



Special Session Chairs:

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Special Session Title

Machine Learning and Deep Learning for Medical Image Processing

Brief description of the proposed topic (150-300 words):

Machine learning and deep learning have revolutionized healthcare by enabling more accurate diagnostics, personalized treatments, and advanced medical imaging techniques. This special session will explore recent advancements in AI-driven healthcare applications, with a focus on novel machine learning models, deep neural networks, and their integration into clinical workflows. The session aims to bring together researchers developing cutting-edge methodologies that improve medical image processing, disease detection, and patient monitoring through intelligent data-driven approaches.

This special session will cover, but is not limited to, the following topics:

- Deep learning Architectures for Clinical Learning
- Explainable AI for Clinical Decision Support Systems
- Federated Learning for Privacy-Preserving Medical Data Processing
- Automated Medical Image Retrieval and Indexing
- AI in Biomedical Signal Processing and Patient Monitoring
- Classification and Clustering Techniques in Medical Image Analysis
- Reinforcement Learning for Personalized Medicine
- Translational Medicine for Image Understanding
- Meta Transformers for Medical Prognosis and Diagnosis
- Multi-Modal Data Fusion for Medical Applications
- Semantic segmentation for medical diagnosis
- IBD Diseases Identification using Wireless capsule endoscopy (WCE)
- Magnetic resonance imaging (MRI) Analytics
- AI-Powered Ultrasound, MRI, and CT Image Analysis
- Ultrasound imaging modality detection using deep learning
- Smart Application Analytics for X-ray computed tomography (CT)
- Transfer learning in deep learning for medical imaging
- Cancers classification and Progression Monitoring using deep learning
- Fusion Techniques for Multi Modalities Medical Imaging
- Real-Time AI Applications in Healthcare
- Computer-Aided Diagnosis (CAD) Systems

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