STUDENT'S DECLARATION & CERTIFICATE

We, hereby certify that the work which is being presented in these major project reports titled **"Arduino Based Radar System"** by us in partial fulfillment of requirement for the award of the three years Diploma in Computer Engineering from Government Polytechnic Kangra, H.P., is our own work carried under the supervision of Dr. Puneet Sood, Head in Department of Computer Engineering.

March, 2020

Shivam Verma Simran Kaur Tulsi Devi

This is certified that the above statement made by the students is correct to the best of our knowledge and belief.

(Dr. Puneet Sood)

Supervisor

Head

Computer Engineering Department

Government Polytechnic Kangra

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Shivam Verma

Simran Kaur

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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 has 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 systems are also suitable for indoor applications.

KEYWORDS: Arduino, ultra-sonic, radar, positioning, surveillance, obstacle detection.