

Special Issue

Online/Onsite Optical Metrology Techniques: Challenges, Trends and Solutions

Message from the Guest Editors

In recent years, online and onsite optical metrology techniques have received extensive attention for many dimensional control research and industrial applications. Online and onsite optical metrology techniques have remarkable advantages in regard to accuracy, efficiency and the amount of collected data, thus changing the way the inspection applications are performed and providing new possibilities for online/onsite product quality control. The technical scope of this Special Issue includes, but is not limited to:

- 2D and 3D optical metrology techniques;
- Accuracy and efficiency improvements for optical metrology;
- Image and point cloud processing algorithms;
- High reflective surface measurement;
- Novel vision sensors and instruments;
- Robot integrated optical metrology systems;
- AI-assisted optical metrology;
- Online/onsite optical metrology solutions;
- Vision Detection or 3D Reconstruction using UAV;
- High-precision vision measurement in vibration environment;
- Digital image correlation technology under extreme conditions.

Guest Editors

Dr. Xiaobo Chen

Dr. Xiao Yang

Dr. Jinkai Zhang

Prof. Dr. Jinsong Bao

Deadline for manuscript submissions

closed (15 September 2023)



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



mdpi.com/si/137498

Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)





Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of
Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1
(Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).