VIHAR VASANT NIMJE

Structural Engineer

Area of Interest

Earthquake Resistant Design of Buildings, Design of Concrete Girder Bridges

EDUCATION

*** +91-9765494627

2019- Master of Technology in2021 Structural Engineering

Amravati, Maharashtra, India

m www.linkedin.com/in/viharnimje/

http://viharnimje.github.io/Resume/

vnimje123@gmail.com

Indian Institute of Technology (IIT), Roorkee CGPA: 8.5/10

2014- Bachelor of Technology in 2018 Civil Engineering

Civil Engineering
Visvesvaraya National Institute of
Technology (VNIT), Nagpur

CGPA: 6.4/10

EXPERIENCE

(Aug 2021 - Present)

Research Associate

Indian Institute of Technology (IIT), Roorkee

- □ Proposed and developed a simple methodology to include the effects of creep in assessment of structures utilising the catenary action of floors subjected to fire
- Documented the effects of varying axial restraints and load factor on the axial force in a steel beam during elastic and inelastic stages

PROJECTS

(Aug 2020 - Jun 2021)

Catenary Action in Restrained Steel Beams Exposed to Elevated Temperature

Supervisor: Dr. Pradeep Bhargava (Professor)

- □ Simulated a composite steel beam subjected to fire using material properties from Eurocodes and commercial software ABAQUS
- Demonstrated a method to use any general creep model in Finite Elements (FE) software using a FORTRAN-based user defined subroutine and to validate the simulation results

(Jan 2020 - Jul 2020)

Fire Induced Progressive Collapse in High-Rise Buildings

Supervisor: Dr. Pradeep Bhargava (Professor)

- Explained the structural analysis procedure and acceptance criteria of both Direct (Alternate Path Method) and Indirect (Tying Force) Method to avoid progressive collapse as per International Standards
- □ Presented 2 literature studies, one with Threat-independent Approach and another with Simulated Fire Approach

(Jul 2017- May 2018)

Proof Load Testing of RCC and PSC Structures

Supervisor: Dr. G. N. Ronghe (Professor)

- □ Explained detailed methodology and application techniques for Proof Load Testing, which are briefly mentioned in Indian codes and represented results as per acceptance criteria
- □ Compared Analytical and Experimental results of Reinforced Concrete and Prestressed Concrete girder bridges

EXTRA - CURRICULAR ACTIVITIES

- □ Co-ordinator, AXIS'15 Tech Fest, 2015
- □ Volunteer, PRAYAAS VNIT (Social Club), 2016-2018
- □ A1-Level, German Language Examination, 2018

ACADEMIC ACHIEVEMENTS

- □ **Top 1 Percentile**, GATE Civil Engineering (National Level), 2019
- □ **Top 1 Percentile**, Maharashtra State Board (XII Standard), 2014
- □ **Scholarship** of INR 80000/annum, INSPIRE GOI Scheme (5 years), 2014
- □ Top 1 Percentile, Maharashtra Secondary Scholarship Exam (State Level), 2009

TECHNICAL SKILLS

Software Packages:

Abagus, AutoCAD, ETABS, STAAD.Pro

Programming Languages:

Python, FORTRAN

WORKSHOPS AND COURSES

- □ Earthquake and Fire Safety in Industrial Establishments, NIDM
- □ Energy Simulation for Green Buildings, CII-IGBC
- □ Comprehensive ETABS Professional Course, Udemy
- □ Comprehensive STAADPro Certification Course, Udemy
- □ AutoCAD: Basics for Beginners and Structural Detailing, Udemy

LANGUAGES

English, Hindi, Marathi