

## Special Issue

# Sensors and Signal Processing in Manufacturing Processes

### Message from the Guest Editors

Manufacturing processes play a critical role in industrial manufacturing. Optimizing these processes is vital for improving the industry's efficiency, quality, and productivity. In this context, sensors and signal processing play a crucial role. Sensors are used to measure different physical variables and capture real-time information about the manufacturing process, such as cutting forces, temperature, vibrations, and displacements. These sensors can be integrated into machine tools or specific cutting tools. The use of sensors and signal processing in manufacturing processes provides numerous advantages. It enables real-time monitoring of the process status, facilitating early detection of issues and reducing downtime. It also helps improve the precision and quality of end products by optimizing manufacturing parameters. Additionally, it contributes to workplace safety by providing information about hazardous conditions or abnormal situations.

### Guest Editors

Prof. Dr. Alain Gil Del Val

Dr. Mariluz Penalva

Dr. Fernando Veiga

### Deadline for manuscript submissions

closed (30 March 2025)



## Machines

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### Message from the Editor-in-Chief

*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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### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso  
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