

اجندة طالب الدراسات العليا

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عنوان البحث للرسالة او الاطروحة: Evaluation of Traffic Operations at Selected Zone
in BAGHDAD City by Digital Techniques

Evaluation and improvement of traffic operation for
Al-Furat signalized intersection in Baghdad city

عناوين البحوث المستتلة:

تقدير المناقشة: جيد جدا



Traffic congestion is one of the main problems in Iraq general and Baghdad especially. In order to evaluate traffic operation at urban street a sample of Baghdad city within the Karkh district was chosen. Consequently, this study area suffers from stifling congestion particularly at peak hours of morning and afternoon.

The study area contains seven segments for upstream and seven segments for downstream, whereas seven intersections (1- AL-Furat, 2- AL-Liqaa Square, 3-14 Ramadan, 4-AL-Mansour, 5- AL-Yarmuk, 6-Jordan Square, and 7- Nafak Alshorta) connected with seven streets (AL-Furat, 14 Ramadan, 21 Ramadan, AL-Mansour, AL-Yarmuk, AL-Rabeea, and Jordan Streets).

Different types of data were collected during the period April of 2014 and September of 2014 by using (HCS – Event - GPS – GIS), the level of service for urban street evaluated by two methods, first using (HCS-EVENT) and the second method by using (GPS - GIS).

The results of performance evaluation process appeared that all intersections within the urban street are of service level (F) except 14 Ramadan intersection (E). Three alternatives were suggested for improving the performance of the traffic flow patterns within the selected traffic network. The first was to optimize the traffic signals courses for (AL-Liqaa, Jordan Square and 14 Ramadan intersections). The second was to change some of engineering characteristics for these intersections like (exclusive right turn) for AL-Furat and AL-Mansour intersections. While the third was to instruct overpass in (AL-Furat, AL-Yarmuk and Nafak AL-Shorta) intersections.

The results showed that the level of service of the intersections that was evaluated by using HCS programs is so close to that of the service level displayed by (GPS GEO-XT – GIS) for the intersections, urban street segment and network where the evaluation accuracy reached more than 83%. The data from (GPS GEO XT -GIS) characterized by its precision and less time requirement for data collection and calculate level of service without the knowledge for amount of traffic data.