



International

*Innovation in Knowledge Based and Intelligent
Engineering Systems*



INVITED SESSION SUMMARY

Title of Session:

Online Education Empowered with Artificial Intelligence Techniques

Name of Chair:

dr Aleksandra Klasnja-Milicevic, Faculty of Sciences, University of Novi Sad, Serbia

dr Mirjana Ivanovic, Faculty of Sciences, University of Novi Sad, Serbia

Details of Session:

The increasing amount of learning-related data and high-performance computing are enabling intelligent systems that can support online education with a very wide range of advantages, providing learners with personalized guidance. As artificial intelligence research and development is getting more mature and the corresponding outputs are being deployed at scale in real-world contexts, the crucial role of using automated systems in online education becomes more evident nowadays. Current research has greatly expanded our understanding on such artificial intelligence techniques and applications in the area of online education however more research and many questions remain to be answered to bridge technological, social, pedagogical, and ethical perspectives in these intelligent systems.

This session aims to address the researches on high-quality, high-impact, original research results reporting the current state of the art of online education systems empowered with artificial intelligence (e.g., Machine/Deep Learning, Knowledge Representation, Reasoning and Problem Solving, Natural Language Processing, Social Intelligence). We seek to receive papers that clearly state and contextualize how the proposed intelligent system or tool is integrated in the online education systems. We are interested in contributions targeting automated intelligent support in online education applications, covering different levels of the intelligent techniques and their applications in educational process with special attention but not limited to the following topics:

- Intelligent tutoring systems;
- Web-based learning environments;
- Personalised frameworks;
- Recommendation of teaching materials;
- Advanced technologies (virtual reality, augmented reality, eye-tracking supported learning);
- Learning analytics;
- Affective and agent-bases systems;
- Natural language interfaces for instructional systems,
- Game-Based Learning Environments;
- Interactive Educational Resources;
- Intelligent Textbooks;
- Personalized eBooks for Learning,
- Intelligent and Interactive Technologies in an Educational Context,
- Design, Use, and Evaluation of human-AI hybrid systems for learning;
- Educational robotics;
- Human factors and interface design;
- and a lot of others.

Website URL (if any):**Email & Contact Details:**

akm@dmi.uns.ac.rs,

mira@dmi.uns.ac.rs