

Analysis of the Variability of Parking Characteristics in A Weekly Distribution in the Conditions of PPZ and DPI Functioning

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Abstract –Positive changes in the number of cars parked in the city center and a reduction in the average parking time are observed after Paid Parking Zones (PPZ) introduction.. One of the factors influencing the functioning of PPZ is efficient traffic management in the area of PPZ based on reliable traffic measurements and analysis of parking characteristics. The parking characteristics vary with time, i.e. during the day, week, month, and year. The variability of parking characteristics is influenced by many factors, i.a.: the location of parking spaces, the presence of a parking fee and its amount, providing drivers with information about empty parking spaces, etc. The article aimed to analyze the variability of parking characteristics in a weekly schedule under the operating conditions of PPZ and Dynamic Parking Information (DPI). The conducted statistical tests show that the distribution of the value of the use of parking space and the rotation indicator differ between working days and weekend days. In the case of the distribution of the value of the use of parking space between working days, there are no statistical differences, while the distribution of the rotation indicator differs statistically on particular working days. The analysis was performed as a part of research work entitled "Analysis of parking characteristics in the conditions of SPP and DIP functioning in selected areas of GZM cities".

Keywords: Paid Parking Zone, Dynamic Parking Information, Friedman test, Wilcoxon test.