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Анализ на многоспектрални данни от полеви спектрометрични измервания в кариера "Смолско"

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In-situ spectrometric measurements in open stone mine "Smolsko" for multispectral data analysis. Denitsa Borisova, Hristo Nikolov, Banush Banushev, Doyno Petkov

In this paper a statistical method has been applied in the segmentation of human made land covers as open pit and stone mines. The idea is to exploit to larger extent the possibilities offered by multispectral imagers having mid spatial resolution such as TM onboard Landsat 5. The method has been applied in the framework of our research is to find consistent statistical dependencies between multispectral data gathered in-situ and the corresponding ones in images offered by airborne-based sensors. After correct identification of the pixels the subsequent segmentation forming the shape of the artificial feature is determined much more reliable. This especially holds true for objects with relatively narrow structure for example two-lane roads for which the spatial resolution of one pixel is larger that the object itself. We have been combined ground spectrometry of stone-pit near Smolsko village, Landsat images of region of interest (RoI), and in-situ condition surveys for assessment of stone pit area. Geological observations, petrographical investigations, photo documentation and in-situ spectrometric measurements have been performed.