**University M'Hamed Bougara of Boumerdes
Solid Mechanics and Systems Laboratory**

1st National Conference on Mechatronic Engineering
NCME'2025

12-13 october, 2025

Boumerdes - Algeria

Organizers and partners

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Chair of Scientific Committee

Dr. Fawzi GOUGAM, University of Boumerdes

Call For Papers

The 1st National Conference on Mechatronic Engineering (NCME'2025) is a hybrid, peer-reviewed event focused on integrating AI into mechatronics. Held in Boumerdes, Algeria, on 12–13 October 2025, it offers a platform for researchers and professionals to share innovations and applications. The program includes keynote talks, technical sessions, workshops, and networking, with discussions on trends, challenges, and the future of AI in mechatronic systems.

Important Dates

Full Paper Submission Deadline: 03rd August, 2025

Acceptance Notification: 15th September, 2025

Conference Date: 12-13th October 2025

Participation fees

	On-site	On-line
Students	5000 DA	3500 DA
Academic	7000 DA	4500 DA
Industrials	10000 DA	6500 DA

Fee of Additional paper 50%

University of Boumerdes, CCP: CC 3556 96 Clé 07

RIP: 007 99999 0000355696 21

Conference Topics

Advanced Technologies for Prognostics and Health Management

- Fault Diagnosis and Prognosis in Industrial Systems
- Advances in Signal and Image Processing
- Applied AI Techniques in Health Monitoring

AI-Assistance for Mechanical Systems: Smart structures, Fluids, and defect Materials

- Applied AI for Smart Structures
- AI-Application for smart fluids
- AI-Assistance for defect materials Detection

Autonomous and Real-Time Systems

- Embedded Machine Learning and AI for Mechatronic Systems
- IoT, Edge Computing, and Real-Time Data Analysis
- Data analysis, Networking, and Cloud Computing
- Cybersecurity and IT Solutions in Mechatronic Systems
- Real-Time and Edge Computing in Mechatronics

Embedded AI and Information Technology in Mechatronics

- Embedded Machine Learning and AI for Mechatronic Systems
- IoT, Edge Computing, and Real-Time Data Analysis
- Data Communication, Networking, and Cloud Computing.
- Cybersecurity and IT Solutions for Mechatronic Systems
- Real-Time and Edge Computing in Mechatronics

Power and Renewable Energy in Mechatronics Applications

- Renewable Energy in Mechatronic systems
- Energy Conversion, Storage, and Optimization in Mechatronic Systems
- Smart Grids and Energy Management in Industrial Automation
- Energy-Efficient Mechatronics and Green Technologies
- Electric and Hybrid Vehicle Energy Efficiency.

Conference Organizing Committee

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Plenary sessions

Plenary 1: Intelligent AI-Driven Diagnosis for Power Electronics and Machine Drives in Electric Vehicle.
Dr. Khaled LAADJAL (University of Beira Interior Covilhã, Portugal).
Plenary 2: Condition monitoring for Prognostics and Health Management.
Dr. Moncef SOUALHI (University of Franche Comté, Besançon, France).

Workshop

Prognostics in Practice: A Hands-On Python Workshop;
Dr. Khaled BENAGGOUNE (Data Engineer in Advanced Maintenance Analytics (AMA) team, Alstom, France)

Scientific Committee

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Dr. Imane MOUSSAOUI- University of Boumerdes

Paper Submission

Authors are invited to submit full-length papers (6 pages max) written in English, and formatted using the IEEE template. The papers should be submitted electronically in PDF format via the following link:
https://www.ncme-ft.univ-boumerdes.dz/

Paper Publication

Selected high-quality papers will be considered for publication in the Algerian Journal of Signals and Systems (AJSS, E-ISSN: 2676-1548).

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