Special Issue

Smart Maintenance for Sustainable Manufacturing and Industry 4.0

Message from the Guest Editors

With the evolution of Industry 4.0 strategy, the modern manufacturing environment has developed with more dynamics, complexity, and interconnections. Numerous volumes of industrial data are being generated within the environment with various formats, high capability, and interdependencies, which add additional uncertainties to the manufacturing processes. To address the challenges, smart maintenance has emerged as a promised solution to develop sustainable manufacturing processes, which applies data-driven technologies to real-time monitoring of the dynamics, prediction of the future downtime and potential failure, and enabling an effective decision-making system. Meanwhile, studies have been conducted worldwide to investigate new technological solutions applicable to sustainable manufacturing as the advancement of industrial artificial intelligence, digital transformation cyber-physical systems, etc. This Special Issue aims to collect the recent investigations and innovations contributing to smart maintenance and sustainable manufacturing, emphasizing enabling technological solutions, substantial improvements, and breakthroughs.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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