Flood Detection in SAR images Based on Multi-Depth Flood Detection Convolutional Network

Since past few decades, SAR image change detection has become one of most popular topics in SAR field But due to various parameters, like presence of Speckle Noise, SAR images exhibit more difficult in change detection. Here, for releasing an effective flood detection of SAR images in water regions, a post-classification comparison algorithm with multi-depth flood detection convolution Neural work is proposed. It is used to classify & extract the water region in SAR images, aiming at solving the flood detection after high-resolution SAR water region extraction in complex terrain.

MDFD-CNN owns a two-branch nlw with different depth is used for extracting respectively the water region in the bi-temporal SAR image. Using Saliency detection. To improve the reliability of training sample & reduce no of training samples piecewise back propagation is adopted to optimize the network. After detection, post-classification comparison is implemented for detecting changes in water regions. Later it is compared with manually extracted features This proposed method offers valid way for flood detection in water region of SAR image in realistic environment.