Tentative Outline

Special Thematic Issue for Current Medical Imaging

Title: Evolution of New era in Medical Imaging and healthcare sector using Machine Learning Concepts

Guest Editors:

Dr. Ayush Dogra, Dr. Bhawna Goyal, Dr. Sanjeev Kumar and Prof. Ranu Jung

- **Scope of the Thematic Issue:**

Medical imaging is procedure of gathering visual information from the inner structures of a body for diagnosis of the specific ailment and medical intervention. The role of radiologic procedures in a research differs from their applications in the clinical setting. Well-equipped imaging centres have bench mark equipment and the imaging techniques they most often use include magnetic resonance, computed tomography, nuclear medicine, sonography, interventional radiology, and fusion based modalities. Rapidly evolving changes in the medical imaging and healthcare administrations, coupled recent advances and trends within imaging are remarkable. Machine learning have evolved as an important asset in the sector of medical imaging and healthcare. Using AI will help improve workflow and efficiency. There is immense time delay to read huge bundle of radiographs by radio diagnostics. AI can act as efficient tool to reduce delays in scrutinizing abnormal medical images especially of chest and brain regions where time is critical element. Various applications will include – image denoising, image super resolution, image fusion, image registration, image segmentation, image super-resolution, abnormality detection, image synthesis etc.

The main aim of this special issue is to extract advance scientific research within the broad field of medical imaging and biomedical signal processing focusses on recent trends and aims to identify new cutting edge techniques in medical imaging and biomedical signal processing.

Keywords: Medical imaging, biomedical signals, healthcare, deep learning, machine learning.

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- Image Fusion
- Image Denoising
- Image Super resolution
- Image Registration
- Image Segmentation
- Abnormality Detection
- Image Synthesis
- image retrieval; dynamic
- Super-pixel/voxel-based analysis
- Brain, cardiac, Breast and abdomen imaging
- Functional & anatomic imaging and Biomedical signal processing

Schedule:

- ✧ Thematic issue submission deadline: 28 February/2021

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