Call for Book Chapters (Elsevier)

"Computational Intelligence in Bio-Engineering and Healthcare"

Introduction

The proposed book starts with the fundamentals about Computational Intelligence, techniques and procedures associated with it. It will be a collection of advance methods of computational intelligence and other allied techniques used for healthcare and bioengineering applications. The book will be a voluminous collections for the state of art as well as advances of different computational intelligence methods and will headed for the confront faced by the healthcare institutions and hospitals for effective analysis, storage and analysis of data. In the present scenario of computing, computational intelligence tools presents adaptive mechanism that permit the understanding of data difficult and altering environments. The results of computational intelligence technologies are to present profits to medical fields for assembling the patients having same type of diseases or fitness problems, so that medical organization gives them effectual treatments. The book will drop radiance on the reasons for the growing profusion and complexity of data in this sector. Further, the book will help to focus on further research challenges and directions for the practitioners as well as researchers. Also, a special emphasis will be focused on collections of useful advance mechanisms, automated tools and possible directions for solving complex biomedical problems to the data scientists, practitioners, and research scholars at a broader sense. The main goal is to conduit computational intelligence, bio-engineering and health informatics for effective analysis and use to make a tangible contribution to some innovative findings in the mentioned field.

Topics Covered

This book is targeted towards scientists, application doctors, health professionals, professors and students. This book will reveal different dimensions of computational intelligence applications and will illustrate its use in the solution of assorted real world bio-medical and healthcare problems. Moreover, the proposed book will also cover distinctive features and techniques those are listed below and will magnetize prospective audience:

Topics of interest include, but are not limited to, the following:

- Cancer classification and prediction
- Medical Imaging
- Bio-modelling
- Structured and Unstructured Clinical reports
- X-ray analysis

- Biosignal
- Oncology
- Biosensors
- Genomics and Genetic Data
- Ontologies Construction
- Bio-memetic systems
- Biological disorder
- Biomedical electronics
- Protein structure prediction
- Kidney diseases
- Heart and Polumnary diseases
- Biomedical data analysis
- Biological systems and Pathways
- Case studies illustrating the applications of intelligent computing in data analysis
- Pointing important illustrations from the early case studies
- Includes links to websites, videos, articles, and other online content to expand and support the primary learning objectives for each major section of the book

We strongly welcome other topic suggestions, dealing with the applications on biomedical and healthcare related areas as followings:

- Deep Learning
- Probabilistic Reasoning
- Multilayer Perceptron
- Artificial Neural Networks
- Recurrent Neural Networks
- Convolutional Neural Networks
- Restricted Boltzmann Machines
- Deep Learning for Image Classification and Processing
- Deep Learning for Medical Image Recognition
- Computational Intelligence for Facial Recognition
- Deep Learning for Clinical and Health Informatics
- Fuzzy Logic for medical applications
- Other Intelligent based methods for biomedical and healthcare

Submission Procedure

Students, Academic scientists, researchers and health practitioners are invited to submit a brief abstract (**within 250 words**) along with author details and affiliations of their full chapters for this edited book entitled *"Computational Intelligence in Bio-Engineering and Healthcare"* **on or before 5th October, 2019**. After finalization of abstracts, they may submit their full papers by **01st November 2019**. All submissions must be original and should not be

under review by another publication. Authors should make sure that their submission has 15% or lower similarity as per iThenticate or Turnitin. All submitted chapter will be reviewed on a double-blind, peer review basis. The book chapters should contain no less than 20 pages of content as per the provided format.

Submission of chapter(s) via this e-mail only: mailtojnayak@gmail.com with a copy (*CC*) to mailtobnaik@gmail.com with a **subject line: Submission to CIBEH – ELSEVIER.**

Important Dates

Abstract Submission: 5th October, 2019

Full Chapter Submission: 01st November 2019

Notification to Authors: 20th November 2019

Submission of the revised versions: 10th December 2019

Final Acceptance Notification: 20th December 2019

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