Point Detection in Biological Sequence -- Stochastic Anomaly Detection in Eye-Tracking Data for Quantification of Motor Symptoms in Parkinson's Disease -- Identification of the Reichardt Elementary Motion Detector Model. - Multi-Complexity Ensemble Measures for Gait Time Series Analysis: Application to Diagnostics, Monitoring and Biometrics -- Development of a Motion Capturing and Load Analyzing System for Caregivers Aiding a Patient to Sit Up in Bed -- Classifying Epileptic EEG Signals with Delay Permutation Entropy and Multi-Scale K-means -- Tracking of EEG Activity Using Motion Estimation to Understand Brain Wiring -- Towards Automated Quantitative Vasculature Understanding via Ultra High-Resolution Imagery -- Cloud Based Toolbox for Image Analysis, Processing and Reconstruction Tasks -- Pollen Image Classification Using the Classifynder System: Algorithm Comparison and a Case Study

	on New Zealand Honey -- Digital Image Processing and Analysis for Activated Sludge Wastewater Treatment -- A Complete System for 3D Reconstruction of Roots for Phenotypic Analysis.
Sommario/riassunto	Signal and image analysis techniques are becoming more widely used in biomedical and life science applications. With an emphasis on applications of computational models for solving modern challenging problems in biomedical and life sciences, this book aims to bring collections of articles from biologists, medical/biomedical and health science researchers together with computational scientists to focus on problems at the frontier of biomedical and life sciences. The goals of this book are to build interactions of scientists across several disciplines and to help industrial users apply advanced computational techniques for solving practical biomedical and life science problems. This book is for users in the fields of biomedical and life sciences who wish to keep abreast with the latest techniques in signal and image analysis. The book presents a detailed description to some of the applications. It can be used by those both at graduate and specialist levels.