INVITED SESSION SUMMARY

Title of Session:
Interdisciplinary Perspectives on Generative AI within Knowledge-Based and Intelligent Systems

Name, Title and Affiliation of Chair:

Dr. Wilhelm Daniel Scherz, HTWG Konstanz - University of Applied Sciences, and equensWorldline Konstanz (Germany)

Prof Dr. Dennis Grewe, Esslingen University of Applied Sciences (Germany)

Dr. Maksym Gaiduk, HTWG Konstanz - University of Applied Sciences

Details of Session (including aim and scope):

The rapid expansion of artificial intelligence (AI), machine learning (ML), and generative AI (GenAI) tools—such as ChatGPT, other large language models, and widely adopted frameworks like PyTorch—has created significant opportunities as well as notable challenges across a wide range of disciplines. These tools enable users to quickly acquire information, gain high-level insights into complex topics, and explore new methodologies for problem-solving. However, they also introduce a substantial risk of misinterpretation, particularly for novice users. For example, programming students may appear to make rapid progress with AI assistance but often lack a deeper understanding of how these models function or how to critically assess the reasoning behind their outputs. Similarly, decision-makers may overestimate the capabilities of AI-generated analyses, assuming they can replace expert judgment in planning or strategic development.

When applied appropriately, however, GenAI tools and ML principles can drive innovative approaches in interdisciplinary contexts. They support the transfer of methods and solutions into fields such as psychology, health, management, and many others.

This invited session will explore applications, limitations, and human–AI interactions in the context of GenAI, with a particular emphasis on interdisciplinary perspectives, including the use of GenAI in teaching, the development and tuning of ML models for signal processing and detection, and applications in creative fields.

Topics of interest include, but are not limited to:

Human–AI interaction and training with GenAI tools

Psychological aspects and cognitive implications of AI use

AI applications in management and human resources

AI in health and medical contexts

AI for children and young people

Acceptance, trust, and adoption of AI technologies

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

Esslingen University of Applied Sciences
HTWG Konstanz - University of Applied Sciences
University of Sevilla
Universidad de loyola Sevilla
Universidad de Oviedo

Website URL of Call for Papers (if any):

Email & Contact Details:

Dr. Wilhelm Daniel Scherz: wscherz@htwg-konstanz.de, Wilhelm-daniel.scherz@worldline.com

Prof Dr. Dennis Grewe: Dennis.Grewe@hs-esslingen.de

Dr. Maksym Gaiduk maksym.gaiduk@htwg-konstanz.de