

The 8th International Conference on Advances in Mechanical Engineering and Mechanics

# ICAMEM 2024

From Fundamentals & Laboratory to Industrial Applications



June 28-30, 2024 Sousse, Tunisia

# Conference Scope

The International Conference on Advances in Mechanical Engineering and Mechanics (ICAMEM2024) aims to attract the interest of specialists, academicians, and researchers from the international community working in research areas related to Mechanical Engineering and Mechanics, Contributions to ICAMEM2024 also span from intriguing research with recent industrial applications to advanced educational resources, dissemination of technology, and best practices. The conference will be organized in several topics. ICAMEM2024 also encourages and rewards excellence in research by young students through specific poster sessions.

# General Chair Prof. Riadh ELLEUCH

(ENI Sfax, LASEM, Tunisia)

## Materials

- Metals, polymers, ceramics
- ·Bio-materials and Eco-materials
- Smart materials
- Composite materials
- Surfaces and thin films
- Materials and corrosion
- Fatigue and damage
- Tribology
- •Non-destructive testing
- ·Crystallography and diffraction
- Machine learning & deep learning

## Design & Manufacturing

- •Theory of product design
- ·Modeling and optimization of manufacturing systems
- ·Inspection and metrology
- •Integrated design and PLM
- •Rapid prototyping tooling
- •Reliability of industrial systems
- •Additive manufacturing and 3D printing technologies
- ·loining and assembly
- Forming processes

## Applied Mechanics

- Computational methods in mechanics
- •Computational modeling of multi-scale / multi-physics
- ·Processes in materials
- ·Fracture and damage mechanics
- Contact mechanics
- Stability of structures
- Mechanics of infrastructure systems
- Biomechanics
- Machine learning & deep learning

#### Dynamics of Systems

- System dynamics and vibro-acoustics
- ·Products sound quality and noise control
- Noise and vibration
- Measurement techniques
- Control theory and applications
- ·Damage identification and
- Robotics
- •MEMS and -NEMS technology
- Energy harvesting
- Machine learning & deep learning
- •3D printed systems dynamics

## Fluid Mechanics

- ·Multiphase flow
- ·Fluid rheology
- Computational fluid dynamics
- ·Experimental fluid dynamics
- Microfluidic applications
- Hydrodynamics
- Fluid-structure interactions

## **Industrial Applications & Technology Transfer**

- Automation of production systems ·Creation and development of
- assembly systems
- ·Improvement of working conditions

## Thermal Sciences & Renewable Energy

- Applied thermodynamics
- ·Computational heat and mass transfer
- ·Micro and nano heat transfer
- ·Combustion and reactive flows
- •Solar heating and wind energy
- ·Renewable energy

## **Deadline extension:**

Full paper submission: 04/30/2024 Acceptance notification: 05/15/2024

Financial contributions will be provided to the Tunisian Scientific Society (TSS).





icamem2024@gmail.com

























