

TRAINING OF MULTIPLAYER PERCEPTRON NEURAL CLASSIFIERS AND ANALYSIS OF CLASSIFICATION RESULTS ON IKONOS SATELLITE IMAGERY USING GEOINFORMATION TECHNOLOGIES

Y.M. Gambarova

This paper describes training of Multilayer Perceptron Neural classifier to extract weak vegetation objects from high spatial resolution Ikonos satellite imagery. There have been considered three options of training of the Multilayer Perceptron Neural according to three different classification schemes. At first 12 type of rare vegetation community types were defined, a main classification scheme were designed on that base. Training and test samples were collected for each of 12 classes. After preliminary statistical tests on training samples two modification algorithms of the classification scheme were defined - the first one led to creating of a scheme consisting of 7 classes and second - to 5-classes scheme. The learning procedures of these classifiers are described as well as analysis and post processing of extraction results of objects of interest using Geo Information Technologies in details.