# "REDUCING SEISMIC EFFECTS ON RC MULTISTOREY BUILDING USING FLUID VISCOUS DAMPERS"



## PROJECT REPORT

Submitted by

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In partial fulfillment of the requirements for the degree of

#### **BACHELOR OF ENGINEERING**

In

**CIVIL ENGINEERING** 

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI-590018.

Under the Guidance of

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# ALVA'S INSTITUTE OF ENGINEERING AND **TECHNOLOGY**

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## DEPARTMENT OF CIVIL ENGINEERING

## **CERTIFICATE**

Certified that the project work entitled "REDUCING SEISMIC EFFECTS ON RC MULTISTOREY BUILDING USING FLUID VISCOUS DAMPERS" is a bonafide work carried out by

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Are bonafide students of Department of Civil Engineering of Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF VISVESVARAYA ENGINEERING of the CIVIL **ENGINEERING** in TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2019-2020. 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**

Damping Plays important role in design of Earthquake Resistant Structures, which reduces the response of the structure when they are subjected to lateral loads. There are many different types of dampers in use. In the present study Fluid Viscous dampers (FVD) are used to evaluate the response of RC buildings. The main task of a structure is to bear the lateral loads and transfer them to the foundation. Since the lateral loads imposed on a structure are dynamic in nature, they cause vibrations in the structure. In order to have earthquake resistant structures, fluid viscous dampers have been used. Buildings with G+6 and G+14 are analyzed, with and without FVD. In the present study the software ETABS 2016 have been used. Using Push over and Time history analyses the response of the RC building considered in the present study is evaluated and compared with and without FVD. It has been observed that the building FVD perform well when compare with the building without FVD.