Project Report

On

## MICROCONTROLLER BASED ALCOHOL DETECTION FOR ROAD ACCIDENT-AVOIDANCE SYSTEM

Submitted to

Department of

#### **ELECTRONICS & COMMUNICATION ENGINEERING**

By

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# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING SUMATHI REDDY INSTITUTE OF TECHNOLOGY FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to JNTUH, Accredited by NBA)

Ananthasagar (Vill), Hasanparthy (M), Warangal.



2022-23



Sumathi Reddy Institute of Technology for Women Ananthasagar (V), Hasanparthy (M) WARANGAL - 506 371 (T.S.)



#### **DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

#### CERTIFICATE

This is to certify that the project entitled "MICROCONTROLLER BASED ALCOHOL DETECTION FOR ROAD ACCIDENT-AVOIDANCE SYSTEM" carried out by the following students of III Year B.Tech in Electronics and Communication Engineering during the academic year 2022-23.

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### ABSTRACT

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Human life loss is biggest loss which cannot be recoverable unlike other property loss. Many people die every year due to road accidents. Growth in population has lead to growth in technology. People use car on large number and number of accidents taking place, is increasing day-by-day. Road accidents are undoubtedly the most frequent happening cases and overall, the cause of the most damage. There are many dangerous roads in the world like mountain roads, narrow curve roads, T roads. Some mountain roads are very narrow and they have many curves. The problems in these curve roads is that the drivers are not able to see the vehicle or obstacles coming from another end of the curve. If the vehicle is in great speed then it is difficult to control and there are chances of falling off a cliff.

Hence there is a need of many road safety systems. To avoid these problems in curve roads of mountain areas, we have proposed this vehicle accident prevention system. The solution for this problem is alerting the driver about the vehicle coming from opposite side.

This is done by keeping an IR sensor in one side of the road before the curve and keeping a LED light after the curve, so that if vehicle comes from one end of the curve sensor senses and LED light glows at the opposite side. By looking at the LED light on/off criteria driver become alert and can slow down the speed of the vehicle.



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