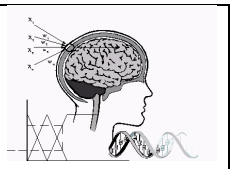
International
Conference on Human Centered Intelligent Systems
10 - 12 September 2025



INVITED SESSION SUMMARY

Title of Session:

Healthcare systems using artificial intelligence, deep learning and vision transformers techniques

Name of Chairs:

Chair:
Prof. Yen-Wei Chen
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Details of Session:

Medical image and video analysis is a tedious task for the physicians, therefore advanced computer aided systems using artificial intelligence (AI) and Machine Learning (ML) techniques are solving numerous tangible problems. Moreover, in the last decade Deep Learning (DL) and Vision Transformers (ViT) breakthroughs drove AI wide expansion in medicine. In a relation of successive inclusions (AI includes ML which includes DL and ViT), their tremendous development was decided by the new software development and hardware miniaturisation. Image and video processing new tools allow extensive learning from examples, sometimes overpassing or completing expert's observations. Assisting physicians or even offering information to sustain a complete diagnosis, the new medical applications are more and more useful.
This session is a call for describing new ideas and medical implementations, applying AI, ML, DL and ViT in support of health. Intending to gather papers from a range of research in medical expertise worldwide, we address to multi-disciplinary experts, researchers, engineers, managers, students and practitioners from the medical arena, with a warm invitation for contributions.
Discussing the ways that innovation and knowledge exchange in the context of AI tremendous development can be applied to issues related to medicine, surgery, healthcare and ageing population, will constitute the focus of this meeting. The session will try to emphasis the ways in which modern intelligent systems contribute to solve hot subjects in today's healthcare by advanced image and video processing.

Submissions must be formatted according to the instructions which can be found on the Springer website under "Instructions for Authors". Papers must be submitted in PDF format for review purposes, but

authors are required to upload editable word-processor files (LaTeX or MS Word) at the end of the review process. The required paper length is 10 pages in publisher format. Papers longer than this may be subject to an additional charge. Short papers (4 pages) are also welcome. Papers to be considered for the conference must be submitted in PDF form through online submission and review system. Please visit the conference web site for detailed information about paper submission.

Authors of selected high-quality research papers will be invited to submit their extended versions to our special conference volume.

Important Dates and Deadlines
Submission of papers: **31st March 2025**
Notification of acceptance: **5th May 2025**
Final paper publication files to be received by: **2nd June 2025**

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Research Center of Advanced ICT for Medicine and Healthcare
DUT-RU Co-Research Center of Advanced ICT for Active Life
Computer Science Faculty, University Al. Ioan Cuza, Iași, Romania
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