

Christopher J. Melhorn
2320 Laurel Lake Road, Knoxville, Tennessee 37932
865-300-8103
cjmelhorn@earthlink.net
www.melhorns.com

SKILLS SUMMARY

Senior manager with extensive experience in implementing system-wide power-monitoring solutions and managing power system studies. Skilled in developing and presenting proposals to potential and existing clients. Excellent background in power systems monitoring, analysis, and power quality. Experienced in writing technical documents and developing and conducting workshops and seminars.

EMPLOYMENT

Program Manager June 2000 – Present
Manager, Monitoring Applications
The Electric Power Research Institute (EPRI)

Knoxville, TN

- Manage U.S. Government projects involving distribution power systems studies. Investigations look into the concerns with harmonics, power line carrier (PLC), and other communication signals on distribution systems.
- Lead developer and content provider for EPRI Program 97 Website www.mypq.net and the EPRI monitoring service Website www.remotepq.com.
- Managed EPRI's Power Quality Monitoring, Program 1 (2002 through 2005): Defined research topics, developed project objectives, selected research contractors, served as primary liaison between EPRI and funding utilities, managed projects, and developed reports.
- Managed EPRI's DPQ Phase II project, which required the coordination of 13 utilities and their power-measurement data (collected from the participating utilities). Statistically analyzed and presented data in an EPRI technical report, TR-1001678.
- Managed China Light and Power's (CLP Power) power quality monitoring system (PQMS), reviewed CLP Power's measurement system and developed and designed the specifications of a new monitoring system.
- Project manager on EPRI's Residential Power Quality and Transmission Power Quality research projects, which focused on the methods used to perform power quality monitoring at residential facilities and on transmission systems.

Manager, Power Quality Products & Services
Electrotek Concepts, Inc.

February 1990 – June 2000

Knoxville, TN

- Managed Electrotek's Monitoring Service, which was affordable power quality monitoring (found at <http://www.pqmonitoring.com>).
- Served as project manager for Con Edison's power quality monitoring system and projects, including the installation of 80 monitors on its network in Manhattan.
- Managed a project to develop a monitoring program for Zapadoslovenske energeticke zavody (ZSE) in the Slovak Republic, involving the monitoring at transmission-level substations and industrial customer service entrances.
- Performed power quality investigations for EPRI, utility, industrial, and commercial customers which included including site surveys, power quality measurements, power factor correction, harmonic studies, and simulations.
- Developed and wrote training manuals and assisted in the design and implementation of a power quality program for East Midlands Electricity in Nottingham, England.

Electrical Engineer
Bechtel Company

October 1989 – February 1990

Pottstown, PA

- Served as an electrical engineer in the Limerick Nuclear Power Plant. Duties included updating technical drawings to agree with as-built conditions and specifying the correct design non-compliant conditions (performed during the start-up phase of the power plant).

Christopher J. Melhorn
 2320 Laurel Lake Road, Knoxville, Tennessee 37932
 865-300-8103
 cjmelhorn@earthlink.net
 www.melhorns.com

**EMPLOYMENT
CONTINUED**

**Engineering Co-op Student
Pennsylvania Power & Light Company**

May 1989 – October 1989

Harrisburg, PA

- As an undergraduate at Penn State, participated in a co-op with Pennsylvania Power and Light Co. (PP&L) in Harrisburg, PA: Helped to design a monitoring procedure to evaluate the harmonic levels on five of PP&L's radial distribution feeders and design a monitoring system, take actual field measurements, conduct computer simulations using both V HARM and HARMFLO, and analyze the results.

**Supervisor
Industrial Electric Company of York**

September 1983 – May 1989

York, PA

- Responsibilities included the re design of electrical apparatus such as induction motors and small transformers and management of the engineering office. Also, I oversaw the repair and rebuilding of electrical equipment and new construction work. This included scheduling the work for two other employees and inventory control.

**SOFTWARE
LANGUAGES AND
DEVELOPMENT**

Proficient in Visual Basic, VBScript, JavaScript, ASP, HTML, and DHTML. Have written several engineering applications.

Conceived and developed the original version of FlukeView™ for the Fluke 97 Scopemeter® and, as a result, was awarded a contract from Fluke to add enhancements to FlukeView™ for the Fluke 97 and develop the software for the Fluke 41 Power Harmonics Analyzer.

**PROFESSIONAL
ACTIVITIES**

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- Chairman, IEEE IAS Power Quality Sub-Committee
- Chairman, Voltage Sag Testing Recommended Practice – IEEE IAS P1668
- Secretary, IEEE IAS Emerald Book, IEEE Std. 1100-1999
- Chapter 3 Chairman, IEEE IAS Emerald Book, IEEE Std. 1100-1999
- IEEE Power Quality Monitoring – IEEE Std. 1159-1995
- IEEE Power System Engineering Committee
- IEEE Power System Engineering Design Sub-Committee
- IEEE Standards Coordinating Committee 22 Power Quality
- IEEE 519 Application Guide Task Force (Harmonics)

**PUBLICATIONS AND
SEMINARS**

Authored over 35 technical papers for organizations like the IEEE, EPRI, and CIRED, and contributed to three technical books on power quality and electrical engineering (complete list available at <http://www.melhorns.com/papers.asp>).

Developed and presented over 70 seminars and workshops on power quality, power quality monitoring, harmonics and power factor correction.

WEB SITES

Developed and maintain Web sites for EPRI, Electrotek, other organizations, and personal use (complete list available at <http://www.melhorns.com/websites.asp>).

AWARDS & HONORS

- 2006 Chauncey Award Winner for Outstanding Achievement, EPRI
- Third Place Region 3, IEEE Student Paper Contest, 1989
- Eagle Scout, Boy Scouts of America

EDUCATION

B.S. in Electrical Engineering Technology, 1989

Pennsylvania State University, Harrisburg, PA

A.S. in Engineering, 1987

York College of Pennsylvania, York, PA