

Special Issue on  
**Innovative Production Strategy for Zero-Defect  
Manufacturing Processes**

# CALL FOR PAPERS

Manufacturing companies are facing a novel industrial challenge of adapting their operating processes to industrial automation, reduction of waste of resources, and the change of consumers' needs for unique and personalized high quality products. The establishment of intelligent and zero-defect manufacturing processes is therefore of key importance to manage production quality targets in advanced manufacturing industries.

This special issue will explore the advances in the different stages of zero-defect manufacturing systems from measurement to decision-making. It will focus on novel strategies through the use of knowledge-based approaches (like artificial intelligence) and technologies such as smart and integrated sensors and advanced algorithms for extraction of defect signatures. The purpose of this special issue is to provide opportunities to both industry professionals and academic researchers to share their ideas and findings on applying new zero-defect manufacturing systems and strategies to the industry of the future.

Potential topics include but are not limited to the following:

- ▶ Conception of smart sensors for monitoring and control of machining operations in a wide variety of environments (presence of lubricants, vibrations...)
- ▶ Multiscale approaches for processing and analyzing recorded signals and image data
- ▶ Advanced algorithms for the identification and extraction of defect signatures
- ▶ Application of artificial intelligence to decision-making
- ▶ Design and integration of embedded process control systems with real time behaviour
- ▶ Industrial application and implementation of zero-defect manufacturing control strategies

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/je/industrial.engineering/siil/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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