CALL FOR PAPERS
SPECIAL SESSION ON

Artificial Intelligence: Biomedical Engineering and Healthcare applications

for ICCAD'24
May 15-17, 2024, Paris-France

Session Co-Chairs:

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Session description:

This special session in medical engineering will explore new-fangled approaches and related techniques to improve the performance in several applications. Biomedical data, including samples, signals, images, videos and speech, requires a fresh perspective, deeper insights, and exploration of abundant information for better understanding. This involves skillfully navigating expert rules and systems, along with decision-making, artificial intelligence, and the pursuit of intelligence beyond human capabilities. During medical surgery and advertising campaign applications, the use of image processing in virtual and augmented reality applications has sparked a revolution. Multimodal medical imaging holds significant interest in our special session, encompassing modalities such as Magnetic Resonance Imaging (MRI), Computed Tomography (CT scan), PET-CT, Ultrasound (US), and more. Computer-aided detection and diagnosis represent areas where the application of deep learning in modern medical procedures remains an open research problem. This is particularly due to the relatively small sample sizes in certain medical disorders. The challenge lies in enabling deep networks to effectively learn from the limited available samples. The exploration of data analysis and interpretation is a research focus that is further investigated in various research frameworks, including applications like human activity recognition, image retrieval, tracking, preprocessing and ROI segmentation and more.

This Special Issue solicits state-of-the-art research findings from both academia and medical industry, with a particular highlighting on new methodologies to ensure the impact of the proposed method in medical research and its related applications. Authors are invited to submit high for this Special Issue.

Topics of interest for this Special Issue include but are not limited to the following:

- ✓ Machine Learning and Deep Learning;
- ✓ Data Selection , Classification and Prediction;
- ✓ System Analysis and Treatement;
- ✓ Computer Aided Diagnostic and Assistance;

- ✓ Medical Image Processing;
- ✓ Biomedical signal processing;
- ✓ Hardware Implementation & Co-design;
- ✓ Biomedical DataTheory and Methods;
- ✓ Real Time Image Processing;
- ✓ Content focused Image Retrieval;
- ✓ Motion and Tracking Methods;
- ✓ Robotics Imaging;
- ✓ Healthcare Speech Recognition;
- ✓ Adaptable FPGA Systems;
- ✓ Statistical Evaluation;

SUBMISSION

Papers must be submitted electronically for peer review by **February 16, 2024**

https://www.iccad-conf.com/submission/

All papers must be written in English and should describe the original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double-column format).