



# **Call for Paper**

## Welcome to 2024 IEEE Conference on Prognostics and Health Management (ICPHM 2024)

# Enhancing Safety, Efficiency, Availability, and Effectiveness of Systems through PHM Technology and Application

Spokane, WA

June 17-19, 2024



**Click Here to Submit Your Paper** 

The 2024 IEEE International PHM Conference is the world's premiere forum for PHM and the only PHM conference financially sponsored by the IEEE. PHM is a wide-ranging, interdisciplinary field, that requires an energized exchange of ideas. This conference will match-up world-class expertise in the academic, engineering, and management disciplines to create synergistic exchanges of ideas and practices among academics and industry practitioners. Special attention

has been paid to assure a sociable, professional environment to encourage networking, forge new relationships, and deepen existing ones.

#### ICPHM 2024 will be a hybrid event and remote presentation will be an option

#### PHM topics and applications include but are not limited to:

#### Principles

- Physics of failure
- Sensors and devices
- Structural sensing
- Modeling and simulation
- Data-driven
  methods
- Model-based methods
- Multi-sensor fusion
  principles
- Logic/reasoning techniques
- Verification, validation, and maturation
- Affordability Aspects and the Business Case for PHM
- Standards and methodologies
- Artificial Intelligence for PHM, including Machine Learning
- Data collection, processing, and management
- Hybrid Models for PHM

#### Systems Design and Implementation

- Requirements Development
- System design and engineering
- Automated reconfiguration
- Statistical analysis of
  Uncertainty
- Component-level PHM
- Nondestructive Evaluation Technologies with PHM Utilization
- Decision Support and Simulation including Digital Twins
- PHM Computer-Aided Engineering Technologies/Applications
- Integrated Structural/Frame Health Management
- Generative AI in PHM

### Applications

- PHM within Power Smart Grid technology
- PHM within Distributed, Networked, Cloud Computing, Information and Communication Systems
- PHM for electronics components and systems
- PHM within innovative Aerospace and Defense, Appliance, Medical, Electric Vehicle, Deep Drilling, and Energy Applications
- Fleet / Industrial PHM based maintenance management
- Gas Turbines and Rotating Machinery
- Informed Logistics
- Lessons Learned from PHM systems design and integration
- Battery System Health Management
- Fault Management including Identification, Localization, and Isolation
- Maintenance, resiliency, and corrective action
- Proactive and predictive fault and failure management
- Synergies between PHM, RAMS, Aging management
- PHM within Health Care
- PHM within Smart Cities, Building and Lighting

Abstracts will no longer be required for the IEEE PHM 2024 Conference. Authors are encouraged to directly submit their draft full papers by the deadline given below.

### **Important Dates**

Draft full paper: February 2, 2024 Notifications of acceptance: March 22, 2024 Author registration due: April 12, 2024 Final manuscript due: April 12, 2024 Conference dates: June 17-19, 2024

Presenters needing an invitation letter for visa purposes may request an invitation letter from the conference program chair once the draft paper has been accepted and registration has been paid in full.

All presented papers that meet IEEE quality standards will be submitted to IEEE Xplore for publication.