

Chaitanya Kolluru

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ELECTRICAL ENGINEER

Analytical and knowledgeable professional with a master's degree in electrical engineering practices and innate ability to design, control, and implement electrical systems and products. Skilled in developing manufacturing processes according to global engineering codes and standards. Instrumental in managing engineering projects and deliverables as well as ensuring alignment of installations and applications with customer needs and safety standards. Adept at collaborating with engineers and technicians to design and apply new system processes. Articulate communicator with a credible history of cultivating and maintaining positive collaborations with clients, key stakeholders, and senior management to realize organizational goals.

AREAS OF EXPERTISE

- Electrical Design/System
- Electric Vehicular Technology
- Cross-functional Collaboration
- Project Management
- Power System Administration
- Engineering Operations Management
- Process Optimization
- Procedural Compliance
- Performance Improvement

TECHNICAL PROFICIENCIES

MATLAB | Power World Simulator | MI Power | Cadence Virtuoso | LTspice | Altium | FEMM | Microsoft Office Suite (Word, Excel, and PowerPoint) | Programming Languages (C, Code-blocks, Python) | Programmable Logic Controller

EDUCATION

- **Master of Science, Electrical Engineering (2021)**
THE UNIVERSITY OF TEXAS – Dallas, Richardson, Texas
- **Bachelor of Technology, Electrical Engineering (2019)**
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY – Changa, Gujarat

EXPERIENCE HIGHLIGHTS

Stanley Black And Decker, Inc. Towson, Maryland

Hardware Engineer

2021- Present

Implemented motor control platforms for brushless outdoor tools in the Global Tools and Storage business unit. Analyzed project management system from concept through design, mass manufacturing, and full product life cycle. Strategized with global marketing, engineering, quality and manufacturing teams on development of products.

Key Contributions/Accomplishments:

- Design and development of a Handheld Accessory Module Interface.
- PCB schematic and layout design using Altium.
- 3-Phase Brushless DC Motor control platforming for new product development.
- Lithium-ion battery management.
- Cross platform association with multidisciplinary team of Mechanical, Electro-Mechanical and Software.
- Analog & Digital hardware design, DFMEA & PFMEA, failure root cause analysis and troubleshooting.

- Collaboration, documentation and test plan development with vendors and manufacturers.
- Acquiring new parts and project management.

The University of Texas – Dallas, Richardson, Texas

Student – Electrical Engineering

2019 – 2021

Developed an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. Acquired skills to apply engineering design for producing solutions, meeting specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. Established capability to develop/conduct appropriate experimentation, analyze/interpret data, and use engineering judgment to draw conclusions.

Key Contributions/Accomplishments:

- Designed induction motor for electric vehicle with 73% efficiency rate leveraging ANSYS software.
- Designed an appropriate control design for 37.03 KVA rating motor for electric car, matching parameters of Indian road conditions and providing low starting current for high torque.
- Extracted netlist for successful layout with worst-case delay with cell amount of 3K cells, storing 16-bit data on 32-bit register.
- Covered major strides with properly documented insights along with requisite key deliverables and milestones in project management.

Gujarat Industrial Power Company Limited – Vadodara, Gujarat

Electrical Engineering Trainee

2017

Developed exceptional expertise in operations of 310 MW gas-based combined cycle and floating solar power plant with commissioning procedures as well as provided system control and stability. Collaborated with cross-functional teams to facilitate workflows.

L&T Knowledge City, Vadodara, Gujarat

Electrical Engineering Intern

2017

Conducted detailed analysis of set-ups under electric team working on NTPC project of 1,320 MW thermal power plant in Khargone, Madhya Pradesh. Ensured completion of assigned critical electrical engineering tasks within restricted timeline.

KEY PROJECTS

- Induction Motor Design
- Design and Simulation of a PWM inverter
- Layout and Verification of a 16-bit ALU
- Project Documents for Student Kiosks Project
- Home Automation with Personalized System Security

RESEARCH WORK

- Research on “Energy Audit Document of India On Renewable Energy Resources”
- Review paper on “Charging Infrastructures of Electric Vehicles”.
- Research on “High Speed Charging Technology for Electric Vehicles”