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FINAL YEAR PROJECT REPORT

SMART TRAFFIC MANAGEMENT SYSTEM

In fulfillment of the requirement for degree of
Bachelors in Computer Engineering (BCE)

By

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Smart Traffic Management System

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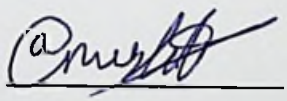
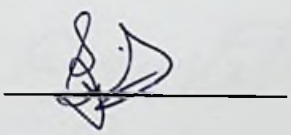
Name: Ahmed Mustufa Malik Signature: 

Name: Syed Mohammad Danial Signature: 

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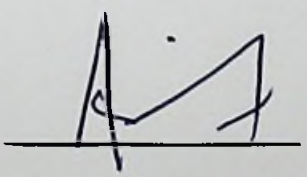
Name: Asif Raza Signature: 

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Abstract

Traffic management system is a cornerstone of a Smart city. In the current problems of the world, urban mobility is one of the major problems, especially in metropolitan cities. Previous traffic management systems are not capable enough to tackle this growth of traffic on the road networks. The purpose of this paper is to propose a smart traffic management system using the Internet of Things and a decentralized approach to optimize traffic on the roads and intelligent algorithms to manage all traffic situations more accurately. This proposed system is overcoming the flaws of previous traffic management systems. The system takes traffic density as input from cameras which is abstracted from Digital Image Processing technique and sensors data, resultantly giving output as signals management. An algorithm is used to predict the traffic density for future to minimize the traffic congestion. Moreover, a mobile application is connected to a centralized server which intimates to nearby that measures the intensity of each lane to take further action. In addition, we have provided a simulation within the application to help get any user get an idea of how the system works as it is intended to.

Table of Contents