VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590010

PROJECT REPORT ON

"SEISMIC ANALYSIS OF RC REGULAR AND IRREGULAR STRUCTURES CONSIDERING SOIL STRUCTURE INTERACTION FOR LATERITE SOIL"

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

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

Submitted By

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ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

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CERTIFICATE

This is to certify that following students

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Have submitted Project Report on "SEISMIC ANALYSIS OF RC REGULAR AND IRREGULAR STRUCTURES CONSIDERING SOIL STRUCTURE INTERACTION OF LATERITE SOIL" for VIIIth semester B.E in Civil Engineering during the academic year 2018 -19. The Project has been approved as it satisfies the academic requirements in report of Project work prescribed by Visvesvaraya Technological University for the award of degree in Bachelor of Civil Engineering Degree.

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ABSTRACT

Dakshina Kannada is one of a districts in the state of Karnataka in India. Surrounded by the Western Ghats on east and Arabian Sea on the west, Dakshina Kannada receives abundant rainfall during the monsoon season. Latitude of Dakshina Kannada is 12.8438^0 N & 75.2479^0 E, covers the area of $4559km^2$. Some of the standard journals were referred as guide line for this RC regular and irregular structures. Review standard papers are done on the seismic analysis of RC regular irregular structure considering soil structure interaction of laterite soil. . An earthquake is caused by tectonic plates getting stuck and putting a strain on the ground. The strain becomes so great that rocks give way by breaking and sliding along fault planes. Earthquakes may occur naturally or as a result of human activities. Smaller earthquakes can also be caused by volcanic activity, landslides, mine blasts, and nuclear tests. It is therefore essential to consider the lateral force while designing the buildings to mitigate the effects of major earthquakes. In the present study the gravity load analysis and lateral load analysis as per the seismic code IS 1893 (Part 1): 2002 are carried out for regular and irregular building.