# Evaluation of global changes in forest area based on remote sensing data


## Abstract:

The aim of this project is using remote sensing data to assess change in global forest area. This work should give the outline of the principles of land cover classification, with a focus on forests based on satellite images, but also show a real solution in the evaluation of changes in forest areas in two selected regions. The first part is performed a literature review of all aspects of this sub-topic from the basic principles of remote sensing across the typology and characteristics of satellite sensors, which are giving the satellite images to land cover classification systems and characteristics of forest area. The next section describes the basic procedure for classification of satellite imagery and its possible variants. In my work there are explain the image corrections, the supervised and unsupervised classification, the method of checking the accuracy of classification or use of software. Selected area for my work was Riau in Indonesia and state of Oregon, USA. To these regions there are demonstrated practical procedure for classifying land cover and then its changes from the forest areas. In conclusion of my work the results are discussed and compared with available land cover databases.



***Key Words:*** *Remote Sensing, Satellite Images, Classification, Land Cover, Forests, Reforestation, Reforestation / Afforestation, Riau, Oregon*