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**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-**

**590 018**



**A MICRO PROJECT REPORT ON  
“Sonar-based security system based on a microcontroller”**

**Submitted By,**

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**Under the Guidance of**

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**DEPARTMENT OF BASIC SCIENCES**

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**CERTIFICATE**

This is to certify that the Micro-Project entitled “Sonar-based security system based on a microcontroller” has been Successfully Completed by

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The bonafide students of **Department of Basic Sciences, Alva's Institute of Engineering and Technology**, affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**, during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

**Mr. Sandeep Kumar**  
Mini Project Guide

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## **ABSTRACT**

This project is built on the RADAR principle. A SONAR module is installed on a stepper motor in this project. The SONAR module puts out ultrasonic waves and scans the room as the stepper motor turns. As a result, if this project is placed in the centre of a room, it may scan the entire area, and the scanning range is determined by the SONAR module employed. The range of a Polaroid 6500 series sonar ranging module is approximately 6" to 35ft.