Abhishek Anand

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Summary

Mechanical & Project Engineer with 1+ years of experience in design, analysis, and project execution..

Experience

Project Engineer, QACA Company

Nov 2023 - Feb 2025

- Design & Material Planning: Designed site materials and components using AutoCAD, ensuring accurate specifications and efficient material usage for construction and installation. Created technical drawings to guide the manufacturing and assembly process.
- Project Execution: Managed the entire project workflow, from designing site materials to overseeing their fabrication, transportation, and installation at sites. Ensured smooth coordination between the design team and on-site execution teams.
- Quality Inspection: Conducted detailed inspections and quality checks on manufactured materials and installed components. Ensured that all materials met client specifications, industry standards, and safety regulations before and after installation.
- **Site Supervision:** Monitored **on-site activities**, ensuring correct assembly and installation of mechanical components. Ensured all work was carried out safely, efficiently, and as per the approved designs.
- **Problem-Process Improvement:** Identified challenges in fabrication, assembly, and installation processes and implemented solutions to improve efficiency and reduce errors. Conducted root cause analysis to prevent recurring issues.
- Technical Support: Assisted teams in resolving mechanical and structural challenges that arose during material fabrication or on-site assembly. Provided engineering insights to ensure successful project completion.
- Team & Vendor Coordination: Worked closely with third-party vendors, engineers, and on-site teams to streamline project execution. Ensured timely delivery of materials and smooth installation by coordinating between different departments.
- **Documentation & Compliance:** Maintained detailed records of **design specifications**, **project progress**, **inspection reports**, **and compliance documentation** to ensure transparency and regulatory approval.
- Budgeting and managing the Project Avg Cost: 1.2 Crore.

Internship

As Railway Mechanical Technician, Govt. Katihar Railway Industrial Training

July 2022 - Jan 2023

- Railway Maintenance & Repair: Worked in railway pit lines, performing regular maintenance and repair of railway components to ensure smooth and safe train operations. Learned how to inspect and maintain key railway infrastructure, minimizing downtime and preventing breakdowns.
- System Installation & Troubleshooting: Installed, maintained, and troubleshot ART (Accident Relief Train) and ARME (Accident Relief Medical Equipment) systems to enhance emergency response capabilities in railway operations. Identified system issues and applied corrective measures to improve reliability and performance.
- Track & Signal Maintenance: Assisted in the inspection, repair, and servicing of railway tracks, switches, and signaling systems, ensuring trains could run safely without disruptions. Gained hands-on experience in maintaining railway infrastructure to meet safety and operational standards.
- New Railway Infrastructure Development: Contributed to the construction, installation, and commissioning of new railway tracks and signaling systems, ensuring proper alignment, durability, and functionality. Supported site engineers in project execution, helping expand railway networks.
- Documentation & Reporting: Maintained detailed records of maintenance tasks, inspections, and repairs to ensure compliance with railway safety standards. Reported findings to supervisors, ensuring all work met quality and regulatory guidelines.

• Team Coordination & Safety Compliance: Worked closely with engineers, supervisors, and technicians to complete tasks on time while following all safety protocols and operational procedures. Ensured projects were completed efficiently with minimal disruption to railway operations.

Automation & Data Analysis Internship, Tech Mahindra Ltd

Apr 2023 - Sept 2023

- Automation Research & Strategy: Conducted in-depth research on emerging automation technologies, tools, and best practices, assisting in the development of strategic automation initiatives to enhance operational efficiency and reduce manual workload.
- Data Analysis & Visualization: Utilized Microsoft Excel to analyze large datasets, track automation performance metrics, and create dynamic reports with charts and dashboards for effective decision-making.
- Chassis Design & AutoCAD Modeling: Designed automobile chassis structures using AutoCAD, ensuring precise technical specifications for efficient assembly and manufacturing processes. Assisted in optimizing structural integrity and weight distribution for improved vehicle performance.
- Technical Documentation & Reporting: Prepared detailed technical reports, research papers, and presentations to document automation findings, process improvements, and project developments, ensuring clarity and accessibility for stakeholders.
- WordPress Content Development & Website Management: Developed and managed WordPress-based websites, creating informative content on automation trends, process innovations, and technology advancements to engage industry professionals.
- Process Optimization & Workflow Enhancement: Contributed to the implementation of automation-driven solutions, streamlining workflows, reducing operational redundancies, and enhancing overall process efficiency.
- Project Impact & Business Contribution: Played a key role in automation projects that resulted in significant cost savings, increased operational efficiency, and improved customer satisfaction by integrating data-driven insights into business processes.

Projects

Foot Step Power Generation - Research & Development Project

summer 2023

- **Project Planning & Requirement Analysis:** Developed a comprehensive **requirement document** outlining project objectives, expected functionalities, and key technical specifications to ensure successful implementation.
- System Design & Workflow Development: Designed and structured the power generation system, ensuring alignment with workflow requirements to maximize energy efficiency and output reliability.
- **Performance Evaluation & Data Documentation:** Defined expected power output for various conditions, establishing **performance benchmarks and acceptable error margins** for testing and validation.
- Collaboration & Technical Discussions: Engaged in regular discussions with project mentors, faculty members, and the Head of Department to refine the system design, improve energy efficiency, and optimize overall performance.
- **Prototype Development & Testing:** Focused on **developing a working prototype**, conducting multiple tests to evaluate real-world functionality, and implementing necessary adjustments to enhance performance.
- Issue Resolution & Optimization: Identified potential challenges in power generation efficiency, proposed remedial measures, and documented recommendations for further improvements in design and implementation.

Education

Govt Bihar Engg University, BTECH in Mechanical Engg

Sept 2019 - Oct 2023

• CGPA: 7.4/10.0

R.M.College, Saharsa, Bihar, Science Stream in Intermediate

Jun 2016 – Jun 2018

• Marks: 64/100 %

R.M.College, Saharsa, Bihar, Metriculation

May 2015 - May 2016

• Marks: 74/100 %

Achievements

Autocad by IIT Patna	Apr 2021
1st Place – Robo Engineering Hackathon at MIT University,Patna	Sept 2021
Gold awarded by NPTEL at IIT Kanpur, Soft Skill Development	Jul 2022
Silver awarded by NPTEL,at IIT Kanpur,Technical English	Apr 2023

Skills

Core Skills:CAD/CAM, Mechanical Design, Automation, Thermodynamics, Fluid Mechanics

Software & Tools:: AutoCAD, Excel, PowerPoint, MS Word, WordPress, CBA

Industry Skills: Automotive Engineering, Chassis Design, Data Analysis, Quality Assurance

Languages

Language: English, Hindi