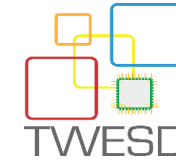


TWESD 2023 Program



Friday June 16, 2023

	12:00 -14:00	14:00 – 14:20	14:20-15:20	15:20-16:20	Break	16:30-18:00		Dinner
	Registration	Workshop Opening	Session 1: PhD students	Session 2: Projects		Session 3: Industry 4.0		
			Presentations			Speaker: Adem Bouchaala	Speaker: Mohamed Kharrat	

Saturday June 17, 2023

08:30-10:30	Break	10:45-12:45	Lunch break	14:00 - 17:00	Dinner
Session 4: Embedded Artificial Intelligence (1/3)		Session 5: Embedded Artificial Intelligence (2/3)		Session 6: Embedded Artificial Intelligence (3/3)	
Mohamed Dhouioui / Mariem Turki / Olfa Gaddour		Mohamed Dhouioui / Mariem Turki / Olfa Gaddour		Mohamed Dhouioui / Mariem Turki / Olfa Gaddour	

Sunday June 18, 2023

08:30-09:30	09:30-10:15	Break	10:30-11:30	11:30-12:30	Release rooms Lunch & Departure	
Session 7 : Artificial Intelligence			Session 8 : Competition	Panel-meeting & Closing Ceremony		
Speaker: Abdelaziz Kallel	Speaker: Anis Koubaa		Best Project IoT and Industry 4.0			

Sunday June 18, 2023

12:00 - 14:00: **Registration**

14:00 - 14:20: **Workshop Opening**

14:20 - 15:20: Session 1, PhD Student Presentations

Session chair: M. Mohamed Abid

14:20 - 14:35: **Marwa Thabet**, A New family of virtual machine placement algorithms with security constraints

14:35 - 15:50: **Marwa Afnouch**, Machine learning application in medical diagnosis: case study of bone metastases

14:50 - 15:05: **Sana Chouaibi**, Etude et modélisation d'un microphone MEMS ultrasonore pour la détection précoce de décharges partielles dans les transformateurs de puissance

15:05 - 15:20: **Lassaad Zawai**, Conception d'un système de commande et de monitoring par IoT pour un fauteuil roulant électrique intelligent

15:20 - 16:20: Session 2, Projects Presentations

Session chair: M. Olfa Gaddour

15:20 - 15:35: **Mouna Baklouti**, Blockchain pour la supervision médicale intelligente

15:35 - 15:50: **Mohamed Abid**, Industry 4.0: Embedded AI and Applications

15:50 - 16:05: **Hafedh Trabelsi**, Système de pilotage et supervision autonome

16:05 - 16:20: **Yassine Aydi**, Think big for innovation and excellence

16:20 - 16:30: break

16:30 - 18:00: Session 3, Industry 4.0

Session Chair: M. Yassine Aydi

15:45 - 16:45: **Adem Bouchaala**, Emerging technologies in Industry 4.0

16:45 - 17:45: **Mohamed Kharrat**, How to build a lean project

Monday June 19, 2023

08:30 - 10:30: Session 4, Embedded Artificial Intelligence (1/3)

Session Chair: M. Wassim Djmal

Training: Design and build models

- Data preparation
- Model building (TF/Keras)
- Model training (custom dataset)
- Model conversion (TF lite)
- Comparative evaluation (Quantization/ Pruning/...etc)

10:30 - 10:45: break

10:45 - 12:45: Session 5, Embedded Artificial Intelligence (2/3)

Session Chair: M. Mossaad Ben Ayed

Training: Transfer learning

- Pre-trained model retrieval
- Quantization-Aware Training
- Optimizing the model for speed and accuracy.
- TF lite with other sensors and actuators

12:45 - 14:00: Lunch break

14:00 - 17:00: Session 6, Embedded Artificial Intelligence (3/3)

Training: RaspberryPi implementation

- Setting up a development environment on the Raspberry Pi.
- TF lite models' implementation
- Performance evaluation
- Using a camera for an object detection application

Tuesday June 20, 2023

08:30 - 10:15: Session 7, Artificial Intelligence

Session chair: M. Omar Cheikhrouhou

08:30-09:30: **Abdelaziz Kallel**, Remote Sensing: Application on Agriculture Monitoring

09:30-10:15: **Anis Koubaa**, Recent advances of Artificial Intelligence

10:15 - 10:30: break

10:30 - 12:30: Session 8, Competition and round table1

Session chair: M. Walid Hassairi

10:30-11:30: Competition "Best Project IoT and Industry 4.0"

11:30 - 12:30: Panel-meeting & Closing-Ceremony

12:45: Release Rooms, Lunch and departure