



# International

*Innovation in Knowledge Based and Intelligent  
Engineering Systems*



## INVITED SESSION SUMMARY

**Title of Session:**

IS07 - Medical image and video analysis using advanced artificial intelligence and machine learning techniques

**Name of Chairs:**

Chair: **Dr. Mihaela Luca**

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Co-Chair: **Assoc. Prof. Anca Ignat**

Faculty of Computer Science, University "Alexandru Ioan Cuza" of Iași, Romania [ancai@info.uaic.ro](mailto:ancai@info.uaic.ro)

**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) breakthroughs drove AI wide expansion in medicine. In fact, a relation of successive inclusions (AI includes ML which includes DL), 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, and DL 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, using AI, ML, and DL, to solve hot subjects in today's healthcare by advanced image and video processing.

**Important Dates and Deadlines**

Submission of Papers: 15 Feb 2023

Notification of Acceptance: 28 Feb 2023

Upload of Publication Files: 08 March 2023

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 the PROSE online submission and review system. Please visit the conference web site (<http://inmed-23.kesinternational.org/index.php>) for detailed information about paper submission.

Authors of selected high-quality research papers will be invited to submit their extended versions to our special issue in the journal *Frontiers in Computer Science*.

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