



Job Description

Job Title:

Senior Controls Engineer

Position Reports to: Manager Systems Engineering and Controls

Overview:

The Senior Controls Engineer is responsible to work with CSI customers, suppliers, and the CSI controls team to design, modify, validate, and calibrate software to successfully apply CSI's products to customers' applications. This position will be closely involved with the software and hardware integration of key electrification components including lithium battery systems, electric steering pumps, electric air compressors, accessory inverters, DC-DC converters, on-board and off-board chargers, heaters and chillers to electric truck, bus, locomotive, and marine applications. Applicant should have a strong knowledge of heavy duty truck/bus CAN 2B/J1939 communication systems and be proficient in CANalyzer/CANape and the use of dbc files.

Key responsibilities:

- Developing controls software algorithms, CAN interface structure and software/hardware specifications for HV battery and other electrified components for EVs
- Integrating key electrification components to customer's applications and resolve issues related with software and hardware interface.
- Support customer commissioning of systems including working with typical EV software (CANalyzer, dbc files, etc.), and customizing parameters to optimize component operation.
- Collaborating with sales team, engineers, and manufacturers for obtaining accurate information of application usage, system operations, and product management.
- Troubleshooting, analyzing and resolving technological issues in installed application systems.
- Conducting regular follow up on customer's activities and monitoring the product operation for obtaining new sales opportunities.
- Preparing relevant records, data, and documents for product presentations
- Conducting training sessions for demonstrating new products and services.
- Performing the desired tests and installation procedures and preparing detailed schedules for program support
- Analyzing emerging trends for recommending the new application engineering products.
- Participating in different seminars, conferences, and meetings for promoting the devised application engineering products.

Qualifications and Skills

Bachelor's degree in CS, EE or ME or other technology related field.

- 3 Years experience in designing controls and performing calibrations on electric and hybrid-electric vehicles
- Good troubleshooting skills for electrical and software issues



- Matlab and Simulink, Stateflow® and auto-code generation
- Direct experience developing specifications to optimize EV/HEV performance.
- Strong knowledge and proficiency in CAN 2B communications and OBD II
- Proficient with CANalyzer, CANape, J1939 communications. LIN, KWP-2000, UDS
- Proficient in C/C++ and embedded systems
- Knowledge of SAE J1772 communication and PLC for DC Fast Chargers
- Knowledge of ASIL levels and implementation requirements
- In depth knowledge of hybrid vehicle technologies, vehicle engineering, development and validation processes (APQP processes)
- Knowledge of TS 16949, ISO26262 and SPICE processes
- Self-motivated and highly organized
- Good interpersonal skills, strong oral and written communication skills.

Location:

- CSI Livermore, CA.

Education and/or Experience:

Required:

- Bachelor's Degree in Computer Science Engineering required
- 3+ years of experience in control systems of electric/hybrid vehicles

Physical Job Requirements:

- The position is expected to access, enter, and retrieve data by using a computer terminal. The position is expected to require hands-on management/use of laboratory test and production equipment. Some lifting of test equipment and battery modules will be required.

Travel:

This job will require some travel to visit suppliers, customers, and CSI locations as needed.