



Complex Systems Reliability and Maintenance Optimal Management Using the PHM Approach and Artificial Intelligence

Guest Editors:

Prof. Dr. Alberto Regattieri

Department of Industrial
Engineering, Bologna University,
40126 Bologna, Italy

Prof. Dr. Matthias Klumpp

Department of Production and
Logistics, Georg-August-
University of Göttingen, 37073
Göttingen, Germany

Dr. Miguel Delgado-Prieto

Automatic Control Department,
Universitat Politècnica de
Catalunya, 08222 Terrassa,
Barcelona, Spain

Deadline for manuscript
submissions:

closed (10 January 2022)

Message from the Guest Editors

This special issue focuses on the theory and application of Prognostic and Health Management (PHM) methodologies in real industrial contexts. Due to the potential advantages PHM is receiving a broad consensus. Despite encouraging results achieved by methods proposed, there are still important open issues that need to be addressed (e.g. raw data handling and pre-processing, supervising, effect of operating conditions, etc)

We are soliciting papers on topics that include but are not limited to:

- Applications of semi-supervised and incremental learning techniques for novelty detection and fault detection
- Incremental feature learning for industrial equipment signals
- Applications of PHM in IIoT contexts
- Degradation modeling of components operating in different operating conditions
- System-level prognostic
- Definition of requirements and challenges for the implementation of Predictive Maintenance in industries Integration of predictive maintenance with preventive policies
- Cost-benefit analysis of predictive maintenance





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

Contact Us

Applied Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
X@Applsci