

Tentative Outline

Special Thematic Issue for Current Medical Imaging

Advanced Computational and Learning Approaches for Diagnostic Imaging

Rajendran Thavasimuthu, Lt. Dr. K.P. Sridhar, Dr. S. Manimurugan & Dr. A. Rajaram

Aims & Scope: The major objectives of this issue are to motivate the advancements in computational and learning approaches in medical imaging. This special or thematic issue will act as a platform for Academic and Industrial research communities across the globe, who are active in the domain of medical image processing and to enhance and share the advancements and innovations in algorithms used in medical image processing. It will generate a broadened scope for better association with experts and scholars from various Academic organizations and Industrial Research & Development Sectors across the globe. It focuses on advanced algorithms, developments and state-of-the-art research to focus the futuristic vision of the research community in the emerging fields of algorithms for medical image processing and its allied fields.

Keywords: Medical Imaging, medical image processing, soft computing techniques & machine learning

Subtopics:

The subtopics to be covered within this issue are listed below:

1. Sub topics of Diagnostic Technology in Medicine

Noise Reduction in medical imaging, camera modules and Digital cameras used in instruments, medical imaging equipment, night-vision equipment such as Biomedical thermal imaging devices, sonar, and other Sensors used in various applications such as thermography, creation of multi-spectral images, video laryngoscopes, gamma cameras and sensor arrays for x-rays. Disease Detection Using Bio-robotics, Dual Energy X-ray Absorptiometry, Hybridoma Technology, Medical Imaging using Electronic Pill, Nanorobotics for medical imaging, Nano Robotic Surgery, Thermography and Cardiac Disease diagnosis using medical imaging and Nanoscience in medical image processing.

2. Sub topics of Soft Computing Techniques and Machine Learning for medical image processing

genetic optimization, hybrid systems, evolutionary algorithms/computation, genetic algorithms, machine learning, neural networks/computing, particle swarm optimization/intelligence, probabilistic reasoning, Real Time Applications of Soft Computing Techniques and Soft computing methods include fuzzy systems/logic, Deep Learning.

3. Sub topics of 3D Technology in Medical Image processing

Brain Computer Interface (BCI), Computerized Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Echocardiography, Diffuse optical tomography, Ophthalmology, Electrical impedance tomography, Elastography, Optoacoustic imaging, Corneal topography, Corneal topography, Optical coherence tomography, SPECT, A-scan, B-scan & Photoacoustic imaging.

4. Sub topics of Cloud Based Secured Archiving of Medical Images

Advanced approaches for encryption and decryption of medical images in cloud platform, PACS systems in medical imaging, DICOM in medical imaging, Game theory approaches, Big Data Analytics & Internet of Things

Schedule:

- ✧ Manuscript submission deadline: 16 July 2019
- ✧ Peer Review Due: 31 July 2019
- ✧ Revision Due: 15 August 2019
- ✧ Announcement of acceptance by the Guest Editors: 31 August 2020
- ✧ Final manuscripts due: 31 March 2020

Contacts:

Guest Editors

Rajendran Thavasimuthu

Affiliation: Makeit Technologies (R&D Center for Academic & Industrial Research), Coimbatore, Tamilnadu, India; Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, India

Emails: makeittechy@gmail.com; vicepresidentkuaa@kahedu.edu.in

Dr. K. P. Sridhar

Affiliation: Department of Electronics & Communication Engineering, Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, Tamilnadu -641021. India.

Phone number: +91-9842291558

Emails: capssidhar@gmail.com; Sridhar.kp@kahedu.edu.in

Dr. S. Manimurugan

Affiliation: Department of Computer Engineering, University of Tabuk, Saudi Arabia.

Phone number: +96-6557172908

Email: semanimurugan@gmail.com

Dr. A. Rajaram

Affiliation: Department of Electronics & Communication Engineering, EGS Pillay Engineering College (Autonomous), Nagapattinam, Tamilnadu - 611002. India.

Phone number: +91-9942035947

Email: gct143@gmail.com

Any queries should be addressed to cmim@benthamscience.net