CNNs FOR MULTI-SPECTRAL SATELLITE IMAGE CLASSIFICATION

ABSTRACT

A **Convolutional Neural Network (ConvNet/CNN)** is a Deep Learning algorithm which can take in an input image, assign importance (learnable weights and biases) to various aspects/objects in the image and be able to differentiate one from the other. However, several works demonstrated that low-quality or noisy data (even including perceptually not visible noises) may have a huge impact on the accuracy of CNN models. But feedback features in CNNs have improved over the existing feed-forward CNNs. These recent works on the integration of recurrence and/or feedback to CNNs mostly tested deep networks on natural scenes with relatively perceptually good resolution color images. In this work, we explore the effectiveness of baseline CNN,Feedback and Recurrent CNN using the classification of mid-resolution (1 pixel - 30×30 square meters per pixel) multi-spectral satellite images.

Subith O U
S7 CSEB 32