

# Kebin Raj S

Junior Electrical Engineer, Automotive Electrical Products

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#### **Profile Summary**

Experienced Electronics PCB Design Engineer with a strong background in delivering PCB designs, conducting performance testing, and creating accurate circuit diagrams. Skilled in assembling prototype PCBs, performing endurance testing, and optimizing designs based on feedback. Collaborative team player with expertise in meeting design specifications and ensuring high-quality results.

### **Area of Expertise**

- Electric Powertrain Design.
- Battery Management System.
- CAD Modelling and Design.
- Circuit Testing and Validation.
- PCB design and layout.
- Prototype development.

### **Professional Experience**

Junior R&D Engineer, MN Auto Products Pvt Ltd.

Jan 2024-present

- Delivered PCB designs and electrical documentation on schedule, ensuring alignment with development plans and specifications.
- Conducted performance testing and analysis of benchmark samples (BMS), creating accurate circuit diagrams for further development.
- Designed and assembled prototype PCBs, integrating SMD and through-hole components, and conducted regular endurance testing with progress monitoring.
- Collaborated with internal teams to verify designs, ensuring all specifications were met before initiating prototype procurement.
- Redesigned PCBs based on feedback and new design inputs, continuously refining prototypes to optimize performance.

### **Education**

- Bachelor of Electrical and Electronic Engineering
   Hindusthan College of engineering and Technology Coimbatore-641050 | CGPA: 7.78
- AISSCE (12<sup>th</sup> GRADE)
   Jawahar Higher Secondary School (CBSE), Neyveli.
   348/500

AISSCE (10<sup>th</sup> GRADE)
 Jawahar Higher Secondary School (CBSE), Neyveli.
 357/500

### **Projects**

### **HYBIRD ELECTRIC VEHICLE (5 Kw MOTOR)**

Dec 2022 - March 2023

- Applied CAD modelling expertise and integrated Battery Management Systems (BMS)
  with electric drivetrain technologies, optimizing design, performance, and safety for
  solar-powered and pure EVs.
- Led the successful realization of EV projects by leveraging advanced knowledge of electric vehicle systems, collaborating with cross-functional teams to ensure efficient development and delivery of high-quality solutions.

## **SOLAR ELECTRIC VEHICEL (3 Kw MOTOR)**

July 2023 - Oct 2023

- Designed efficient power distribution systems and integrated electrical components for seamless operation and reliability.
- Optimized system efficiency through meticulous planning, testing, and execution, meeting high safety and performance standards.
- Collaborated with cross-functional teams to align electrical design with overall vehicle performance objectives.

#### FARM ROVER (MINI-ELECTRIC TRACTOR)

Nov 2023 - Present

- Engineered the fully electric system for an innovative agricultural vehicle, optimizing efficiency and sustainability.
- Integrated battery technology, motor control systems, and precision sensors to enhance vehicle performance and functionality.
- Designed a compact, under 3-foot-wide vehicle with a focus on minimizing environmental impact and promoting eco-friendly farming practices.
- Contributed to advancing agricultural technology, driving a more sustainable and efficient future in modern farming

#### **EFFICYCLE-QUE (ADVANCE-HYBRID)**

Sep 2023 – Jan 2024

- Engineered the electrical system for an advanced hybrid cycle, integrating solar, electric, and pedalling power sources.
- Designed and implemented battery technology, motor control systems, and precision sensors for optimal performance and efficiency.
- Ensured smooth operation across multiple power modes, enhancing versatility and sustainability.

• Focused on maximizing energy efficiency while minimizing environmental impact through innovative hybrid technology.

## **Inplant Trainings**

- NEYVELI LIGNITE COOPRATION, INDIA LIMITED ('NAVRATNA' GOVERNMENT OF INDIA ENTERPRISE) | ENGINEER INTERN Jul2022 Aug 2022 | Neyveli
- ANAND SERVICE CENTRE | INPLANT TRAINING IN SUBSTATION Aug 2022 | Neyveli

#### **Achievements**

- Awarded First Position with 11 awards at the 2020 AIMS E-Go-Kart Competition held at Kari Motors.
- Awarded First Position with Overall, Design, and Endurance titles at the 2023 National Solar EV Competition held at NIT Nagpur.
- Selected for the 1st Round and received Rs. 2,67,880 funding at the AICTE Tomato Grand Challenge 2024.
- Awarded Overall Champions with 2 awards at the EFFICYCLE-QUE (Advanced Hybrid), SAE India competition.

#### Skills

# TECHNOLOGIES|SOFTWARE|TOOLS

- Robotic Operating Systems (ROS)
- Internet of Things (IoT)
- MATLAB
- SolidWorks
- Altium
- AutoCAD

# **PROGRAMMING**

- Programming Languages: C, Python
- Sensor data processing: RADAR, LIDAR, CAMERA