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**CAREER
OBJECTIVES**

Interested in electrical engineering positions dealing with power generation, transmission and distribution with an emphasis in protective relaying systems. Keen interest in work dealing with applied mathematics, system modeling and problem-solving techniques. Other projects include energy conversion, metering and alternative energy sources.

EDUCATION

Bachelor of Science - Electrical Sciences and Systems Engineering
Southern Illinois University - Carbondale, Illinois May 1982

Bachelor of Science - Mathematics
Southern Illinois University - Carbondale, Illinois May 1982

Currently in Graduate School at SIU-Carbondale
Electrical Engineering Master's Program

Registered Professional Engineer in Illinois
License No.: 062-043768

Certified Energy Manager
AEE No. 11560

**INDUSTRY-
RELATED
COURSES**

Cooper Power Systems Coordination School, Milwaukee, Wisconsin
Wood Pole Seminar, Springfield, Illinois (8/88)
GE Lighting & Capacitor Fusing Seminar, Springfield, Illinois (6/89)
T&D World Expo, Indianapolis, Indiana (3/90)
Rochester Instrument Systems (Fault Recorder) School, Mattoon, Illinois (6/92)
GE Carrier Relay School, Mattoon, Illinois (6/92)
Leadership Training, Springfield, Illinois (7/92)
Power Quality Seminar, Marion, Illinois (10/92)
ABB Relay School, Coral Springs, Florida (11/92)
GE Power Systems Communications (PLC) School, Marion, Illinois (2/94)
Doble Testing Training, Mattoon, Illinois (8/96)
Managing Change Workshop, Marion, Illinois (3/97)
MicroStation (CAD) Training, Arlington Heights, Illinois (4/97)
Train the Trainer Class (UE), St. Louis, Mo. (6/97)
Doble HV Breaker Maintenance School, Mattoon, Illinois
S.D. Meyers Oil Analysis School, Pawnee, Illinois (8/97)
ABB PA & PM Breaker School, Mattoon, Illinois (9/97)
Doble Testing Training, Marion, Illinois (6/98)
Reducing Utility Costs Seminar, St. Louis, Mo. (5/99)
Basler Power Control & Protection Conference, St. Louis, Mo. (10/99)
Power Quality (TVSS/UPS) seminar, Springfield Electric, Mt. Vernon, Illinois (09/01)
VFD seminar, Flanders Electric, Fairview Hts., Illinois (03/04)
2005 NEC Update course, Carbondale, Illinois (2/05)
Arc Flash and PPE seminar, Mt. Vernon, Illinois (6/05)
American Red Cross CPR/First-Aid Class (2/06)
Training Program for Certified Energy Managers, St. Louis, Mo. (3/06)
Electrical Safety Symposium, Ameren, St. Louis, Mo (10/07)
2008 NEC Update course, Carbondale, Illinois (02/08)

**WORK
EXPERIENCE**

- Sept. 1998 – Present:** Senior Electrical Engineer
Plant & Service Operations (PSO)
Southern Illinois University, Carbondale, Ill.
- Oct. 1998 – 2000:** Instructor – Center For Business & Industry
Statistics (SPC), Physics, Electrical Circuit Fundamentals
John A. Logan College, Carterville, Illinois
- Feb. 1997 – Sept. 1998:** Maintenance and Testing Supervisor and
Dept. Technical Training Supv. & Coordinator
AmerenCIPS, Marion, Illinois
- Nov. 1991 - Feb. 1997:** Substation Relay Engineer
CIPS, Marion, Illinois
- July 1984 - Nov. 1991:** Distribution Engineer
CIPS, Marion, Illinois
- July 1982 - July 1984:** Assistant Distribution Engineer
CIPS, Marion, Illinois

CONSULTING

- Sept. 2003 – Present** President and Owner
ENA Solutions, Inc.
Consulting Engineering Firm
Marion, Illinois

(List of clients available upon request)

ORGANIZATIONS

National Society of Professional Engineers (NSPE)
Secretary/Treasurer, Egyptian Chapter of the Illinois Society of Professional Engineers (ISPE)
Institute of Electrical and Electronics Engineers (IEEE)
IEEE Power Engineering Society
Association of Energy Engineers (AEE) member
Tau Beta Pi (Engineering Honor Society)
Pi Mu Epsilon (Mathematics Honor Society)
Golden Key National Honor Society
SIU Alumni Association
Member of the SIU-C College of Engineering Technology Industrial Advisory Board
Member of the National Rifle Association (NRA)

PUBLICATIONS

“Sinusoidal Steady-State Analysis of Electrical Circuits Using the Phasor Transform Method”, Pi Mu Epsilon Journal & The Journal of Undergraduate Mathematics

OTHER

Developed curriculum & instructed CIPS Electronic Technician Courses.
Curriculum development
Administered Safety Program for Substation Dept. at AmerenCIPS.
Instructed numerous CIPS utility-related training programs:

- Substation training
- Video training for electric utility workers (DSO – Distribution System Operation)
- Grounding safety training for line construction crews
- DWA drawing classes for electric personnel

Math & engineering tutoring at both high school & college level.
Carbondale High School tutoring program instructor (Fall 1994).
Proficient in the use of many models of hand-held calculators.
Expert in complex number manipulation and simultaneous systems of equations, especially dealing with engineering applications.
Proficient in all aspects of personal computer (PC) use.
Vast experience with Microsoft Office Professional products.
Familiar with MATLAB and SIMULINK software.
Actual “hands-on” experience with many power system components gained during labor dispute.
Testimony before the Illinois Commerce Commission in ESA hearings.
Currently holds an Illinois CDL driver’s license.
Served as CIPS Safety Committee co-chairman in Marion.
Participated regularly in Career Day activities for CIPS.
Participated in the Illinois Relay Roundtable meetings (Peoria)

HOBBIES

Outdoors activities, reading, martial arts, snow skiing, woodworking, do-it-yourself projects, computers

REFERENCES

Available upon request.

Notable Engineering Projects:

East West Frankfort to North Norris City 345kV project

ET Training Program at AmerenCIPS

Anna/Jonesboro 4/12kV conversion (>400 transformers)

Analysis of kick-testing accident (electric accident forensic analysis)

Electrical accident forensic analysis/expert witness testimony: Lambert Airport, St. Louis, Mo.

Several 4 to 12 kV conversion projects at SIUC

Contract negotiations at SIUC for purchases of bulk electrical energy on the deregulated open market in Illinois

28kW PV (Photovoltaic) Solar Array at SIUC

McAndrew Stadium field lighting at SIUC

Wind turbine infrastructure design at SIUC

City of Marion wholesale electric purchases (>50 accounts), City of Marion residential load aggregation

Underground cable hipot testing. Locating primary & secondary faults