CFD/CFX Engineer

Quallion, LLC has the broadest and deepest understanding of lithium ion chemistry and has a long history as a primary and rechargeable cell battery manufacturer for use in the medical, military and aerospace industries. Quallion is where science and engineering are advancing battery technologies, broadening design options and delivering power solutions that enable unique and challenging applications.

Summary:

The CFD/CFX engineer will be responsible for conducting cell-level thermal analysis and battery pack/system level CFD analyses, providing technical advises to internal and external customers to optimize the thermal management system design of a Li-Ion battery pack for ____ stationary applications.

Responsibilities:

- Conduct cell-level thermal analysis using in-house and commercial software to simulate the transient thermal behavior of a battery cell and to estimate the cell life under a given driving cycle and ambient condition.
- Perform module- and pack-level CFD analysis or Underhood/ Underbody CFD simulation to validate the thermal management system design for a battery pack.
- Effectively communicate his/her findings to internal/external customers using appropriate media.
- Collaborate with product and design engineers in battery pack cooling concept development.
- Lead battery cooling concept validation activities, including test plan set up, team coordination, test involvement, project schedule, and test results analysis.
- Interacts with product engineer to identify potential thermal management issues, to conduct root cause analysis, and to provide technical proposals and solutions to resolve engineering problems.
- Establishes and maintains supplier technical communications and open issue list for assigned work. Responsible for delivery quality, cost and timing objectives.
- Develop, maintain, and upgrade in-house thermal management software to reflect the latest technology in Li-Ion battery development.
- Involve in advanced CFD methodology and guideline development projects.

Qualifications/Requirements:

- MS in Mechanical Engineering, Chemical Engineering or Thermal Engineering, Ph. D. preferred.
- More than 10 years experience in CFD and thermal management system simulation in automotive industry or electronics packaging industry.
- Experience in battery pack development for HEV, PHEV and EV is a plus.

- Advanced knowledge in Engineering and Computational and Fluid Dynamics, Heat Transfer, Thermodynamics, and Numerical Methods.
- Working knowledge of Hybrid and Electric Vehicles, Electrochemistry, and Li-Ion batteries. Extensive experience in using Star-CCM+, ANSA, Hypermesh. MATLAB and SimLink. Experience with Battery Design Studio and 1D-CFD coupling simulation is a plus.
- Sophisticated programming skills using MATLAB, SimLink, JavaScript, and Linux Script with a demonstrable tracking record.
- In-depth knowledge and extensive experience in using Sun Grid Engine queue system.
- Demonstrated experience in handling multiple tasks smoothly with a high accountability level, minimum supervision, and a substantial level of stress.
- Effective communication skills demonstrated by interacting with customers, suppliers and co-workers in a positive and constructive manner.
- Self-motivated, details oriented, and willingness to learn new technology.
- Strong technical competence in conducting advanced CFD methodology development projects with strong problem solving skills.
- Ability to travel internationally and domestically.

Education/Experience

MS in Mechanical Engineering, Chemical Engineering or Thermal Engineering, Ph. D. preferred.

To apply for this position:

Qualified candidates should send resume to Quallion LLC, attention Human Resources, hr@quallion.com and include **"CFX Engineer - Department 31-37"** in subject line of the e-mail to be considered.

Quallion LLC offers competitive salaries, outstanding benefits packages and professional growth opportunity. For further information, please visit our website at http://www.quallion.com/

Quallion LLC is an Equal Opportunity Employer