OBJECTIVES

This study day focuses on the growing role of Artificial Intelligence (AI) in engineering, with particular emphasis on large-scale civil and hydraulic infrastructure projects. AI, through algorithmic simulation of human intelligence, is increasingly leveraged to support project planning and execution. Its applications span the analysis of construction timelines and costs. risk identification and mitigation, and realtime infrastructure monitoring in the face of unpredictable events such as floods and droughts. Additionally, AI enhances water resource management, enables advanced flow modeling in natural and artificial optimizes channels. and hydraulic systems involving water distribution, and purification. The treatment. conference aims to provide a platform for researchers and practitioners to exchange interdisciplinary ideas. explore approaches, and confront the pressing challenges of AI—especially those tied to data availability and the implementation of appropriate computational models for solving engineering problems.

HONORARY CHAIR OF THE STUDY

DAY — RECTOR OF THE UNIVERSITY

OF SOUK-AHRAS:
PR. MOUSSA NOURA.
CHAIR OF THE STUDY DAY
DR. LOUKAM IMED





Mohamed Chérif Messaadia University of Souk-Ahras Faculty of Science and Technology"



And
Laboratoire de Gestion,
Maintenance et Réhabilitation des
Equipements et des Infrastructures
Urbaines (INFRARES)

Will organize on november 6, 2025

The 2nd edition of the national study day entitled:

"Artificial Intelligence and Its Applications in the Fields of Civil Engineering and Hydraulics 'Sustainable Development, Environment, and Renewable Energies' (In-person)

Artificial Intelligence Day
AID2025
2nd edition

SCIENTIFIC COMMITTEE

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Topics

- Flood and floodplain modeling (AI for real-time forecasting);
- Management of drinking water and sanitation networks (leak detection using AI);
- Optimization of dams and reservoirs (flow prediction, intelligent management);
- Water quality: detection of pollutants and chemicals via AI sensors;
- Sustainable water resource management (demand and shortage prediction);
- Simulation of complex hydraulic flows (machine learning);
- Design of highly energy-efficient buildings (AI modeling and optimization);
- Intelligent management of construction materials (carbon footprint reduction);
- Life cycle assessment (LCA) of structures (environmental impact prediction);
- Monitoring and predictive maintenance of infrastructure (buildings, bridges, roads);
- Optimization of urban transport and sustainable mobility (pollution reduction);
- Smart Cities and green urban planning (AI management of urban resources).

Important Dates

Deadline for extended abstract submission:

October 2, 2025

Notification of acceptance date:

October 16, 2025

Instructions for Authors

Authors are invited to submit an extended abstract of up to 4 pages in French or English, following the provided template. The file (Word) must be named:

NomAuteur_Prénom_TitreRésumé.doc x

NameAuthor_Surname_TitleAbstract. docx

Abstracts must be sent to the following address:

apaid.2024@gmail.com

ORGANIZING COMMITTEE

Committee Chair Dr. Dairi Sabri

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