Exciting Internship Opportunity – Conectric Networks, LLC

Title: Embedded Hardware and Sensors

Conectric Networks, LLC is a start-up addressing the projected $1 Billion hotel energy management market. Conectric provides patented, end-to-end solutions that help commercial building owners and operators reduce HVAC and lighting energy usage.

Using the latest technology in low-powered wireless networking, AI, cloud and analytics, we aim to transform the building energy control industry by offering a platform solution that includes hardware and software Savings-as-a-Service.

This platform will be studied by the California Energy Commission to demonstrate the potential for hotel building owners and managers to participate in real-time grid support services, offering demand control to the wholesale energy market to better balance the energy grid supply and demand. Conectric aims to develop the world's largest "Virtual Power Plant" of aggregated hotel buildings.

Internship

Conectric is a fast paced, start-up environment, constantly developing, modifying and improving new hardware and software solutions for our energy control platform. We are looking for an intelligent, dedicated, ambitious intern to directly assist our CTO, Dr. Ekawahyu Susilo, himself an internationally prized electrical engineer with the design, development and testing of embedded hardware systems. Dr. Susilo, is currently also a faculty researcher at Vanderbilt Universities STORM lab, has been awarded grants by the National Science Foundation, a winner of the White House Smart America program, multiple IEEE awards and several citations and patents in the field of micro-electronics, robotics and embedded systems.

The intern will be required to make regular office visits to Conectric and report to Dr. Susilo on various hardware design projects. It is expected that the intern will be able to dedicate at least 10 hours per week in-office and remotely for the internship.

The intern will be responsible to perform work directed by Dr. Susilo and will receive one-on-one direction, guidance, coaching and assistance.

Qualifications

The intern should currently be studying Electrical Engineering and have a strong grasp of the basic principles of electrical hardware design and embedded software systems. The preferred candidate will already have some experience with electrical engineering or a prior engineering degree (currently graduate studies).

The candidate shall have knowledge of:

- PCB Layout using Eagle CAD Soft
- Gerber files for industrial standard board manufacturing
- Fabrication drawing for mechanical/enclosure design
- Knowledge of 8051/ARM Cortex-M architecture and interfacing
- Knowledge of SPI, I2C, UART hardware interfacing
- Knowledge of RS485 and Modbus interfacing

- Knowledge of Humidity/Temperature, PIR and Reed Switch sensor
- Coding in C (SDCC/IAR) for 8051/ARM board bring-up and test
- Familiar with terminal/command line mostly for Linux/Unix system test
- Familiar with some scripting languages (Shell, Python)
- Familiar with instruments like oscilloscope and simple soldering job

Office Location

Conectric's offices are located off of 8400 Miramar Rd., a central location to major universities and institutions in San Diego.

Duration

The internship shall coincide with the Fall/Winter 2016 Semester and may be extended for future periods and may be used to satisfy credit requirements.

Pay

Payment will be negotiated based on the time allocated and skill set of the intern.

Please send current resume or CV with cover letter to:

Dr. Ekawahyu Susilo
Ekawahyu.susilo@conectric.com
615-482-3307