

## **Abstract**

Traffic congestion is a problem in almost every city mostly at the signalized intersections because the vehicular demand is increasing due to urbanization growth. Karachi is a rapidly growing city and faces congestion and delay at signalized intersection because signals are not properly timed and this problem is getting even worst. Considering this problem three consecutive signalized intersections of Khayaban-e-Ittehad, Karachi were selected to propose optimal signal timing plan for the selected signalized intersections. For optimization and synchronization, videos of selected network were recorded and analysed to extract the data and determine the flow and delay of vehicles for all the approaches. Created network of intersections on three signal control optimization software, provided the data and got the results by doing optimization. After getting the results by software, comparison has been done between them and the existing delay to analyse which software gives best results in order to improve the traffic conditions.