



Advances in Monitoring Techniques of Welding Processes

Guest Editors:

Dr. Raffaella Sesana

Dipartimento di Ingegneria
Meccanica e Aerospaziale,
Politecnico di Torino, Corso Duca
degli Abruzzi 24, 10129 Torino,
Italy

Dr. Francesca Maria Curà

Dipartimento di Ingegneria
Meccanica e Aerospaziale,
Politecnico di Torino, Corso Duca
degli Abruzzi 24, 10129 Torino,
Italy

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Message from the Guest Editors

This Special Issue of the *Journal of Manufacturing and Materials Processing* is dedicated to exploring the latest advances in and research on monitoring techniques for welding processes. In the field of manufacturing, ensuring the integrity, strength, and precision of welds is paramount. Therefore, the development and refinement of monitoring techniques are critical for enhancing the quality, efficiency, and safety of welding operations.

This Special Issue aims to provide a comprehensive overview of contemporary monitoring methods including real-time surveillance, post-weld quality assessment, and predictive maintenance strategies. The goal is to delve into various innovative technologies, such as acoustic emission analysis, infrared thermography, high-speed imaging, and laser-based monitoring, highlighting their roles in detecting defects, assessing weld penetration, and ensuring optimal thermal distribution. Contributions from leading experts and researchers will provide valuable insights into the theoretical underpinnings, practical applications, and future directions of welding monitoring techniques.





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Editor-in-Chief

Prof. Dr. Steven Y. Liang

George W. Woodruff School of
Mechanical Engineering, Georgia
Institute of Technology, Atlanta,
GA 30332-0405, USA

Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (JMMP) (ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP*.

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*Journal of Manufacturing and
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MDPI, Grosspeteranlage 5
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