

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering



Certificate

Certified that the Project Work entitled **"AUGMENTED REALITY VIRTUAL DISTANCE MEASUREMENT SYSTEM"** carried out by **AKARSHA K R (ISG14CS008), AKSHAY G S (ISG14CS010), D S KARTIK (ISG14CS024), DEEKSHITH L (ISG14CS026)**, bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

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ABSTRACT

The Augmented Reality Virtual Measurement System aims at providing a vision to the user's computer, this proposed software is being designed to provide a measuring scale system to the user by eliminating the traditional methods of measuring such as physical measuring attributes like the measuring tapes, wires, rulers or any other physical resources and instead replacing it with the advanced AR concept combined with the computer vision and object recognition which would make the process of measuring require little effort and futuristic. The software uses the user's web cam or any additional camera as its eyes to see the objects and the outstanding accessibility feature about the proposed system is that it would get adapted to any cam device that is connected with the system and it doesn't require any proprietary devices specifically designed for the proposed system. A simple laser light is used by the user to point the place up to which the distance from the system to the light pointer has to be measured, the laser light will be automatically detected by the software using the concepts of object tracking, computer vision and the distance will be shown up to the maximum focal length of the cam lens used which will be in the real time and will change in real time based on the movement of the pointer light and this futuristic feature of the proposed system is implemented through the concept of augmented reality. This proposed software would revolutionize the technology and along with that it would set a bench mark in measurement systems and in the fields of computer vision and augmented reality.