

Department : Civil

Year : 2012-2013

Group No: 3

Guided By

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Project Title

“TRAFFIC ANALYSIS AND SIGNAL DESIGN AT PATAN”

Abstract:

The city of PATAN the glorious capital of Gujarat from 745 to 1300 A.D. is now the headquarters of PATAN district. The rules of solanki period the constructed number of wells, libraries, JAIN temple and learning center. But, now in developing period the population is so increase and the no. of vehicle also increase. In this period every person has their own vehicle. All the person are travelling by vehicle as like bike, scooter, bus, jeep, car, cycle etc. So traffic controlling is required for easy travel. As per requirement of traffic at different places, we have visited different intersection in PATAN and decided that the traffic signal is required at NAVJIVAN Intersection PATAN. Wireless sensor networking is an emerging technology that has a wide range of potential applications including environment monitoring, smart spaces, medical systems and robotic exploration. In this report the researcher tried to present the intermediate result on the design of traffic control systems related to automobile tracking based on the wireless sensor networks. Crossbow's sensor network developer's kit (Crossbow Technology, 2003) was used as the hardware and Tiny OS (University of California Berkeley, 2003), an operating system for wireless sensors, was used as the software. All data collected by the sensor nodes was aggregated at a base station. The base station also enabled connection to a PC or a computer platform. This report presents the preliminary implementations of three sub-systems: (1) safe vehicular passing, (2) traffic violation detection, and (3) automobile tracking. Safe vehicular passing was developed to serve rural roads where many accidents happen during passing maneuvers. This application allows the users to acquire knowledge of the surroundings to enhance vehicular passing safety. Traffic violation detection was developed to capture traffic violations with minimal costs. In this application light sensors were used to either count traffic or to detect a violation. Many assumptions were made when developing the automobile tracking system, but these assumptions can be implemented with the sophisticated equipment available. We have done this project by manual method and provide a working model of the signal at intersection.

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