

## *Special Session Proposal*

### **LPMS/ENIT-UTM:**

#### **The laboratory of Photovoltaic and semiconductor materials (LPMS):**

Headed by Pr Mohammed ben Rabeh has pioneered several processes for the thin films preparation, such as thermal evaporation and sputtering. Current activities of the laboratory cover a broad spectrum, ranging from fundamental research to industrial technology transfer.

The lab masters processes of device fabrication and optimization for a wide variety of semiconductors thin-film as component in solar cells, gas sensor and photocatalic applications.

It also has expertise in the optimization of solar cell layers and photonic crystals.

### **Title**

#### ***Advancements in Photovoltaic Materials and Sensors***

### **Session organizers**

#### ***Dr Inès Abdellaziz***

She is currently Assistant Professor with ISSATM-CU. She received her Master's degree and PHD from INSAT in 2008 and 2012, respectively. Her research interests are: impedance spectroscopy, materials science, physics and characterization, measurement systems design, sensors and embedded systems.

#### ***Dr Ferid Chaffar Akkari***

He is an Associate Professor of physics with IPEIM- UTM. He has over 15 years of experience in the field of Nanostructures, Thermal Evaporation, Thin Films, Oxides, Nanomaterials, Thin Films and Nanotechnology, Material Characterization, Nanostructured Materials, Thin Film Deposition, Nanofabrication, Thin Film Fabrication, Thin Film Technology, Vacuum Technology, Nanoscience, Surface Characterization, Semiconductor Nanostructure.

His research interests are focused on the development of thin film growth with glancing angle deposition technique and study the optical, structural, morphological and electrical properties.

### **Brief Description of the session thematic**

This special session focuses on the latest advancements in new materials for photovoltaic technologies and associated sensors. It provides an overview to discuss current challenges, opportunities, and breakthroughs in designing innovative materials to enhance energy efficiency and sustainability in photovoltaic systems and sensors.

### **Topics and Keywords:**

- 1. Advanced Semiconductor Materials/Innovative Photovoltaic Materials.**
- 2. Nanostructured Materials.**
- 3. Transparent and Conductive Materials.**
- 4. Innovation in coating Materials.**
- 5. Durable and Recyclable Materials/Materials Durability and Sustainability.**
- 6. Innovations in Manufacturing Technologies.**

### **Number of pages**

*4 to 6 pages*

### **Deadlines**

*Full paper submission: June 15<sup>th</sup>, 2024.*

*Authors' notification: August 30<sup>th</sup>, 2024.*

*Camera-ready paper submission: September 15<sup>th</sup>, 2024.*

### **List of potential reviewers**

*Inés Abdellaziz*

*Ferid chaffar Akkari*

*Mohammed ben Rabeh*

*Mounir Kanzari*

*Sana fridjine*

*Nabila Bitri*

### **Submissions Procedure**

*The instructions for the submission of your manuscript are included in the conference website via the following link: <https://icaige.tn/submission/>*