Convolutional Neural Networks Applications in Sensing and Imaging: Architectures, Insight, Visualization, Transparency

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Message from the Collection Editor

Convolutional neural networks (CNNs) have been largely used in computer vision applications in the last few years. New applications in sensing and imaging are targeted in this Special Issue, with a focus on the use of CNN architectures that advance the current state of the art, leading to improved performance in the considered scenarios, while providing transparency in, the visualization of or insight into the decision-making procedure. Using 2D or 3D CNNs, as well as extensions such as global local models, attention mechanisms and the exploitation of features that are the most prominent for the provided decisions are only some indicative topics of interest. Any application field can be considered, involving, for example, classification, prediction, regression, or anomaly detection problems.

The topic is part of the "Machine/Deep Learning and Artificial Intelligence in Sensing and Imaging" scope of *Sensors*. It is also related to the following scopes: "Signal Processing, Data Fusion and Deep Learning in Sensor Systems", "Human–Computer Interaction", "Localization and Object Tracking" and "Action Recognition".

Topical Collection

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Message from the Editor-in-Chief

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