**A MAJOR PROJECT**
**ON**

# RAPID VISUAL SCREENING OF DIFFERENT TYPE OF STRUCTURES

**Submitted in partial fulfilment of the requirement**
**for the award of the degree of**

**MASTERS OF TECHNOLOGY IN CIVIL ENGINEERING**
**With Specialisation in**
**STRUCTURAL ENGINEERING**

**BY**
**ANUJ SHAMMI**
**(ROLL NO. 02/STR/2010)**

**Under the guidance of**
**MR. ALOK VERMA**
**(ASSOCIATE PROFESSOR)**

**DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING**
**DELHI TECHNOLOGICAL UNIVERSITY, DELHI**
**(FORMERLY DELHI COLLEGE OF ENGINEERING)**
**2012**

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**(Associate Professor)**

**Department of Civil & Environmental Engineering**

**Delhi Technological University, Delhi**

(Formerly Delhi College of Engineering)

**2012**

## DELHI TECHNOLOGICAL UNIVERSITY

## CERTIFICATE

This is to certify that the project report entitled "**RAPID VISUAL SCREEING OF DIFFERENT TYPE OF STRUCTURES**" is a bonafide record of work carried out by me under the guidance and supervision of Mr. Alok Verma (Associate Professor), during the session 2011-12 in partial fulfilment of the requirement for the degree of Master of Technology (Structural Engineering) from Delhi Technological University, Delhi.

ANUJ SHAMMI

Roll No. 02/STR/2010

This is to certify that the above statement made by candidate is correct to the best of my knowledge.

Mr. ALOK VERMA

(Associate Professor)

Department of Civil and Environmental Engineering
Delhi Technological University
Delhi
July-2012

# DELHI TECHNOLOGICAL UNIVERSITY

## ACKNOWLEDGEMENT

I would like to express my deepest sense of gratitude and indebtedness to my guide and motivator **Mr. Alok Verma**, Associate Professor, Civil Engineering Department, Delhi Technological University for his valuable guidance and support in all the phases from conceptualization to experimental and final completion of the project.

I wish to convey my sincere gratitude to **Prof. A.K. GUPTA**, H.O.D, and all the faculties of Civil Engineering Department, Delhi Technological University who have enlightened me during my project.

I thank all the people directly or indirectly involved in successful completion of this project.

ANUJ SHAMMI

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# ABSTRACT

Rapid visual screening is a “sidewalk survey” approach that enabled users to classify surveyed buildings into two categories: those acceptable as to risk to life safety or those that may be seismically hazardous and should be evaluated in more detail by a design professional experienced in seismic design. The method generates a score, which results from a quick site inspection of the building, both inside as well as outside, or from a quick inspection of the architectural and structural drawings. The score is related to the degree to which the building is judged to deviate from current seismic requirements. A high score suggests that the building requires additional study by a professional engineer experienced in seismic design, and a low score indicates that the building is probably adequate. The score is separated into two components, one for the structure, and the other for non-structural components. The Rapid Visual Screening method is designed to be implemented without performing any structural calculations. The inspection, data collection and decision-making process typically occurs at the building site, and is expected to take couple of hours for a building, depending on its size. The screening is based on Code based Seismic Intensity, Building Type and Damageability Grade as observed in past earthquake. This is a procedure to identify if a particular building requires further evaluation for assessment of its seismic vulnerability, to assess the seismic damageability of the building and seismic rehabilitation needs and to identify simplified retrofitting requirements for the building where further evaluations are not considered necessary or not found feasible.

In this complete project check how different type of building are gives the output result or score on applying the Rapid Visual Theory & what type of variation in score such as minimum value of score & maximum value of scores for a particular type of building.