COMPARISON DIGITAL MODELS OF TERRAIN: CASE STUDY OF THE MUNICIPALITY BELA CRKVA AND BRUS

Dr Goran Marinković¹; MscZoran Ilić²; Msc Jelena Lazić³; Dr Ilija Grgić⁴

¹Fakultet tehničkih nauka, Novi Sad, Srbija, E-mail: goranmarinkovic@uns.ac.rs
²Fakultet tehničkih nauka, Novi Sad, Srbija, E-mail: geoingbc@gmail.com
³Fakultet tehničkih nauka, Novi Sad, Srbija, E-mail: lazicjelena@uns.ac.rs
⁴Državna geodetska uprava, Zagreb, Hrvatska, E-mail:lija66.grgic@gmail.com

Summary: This paper presents a comparative analysis of the differences between the digital terrain models generated by two different methods. The first digital model was obtained by manual vectorization of contour lines based on topographic maps 1: 25000, while the second comparative model was created using remote detection as a result of the international project SRTM (Shuttle Radar Topographic Mission). Two morphologically very different terrain were selected. The first test area is located in Vojvodina, in the municipality of Bela Crkva and represents a plain terrain - K.O. Kalujerovo 1. The second test area is located in the municipality of Brus, mountainous mountainous area - K.O. City. Data processing and model comparison were done using GIS tools. For comparison, the basic parameters of the relief-height, inclination, exposures and differences between them, differences on transverse profiles, and differences in hydrological calculations – wereused.

Key words: digital terrain model, SRTM, GIS, TK25