

Solar Based Smart Traffic Control System

M. P. Gujar¹, Shivanjali Shewale², Sayali Mane³, Abrarahmed Patel⁴

Assistant Professor, Department of E&TC¹

Students, Department of E&TC^{2,3,4}

Dr. Daulatrao Aher College of Engineering, Karad, Maharashtra, India

Abstract: *The objective of this paper is to use the solar power for density-based traffic control system with remote override facilities. Since solar energy is one of the major renewable sources and is non-polluted an attempt is made to utilize this energy in traffic control system. During normal time the signal timing changes automatically on sensing the traffic density at the junction by IR intermission method. For any emergency vehicle like ambulance, fire brigade etc requiring priority are built in with RFID control unit to abstract the set timing by providing immediate green signal in the desired direction by blocking the other road by red signal. Higher traffic density at one side of the junction claim longer green time as compared to specific allotted time. This traffic control system using a microcontroller of 8051 family duly interfaced with IR sensors changes the junction timing automatically to assist movement of vehicle well mannered to avoid needless waiting time at the junction. The density of vehicle is measured in three zones i.e. low traffic zone, medium traffic zone, high traffic zone based on which timing are given accordingly. The override feature in this unit is turn on by an on board RF transmitter operated from the emergency vehicle which in turn provides a high priority for all emergency vehicles..*

Keywords: Horticulture

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