VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI - 590 018

HYDROGEN GAS DETECTOR USING ARDUINO

Submitted as Subject Assignment Work for

MICROCONTROLLER AND EMBEDDED SYSTEM (21CS43)

BY

SHIVA SHARAN	4AL21CS140
SHREYA ANIL PATIL	4AL21CS145
SMITA NAIK	4AL21CS150
SONALI SHETTY	4AL21CS151
VIJAYALAXMI M K	4AL21CS176
VINAY B H	4AL21CS180
YAMUNA R	4AL21CS188

Under The Guidance Of

Mrs Babitha Poojary
(Assistant Professor)

Mr Abhijith Kotian
(Assistant Professor)

ALVA'S
Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY MOODBIDRI 574225, KARNATAKA

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **SHIVA SHARAN (4AL21CS140),** during the academic year 2022– 2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary **&** **Mr Abhijith Kotian**

(Assistant Professor) **(Assistant Professor)**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **SHREYA A PATIL (4AL21CS145),** during the academic year 2022– 2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary & **Mr Abhijith Kotian**

(Assistant Professor) **(Assistant Professor)**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **SMITA NAIK (4AL21CS150),** during the academic year 2022–2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary **&** **Mr Abhijith Kotian**

(Assistant Professor) **(Assistant Professor)**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **SONALI SHETTY (4AL21CS151),** during the academic year 2022– 2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary **&** **Mr Abhijith Kotian**

(Assistant Professor) **(Assistant Professor)**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **VIJAYALAXMI M K (4AL21CS176),** during the academic year 2022– 2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary
(Assistant Professor)

&

Mr Abhijith Kotian
(Assistant Professor)

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **VINAY B H (4AL21CS180),** during the academic year 2022–2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary **&** **Mr Abhijith Kotian**

(Assistant Professor) **(Assistant Professor)**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA

ALVA'S

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that, assignment work for the subject "**Microcontroller and Embedded System (21CS43)"** has been successfully completed and report submitted by **YAMUNA R (4AL21CS188),** during the academic year 2022–2023. It is certified that all corrections/suggestions indicated presentation session have been incorporated in the report and scored 9 Marks out of 10 and deposited in the departmental library.

Mrs.Babitha Poojary
(Assistant Professor)

&

Mr Abhijith Kotian
(Assistant Professor)

Hydrogen Gas Detector Using Arduino Uno

1. Abstract:

This report is about a Hydrogen Gas Detector developed using the Arduino Uno platform. The detector employs sensor technology to accurately identify the presence of hydrogen gas in the environment. The system offers a cost-effective solution for monitoring hydrogen gas levels in various settings, including industrial and laboratory environments.

2. Introduction:

The "Hydrogen Gas Detector Using Arduino Uno" project addresses the crucial need for reliable gas detection in diverse applications. Hydrogen gas, while widely used in various industries, poses inherent risks due to its flammability and potential for explosive mixtures. This project combines sensor technology with the Arduino Uno microcontroller to create an efficient and cost-effective gas detection system. By providing an early warning mechanism, the project aims to enhance safety measures and prevent potential accidents. This introduction sets the stage for understanding the significance of the project in promoting safer work environments and facilitating better control over hydrogen gas exposure.

3.Components Used:

- ARDUNIO UNO
- MQ-2 GAS SENSOR
- RED & GREEN LED
- BUZZER