Applications of Optical Sensors in Additive Manufacturing

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Deadline for manuscript submissions:
closed (31 July 2024)

Message from the Guest Editors

Despite the potential benefits inherent in Additive Manufacturing (AM), technologies related to this concept have not yet met the expected level of adoption largely due to persisting concerns related to the quality of the produced components.

Addressing these issues would require a comprehensive assessment of the manufacturing process and meticulous process control. In this context, the utilization of optical sensors distinguishes itself by its ability to swiftly and non-intrusively collect multifaceted data.

For this Special Issue " *Applications of Optical Sensors in Additive Manufacturing*", we would like to send an open invitation to the academic and scientific community to submit scholarly contributions pertaining to the integration and application of optical sensors within the additive manufacturing process.

Keywords:

- dimensional geometric assessment of the layers
- residual stress detection
- surface defect detection
- sub-surface defect detection
- process monitoring
- raw material or non-used material analysis
- feedstock delivery system monitoring
- data handling and processing
- in situ or in-process optical sensor integration

Special Issue

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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