Sharad Bhowmick

Electrical Engineer
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Skills

- MATLAB/Simulink
- MS Office Suite
- NI Multisim
- Eagle
- Circuit Designing
- Soldering
- JDA WMS
- Knowledge of Technical Diagram
- C++
- AutoCAD
- PSpice
- LabView
- Tableau
- Arduino
- PCB etching
- Strong Analytical Abilities

Internships

Intern Electrical Engineer, M.P. State Load Dispatch Centre. Jabalpur DECEMBER 2016

- Reviewed daily load demand curve and did short term load forecasting.
- Acquired knowledge about SCADA and components of Distribution Centre.

Intern Electrical Engineer, M.P.P.T.C.L 220KV Substation, Jabalpur July 2017

- Designed one-line diagrams, schematic diagrams and prepared Bill Of Materials.
- Assisted the site supervisor in the maintenance of the transformer and in preparing reports of the maintenance.

Achievements

- Runners-up in Shell Eco-Marathon India at Chennai.
- Stood third in technical innovation in SEM-A at Singapore.
- Won a solo Debate during the CADO-Wood competition.
- Overall CADO-Wood competition winner with SRM-NCC.

Publication

- Geetha, A., ThamizhThentral, A., Silekar, S.A., Katiyar, G., Mishra, G. & Bhowmick, S. “Analyzing the Characteristics of Different Types of Motors Used in Electric Vehicles” International Journal of Recent Technology and Engineering. 2019, 7 (5S2), 176-179

Profile

Passionate and assiduous Electrical Engineer with a background and history of optimizing systems using an amalgamation of time tested as-well-as unorthodox techniques. I deliver results of the highest standard and aspire to research in the field of Energy Systems to realize the goal of a carbon-neutral world.

Education

M.Sc. Electrical Engineering and Renewable Energy Systems, University of Leeds, Leeds, U.K. SEPTEMBER 2019—SEPTEMBER 2020

Modules studied: Control System Design, Smart Grid Analysis, Power Electronics Drives, Electric Power Generation and Distribution, Modern Industry Practices, Programming

B.Tech. Electrical and Electronics Engineering, SRM Institute of Science and Technology, Chennai, India JUNE 2015—MAY 2019

Modules studied: Linear Integrated Circuits, Micro-controller and Microprocessor, Discrete Mathematics, Electromagnetic Theory, Electrical Machines, Material Science, Physics, etc, Power System Protection.

Projects

Novel slipstream detection technique

- Conceptualized a method to determine slipstream in vehicles.
- Mathematical modelling of 2-Dimensional sonic anemometer.
- Designed the circuits using NI-multisim.

PV based dissolved oxygen controlling system for pisciculture

- Performed calculation to find parameters of aerator, pump, P.V. panels and the storage system.
- Designed a DIDO converter in MATLAB Simulink.
- Validation on a test pond proved 20 percent increase in the fish yield.

Collision detection system for cars

- Conceptualized and designed a prototype using ultrasonic sensor in Arduino platform.
- Integrated kill switch to cut power in case of collision.
- Integrated GSM module to send message to pit crew in case of collision.

IoT based Jewelry theft prevention system

- Designed prototype to detect stolen jewelry using Arduino Uno and RFID 9460 tag.
- Compiled documentation of the whole project.

Work Experience

Electrical Engineer, Infieon Supermileage (University team)

MARCH 2016 — APRIL 2019

- Designed electrical systems and electro-mechanical components for super mileage vehicles.
- Optimized electrical wiring and energy storage system of the vehicle.
- Designed electro-mechanical clutch resulting in 75% lower frictional losses.
- Optimized electrical system was 45% lighter and 30% cheaper.
- Initiated work on the hybrid powertrain.
- Compiled documentation of electrical system for Technical Inspection.

President, Engineers Without Borders, SRM Chapter MAY 2016—APRIL 2020

- Completed 9 projects and awareness drives in Chennai, India.
- Organized two National level Energy conferences.
- Lead a project analyzing PM 2.5 particles by trucks, which resulted in the barring of heavy vehicles in one of the residential areas.
- Lead a project building 7 toilets for a nearby village.
- During my tenure fund generation increased by 25 percent.
- Total volunteers increased by 230 percent.

Admin, NHS Clipper Warehouse, Leeds OCTOBER 2020—OCTOBER 2020

- Managed inbound and outbound logistics.
- Managed inventory using JDA WMS Dispatcher software.