

Using clustering techniques for Network traffic

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Abstract

Traffic has an increasing trend in most countries in the world. It has significant effect on the life of people. One of the effective way used for decreasing traffic is control traffic condition based on its volume. "SCATS" is one of the common system, throughout the world, controlling traffic, in accordance with its density and volume. This system has been installed in some intersections of Iran. In this study, we try to pave the way for better controlling traffic using the outputs of "SCATS" system. Here, some clustering algorithms such as k-means, hierarchical, and density-based ones are applied to find similar traffic time intervals for one intersection. These results might be used for improving the SCATS performance in controlling traffic in future studies.

Key words: Traffic, SCATS, Hierarchical clustering, K-means clustering, Density based clustering.