

MEAN BASED APPROACH TO OMNI DIRECTIONAL PATH FINDING ALGORITHM USING SINGLE ULTRASONIC SENSOR

A main project report
Submitted in partial fulfilment for the award of the degree

BACHELOR OF TECHNOLOGY IN ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

21MD1A0422

G. BHARATH CHANDU

21MD1A0429

J. DHEERAJ

22MD5A0407

N. SATISH CHANDRA

21MD1A0440

M. K. JAGADHISWAR

Under the esteemed guidance of
Dr. CH. SURYABABU, M. Tech., PhD
Professor & HOD



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
RAJAMAHENDRI INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**(APPROVED BY AICTE, AFFILIATED TO JNTUK, KAKINADA AND
ACCREDITED TO NAAC)**

BHOOPALAPATNAM, RAJAMAHENDRAVARAM -533107

2021 - 2025

RAJAMAHENDRI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUK, Kakinada and Accredited to NAAC)

RAJAMAHENDRAVARAM - 533107



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

This is to certify that **G. BHARATH CHANDU – 21MD1A0422**, **J. DHEERAJ – 21MD1A0429**, **N. SATISH CHANDRA – 22MD5A0407**, **M. K. JAGADHISWAR – 21MD1A0440** of fourth year B. Tech., had carried out the main project work on “**Mean-Based Approach to Omni-Directional Path Finding Robot Using a Single Ultrasonic Sensor**”. For the partial fulfilment of the award of the degree of Bachelor of Technology in **Electronics and Communication Engineering (ECE)** in **RIET**, Rajamahendravaram (Affiliated to JNTU, Kakinada) is a bonafide record of the work done by them during the academic year 2024-2025 under the guidance and supervision. The results of this project have not been submitted to any other University or Institute for the award of any degree.

Internal Guide

Dr. CH. SURYABABU, M. Tech., PhD
HOD & Professor

Head of the Department

Dr. CH. SURYABABU, M. Tech., PhD
HOD & Professor

EXTERNAL EXAMINER

ACKNOWLEDGEMENT

We would like to thank our project esteemed guide **Dr. CH. SURYABABU M.Tech., Ph.D., HOD & Professor, Department of ECE**, for his guidance and help throughout the development of the project work and for chiseling the real magnitude and dimension of the project. We feel grateful for the dexterous attitude and zeal he has installed in us.

We would like to thank **Dr. CH. SURYABABU M.Tech, PhD, HOD & Professor** and Head of the Department of ECE, for his assistance and constant backup because of which this project could be completed successfully.

A great deal of thanks goes to our project coordinator **Mr. T. GANGADHARA RAO M.Tech., Associate Professor, Department of ECE**, and other project review committee members for their supervision and valuable suggestions.

We would like to express our gratitude to **Dr. K. BHASKAR MUTYALU, M.Tech., Ph.D., Principal, Sri. A. Srihari, Secretary & correspondent and the Management of RAJAMAHENDRI INSTITUTE OF ENGINEERING AND TECHNOLOGY** for their support and providing a hassle-free environment, enabling the successful completion of this project.

An endeavor over a long period can only be successful by constant effort and encouragement. We wish to express our deep sense of gratitude to all the people of **RAJAMAHENDRI INSTITUTE OF ENGINEERING AND TECHNOLOGY**. Who have extended their cooperation in various ways during this project. It is our pleasure to acknowledge the help of all the respected elders.

21MD1A0422

21MD1A0421

22MD5A0407

21MD1A0440

G. BHARATH CHANDU

J. DHEERAJ

N. SATISH CHANDRA

M. K. JAGADHISWAR