



Symmetry in Reliability Engineering

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Message from the Guest Editors

Dear colleagues,

Modern products and systems are always desired to be highly reliable. As a result, reliability engineering becomes an important subject, with research on improving product reliability. The purpose of this Special Issue is to show and share new ideas and achievements of reliability estimation approaches, reliability prediction methods, reliability design tools, and related applications in engineering practices with relevant experts, scholars, and engineers around the world. Symmetric and asymmetry properties are commonly inherent in numerous physical and engineering systems, and have been studied by various researchers. We would like to invite experts to contribute their research by employing symmetry or asymmetry concepts in their methods and methodologies. The topics of this Special Issue include, but are not limited to, the following: prognostics and health management, failure mechanism analysis, degradation modeling, reliability estimation, fault-tolerant control, fault diagnosis, health management, network reliability analysis, maintenance strategy, and digital twins. Manuscript types include original research papers, reviews, and letters.





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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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