

Title: Sr. Engineer, CAE (EV Controls Integration Systems)

Location: Northville, MI, USA

Type: Full Time

Contact: paul@hulkegr.com

Our company has fun doing what we love by driving change and innovation. We empower employees to take on challenging assignments and roles with an elevated level of responsibility in our agile working environment. Our people make us who we are, and we create incredible products and experiences that empower us to Think Outside.

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Job Summary:

The EV Systems Engineer will be responsible for modeling and integration of vehicle control systems using CAE tools. Develop analysis for overall vehicle EV system performance including the specific hardware/software requirements and interface definition. Work with the other controls systems owners and technical leads responsible for components to ensure their control/hardware designs meet the vehicle level requirements. Work with a high-performance team and will be responsible for directly affecting the quality, durability and performance of future hybrid, plugin and battery electric vehicles manufactured by the company.

Essential Duties & Responsibilities:

Early Integration: Lead integration of EV control logic from vehicle systems and between sub systems. Determine optimized design parameters through sensitivity studies.

Attribute Engineering: Own and maintain the overall EV system to system interaction. Support technical reviews with suppliers. Represent and control interfaces in the system DFMEA and boundary diagrams. Assist functional groups with the creation of DVP&R's based off requirements.

System Analysis: SIL, HIL systems integration analysis, test and validation. Make design recommendations and suggest countermeasures for optimizing control logic. Provide input for risk mitigation strategies and recommend design changes when needed.

Technical Leadership and Mentoring: Champion controls integration strategies amongst systems controls engineering teams. Reporting and documentation including interpretation to peers and leadership.

Standard Practice: Contribute to the development of technical specifications and design requirements. Work in a team based peer group environment to drive continuous improvement.

Methods Development: Implementation of customer focused specific analysis processes and best practices. Automation and continuous improvement.

Education & Experience:

- B.S. Engineering required, advanced degree preferred.
- Skills with 1-D system tools, GT-Power and or similar system level tools.
- Experience with MATLAB / Simulink module generation.
- Experience with Controller Networks (CAN).
- Preferred experience with SIL/MIL.

- Understanding of engineering theory and principles of EV Systems.
- Understanding of multi-disciplinary systems, Mechatronics experience preferred.
- Overall knowledge of the vehicle development process, including experimental correlation and product validation.
- Strong working knowledge of product safety and quality principles.
- Problem solving skills, adapting any and all tools for data based decision making.
- Strong, clear communication, interpersonal, and negotiating skills.
- Team player, ability to work with several design teams concurrently and across multiple sites.
- Communicate across global cross-functional design teams.
- 3-5 years' system design experience, high/low voltage or electrified work experience preferred.

WORKING CONDITIONS:

- Normal office working conditions.
- Some travel required between company sites.

EEO Statement

Our company is an Equal Opportunity Employer and will make all employment-related decisions without regard to race, color, religion, creed, sex, sexual orientation, gender identity, national origin, age, disability, marital status, familial status, status with regard to public assistance, membership or activity in a local commission, protected veteran status, or any other status protected by applicable law.

We are an ambitious, resourceful, and driven workforce, which empowers us to Think Outside. Apply today!