Special Issue

Advances in Condition Monitoring and Fault Diagnosis

Message from the Guest Editors

Recent years have seen notable progress in rotating machinery's condition monitoring (CM) and fault detection/diagnosis (FDD), driven by industrial demands for reliability, efficiency, and safety. CM for high-value machinery is critical for status/performance tracking, cost reduction, and early fault warning. Core techniques include signal processing (time/frequency/time–frequency domains), anomaly detection, data fusion/mining, time series analysis, and expert systems, with applications in wind energy, photovoltaics, and electric vehicle components. This Special Issue welcomes theoretical/practical contributions on intelligent CM/FDD techniques and innovative system applications (original/review articles). Potential topics (not limited to):

- Advanced data observation/acquisition for rotating machinery CM;
- Big data signal processing for power equipment PHM;
- Extreme-environment mechanical defect evolution/detection;
- Incomplete sample data repair/verification/anomaly monitoring;
- Time/time–frequency domain feature representation for local defects;
- Noise robustness evaluation and weak signal enhancement;
- Denoising and real signal separation under strong noise.

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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 guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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