

ALI AKBAR B

Bengaluru, India

◆+917012007892

◆ alikbr916@gmail.com

PROFESSIONAL SUMMARY

Experienced Electronics Hardware Engineer with seven and half years in the field. Proficient in designing, testing, and troubleshooting electronic systems. Skilled in PCB layout, schematic design, and component selection. Adept at collaborating with cross-functional teams to deliver high-quality products on schedule. Proven track record of innovation and problem-solving in diverse projects. Dedicated to staying updated with industry trends and technologies to drive excellence in product development. I am eager to apply my knowledge and skills to contribute to the innovation and excellence of your company and to pursue my passion for electronics engineering.

WORK HISTORY

(01/02/2023 – PRESENT)

ORGANIZATION : STELLANTIS (CONSULTANT)

POSITION : SENIOR HARDWARE ENGINEER

- **SCU R1**

SCU RQ is an integrated module and upgraded version of SCU, mounted inside the vehicle cabin. Using Qualcomm SA7255. It is a compiled version of Audio unit. And keeps all existing functions in SCU.

- Leading Hardware team and support Project management team
- Developing L3 planning for product life Cycle
- Review with Supplier and Layout Engineers, maintain DFMEA
- BOM Preparation and Detailed design documentation preparation.
- WCA and Design calculation using Mathcad
- Stress analysis on component level.

- **ZONAL CONTROLL UNITS**

The Zonal Computers Unit provide and distribute power, data and support any feature available in specific vehicle zone. The introduction of Zonal Computer concept as a flexible computing platform to support all STLA Platforms replacing traditional function specific controllers (i.e., body, climate, and propulsions controllers) in legacy E/E Architectures. Zonal computers will provide the path to achieve Architectural efficiency and Complexity optimization

- Contributing Major role in Hardware designing
- Developing hardware with entire product life cycle, maintain DFMEA
- Review with Supplier and Layout Engineers
- BOM Preparation and Detailed design documentation preparation.
- WCA and Design calculation using Mathcad

- **COCKPIT UNIT**

SCU UNIT is an integrated module, mounted inside the vehicle cabin. Using Qualcomm SA6155. The main function of SCU is to control the ZCUs, control the key component for the vehicle communication over the Ethernet/CAN, secure and prevent any external cyber-attack to the vehicle (secured side) through connected Remote Telematics Control Unit (RTC) and/or service connector OBDII communications by monitoring and blocking any thread data and/or messages crossing MAIN CONTROLL UNIT

- Leading and Managing Hardware team and support Project management team
- Developing hardware with entire product life cycle

- Capture schematic in Altium and Simulate in Spice and Ansys.
- BOM Preparation and Detailed design documentation preparation. WCA and Design calculation using Mathcad

(01/04/2024 – PRESENT)

ORGANIZATION : AKKODIS
POSITION : TECHNICAL LEAD

- Leading Hardware team and support Project management team
- Developing hardware with entire product life cycle
- Capture schematic in Altium and Simulate in Spice and Ansys. Review with Supplier and Layout Engineer.

(01/08/2022 – 01/04/2024)

ORGANIZATION : BAVARIAN AUTOMOTIVE TECHNOLOGIES(BAT)
POSITION : Digital Hardware Developer

- **ADAS HPC BAT proto mini**
 Demonstration of ADAS system with different interfaces of modules like Lidar, Camera, Display.
 Project intension is primarily focus on collision avoidance technologies (for example, lane departure warning and blind-spot applications) and driver aids, such as night vision, driver alertness and adaptive cruise control.
 - Developing hardware with entire product life cycle
 - Review with Supplier and Layout Engineers
 - BOM Preparation and Detailed design documentation preparation. WCCA and Design calculation using Mathcad, Simulation, maintain DFMEA
- **CHARCKON DSPACE INTERFACE BOARD**
 The charger-converter is an innovative and efficient system solution integrating two functions. The first is an on-board charger for charging the high-voltage battery. The second is a high-voltage DC/DC converter which delivers power to the 12-volt vehicle electrical system by transforming voltage from the high-voltage battery.

(15/07/2019 – 30/07/2022)

ORGANIZATION : RAVOZ DIGITAL PVT LTD
POSITION : Product Development Engineer

- **AUTOMATION GATEWAY SYSTEM**
 This gateway system using in home automation industry for controlling all individual module using both Wi-Fi and Z wave protocol
 - Developing hardware with entire product life cycle
 - Review with Supplier and Layout Engineers
 BOM Preparation and Detailed design documentation preparation.
- **AUTOMATION SECURITY CONTROLL UNIT**
 - Developing hardware with entire product life cycle
 - Implement idea which one support home automation and industrial automation
 - Contributed developing module in entire product life cycle

(19/10/2016 – 14/07/2019)

ORGANIZATION : ELEMENTZS ENGINEERS GUILD PVT LTD

POSITION : Hardware Design Engineer

- **SCHOOLBUS SECURITY SYSTEM**

This security system helps to monitor students if they are reach safely to home/school.

- Involved development of full product cycle design.
- Contributed PCB design and BOM Preparation and Detailed design documentation preparation.
- Implement CAN protocol on the system

- **SEAT BELT CONTROL SYSTEM USING ETRACKER**

This control system provide live GPS tracking and seat belt warning of lively to Driver and show in attached display mainly used in School bus and tenant bus.

- Involved development of full product cycle design.
- Contributed PCB design and BOM Preparation and Detailed design documentation preparation.
- Implement capacitive touch sensors on the system

SKILLS

- Design & develop Schematics.
- DC-DC converter Design.
- Experience in DDR3/DDR4/DDR5 interfaces
- Experience in CAN/LIN/GigEth interface
- Understanding EMI/EMC issues and resolve
- Multilayers PCB design (experience in high frequency signal),Guidelines, Cad library creation
- Experience in DFMEA.
- Design Mixed Signal and High-Speed PCBs for Automotive Industry and Medical Devices
- Embedded project Managing and Program flow designing
- Experienced with functional safety ISO26262, FMDEA
- Altium, Cadence, Ansys experience
- Mixed Signal Circuit Design

EDUCATION

07/2012-05/2016 **Lourdes Matha College of Science and Technology, Kerala, India**
Bachelors in technology, Electronics and Communication Engineering

07/2010-05/2012 **Govt.HSS Kulathummel, Kerala, India**
Higher Secondary, Biology Science

DECLARATION

I solemnly declare that all the above information is correct to the best of my knowledge and belief.

DATE:10-05-2024
PLACE: Trivandrum, India

(ALI AKBAR B)