



Visual Inspection Using Machine Learning and Artificial Intelligence

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Message from the Guest Editors

The scope of this Special Issue includes, but is not limited to:

- Visual inspection situ applications, such as in manufacturing, automation, civil construction, medical/clinical, surveillance, remote sensing, and agriculture.
- Visual inspection datasets in various domains for target or event detections.
- Novel AI model design for perceptive sensor data analysis;
- Novel AI model design leveraging the uniqueness of perceptive sensor data, such as the spatial-temporal continuity, frequencies, and multiple modalities;
- Novel AI model design tackling the challenges in visual inspection, such as data imbalance, domain adaptation, data-efficient (weakly/semi/self/un-supervised) models, online adaptation, and high-resolution estimations;
- Novel geometric or AI model design fusing multiple 2D perceptive data for 3D visual inspection.
- Human-in-the-loop or novel bio-inspired methods in visual inspection;
- Real-time visual inspection on edge AI mobile devices, AR/VR, robot systems, or with cloud-aided settings;
- Non-destructive testing (NDT) for visual inspection;
- Comprehensive review and survey papers in visual inspection.





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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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