



## **State of the Art in the Field of Machine and System Testing to Assist in the Diagnosis and Prognosis of Failures**

Guest Editor:

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### **Message from the Guest Editor**

Dear Colleagues,

The increasing complexity of industrial processes, the continued goal of achieving higher profits, and increasingly demanding production constraints call for the implementation of a proactive and sustainable maintenance policy. Adapting maintenance policies that integrate the concepts and obligations of so-called sustainable development is a real challenge for companies. This can concern proactive maintenance operations aimed at providing balance between the social, environmental, and economic dimensions. Such a policy requires the introduction of substantial upstream analysis and the establishment of tools to validate process performance continuity. Consequently, and in an Industry 4.0 context, being able to anticipate a system breakdown based on its estimated degradation, while proposing a time window for a maintenance intervention has become essential. The aim is to avoid a failure with a particularly significant impact. The approaches and methods of Prognostics and Health Management (P.H.M) provide many answers.

This Special Issue looks at the current methods and tools available to meet the needs of P.H.M.





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