

Abhilash Sanjay Ghumadwar

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PROFESSIONAL EXPERIENCE

- **HILTI, Pune**
 - **Technical Engineer-1** (13,Jan,2025–Present).
 - Designing of Modular Support System using HILTI's proprietary portfolio.
- **Mumbai Railway Vikas Corporation Ltd. (A PSU of Govt. of India, Ministry of Railways), Mumbai**
 - **Project Engineer** (15,Sept,2020–21,Dec,2022), **Senior Project Engineer** (22,Dec,2022–18,Dec,2024).
 - Preparing Design Basis Report for MRVC Design Cell.
 - Designing Foot Over Bridges, Buildings (RCC Slab & Truss Roof), Platform Shed, Retaining walls, UGTs etc.,
 - Evaluation of Detailed Design Consultancy Proposals for Station Improvement Work.
 - Preparing quotations and evaluation of for boarding Proof-checking agency (IITB).
 - Preparation of Girder Launching Drawings for FOBs and skywalks.
 - Checking Designs of Station Improvement Work of Mumbai Suburban Railway.
 - Submitting the Design Drawings for proof-checking to IIT & Getting it approved.
 - Site visits, Planning, Approval of Station Improvement Works of Mumbai Suburban Railway.
 - Executing of Station Improvement work at Neral Station of Central Railway of Foot over bridge, Deck, Platform covering, Multistoried Buildings, Overhead Water Tank, Underground Water Tanks, etc.,.
- **Indian Institute of Technology, Kanpur** (August,2018–April,2020)
 - **Teaching Assistant**
 - Reinforced Concrete Design (Spring,2019)
 - Structural Dynamics (Autumn,2019)
 - Experimental Methods in Structural Engineering (Spring,2020)
 - Stability of Structures (Spring,2020)

ACADEMIC QUALIFICATIONS

Degree	Institution	Year	CPI/Percentage
M.Tech(Structural Engineering)	IIT Kanpur, Kanpur	2022	9.64/10
B.Tech(Civil Engineering)	Govt. College of Engg., Amravati	2018	7.89/10
XII(MSBHSE)	Shivaji Science College, Nagpur	2014	83.85 %
X(MSBSE)	Somalwar High School, Nagpur	2012	90.73 %

SCHOLASTIC ACHIEVEMENTS

- Secured **99.65 percentile** in GATE 2018 among 1.5 lakh aspirants (**AIR 529**).
- **Academic Excellence Award** at IIT Kanpur (March-2020).

RELEVANT COURSES

- Design of Steel & RCC Structures | Earthquake Analysis and Design of Structures | Stability of Structures | Structural Dynamics | Engg. Mechanics | Strength of Materials | Structural Analysis | Finite Element Methods | Structural Health Monitoring | Random Vibrations | Geotechnical Engg. |

RELEVANT ACADEMIC PROJECTS

- **On Use of Peak Factors in Response Spectrum Based Modal Combination Rules for Seismic Response.** (M.Tech Thesis) [Dr.Vinay Kumar Gupta] (Dec,2022)
 - Generating Wavelet based time histories for a desired Target Spectrum.
 - Modelling Non-Stationarity Peak Factor to determine Peak Floor Response of structure during Earthquake.
- **Designing of Lateral Force Resisting System using Steel Special Moment Resisting Frame (SMRF)** (Group Project) (April,2019)
Earthquake Analysis and Design of Structures (CE 629)
 - Modeled Five Story Office Building using member available in European and Indian Standard.
 - Analyzed structure using SAP 2000, Designed using IS: 800-2007, IS: 1893(Part 1)-2016 and FEMA 350 -2000.
- **Probabilistic Seismic Hazard Analysis** (Term Paper)
Earthquake Analysis and Design of Structures (CE 629A) (April,2019).
- **Natural Excitation Technique-ERA** (Term Project) (April,2019)
Vibration based Structural Health Monitoring for CE Application (CE 725A)

- Determined first natural frequencies and mode shapes of structure using Output Only Method in both longitudinal and lateral directions.
- **Response spectrum analysis for floor acceleration** (Term Paper)
Random Vibrations (CE 721A) (April,2019)
- **Experimental Study of Reinforced Concrete Beam Model** (Team Project) (April,2019)
Experimental Methods in Structural Engineering (CE 623A)
 - Designed Prototype Beam for a given problem statement & modelled it using Similitude Laws.
 - Tested Model Beam to validate result against Theoretical Ultimate Load.
- **B.Tech Project** (April,2018)
 - Experimental Investigation of Geo-Polymer Concrete Pavement Blocks
 - Studied chemical reaction taking place in Geo-Polymer concrete.
 - Determined proportion of material quantity desired for Pavement Block's target strength and cost of product.

INTERNSHIP EXPERIENCE

- **Balaji Structural Consultancy (Rajapeth, Amravati, Maharashtra)** (25,Nov,2016–25,Jan,2017)
 - Developed reinforced concrete steel design worksheets on Excel.
 - Assisted in analysis and structural designing using STADD Pro. in projects including residential, commercial building.
 - Inspection of construction progress of hotel site as a Site Engineer.

TECHNICAL SKILLS

- **Engineering Software:** STAAD PRO, AUTOCAD, ETABS, SAP 2000, PRIMAVERA, MATLAB.
- **Other Software:** EXCEL, MS-WORD, POWER-POINT, LATEX.