NAVEEN KAPPALA

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PROFILE SUMMARY

Experienced Civil Engineer with expertise in structural analysis, cost estimation and project management, specializing in construction planning and infrastructure development. Skilled in quantity take-offs, bid preparation, contract management, and risk assessment to ensure cost-effective and efficient project execution. Proficient in AutoCAD, Civil 3D, STAAD Pro, SketchUp, Bluebeam, Primavera P6, and Power BI, with a comprehensive understanding of AISC, IS 456: 2000, IS 800: 2007, and AASHTO roadway design standards. Experienced in drainage design, earthwork estimation, and transportation engineering, with a successful track record of collaborating with subcontractors to maintain project timelines and quality standards. OSHA 30-certified, holding a Civil Engineering degree, and a Construction Project Management certification, actively seeking an exciting and challenging opportunity to leverage advanced technical expertise in optimizing construction efficiency, sustainable practices, and cost control.

EDUCATION

- **Masters in Information Technology and Management** | Campbellsville University | Kentucky, USA **Jun 2023 – Mar 2025**
  Key courses – Project Management, Team Management, Disaster Recovery Planning and Management, Negotiation and Conflict Management.
- **Bachelors in Civil Engineering** | Narsimha Reddy Engineering College | India **Jun 2019 – Aug 2022**
  Key courses – Structural Analysis, Design Reinforced Concrete Structures, Surveying, Irrigation and Hydraulics, Geotechnical Engineering.
- **Diploma in Civil Engineering** | Swami Ramananda Tirtha Institute of Science and Technology | India **Jun 2016 – Apr 2019**
  Key courses – Strength of Materials, Construction Management & Entrepreneurship, Surveying, Quantity Surveying, Environmental Engineering.

SKILLS

Project Management | AutoCAD Proficiency | Construction Quality Control | Budget Management | Machine Learning for Predictive Maintenance and Safety | Excel for Project Tracking | Team Collaboration | SQL for Cost and Budget Analysis | Subcontractor Coordination | Problem-solving | Quality Assurance | Time Management | Power BI for Monitoring | Procore | MS Project | Communication Skills | Site Supervision | Risk Management | Stakeholder Reporting | Effective communication | Design Review | Contract Management | Documentation and Reporting | Project Scheduling | Process Improvement | Conflict Resolution | Cost Estimation | Site Safety Management | Procurement Management | Sustainability Practices in Construction.

SOFTWARE PROFICIENCY

AutoCAD | Civil 3D | Primavera P6 | Bluebeam | Sketchup | Staad-pro | Machine Learning used for SHM | SQL | Microsoft Office | Power BI.

EXPERIENCE

Junior Estimation Engineer | Sugadhi Constructions Pvt. Ltd, India **Nov 2018 – May 2019**

- As a Junior Estimation Engineer at Sugadhi Constructions Pvt Ltd, specialized in preparing cost estimates, structural design, and analysis for residential buildings and various civil projects. Utilized AutoCAD for drawings and Excel for design reviews and material calculations.
- Collaborated closely with four highly experienced engineers on cost estimation, budgeting, and design analysis for mission-critical projects.
- Coordinated proactively with subcontractors for highly precise cost estimation, specification compliance, and timely resolution of technical issues.
- Carefully gathered and analysed subcontractor data, ensuring reliably accurate estimates and design analysis for critical project timelines.
- Oversaw estimation and costing processes for management, delivering cost-effective solutions and aiding residential design analysis.
- Maintained budget adherence through subcontractor coordination, accurate cost estimation, prompt issue resolution, and deadline tracking.

ACADEMIC PROJECTS

Southwood Plantation Road Realignment Project (Tallahassee, Florida)

- Designed a new multilane divided highway from Biltmore Avenue to Apalachee Parkway, ensuring compliance with AASHTO roadway design standards and local regulations, while integrating safety enhancements, sustainable design principles, and improved surrounding community.
- Evaluated and strategically recommended a hybrid design alternative that balanced environmental, social, and economic considerations, optimizing project feasibility and impact minimization while addressing community needs, long-term sustainability, and enhanced efficiency.
- Applied AASHTO standards to determine superelevation rates, horizontal radii, and vertical curvature requirements, ensuring safety, performance.
- Designed typical sections with four 12-ft lanes, 10-ft inside shoulders, and 6-ft outside shoulders, prioritizing safe and efficient vehicle operation.

A Case Study on Post-Tensioning in Slabs and Beams of High-Rise Buildings

- Conducted an industrial-oriented mini-project on post-tensioning in slabs and beams for high-rise buildings at Aparna Kanopy, India focusing on long-span beams and large-area slabs without intermediate columns. Collected technical details on materials and machines used for post-tensioning.
- Specifications included Ordinary Portland Cement (53 grade), PC Strand (12mm), galvanized steel strips for ducts (0.3mm thickness), and M-50 grade concrete. The design mix consisted of 440 kg of cement, 840 kg of sand, 1140 kg of coarse aggregate, and 80 liters of water per cubic meter of concrete. The use of high-strength materials and precise design mix ensured enhanced durability and stability for the high- rise concrete structure.

Analysis and Design of Residential Building (G+4) Using STAAD Pro and AutoCAD

- Analyzed and designed a G+4 residential building at Hyderabad, using STAAD Pro and AutoCAD. Developed the building plan in AutoCAD with 3D visualization and performed building analysis using the limit state method. The design was finalized in STAAD Pro, ensuring the safety of structural components for shear and deflection, while also optimizing the structural performance and material usage for cost-effectiveness.
- The building, with a plinth area of 1400 sq.m, features brick walls and 72 columns. The dimensions of the building are 41m in length (X), 20.7m in width (Y), and 34m in height (Z). The inter-storey height is 3.6m. The project served as an academic block with a focus on structural integrity.

PROFESSIONAL DEVELOPMENT

- Gained expertise in Post-Tensioning in Slabs and Bubble Deck Slabs as sustainable solutions for improving structural efficiency in construction.
- Enhanced advanced structural analysis, focusing on the use of smart materials and design techniques to improve structural safety and performance.
- Learned about applying AASHTO roadway design standards to optimize traffic flow, ensure compliance, and enhance safety in road realignment.
- I participated in a session on construction safety protocols, risk management, quality control, and technology implementation on construction sites.
- Explored trends in smart city technologies, urban planning, digital infrastructure, and role of IoT sensors in urban management for smarter cities.

CERTIFICATIONS

- Occupational Safety and Health Administration (OSHA 30).
- Construction Project Management by Columbia University (Online).
- Oracle Primavera P6
- *Fundamentals of Engineering (FE) Exam Preparation*. I am actively preparing for the FE Civil exam to obtain certification.

ELIGIBILITY

Eligible to work in the United States of America with valid work authorization | Willing to Relocate.