Special Issue

Trustworthy AI for Prognostics and Health Management of Electronic Equipment

Message from the Guest Editors

This Special Issue seeks original contributions that address the challenges of developing trustworthy AI solutions for PHM in electronic equipment. We invite research that focuses on explainability, transparency, reliability, and robustness in AI models, as well as their applications in PHM. Submissions may explore the use of AI in fault detection, diagnosis, and prognostics, along with innovative approaches that ensure the safety and reliability of AI-driven PHM systems. Topics of interest include, but are not limited to, the following:

- Trustworthy AI models for predictive maintenance in electronic systems.
- Explainable AI techniques in PHM for electronic equipment.
- Robust and reliable AI models for PHM.
- Uncertainty quantification in AI-driven PHM systems.
- AI-based predictive maintenance in industrial electronics.
- Digital twin-assisted reliable AI models for electronic equipment.
- Data-driven approaches for health assessment and remaining useful life estimation of electronic components.
- Security and privacy preservation in AI-based electronic equipment health management.
- Case studies demonstrating the implementation of trustworthy AI in electronic PHM solutions.

Guest Editors

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Deadline for manuscript submissions

closed (15 May 2025)

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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