

# ARDUINO BASED ULTRASONIC RADAR SYSTEM

A Project Report submitted  
in Partial fulfillment of requirements for the award of degree of

## BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

A.SOMASEKHAR  
Regd.No.17811A0402

K.NAGA DURGA VASU  
Regd.No.18815A0407

G.SUSHMANJALI  
Regd.No.17811A0420

R.RAMBABU  
Regd.No.18815A0411

Under the Esteemed guidance of  
Mr.V.SURESH, M.Tech,  
Assistant Professor



DEPARTMENT  
OF  
ELECTRONICS AND COMMUNICATION ENGINEERING  
AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY  
(Accredited by NAAC, Approved by A.I.C.T.E, Affiliated to J.N.T.U. KAKINADA)  
TAMARAM(P.O), MAKAVARAPALEM(M.O), NARSIPATNAM(R.D)  
VISA KHAPATNAM DISTRICT-531113  
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TAMARAM(P.O), MAKAVARAPALEM(M.O), NARSIPATNAM(R.D)  
VISAKHAPATNAM DISTRICT-531113


## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project entitled "ARDUINO BASED ULTRASONIC RADAR SYSTEM " in partial fulfillment for the degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY VISAKHAPATNAM is an bonafied work carried out by A.SOMASEKHAR (17811A0402), K.NAGADURGAVASU (18815A0407), G.SUSMANJALI (17811A0420),R.RAMBABU (18815A0411) under the guidance and supervision during 2017-2021.

  
PROJECT GUIDE  
V.SURESH, M.Tech  
Assistant professor

  
HEAD OF DEPARTMENT  
E.GOVINDH, M.Tech  
Associate professor

HEAD OF THE DEPARTMENT  
DEPARTMENT OF ECE  
Avanthi Institute of Engg.&Tech.  
Makavarapalem, Visakhapatnam Dist-531113

**External Examiner**

## **ABSTRACT**

This paper is about Radar System controlled via Arduino. This RADAR system consists of an ultra-sonic sensor and servo motor, these are the major components of the system. Basic working of the system is that it have to detect objects in its defined range. Ultra-sonic sensor is attached to the servo motor it rotates about 180 degree and gives visual representation on the software called processing IDE. Processing IDE gives graphical representation and it also gives angle or position of the object and distance of the object. This system is controlled through Arduino. Arduino UNO board is sufficed to control ultrasonic sensor and also to interface the sensor and display device. While researching, we learned about existing navigation and obstacle detection innovations and different systems where ultrasonic sensors are used efficiently. Main application of this RADAR system comes into different field of navigation, positioning, object identification, mapping, spying or tracking and different applications. These less investment system are also suitable for indoor applications.