

Visvesvaraya Technological University, Belgaum – 590014



PROJECT REPORT

ON

**“AUTOMATED DISTANCE AND AREA MEASUREMENT
TECHNIQUE”**

(Sponsored by KSCST)

Submitted in partial fulfillment of the requirements for the award of

**BACHELOR OF ENGINEERING
IN
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ABSTRACT

For all type of measurements, we use several type of instruments in which measurements will be taken manually. The objective of this project is to enable a camera for measuring area and length of objects while recording images simultaneously. Based on the established relationship between pixel number and distance, in this project, we derive the horizontal and vertical length of a targeted object, and subsequently calculate the area covered by the object. Because of the advantages demonstrated, the proposed system can be used for large-area measurements. For example, we can use this system to measure the size of the gap in the embankments during flooding, or the actual area affected by the landslides. Also this technique has many applications in medical field, one of which is detection of glaucoma disease. Other applications include the surveying of ecosystems and for places which are difficult or impossible to reach, this system can be particularly useful in performing area measurements. Experiments conducted in this project have indicated that different shooting distances and angles do not affect the measuring results.