

Abstract

Today, along with the growing urban population and its subsequent increase in the number of vehicles, it seems that urban parking lots play a significant role in facilitating access and improving traffic in cities, so that ignoring the implementation and improvement of such municipal services will actually make a major challenge for urban planners in facilitating access, traffic control, and citizen satisfaction. The main purpose of this study was initially to evaluate the current status of Zabol's parking space in terms of actual capacity in providing service and intelligent factors. Secondly, it aimed for optimal location of new parking lots in accordance with necessary criteria and the location of the existing parking lots. In this study, spatial statistics analysis methods such as Nearest Neighborhood Criteria and multi-spatial cluster analysis were used to investigate the distribution of existing parking lots in Zabol. Also, Arc GIS software was used to locate new parking lots. The findings of the study revealed that the existing parking lots in the city are clustered regarding the neighborhood criteria and their distribution is different and non-cluster in various areas of the city. The results of the positioning also indicated that the most suitable zones for establishing new parking spaces are the middle areas of the downtown. Finally, several practical solutions were provided to smarten the existing and new parking in Zabol.

Keywords: Parking lot, Spatial Statistics, Smartization, ArcGIS



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