

<b>PRIMJENA MIKROSIMULACIJA ZA ANALIZU KRUŽNIH TOKOVA</b>	
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Sažetak:	<p>U radu je izvršena sveobuhvatna saobraćajna analiza postojećeg dvotračnog kružnog toka koji se nalazi u Sarajevu. Podaci o saobraćaju na lokaciji prikupljeni su na osnovu video snimka iz zraka, snimljenog dronom i obrađeni <i>DataFromSky</i> alatom. Mjere efikasnosti odvijanja saobraćaja analizirane su na osnovu teorije prihvatanja vremenskih praznina i HCM metodologije (<i>Highway Capacity Methodology</i>). Na osnovu podataka dobijenih putem alata <i>DataFromSky</i> određeno je prosječno vrijeme slijeda i kritična vremenska praznina koja je izračunata metodom maksimalne vjerovatnoće. Za analizirani dvotračni kružni tok razvijen je mikrosimulacijski model u softveru <i>PTV Vissim</i>. Mikrosimulacijski model kružnog toka je kalibriran prema stvarnom stanju te su na osnovu modela dobijeni rezultati odnosno podaci o prosječnom zakašnjenju i nivou usluge posmatrane kružne raskrsnice. Kao alternativno rješenje analiziran je i modeliran standardni turbo rotor. Na kraju rada je izvršeno poređenje dva tipa kružnih raskrsnica kao i poređenje sa rezultatima dobijenim analitičkim proračunima.</p>
Ključne riječi:	dvotračni kružni tok, turbo rotor, kritična vremenska praznina, vrijeme slijeda, mikrosimulacija
<b>APPLICATION OF MICROSIMULATIONS FOR ROUNDABOUT ANALYSIS</b>	
Summary:	<p>Through this thesis, a comprehensive traffic analysis of the existing two-lane roundabout located in Sarajevo was carried out. Traffic data at the location was collected based on an aerial video recording taken by a drone and processed with the <i>DataFromSky</i> tool. Traffic efficiency measures were analyzed based on the gap acceptance theory and <i>Highway Capacity Methodology</i>. The average follow-up headway and the critical headway were determined from data reached from the <i>DataFromSky</i> tool. Critical headway was calculated using the <i>Maximum Likelihood Method</i>. A microsimulation model was developed in the <i>PTV Vissim</i> software for the analyzed two-lane roundabout. The microsimulation model of the two-lane roundabout was calibrated according to the actual situation. Based on the model, data on the average delay and level of the service of the observed roundabout were obtained. As an alternative solution, a standard turbo roundabout was analyzed and modeled. In the end, a comparison of two types of roundabouts was made, as well as a comparison with the results obtained by analytical calculations.</p>
Keywords:	two-lane roundabout, turbo roundabout, critical headway, follow-up headway, microsimulation, traffic flow efficiency