

Hemanth Reddy Gaddam

CIVIL ENGINEER – Structural Design, Site Supervision & Land Surveying

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📍 Ontario

in [LinkedIn](#)

SKILLS

- **Engineering & Design Tools:** AutoCAD, Civil 3D, Revit Architecture, STAAD Pro, and Ansys for modeling tasks.
- **Survey and Data Collection:** Leveraged Total Station, GPS devices, and GIS tools for mapping and terrain analysis.
- **Analysis and Computation:** Finite Element Analysis, Stress Analysis techniques, and Matlab simulations for design.
- **Construction & Planning Tools:** Primavera, Smartsheet, Office Productivity Tools for task sequencing & reporting.

WORK EXPERIENCE

Field Engineer

April 2021 – July 2022

Honey Constructions

India

- Supervised site operations and maintained structural standards through management tools and IS codes, improving quality and compliance by 30% across every phases while coordinating real-time reporting with construction engineers.
- Estimated budgets and scheduled resources using MS Project and quantity takeoff methods, lowering material wastage by 25% and boosting efficiency through optimized allocation and forecasting across different construction phases.
- Performed 40+ detailed risk assessments on daily workflows & mitigated operational hazards using HIRA and site safety protocols, improving compliance with safety standards by 30% & lowering incident frequency in restricted zones.
- Interpreted architectural and structural drawings using AutoCAD and BIM viewer tools to identify inconsistencies, reducing redesign cycles by 35% and ensuring better coordination between design teams and field execution staff.

Associate Engineer

November 2019 – April 2020

Satyavani Projects Pvt Ltd

India

- Drafted as-built construction plans and civil layouts using AutoCAD Civil 3D and technical drawing standards, improving final project documentation and structural verification by 40% across different design teams and consultants.
- Estimated project budgets, prepared cost breakdowns, and analyzed expenditures using Excel, reducing overruns by 20% through detailed material tracking, procurement planning, and variance analysis from engineering benchmarks.
- Collaborated with design teams & mechanical teams to resolve construction clashes using Primavera P6 schedules and clash detection data, improving site coordination and accelerating excavation and foundation task completion by 25%.
- Documented geospatial & topographic data using GNSS tools and integrated outputs into AutoCAD Civil 3D to optimize layouts, improving design accuracy on sloped terrains & reducing manual rework during land grading by 30%.

Civil Engineer Trainee

May 2019 – November 2019

Satyavani Projects Pvt Ltd

India

- Managed material tracking logs using MS Excel and applied construction resource management principles to optimize procurement allocation, improving field budget use by 15% through better tracking of quantities and on-time deliveries.
- Measured layout coordinates with GPS and Total Station, achieving 98% accuracy in control point placement, decreasing deviation in structural alignment of columns, tie beams, and plinth levels using real-time site grid calibration.
- Developed 2D and 3D construction plans in AutoCAD Civil 3D and applied technical drafting standards to assist field teams, accelerating design translation to site activities and minimizing layout misunderstandings in critical areas.
- Facilitated the compilation of 100+ technical documents, site diaries, and inspection logs using document control systems, reducing approval cycle times by 20% & enhancing communication efficiency with consultants and site engineers.

PROJECT EXPERIENCE

Integrating AR/VR and Circular Economy in Construction

Researcher

- Explored AR/VR applications for enhanced design visualization and resource optimization in construction workflows.
- Demonstrated about 25% reduction in design errors through immersive modeling and real-time simulation feedback.

High-Rise Aerodynamics via CFD with Corner Modifications

Researcher / Analyst

- Evaluated wind flow on 5+ high-rise structures through Ansys CFD, strengthening aerodynamic stability by 20%.
- Identified & enforced corner modification strategies that enhanced wind resistance & cut structural vibrations by 15%.

EDUCATION

Master of Engineering in Civil Engineering

September 2022 – May 2024

University of Ottawa, Canada

Bachelor of Technology in Civil Engineering

June 2017 – April 2021

Hindustan Institute of Technology and Science, India

CERTIFICATIONS

- **AutoCAD, STAAD Pro, and Revit Certified**
- **Geotechnical Engineering (NPTEL)** – Indian Institute of Technology
- **Engineering Project Management** – Rice University
- **Mechanics of Materials** – Georgia Institute of Technology