

H.K.E. SOCIETY'S
POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING
(AUTONOMOUS INSTITUTION)
GULBARGA – 585 102



A
PROJECT REPORT
ON

**"AUTOMATED AMBULANCE DETECTION AND GATE CONTROL
WITH AUTO-TRAFFIC CONTROL AND IMPACT SENSOR"**

SPONSORED BY KSCST, BANGALORE

Submitted to the
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Automated Ambulance Detection And Gate Control With Auto-Traffic Control And Impact Sensor

1.INTRODUCTION:

The Automation for Vehicles is the current trend, the project presented here is one such idea in automating the movements of important vehicle like Ambulance & Fire Fighting Vehicle etc., here the idea is to ease the movement of Ambulance by detecting its proximity to the hospital and displaying the arrival of the same on a display device like LCD.

The project also serves as an automated parking tool for the staff vehicles like Doctor's car, Ambulance, Hospital van etc., Here whenever a vehicle equipped with its IR ID is detected in a range of 5-10 meters, the project automatically identifies the type of the vehicle & depending upon the priority set, activates the automated gate.

Here the project also decodes the approaching vehicle's code, and based on the information vehicle transmits, takes decision like displaying an emergency alarm, paging to the concerned doctor, sending message to the required ward etc.,

AIM OF THE PROJECT:

- Detect the approaching Ambulance towards the hospital; if it is activated with Siren & Siren Light, then alert the doctor in charge with a beeper & message on a LCD display.
- Detect the Hospital Staff vehicle and open the gate for them automatically.
- Stop all unauthorized vehicles from entering.
- Detect vehicle if it met with accident.

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To achieve these above said requirements, the project consists of following block elements;

- 1) IR Code Receiver
- 2) Code Decoder
- 3) Buffer & Driver
- 4) Relay Switching Unit
- 5) Microcontroller With LCD Display
- 6) Software
- 7) Motor Control Unit
- 8) Monostable Multivibrator
- 9) Power Supply Unit