powersys solutions

Distributor of Simulation Software Specialized in Electrical Engineering.
Wishes to appoint a

Application Design Engineer –
Motor Drives & Power Electronics for e-Mobility

About us :
POWERSYS distributes simulation software in the field of electrotechnics and in particular JMAG simulation software developed in Japan by JSOL Corporation. POWERSYS provides strong technical added value before and after sales for all matters concerning the software and its applications. From engineering services to software development, POWERSYS offers to industry, research and education a range of professional services covering electrical and electromechanical power systems.

Job summary:
The engineer will work closely with an experienced cross-functional team to build applications and make valuable improvements to our current product portfolio in the field of motor drive power electronics control design and testing for e-Mobility applications. The engineer will also support and interact with customer engineering teams, as well as with product development teams and the technical support teams to build cross-functional solution for Electrification challenges in e-mobility. The engineer will work closely with potential and current customers and other subject matter experts for benchmark studies, proposals, design, and development of advanced motor drive technologies. The engineer is also responsible for identifying the prospect of R&D priorities that contribute to technology leadership within the market segments targeted for the future growth of Powersys electrification product portfolio.

Job responsibilities:
- Provide direct support to customer engineering teams developing motor drives and power electronics converters, both onsite and off-site, and help them implement best design, test, and test automation practices
- Develop, design and support applications around Powersys electrification-Mobility product platforms, especially in the areas of motor control power electronics, inverters, SIL/MIL/HIL platforms and services that enhance the product experience
- Participate in and support internal sales and marketing initiatives to drive customer engagement, education, and grow technical capacity of Powersys product portfolio.
- Communicate technical outcomes in oral presentations and written reports
- Visit customer sites as well as tradeshows/conferences to disseminate the use of Powersys Portfolio and present technical case studies
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Education/Experience/Skills:
Required:
- A minimum of MS in Electrical Engineering and 5 years of work experience. Ph.D. in Electrical Engineering with an emphasis in Power electronics & electromagnetic design of electric motors is preferred.
- Knowhow and understanding of PSIM, JMAG, SABER, TYPHOON HIL & Matlab.
- Experience in automotive industry with Model-based design modeling and simulation of electric drives
- Experience in developing digital control algorithms for 3-phase switching power converters and AC electric machines
- Extensive knowledge and understanding of the power electronics and motor control along with electromagnetic design and optimization of electric machines.
- Deep understanding of electric drive system technologies including tradeoffs between drive system design parameters.
- Familiarity with Actuators/Solenoids, Magnetic Sensors/Transformers, and/or Wireless Power Transfer Devices
- Excellent problem-solving skills and ability to develop practical engineering solutions to difficult problems
- Excellent written and spoken communication skills

- Proven ability to work autonomously and to prioritize multiple projects and good organizational skills
- Ability to work individually and as part of diverse team environments to meet project goals
- Able to work with minimum supervision and full autonomy

Preferred:

- Experience with advanced simulation tools and approaches including Design of Experiments, optimization, parallel and cloud computing
- Experience with control algorithm and calibration development and testing in hardware-in-the-loop (HIL) and vehicle test environment
- Familiarity with other relevant FEA software or knowledge of other commercial CAE/CAD software packages is a plus
- Familiarity with common programming languages (C, C++, Python, etc.) and Basic programming and/or shell scripting skills is a plus
- Experience/knowledge of supporting and/or testing FEA software.

Particulars:
- Job located in Rochester Hills (MI).
- Job available as soon as possible.
- Salary: to be discussed

How to apply:
Send your resume and cover letter to:
Ms. Mireille Hue
Human Resources Manager
m.hue@powersys.fr
www.powersys-solutions.com