

CALL FOR PAPERS SPECIAL SESSION ON

Advances in AI and Medical Image Analysis for Healthcare

for ICCAD 2025 July 1-3, 2025, Barcelona, Spain

Session Co-Chairs:

- Francesco Bianconi, Università degli Studi di Perugia, Italy bianco@ieee.org
- Muhammad U. Khan, Università degli Studi di Perugia, Italy muhammadusama.khan@dottorandi.unipg.it

Session description:

Artificial Intelligence (AI) and medical image analysis have received increasing attention in the last two decades as potential means to assist physicians in the clinical decision making. They have brought significant improvements in tasks like computer-assisted diagnosis, risk stratification and prediction of the response to treatment – to cite some.

While the potential benefits are appealing, there are still some major hurdles before AI and medical image analysis can be fully translated into clinical practice. Among them are lack of data, data privacy and security issues; interpretability concerns (the 'black box' problem and explainable AI) as well as legal and regulatory matters.

This session wants to provide a forum that brings together researchers and practitioners to explore both the theoretical advancements and practical applications of AI and medical image analysis in healthcare. We encourage both **methodological** and **application-focused** submissions; new **datasets**, **reviews**, **benchmarks** and **comparative evaluations** are also welcome.

The topics of interest include, but are not limited to:

- Machine learning and deep learning for personalised care
- Medical image acquisition and processing
- Medical image classification and segmentation
- Conventional and Deep learning-based image descriptors
- Explainable models (XAI)
- Applications of AI and medical image analysis

SUBMISSION

Papers must be submitted electronically for peer review by: January 31, 2025 https://www.iccad-conf.com/submission/

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