Special Issue

Fault Detection and Diagnosis of Intelligent Mechatronic Systems

Message from the Guest Editors

Intelligent mechatronic systems (IMSs), such as intelligent vehicles, robots, airplanes, engines, and marine systems, have received considerable attention due to their practical applications in real lives. However, IMSs are generally complex due to the integrations of artificial intelligence and multidisciplinary features taken from mechanical engineering, computer engineering, electrical engineering, and control engineering. This integrated complexity leads to great challenges in system modeling and reliability testing due to different and complex failure modes. To achieve reliability requirements, fault detection and diagnosis are critical for the development of IMSs. With the advances in sensing, network transmission, and information processing techniques, it is our opportunity to exploit them for the benefit of fault detection and diagnosis of IMSs. Potential topics include but are not limited to:

- System modeling and analysis;
- Advanced sensing technologies for IMSs;
- Sensor fusion for IMSs;
- Fault detection of IMSs;
- Fault diagnosis of IMSs;
- Fault prediction of IMSs;
- Health monitoring of IMSs;

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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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