





http://www.ceslab.org/TWESD2024/

## The 11th Tunisian Workshop on Embedded Systems Design

## TWESD'24

**Generative AI and the challenges to Education** 



# TWESD'24





June 22-24, 2024

#### **Saturday**

12:00 AM - 2:00 PM: Registration

2:00 PM – 2:15 PM Workshop opening

2:15 PM - 4:15 PM Keynote

4:15 PM - 4:45 AM Prayer Break

4:45 PM - 5:30 PM PhD presentations

5:30 PM - 6:15 PM AI in Healthcare

8:30 PM-9:30 PM Keynote 2

9:30 PM - 10:30 PM Lab Projects
Discussion

#### Sunday

8:30 AM - 10:30 AM S1: ISTQB

10:30 AM - 10:45 AM Break

10:45 AM - 12:45 AM S2: ISTQB

12:45 PM - 2:00 PM Lunch Break

2:00 PM - 3:45 PM S3: ISTQB

3:45 PM - 4:15 PM Prayer Break

4:15 PM – 5:30 PM Keynote 3

9:30 PM- 11:30 PM Animation

#### Monday

8:15 AM - 8:45 AM Keynote 4

8:45 AM - 10:30 AM Keynote 5

10:30 AM - 10:45 AM Break

10:45 AM - 11:30 AM Competitions 1 & 2

11:30 AM - 12:30 AM Closing Ceremony

12:30 AM Room Check-out & Lunch



















## Day1: Saturday, June 22, 2024

#### 12:00 AM - 2:00 PM Registration

- Registration Check
- Room Check-in

## 2:00 AM – 2:15 PM Workshop opening

- · Welcome speech
- Introduction to the workshop's agenda.

#### 2:15 PM - 4:15 PM Keynote 1

- Speaker: Prof. Brahim Hnich (FSM, Monastir, Tunisia)
- "The Transformative Power of Artificial Intelligence"

4:15 PM - 4:45 PM Prayer Break

#### 4:45 PM - 5:30 PM PhD presentations

- Abir Loussaief: Modeling Harmful Algal Blooms (HABs) using machine learning techniques
- Atiyah Awadh Altayf: Intelligance selection for the PV-BESS baseb on cost and relibility using MCDM
- Hajer Ben Daya, Monitoring of Trophic Index (TRIX) in maritime context
- Farah KhemaKhem, Classification des micro-algues par cytométrie en flux d'imagerie
- Amani Khalifa: At-Risk Students Identification based on Machine Learning Approach: A Case Study of Computer science bachelor student in Tunisia
- Bilel Nasri: Nouvelle approche basée sur la segmentation super-pixels et GAN pour la détection de la pneumonie

## 5:30 PM - 6:15 PM Al Innovations Transforming Healthcare

- Speaker: Dr. Salima Daoud (FMS, Sfax, Tunisia)
- Artificial Intelligence in reproductive health: an evolving role
- Speaker: Dr. Olfa Abdelkafi (FMS, Sfax, Tunisia)
- Development of a Deep Learning model for the classification of human sperm

7:30 PM - 8:30 PM Dinner

#### 8:30 PM - 9:30 PM Invited Session: Mechatronics Instrumentation

- Speaker: Dr. Ezideen Hasso (Tishk International University, IRAQ)
- "Pitot Tube and Microelectromechanical Systems"

9:30 PM - 10:30 PM Lab Projects Discussion



















## Day2: Sunday, June 23, 2024

#### **08:30 AM - 10:30 AM** Training S1: ISTQB

- Speaker: Yessine Hadj Kacem (FSEG, Sfax, Tunisia)
- Theoretical Part: Preparation for ISTQB Certification
  - Fundamentals of Testing
  - Testing throughout the Software Development Lifecycle
  - Static Testing
  - Testing Techniques
  - Test Management
  - Testing Support Tools

10:30 AM - 10:45 AM Break

#### 10:45 AM - 12:45 PM Training S2: ISTQB

- Speaker: Yessine Hadj Kacem (FSEG, Sfax, Tunisia)
  - Practical Part (1): Automated Testing with Selenium

## **14:00 PM - 15:45 PM Training S3: ISTQB**

- Speaker: Yessine Hadj Kacem (FSEG, Sfax, Tunisia)
  - Practical Part (2): Automated Testing with Selenium
  - Q&A

#### **15:45 PM – 16:15 PM Prayer Break**

## 16:15 PM - 17:30 PM Keynote 2

- Speaker: Dr. Wael Ouerda (Head of Brain4ICT Team, SM@RTS, CRNS, Sfax, Tunisia)
- "Empowering Pedagogy: Unleashing Al's Potential in Education"

19:30 PM - 20:30 PM Dinner

21:00 PM - 23:30 PM Animation



















## Day3: Monday, June 24, 2024

## 8:15 AM - 08:45 AM Keynote 3

- Speaker: Marco Neves (Al Education Expert, Portugal)
  - "Al for Education and Scientific Research"

#### 8:45 AM - 10:30 AM Keynote 4

- Speaker: Prof. Anis Koubaa (PSU, KSA)
- Recent Advances in Generative AI and Large Language Models
  - Technology Advances
  - Emerging Applications
  - ArabicLLM

## **10:30 AM - 11:30 AM Break & Competition**

- **Competition 1:** IoT Competition
- **Competition 2:** Pioneering Medical Image Interpretation and Diagnosis through AI

### 11:30 AM - 12:30 AM Closing Ceremony

- Competition Prize Announcements
- Certificates Distribution

12:30 AM

**Room Check-out & Lunch** 













