Abhilash Sanjay Ghumadwar

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PROFESSIONAL EXPERIENCE

- **Mumbai Railway Vikas Corporation Ltd.,** *(A PSU of Govt. of India, Ministry of Railways)* *(15,Sept,2020–Present)*
  - **Senior Project Engineer** *(22,Dec,2022–Present)*
    - Preparation of Girder Launching Drawings for FOBs and skywalks.
    - Checking Designs of Station Improvement Work of Mumbai Suburban Railway.
    - Submitting the Design Drawings for proofchecking to IIT & Getting it approved.
    - Execution of Station Improvement Work at Neral Station consisting of Buildings, Overhead Water Tank, Underground Water Tanks, Foot over bridge, Deck, Platform covering etc.,
    - De-launching execution of FOB (N-Type Truss) at Kasara Station.
  - **Project Engineer** *(15,Sept,2020–21,Dec,2022)*
    - Site visits, Planning, Approval of Station Improvement Works of Mumbai Suburban Railway.
    - Preparing Design Basis Report.
    - Designing Foot Over Bridges, Buildings (RCC Slab & Truss Roof), Retaining walls, UGTs , Workshop etc.,
    - Involved in evaluation of Detailed Design Consultancy Proposals for Station Improvement Work.
    - Preparing quotations and evaluation of for boarding Proofchecking agency (IITB).
    - Checking Designs of Station Improvement Works of Mumbai Suburban Railway.
    - Preparing Quotations and Executing Geotechnical Survey.
    - Preparing Quantity Estimation and Bill of Quantities (BOQs) for Station Improvement Work Tender.
    - Involved in preparation of Works Tender Document using e-Procurement Portal and Evaluation for Station Improvement Work
    - Execution of Station Improvement work at Neral Station of Central Railway.
- **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).

RELLEVANT COURSES

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

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