SMART ROADS – VEHICLE COLLISION PREVENTION SYSTEM

Project Report Submitted by

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UNDER THE GUIDANCE OF

Ms. Swathi Pai M.

Assistant Professor

in partial fulfillment of the requirements for the award of the Degree of

Bachelor of Engineering in

Computer Science and Engineering

from

Visvesvaraya Technological University, Belgaum

N.M.A.M. INSTITUTE OF TECHNOLOGY

(An Autonomous Institution under VTU, Belgaum)
(AICTE approved, NBA Accredited, ISO 9001:2015 Certified)
NITTE –574 110, Udupi District, KARNATAKA

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the project work entitled

"SMART ROADS – VEHICLE COLLISION PREVENTIONSYSTEM"

is a bonafide work carried out by

Rithika Chowta (4NM14CS135) ***Priya Shetty (4NM14CS117)***

Sharan Preetha Noronha (4NM14CS146)

in partial fulfilment of the requirements for the award of

Bachelor of Engineering Degree *in* ***Computer Science*** *and* ***Engineering***

prescribed by ***Visvesvaraya Technological University, Belgaum***

during the year 2017-2018.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library.

The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the Bachelor of Engineering Degree.

Signature of Guide **Signature of HOD** **Signature of Principal**

Semester End Viva Voce Examination

Name of the Examiners	Signature with Date
1. _____	_____
2. _____	_____

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ABSTRACT

Blind curves are one of the leading causes of road accidents. Vehicles speeding along a curve are not aware of the presence of vehicles coming from the other direction. Here, a system is proposed to alert drivers going around a blind curve to the presence of oncoming vehicles. 2 poles are erected on either side of the curve, bearing cameras, red and green LED lights and piezoelectric buzzers. They are connected to a Raspberry Pi. The live video feed from the cameras is processed to detect the presence of vehicles. If vehicles are approaching on both sides of the curve, the buzzers and red lights are activated, thus alerting the drivers of the vehicle to slow down. Then the green LED is activated on one side to allow one vehicle to move forward. After it passes, the other vehicle is allowed to move by activating the green LED on the other side. Red LED is reactivated on the previous side, to stop any vehicles that were behind the first vehicle. After all vehicles pass, all LEDs are deactivated.

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