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 real-time 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 channels, and optimizes hydraulic systems involving water distribution, treatment, and purification. The conference aims to provide a platform for researchers and practitioners to exchange ideas, explore interdisciplinary 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

DEAN OF THE FACULTY
Dr. KHAMAR Farida

INFRARES LABORATORY DIRECTOR
Pr. GUEDRI Abedelmoumen

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

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MA. Mihoubi Med Salah	Univ of Souk-Ahras

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.docx

NameAuthor_Surname_TitleAbstract.docx

Abstracts must be sent to the following address: ……@……

apaid.2024@gmail.com