# Special Issue

# Computational Intelligence for Fault Detection and Classification

## Message from the Guest Editor

Computational intelligence has become increasingly important for fault detection and classification in a wide range of systems, including manufacturing processes, power grids, and transportation systems. By analyzing large volumes of data generated by these systems, computational intelligence techniques can identify patterns and detect anomalies that might indicate the presence of faults, errors, or intrusions. These algorithms can also be used to predict when faults might occur, allowing for preventative maintenance and reducing the risk of downtime or safety hazards. In addition, computational intelligence techniques can aid in isolating the cause of a fault, which can be crucial for efficient repairs and minimizing the impact on the overall system. As such, computational intelligence for fault detection and classification represents a promising approach for improving the safety, reliability, and efficiency of complex systems, mainly in this modern interconnected world. Papers with mathematical analysis and real-world application are particularly welcome.

## Guest Editor

Prof. Dr. Alma Y. Alanis

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## Deadline for manuscript submissions

closed (31 May 2025)

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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.

## Editor-in-Chief

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