Linköping University

USER MANUAL

TSBB11

December 14, 2015

1 Introduction

This is a user manual that describes how to use our program. The code is available from $https://github.com/hanjarr/TSBB11$.

2 Requirements

The system was implemented in Python version 2.7. All libraries listed in Table 1 are needed to be installed before the program can be used.

Library	**Version**
Numpy	1.9.2
GDAL/OGR	1.11.1
OpenCv	3.0.0
Scipy	0.16.1
Skimage	0.11.3
Sklearn	0.17

Table 1: List of extension libraries used.

3 Running the program

To generate new images for training, test and ground truth do following the steps:

- Start terminal.
- Go to the program folder in the terminal.
- Run *python generate_images.py*

To generate new features do following the steps:

- Start terminal.
- Go to the program folder in the terminal.
- Run *python features.py*

To run the classification program do the following steps:

- Start terminal.
- Go to the program folder in the terminal.

- Run *python main.py*

This will returns images and information of the neuron network. See the technical report for more clarifications of the parameters.

4 Output

The images generated by generate_images.py is used to make new features vectors in the features program. The output from the features program is a file containing a numpy vector, which can be imported by the network. The output from the neural network is image with the classified data, error image, a confidence image as well as statistical information from the network training process.