Power Electronics Engineer-00004884

Description

The Power Electronics Engineer will work on design and development of power converters including calculations, preparing computer programs and writing electrical design specifications and producing requirements, design, analyses, experimentation, test planning and execution. This position will test the power converters and drive systems to meet the requirements and specifications; performs analysis and calculations to properly size components used in design of power converters and the associated controller; provide engineering support to the Business Development team on new power conversion topologies applicable to both airborne and land based platforms; analyze project requirements to determine feasibility of design within time and cost constraints; develop schematics, bill of material, and other documentation necessary to design, manufacture, and install the power converter in the gas turbine operating environment. The Power Electronics Engineer will also work as part of the team with the electric machines and control engineers to develop a total system and work with the universities and industry consultants to evaluate emerging technologies and accelerate application to meet the customers' requirements.

Qualifications and experience

Basic:

BSEE with 9+ years of experience in design, development and testing of power electronics, electromagnetic design, and motor drive technology. US citizenship is required and the ability to obtain a secret security clearance.

Preferred:
Masters or PhD in Electrical Engineering is preferred. The ideal candidates will also possess power converter design: DC-DC converters, Inverters, and Active rectifiers; Good knowledge of motor controllers and drive systems; Board level hardware design
Power converters testing and troubleshooting; Prior experience in the development of Manufacturing Systems Concepts and design and development of power electronic systems including high power motor controllers/drives, power converters for active rectification, battery power converters, etc.; Knowledge of high fidelity circuit and system level simulation capability using state of the art simulation tools and pulsed power converters for high power applications; demonstrated strong analytical strength as well as hardware background with hands-on skills to utilize specialized hardware development tools and equipment and familiarity with the operation of dynamometer systems, measurement of high voltage and high currents, high voltage insulation systems. Aerospace experience is a plus.

Job Electrical
Primary Location US-IN-Indianapolis
Schedule Full-time
Opening Date 17-Mar-2010
Closing Date 17-Apr-2010