



Digital Twin in Prognostics and Health Management Era

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Deadline for manuscript submissions:

closed (16 June 2024)

Message from the Guest Editors

Dear Colleagues,

PHM uses sensors to monitor the states of devices in real time, uses various models and algorithms to perform fault diagnosis, fault prognostics, and remaining life prediction, and creates the optimal maintenance plan. The combination of digital twin and prognostics and PHM holds immense potential for innovation and application. This Special Issue aims to illuminate the cutting-edge research in digital twin technology for PHM.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Integration of digital twin and PHM methodologies in CPSs;
- Applications of digital twin and PHM in smart manufacturing;
- Real-time monitoring and predictive maintenance using digital twin;
- Data analytics and AI techniques for enhancing PHM through digital twin;
- Security considerations in implementing digital twin and PHM in Industry 4.0;
- Economic and environmental implications of combined digital twin–PHM strategies;
- Human–machine interaction and user-centered design for digital-twin-enhanced PHM studies;

We look forward to receiving your contributions.





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Editor-in-Chief

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Message from the Editor-in-Chief

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