VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Jnana Sangama, Santhibastawad Road, Machhe

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IOT Mini Project
on
"Ultrasonic sensor with Arduino Nano"

Submitted in the partial fulfillment of the requirements for the award of the degree of

Bachelor Of Engineering
In
Computer Science and Engineering
Submitted by

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Under the Guidance
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JSS Academy of Technical Education, Bengaluru
Department of Computer Science and Engineering

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JSS ACADEMY OF TECHNICAL EDUCATION

JSS Campus, Dr.Vishnuvardhan Road, Bengaluru-560060

Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the technical seminar work entitled **Ultrasonic sensor with Arduino Nano** has successfully carried out by **Mr. Prithviraj Patil (1JS19CS125), Mr. Kiran A (1JS19CS076), Mr. Mudasir Ahamed (1JS19CS091), Mr. Nikhil Raju (1JS19CS102)** in partial fulfilment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023 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 Project work prescribed for the said Degree.

Dr. Naveen C N	**Dr. P B Mallikarjun**
Professor	**Professor & Head**
Department of CSE	**Department of CSE**
JSSATE, Bengaluru	**JSSATE, Bengaluru**

Name of the examiners

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ABSTRACT

The project is designed to develop distance measurement system using ultrasonic waves and interfaced with arduino. We know that human audible range is 20hz to 20khz. We can utilize these frequency range waves through ultrasonic sensor HC-SR04.The advantages of this sensor when interfaced with arduino which is a control and sensing system, a pro per distance measurement can be made with new techniques. As large amounts are spent for hundreds of inflexible circuit boards, the arduino will allow business to bring many more unique devices. This distance measurement system can be widely used as range meters and as proximity detectors in industries. The hardware part of ultrasonic sensor is interfaced with arduino. This method of measurement is efficient way to measure small distances precisely. The distance of an obstacle from the sensor is measured through ultrasonic sensor. After knowing the speed of sound the distance can be calculated.

Table of Contents