

Special Session: AI in Education for Sustainable Transformation in Industrial Engineering and Mathematics

Abstract

Artificial Intelligence is transforming the way knowledge is produced, taught, and applied across scientific and engineering disciplines. In the context of sustainable development, AI offers new opportunities to rethink education, industrial engineering, and mathematics as interconnected fields that support innovation, efficiency, and responsible decision-making.

This special session aims to bring together researchers, educators, engineers, and practitioners interested in the role of AI in promoting sustainable transformation in industrial engineering and mathematical sciences. Particular attention will be given to AI-based learning systems, intelligent tutoring, data-driven decision-making, mathematical modeling, optimization, smart manufacturing, and sustainability-oriented engineering education.

The session will explore how AI can enhance teaching and learning, support the training of future engineers and mathematicians, and contribute to the development of sustainable industrial systems. It will also address the challenges of integrating AI into higher education, including ethical issues, digital skills, curriculum innovation, human-centered learning, and the responsible use of intelligent technologies.

By connecting AI in education with industrial engineering and mathematics, this session seeks to create a multidisciplinary space for exchanging ideas, presenting research results, and identifying new opportunities for international collaboration.

Suggested Topics

Topics of interest include, but are not limited to:

AI in engineering and mathematics education, Intelligent tutoring systems and personalized learning, AI for sustainable industrial engineering, Mathematical modeling and optimization for sustainability, Smart manufacturing and Industry 4.0 education, Data-driven learning and decision-making, AI-based training and reskilling for engineers, Digital transformation in higher education, Ethics and responsible use of AI in education, Curriculum innovation for sustainability and AI.

Keywords

Artificial Intelligence, Education, Industrial Engineering, Mathematics, Sustainability, Smart Manufacturing, Optimization, Higher Education, Digital Transformation.

Submission Information: We invite researchers and practitioners to submit their original contributions to this special session. Please send your submissions to Dr. Amir Baklouti: bak_amir@yahoo.fr