



# Sharad Bhowmick

ELECTRICAL ENGINEER

## Details

Leeds

U.K.

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## Links

LinkedIn :

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## Skills

Strong Critical Thinking Skills

Knowledge of Technical  
Diagrams

C++

Arduino

Matlab

Microsoft Office Suite

Complex Problem Solving

Artere

Circuit Design

AutoCAD

PSpice

NI multisim

LabVIEW

Tableau

PCB etching

JDA WMS

## Languages

English

Hindi

Bengali

Dutch

## Profile

Passionate and assiduous Electrical Engineer with a background and history of optimizing systems using amalgamation of time tested as-well-as unorthodox techniques. Successfully lead electrical domain of an automotive team, building an ultra-efficient vehicle and simultaneously managed an NGO doing social work to uplift the society through my engineering knowledge and skills. I deliver results of the highest standard and aspire to do research in field of Energy Systems in order to realize the goal of a carbon neutral world.

## Education

**MSc 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.

## 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 , MPPTCL 220KV Substation, Jabalpur**

JULY 2017

- Designed single line diagrams, schematic diagrams and prepared BOM.
- Assisted site supervisor in the maintenance of transformer and in preparing detailed reports.

## Projects

**Novel slipstream detection technique**

- Conceptualised a method to determine slipstream.
- Designed the amplifier circuits in NI multisim.
- Mathematical modelling of a 2-D anemometer.

**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.

**Collision detection system for cars**

- Conceptualized and designed a prototype using ultrasonic sensor in Arduino platform.

- Integrated multiple module to in case of collision and automatically cut the ignition.

### **IoT based Jewellery theft prevention system**

- Built the prototype using Arduino Uno.
- Documentation of the project.

## **Work Experience**

### **Electrical Engineer, Infieon Supermileage (University team)**

MARCH 2016 – APRIL 2019

- Oversaw planning and design of electrical system.
- Optimised electrical system by re-designing wiring harness and selecting optimum electrical storage which reduced the weight of the electrical system by 45 percent and decreased the cost by 30 percent.
- Collaborated with transmission engineers and designed an electro-mechanical gear shifter and clutch mechanism which reduced the weight of the vehicle and decreased losses.
- Initiated work on hybrid power-train.
- Assigned roles for procurement.

### **President , Engineers Without Borders, SRM Chapter**

MAY 2016 – APRIL 2020

- Organised 2 National Energy conferences.
- Worked as bridge between EWB's national office and the university.
- Completed 9 projects including building 7 toilets for poor household and analysing 2.5ppm by trucks which resulted in barring of trucks in a residential neighbourhood.
- Increased total members by 230 percent.
- Increased team's budget by 25 percent.

### **Admin, NHS Clipper Warehouse, Leeds**

OCTOBER 2020 – OCTOBER 2020

- Oversaw smooth functioning of warehouse.
- Managed inventory using JDA WMS Dispatcher software.

## **Achievements**

- Runners-up in Shell Eco Marathon India at Chennai with Infieon Supermileage.
- Vehicle (Eos) got a special mention for Technical innovation at Shell Eco Marathon Asia at Singapore in 2018.
- Won Cadowood competition with SRM-NCC in Chennai, India.

## **Publications**

1. 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