



Announcing the PHME21 Conference



Virtual:
June 28-July 2
or Physical:
June 30 – July 2

TURIN - Italy



Information and submissions at phm-europe.org

The Prognostics and Health Management Society invites your participation, including submission of original papers and posters, for presentation at the 6th European Conference of the PHM Society, June 28 - July 2, 2021.

Due to the current virus situation the conference will be at least a virtual event (5 days, June 28 - July 2), building on our past success with 660 registrants for PHME20. Anticipating a safer situation by next summer we hope for a physical event in Turin Italy (3 days, June 30 - July 2). We also have ideas for a contingency plan for local gatherings in major centres to facilitate building our community if meeting in Turin is not possible. These options will be pursued as the situation changes, but the virtual event is assured. Follow developments at: www.phm-europe.org

The conference will highlight the broad aspects of Prognostics and Health Management across all disciplines, technologies, and levels. Past participants came from: Airbus, Baker-Hughes, Dutch Rail, ECA, GE, GM, Honeywell, Huawei, Hyundai, IFSTTAR, IK-4 Tekniker, Irish Rail, KEPSCO, Linova, Lufthansa, Meggitt, Mercedes, Messier-Bugatti-Dowty, Mitsubishi, NI, Orsted, PARC, PREDICT, Prisma, PwC, Ricardo Rail, RK Diagnostics, Rolls Royce, Saab, Safran, Scania, SKF, Snecma, STMicroelectronics, Ureoson and UTRC, and many universities and public sector organizations, like CNRS, DLR, EDF, GVB, Inria, IVHM Centre, KIMM, KITECH, NASA, NLR.

The proceedings for PHME20 (*) are available at:

<http://phmpapers.org/index.php/phme/issue/view/4>. PHME21 will target the activities shown below.

Technical papers

Submissions are invited for papers for presentation and inclusion in the proceedings. Be part of an active network including students, managers, practitioners, and scientists from academia, government, and industry, from across the globe addressing the following topics:

PHM Design

- Systems engineering aspects of PHM
- PHM related standards and methodologies
- PHM Design and PHM Architectures
- Uncertainty, Explainability and Causal Inference

- Deep Learning/Machine Learning methods for PHM
- PHM at the Component/Sub-system/System level

PHM Development

- Physics of failure for anomaly detection, diagnostics and prognostics
- Fault-adaptive control methods
- Prognostics sensors and detection
- Fault detection and prognostics of MEMS
- Model-based diagnostics
- Data-driven, model-based and hybrid prognostics
- Condition-based and predictive maintenance technologies
- Software and hardware for PHM
- Degradation modelling

PHM Applications

- Asset health management
- Structural health management
- PHM for electronics and electrical engineering systems and plants
- PHM in Cyber-Physical Systems
- Cost Benefit and Return-on-Investment analysis
- PHM for Automotive, Rail, Marine, Wind and Energy
- PHM for Manufacturing (Production planning and Control)
- Deployed applications and success stories

Panels

Suggest titles and offer to organize one building on PHME20: PHM Standards in a Machine Learning Domain, Theoretical Aspects of Prognosis, PHM for Energy Generators, and PHM for Electric Vehicles. *Maybe:* Space, MRO, Human Performance, Scalability, Reliability, Use Cases, Uncertainty.

Student Track - Doctorial Symposium

For the first time in Europe a Doctorial Symposium will be run as part of a Student Track. This framework provides an excellent opportunity for graduate students to present their research interests and plans at a formative stage in their research. The students will receive structured guidance from a panel of distinguished researchers, as well as comments from conference participants and fellow students in a collegial setting.

Data Challenge

After the success of the Data Challenge in 2020, we intend to prepare another dataset for the European PHM Research Community. Winning teams will be invited to publish their work in the conference proceedings of the 6th European Conference of the PHM Society and a representative will be expected to make an oral presentation at the event.

Important Dates

Prospective authors are invited to contribute full length, original, high-quality papers. Submit your abstract first and then your paper at the PHME conference page at:

[PHM Society European Conference \(phmpapers.org\)](http://phmpapers.org)

Pacing dates are:

Submission of abstracts by January 25, 2021

Notification of Acceptance of Abstract by February 1, 2021 (Submit early and hear back early)

Submission of complete papers and posters by April 5, 2021

Paper review feedback: May 3, 2021 (Submit early and hear back early)

Final paper or poster due: May 17, 2021

All accepted papers will be published in the PHME21 conference proceedings by June 21, 2021

Why you want to be there

PHM Europe 2021 will feature keynote presentations from PHM leaders, high quality presentations of research papers, industry and student poster presentations, panel sessions as well as special technical sessions and optional short courses. Great networking and social events too. We will run a new data challenge competition and a doctoral student symposium. Look at the excellent content from the past conference at <http://www.phmsociety.org/events/conference/phm/europe/18> and <http://phmeurope.org/2020/>

*Submitted papers will be reviewed by experts based on the criteria of originality, significance, quality, and clarity. A major differentiator for the PHM Society is its modern approach to intellectual property rights. Authors retain copyright in their work while allowing the PHM Society to distribute their work through a Creative Commons License. As a result, all articles published by the PHM Society are available to the global PHM community via the internet free and without any restrictions (other than attribution). Selected papers will be invited for publication on [International Journal of Prognostics and Health Management](http://www.phmsociety.org) the open access online journal for the global PHM community (www.phmsociety.org).

Please plan to join us today by submitting an abstract and then a paper. See you there!