

PRASHANT GAUTAM

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Licensed Civil engineer and Pulchowk Campus alumnus with hands-on expertise in Structural Resilience, Post-fire forensic investigation, and non-destructive material testing. Experienced in correlating field diagnostic data with structural theory to evaluate infrastructural compromise. Seeking to leverage background in structural engineering and forensic reporting to pursue a Ph.D./M.S. focus on post fire assessment and transportation infrastructure resilience.

EDUCATION

Pulchowk Campus, Institute of Engineering (IOE), Tribhuvan University (T.U) 2025

Bachelor's in Civil Engineering

Awarded with regular program scholarship provided by Institute of Engineering (IOE).

Ambition Academy Secondary School, National Education Board (N.E.B) 2021

+2 Science

Awarded with full scholarship provided by Kathmandu Metropolitan City

RESEARCH AND CORE ACADEMIC PROJECTS

Undergraduate Project: Seismic Resistant Design of Multi-Storied RCC Commercial Building 2024 - 2025

- Performed comprehensive structural modeling and dynamic analysis of a B+G+9 storied building using **ETABS** to ensure structural stability and seismic resilience.
- Designed structural members (Beams, Columns, Footings) in compliance with **IS 1893:2016** and **IS 13920** (Ductile Detailing) to optimize performance under earthquake loads.
- Conducted **Equivalent Static** and **Response Spectrum Analysis** to verify drift limits and structural stability as per the Nepal National Building Code (**NBC**).

RELEVANT RESEARCH AND EXPERIENCE

Institute of Engineering Consultancy Service (IOECS), Pulchowk, Lalitpur Oct 2025 – June 2026
Civil Engineer (Structural Assessment)

- **Post-Fire Forensic Investigation:** Contributed to Post-fire Detailed Damage Assessments (DDA) due to GEN-Z moment for 44 administrative and residential structures of federal government in Kathmandu and Pokhara to evaluate fire-induced structural compromise and community safety.
- **Material Testing (SDT & NDT):** Executed Concrete Core Cutting, Carbonation Depth Analysis, and NDTs (Rebound Hammer, UPV) to determine residual material strength and durability.
- **Forensic Reporting:** Correlated field data with structural observations to assist in drafting forensic reports determining 'Repair vs. Demolition' outcomes.
- **Estimation & BOQ:** Developed comprehensive Cost Estimates and Bill of Quantities (BOQ) for rehabilitation works based on Government of Nepal norms and current district rates.

INDUSTRIAL ENGINEERING EXPERIENCE

Divyashwori Nirman Sewa, Banepa, Kavrepalanchowk

July 2025 – Present

Civil Engineer (Site Supervision and Quality Assurance)

- **Structural Code Adherence:** Supervised daily site construction activities to guarantee strict compliance with approved structural engineering drawings, design standards, and NBC codes.
- **Material Quality Controls:** Led reinforcement inspections (Bar Bending Schedules - BBS) and evaluated formwork stability alongside routine concrete workability/slump tests prior to structural pours.
- **Technical Measurements:** Conducted precise on-site quantity take-offs to verify structural dimensions and maintain high transparency in engineering data logs.

D.S. Nirman Sewa, Chauri Deurali, Kavrepalanchowk

Sept 2024 – June 2025

Civil Engineer Intern

- **Independent Site Layouts:** Took independent charge of translating blueprint dimensions onto the physical site, handling layouts and basic surveys.
- **Material Tracking:** Oversaw reinforcement steel inspections and handled everyday quantity take-offs to ensure materials were used efficiently within budget.

SKILLS AND TOOLS

Engineering Software:

- E-Tabs
- AutoCAD
- SW-DTM
- Advanced Microsoft Excel

Diagnostic Equipment (NDT):

- Ultrasonic Pulse Velocity (UPV) Meter
- Rebound Hammer
- Phenolphthalein Carbonation Test
- Core Cutting

Survey Instruments:

- Total Station
- Theodolite
- Auto Level,
- Compass

Core Competencies:

- Structural Diagnostics
- Post-Fire Forensic Reporting
- Seismic Design
- Quantity Estimation
- Concrete Quality Control

PROFESSIONAL DEVELOPMENT & LEADERSHIP

- **Technical Certification:** Completed an ADB-sponsored capacity-building course on Road Slope Stability and Bio-engineering (RCIP-AF TA-10113 NEP).
- **Team Leadership:** Stepped as a project group team leader and served as an Academic Class Representative
- **Magazine Editor:** Worked as the coordinator and editor for "The Bridge" Magazine Published by CESS-Nepal
- **Exhibition Management:** Led the student organizing committee as the primary coordinator to plan, fundraise, and execute a campus-wide health camp sponsored by CESS-Nepal; volunteered as a core technical coordinator for "AADHAR-2081", the premier Civil Engineering Exhibition at Pulchowk Campus.