

**SEISMIC VULNERABILITY ASSESSMENT OF DEFICIENT  
REINFORCED CONCRETE FRAME STRUCTURE**



By

**Kashif Qayyum**

(2010-NUST-MS Ph.D-Str-18)

Supervisor

**Assistant Professor Dr. Shaukat Ali Khan**

A thesis submitted in partial fulfillment of

The requirement for the award of degree of

**Master of Science**

**in**

**Civil Engineering**

NUST Institute of Civil Engineering (NICE)  
School of Civil and Environment Engineering (SCEE)

National University of Sciences and Technology  
Islamabad, Pakistan  
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This is to certify that  
thesis entitled

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Has been accepted towards the partial fulfillment

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(Assistant Professor Shaukat Ali Khan, PhD)  
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