

Method Description for Potsdam: 2D Labelling Challenge

Nguyen Duc Minh, Dinh Viet Sang

Laboratory of Modelling, Simulation and Optimisation,
Department of Computer Science,
School of Information and Communication Technology,
Hanoi University of Science and Technology

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In this work, we make use of an effective deep fully-convolutional neural network with 3 skip connections ensembled for 2D Semantic Labeling Contest of Potsdam dataset. Downsampling part is fine-tuned from pre-trained ResNet101 model with ImageNet dataset.

Throughout this challenge, we use the IRRGB images, DSM data and nDSM data (generated by lastools). Among 24 provided tiles with ground truths, 19 of them were used for sampling training data and the rest is for validation data. Each tile is randomly crop with a uniform distribution for 4096 times and each cropped image is left-to-right and upside down flipped. Finally, ensemble learning is applied to infer the validation tiles with the latest 15 models. Overall accuracy reached 88.9% for full_reference.

Paper is coming soon...