Special Issue

Cutting-Edge AI and Deep Learning Techniques for Anomaly Detection

Message from the Guest Editor

Unmanned factories are gaining prominence in Industry 4.0, with machine monitoring becoming crucial. Addressing machine failures, though rare, is vital for manufacturing performance. Undetected issues worsen over time, leading to more problems. Intelligent systems now predict failures in advance, enhancing operational efficiency. Effective monitoring allows early fault diagnosis, improving reliability, reducing energy use, and cutting maintenance costs. Anomaly detection is used in many areas in the industry, apart from the predictive maintenance of machines. Some examples include intrusion detection, fraud detection, public safety, autonomous vehicles, agriculture, driver behavior, quality control, pathway monitoring, complex systems, and medical data analytics. This Special Issue seeks recent advancements in machine learning, deep learning, signal processing, feature extraction, selection methods, and data science with a focus on practical applications.

Guest Editor

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Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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