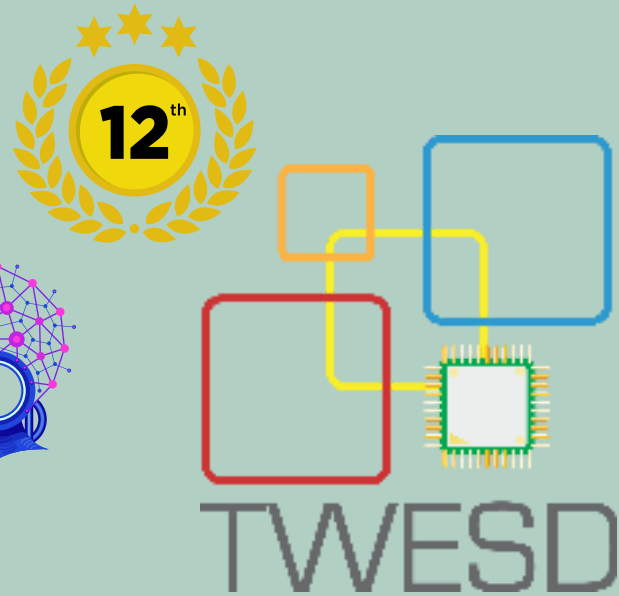


12th Tunisian Workshop on Embedded Systems Design (TWESD'2025)

Embedded AI Agents: Intelligence at the Edge



20, 21

DÉC, 2025

Orange Digital Center

National Engineering School of Sfax



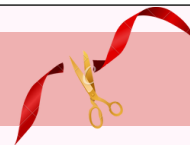
Day1: Déc 20, 2025

8:30 AM

9:00 AM

Registration Check

Workshop opening



9:00 AM

9:15 AM

- Welcome speech: Pr. Mohamed Abid
- Introduction to the workshop's agenda: Pr. Mouna Baklouti

Session 1: Keynotes

9:15 AM

9:45 AM

Pr. Brahim Hnich, FSM, Tunisia

“AI Agents and Ethics in Scientific Research”

9:45 AM

10:15 AM

Pr. Mohamed Kossentini, IPEIS, Tunisia

“Embedded Agentic AI: A New Neural Paradigm”

10:15AM

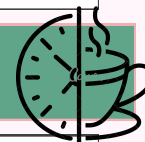
Pr. Neila Mezghanni, INRS-EMT, Canada

11:45 AM

“Merging disciplines for responsible and explainable AI in healthcare”



Coffee Break



11:00 AM

Pr. Mohamed Abid, ENIS, Tunisia

11:30 AM

“Foundations of Agentic AI and Embedded Systems”

11:30 AM

Pr. Mohamed Ould ElHassen, FSB, Tunisia

12:00 AM

“Building AIoT:from data collection to deployment”

12:00 AM

Dr. Mohamed Kharrat

12:30 AM

“AI powered IoT device development from idea to production ”

Session 2 : PhD presentations-part 1

12:30 AM

Amira Guesmi

12:45 AM

Application de l'IA pour la reconnaissance à partir d'un drone.

12:45 AM

Najeh Fouda

13:00 AM

IA pour l'optimisation énergétique dans un réseau électrique intelligent.

13:00 PM

Samaher Ajili

13:15 PM

Intégration de l'intelligence artificielle pour un apprentissage en ligne adaptatif et personnalisé dans les contextes éducatifs défavorisés.

Prayer and Lunch Break



Session 3 : PhD presentations-part 2

14:00 PM

Hatem Majouri

14:15 AM

X-Ray Bone Fracture Segmentation Using SAM-Based Deep Learning Approaches

14:15 PM

SIRINE SMAOUI

14:30 PM

An AI-based Manufacturing Execution System (MES) for the textile industry 4.0

14:30 PM - 14:45 PM	Nadjemeddine Menaceur Practice workshop for LangGraph Agentic AI frameworks
14:45 PM - 15:00 PM	Khaled Werg Integrating Artificial Intelligence with the TAM to Enhance Faculty Members' Attitudes Toward E-Learning.
15:00 PM - 15:15 PM	Nesrine Affes Apprentissage fédéré en médecine basé sur la blockchain embarquée
15:15 PM - 15:30 PM	Boubaker Abdallah Adaptive Cross-Technology Communication Framework for Interoperable and Scalable IoT Networks.
12:00 AM - 12:15 AM	Nouha Azouzi Neuro-Symbolic AI: The Bridge Between Learning and Reasoning.



Prayer and Coffee Break



Session 3 : CES lab projet presentations

15:45 PM - 16:00 PM	Dr. Omar Cheikhrouhou "AI for the benefit of humanity"
16:15 PM - 16:30 PM	Dr. Olfa Gaddour "Towards Intelligent Edge Healthcare "
16:30 PM - 16:45 PM	Dr. Maissa Elleuch "Formal verification in the age of artificial intelligence "
16:45 PM - 17:00 PM	Dr. Yessine Aydi "Digital Twin for Cultural Heritage Education in Mediterranean cities "



Day2: Déc 21, 2025

**8:30 AM
-
9:00 AM**

Registration Check

Session 4 : Hands-on Training

**9:00 AM
-
11:45 AM**

Dr. Manel Hentati, Ing. Moatez Zouari, Pr. M. Abid

“Building and Deploying AI Agents in the Cloud: Hands-On Foundations”

Prayer and Coffee Break



**12:45 PM
-
14:30 PM**

Dr. Manel Hentati, Ing. Moatez Zouari, Pr. M. Abid

“Implementing Embedded AI Agents on Raspberry Pi 5: Edge Intelligence in Practice”

14:30 -14:45 PM: Closing ceremony