**Lead Embedded Firmware Design Engineer**

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Enphase Energy is the fastest growing inverter company in the world. By combining the power of solar energy and the proven advantages of communications technology, Enphase Energy makes solar power systems productive, reliable, smart and safe - increasing the energy harvest of solar panels by up to 25 percent. Our microinverter system is profoundly changing the way solar systems function, and as a result, changing the solar industry itself.

As we continue our exciting growth, we are building teams with highly talented individual contributors and leaders who design, develop, and manufacture next generation solar technologies. Our work environment is fast-paced, fun, and full of exciting new projects.

Our microinverters control the flow of power from millions of solar panels and counting. As distributed renewable energy resources proliferate, our microinverters will need more advanced high-speed controls in order to manage the voltage and frequency of the next generation smart grids.

This position is within our Software Engineering group, where you will lead a small team to develop fully functional prototypes to demonstrate new advanced operation and control for autonomous grid connection, management and regulation.

**The responsibilities of you and your team will include:**

* Architecting developing and implementing embedded software for real time operation and control.
* Simulating new algorithms for autonomous micro grid power flow management
* Validate algorithms using system simulation tools
* Working with hardware engineers to test and troubleshoot prototype designs.
* Developing productivity through mentoring, training and process improvement.

**Skills and Qualifications**

* BE/BSc required, ME/MSc is desirable
* 2+ years’ experience in a development leadership role.
* Expertise in C development and Assembly for real time applications.
* Expertise in embedded software control.
* Experience with interrupt driven designs and real-time processing.
* Able to understand and implement digital signal processing (DSP) concepts in a microprocessor environment.
* Familiar with evaluating CPU versus hardware processing requirements and tradeoffs for cost effective designs.
* Ability to troubleshoot firmware related issues within complex systems.
* Ability to unit test code and hardware both with and without external test equipment such as oscilloscope, power meter, etc.
* Familiarity with software development processes. E.g. Agile, Structured, Object Oriented, etc.
* Familiarity with development tools such as GCC, GDB, Eclipse, GNU Make, etc.
* Familiarity with software code management tools such as GIT, Mercurial, etc.
* Able to carry a design task from concept to implementation.
* Ability to document engineering requirements, document solutions, and test new firmware designs.
* Experience with power electronic systems would be an advantage.
* Experience with solar inverters would be an advantage.
* Familiarity with Python for test automation would be an advantage.
* Experience with 32-bit ARM processors and 8-bit 8051processors would be an advantage.
* Experience with UL1741, IEEE1547 and other solar related standards would be a definite advantage.