VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belgaum – 590018

PROJECT REPORT

ON

LANDSLIDE HAZARD ZONATION MAPPING OF KODAGU REGION – AN APPROACH USING RS AND GIS

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

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CERTIFICATE

Certified that the project work entitled "Landslide hazard zonation mapping of kodagu region – an approach using RS and" is a bonafide work carried out by

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Are bonafide students of Civil Department of Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in **CIVIL ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2018–2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Landslides are the most damaging natural hazard in mountainous region triggered mainly under the influence of earthquake and/ or rainfall. People living in mountain regions fear landslides as it is sudden and devastating. India has witnessed a number of landslides in the past years claiming to a huge loss in the environment. Indian National Disaster Management Agency has a focus on site specific landslide mitigation that involves making geological investigations on selected sites. In the recent years RS and GIS techniques are being effectively utilized for landslide disaster mapping, investigation, and mitigation.

This report with some literature survey highlights the issues after indicating the places i.e., Kodagu that are more prone to damaging landslides. The brief review is focused in the factors influencing landslides. The parameters for landslides are extracted from DEM, Satellite Imageries and Maps. GIS can be used to convert georeferenced data into computerized maps and map analysis tools can be used to manipulate maps in an effective way. Remote Sensing and geographical information were used in the study to map the landslide affected areas.The landslide zonation maps can be created and is followed by pre-processing of the datasets. The major concern is to understand the mechanism behind the Occurrence of the landslides.