



**electrocon**  
international incorporated

# **Employment Opportunities at Electrocon International, Inc.**

**Spring 2011**

## **Who We Are**

Electrocon is a group of eight creative, enthusiastic electrical power and software engineers who provide analytical tools and technical support to transmission protection engineers in over 50 countries. Our offerings are known as the CAPE (Computer-Aided Protection Engineering) software. We take pride in our roles as the authors of this most-comprehensive protection simulation package in the industry, developers of ever more advanced functions aimed at making electric energy transmission systems more reliable and teaching engineers at electric utilities how to apply them. Electrocon was incorporated in 1981 and has always specialized in the development of software for power systems analysis. We live in Ann Arbor, Michigan, a great place to live and work.

## **Where We Are Going**

While we have achieved our initial objective of creating the most thorough, reliable, and trusted environment for protection system simulation, we have no intention of stopping there. Many pressures around the world are moving the power industry toward continued growth and improved reliability. Duh, people just don't like blackouts. Government regulatory agencies are demanding more of their electric utilities: more effort and more proof of that effort. Yet in most places there are fewer engineers to accomplish this mandate. CAPE has already gone a long way toward automating the setting of relays and verifying the coordination of protective devices system-wide. Now we need to refine those functions and place them within easy reach of all electric utilities. The US Department of Energy is sponsoring the commercialization of our proprietary method for proving that protective devices will maintain system stability. We can't do all this without some careful growth.

## **Whom We Seek**

Electrocon wants to hire several types of people:

- Electrical power engineers with a special talent and interest in power system modeling, protection, and software development
- An applied mathematician with special competence in numerical methods
- Computer engineers with strengths in human interface, data management and data conversion, and general software development techniques and practices

These are permanent positions that require at least a BS level education and very likely an MS or Ph.D.

Depending on your aptitude and interests, at Electrocon you might expect to have some of these responsibilities:

- Developing and implementing detailed phasor-based models of protective devices, primarily modern digital relays
- Developing programs and macros for customized protection studies
- Designing data conversion and management functions related to network and protection system modeling
- Developing or extending models for conventional and wind generators, FACTS devices, etc., for use in the protection system simulation environment
- Assisting with the design, development, and commercialization of a unique link between the CAPE phasor-based protection system model and the time-domain environment of electromechanical transient stability analysis
- Participating in preparation of technical papers for conference presentations
- Providing ongoing customer support, helping customers answer day-to-day questions arising in their use of CAPE. This is a task shared by all of our engineers.
- Introducing CAPE and teaching practicing protection engineers the best ways to apply CAPE software in their daily work. We provide remote as well as face-to-face instruction, sometimes traveling to a customer's location, typically for a week at a time.

## How to Contact Us

If this sounds appealing to you, we would welcome your resume and a letter explaining a bit about your background and goals. We also welcome your questions about these positions. Please send your information to:

Electrocon International, Inc.  
Attn: Mr. Paul McGuire

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