



Job Description

Power Electronics Controls Engineer for QM Power, Inc.

May telecommute but reports to our Lake Orion, MI location

Responsibilities:

- Define and lead dev and design of various control algorithms for power converters;
- Provide input on protection alarm and trip thresholds, current, voltage and other feedback loop controls, monitors, cust interfaces, product prog parameters and communication links.
- Develop cpu sims such as MATLAB or equivalent tool to verify designs and predict performance.
- Design and develop [schematics for controller hardware circuits and assist in design and development of mixed signal circuits, sensor interface, signal condit, protect circuits and others used in power electronic applications.
- Design analog and digital circuitry using FPGAs, A/D converters, D/A converters, fiber optics, signal shifters, op amps, current sources, power supplies and other circuits.
- Design and develop algorithms and write firmware for products.
- Work with mechanical engineers to integrate elec designs into complete tech drawing packages
- Help generate bills of materials, block diagrams, wire lists and point-to-point diagrams and component specs to support technical documentation process.
- Assist in developing and implementing test proced for power converters and motor drives.
- Assist in conducting tests in lab.
- Specify, design and procure lab test jigs and instrumentation. Help conduct system reliability analysis.
- Review and analyze customer requirements and specifications relative to motor drive controls and assist sales and marketing teams in reviewing and developing proposals. Help generage product specifications and relative documentation.
- Assist with customer training.
- Assist in product certification by interfacing with certify bodies such as UL.
- Supp syst install, startup, maintenance, troubleshooting and repair in lab factory and/or in the field.
- Designing PCBs for high-power applications.
- Provide mentoring and training to less experienced engineers.
- Stay abreast of technology trends in field.
- Limited domestic travel may be involved.

Must have Masters in Electrical Engineering, Mech Engineering or other relevent Engineering degree and 3 yrs relative experience designing control systems for power converters. Also requires skills (3 yrs exp) in: testing electronic drive systems comprised of power converters and electric motors; designing and developing algorithms and writing firmware; standards and codes governing power converters; electric machine principles.

Resume to careers@qmpower.com