



## Deep Learning-Based Cloud Detection for Remote Sensing Images

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### Message from the Guest Editor

Dear Colleagues,

Satellite images acquired by optical sensors can be affected significantly by the presence of clouds, which can be considered as a source of uncertainty, when the objective is to study the surface, or as the signal, when studying the atmosphere. In any case, automatic detection of clouds becomes mandatory for the operational exploitation of Earth observation satellite images and further retrieval of derived bio-physical products. Deep learning-based algorithms could play a significant role in cloud detection for current and upcoming satellites. Novel deep learning architectures and training procedures are required to better capture the spatial and spectral properties of Earth observation satellite images. Deep learning models excel exploiting the wealth of information contained in labeled datasets, however, the generation of public multi-mission datasets of satellite images for cloud detection is a key requirement that has to be better handled by the remote sensing community. In this context, this Special Issue will review the state of the art in deep learning-based cloud detection algorithms for remote sensing images.





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