

Applications of Neural Networking in Plant Recognition abstract

The subject is strictly connect to object recognition using artificial neural networks. It is assumed that plants in this subjects are replaces with object definition. It is assumed that the presentation is related to systems which execute neural network with camera images as neural network input arguments.

The presentation will be divided in several blocks.

In starting block the author will show several examples of very simple neural network usage to make neural network to make calculations such as multiplication and power.

For this purpose simple neural networks which contains only several neurons will be provided as examples.

In middle block the author will provide information about image processing using neural networks to recognize simple objects using grayscale color map. This part of presentation can be very useful for student who would like try opportunity to recognize non-previously detected objects using impacts on neural network forgetting factors and by making combinations of neural network and pattern recognition approaches.

This section of the presentation will provide several examples of how it is possible to make complicated combination of neural network and pattern approach for example for different font family character recognitions based on just several font family trained neural network as it is assumed that character are the most simple objects for recognition using neural networks.

The last part of the presentation will represent the ideas of complicated object recognitions using full color map images. It means that input data for representable neural networks combinations with pattern approach will be GRB images and objects in GRB images are plants. So in this section of the presentation the author will represent his ideas and approach to recognize plants using neural network technology based on previous section information of the presentation.