

PROFESSIONAL RESUME

Charles R. Arthur

Vice President
Arthur Engineering, Inc.
9370 Studio Court, Suite 140
Elk Grove, CA 95758



Phone: (916) 394-0864
Fax: (916) 394-8986
E-mail: ChuckA@ArthurEngineering.com

Professional Licenses

Registered Professional Electrical Engineer
State of California
License #E12976

Registered Professional Electrical Engineer
State of Washington
License #31036

Experience

1986 - Present **Arthur Engineering, Inc.** – Elk Grove, CA
Vice President

- ◆ Engineering, design and specification of electrical power distribution, lighting, controls and back-up generation systems for industrial, commercial and water/wastewater pumping facilities.
- ◆ Design and specifications for high and medium voltage substations and distribution systems for industrial plants.
- ◆ Design of electrical control systems including factory automation systems, operator interface and programmable logic controller (PLC) system layouts, specification and programming.
- ◆ Design of power distribution systems for sensitive electronics equipment and laboratories for optimum power quality.
- ◆ Design of electrical interconnection and protection for co-generation systems, including induction generators, steam-turbine generators, and photovoltaic systems.
- ◆ Electrical system master planning, including site evaluation, recommendations, and option analysis.
- ◆ Electrical construction engineering and observation services for industrial projects of all types, including low and medium voltage review for pumping plant projects.
- ◆ Design of energy efficient lighting and lighting control systems.
- ◆ Expert witness services related to electrical safety and design.

1984 – 1986

California Polytechnic University - San Luis Obispo, CA
Microelectronics and Systems Department
Student Technical Assistant

- ◆ Troubleshooting and repair of microcomputer communications problems and hardware failures.
- ◆ Assistance with the installation and maintenance of several networks through the campus.

1982 - 1984

Walther Electric Company - Ceres, CA
Assistant Electrician

- ◆ Installation of industrial electrical equipment, running conduit, wiring, and lighting installation.
- ◆ Considerable work on motor wiring, circuit protection, and motor control centers at installations such as Ingomar Processing Plant in Volta, California.

Education

California Polytechnic University - San Luis Obispo, CA
Bachelor of Science Electrical Engineering, 1986

- ◆ Graduated Magna Cum Laude.
- ◆ Special Education included research on variable speed drives and the effects of harmonics on machine efficiency and longevity. Used finite element analysis computer programs to solve the complex electromagnetic field problem associated with rotating machinery.
- ◆ Experienced with Fortran programming.

Continuing Education

- ◆ Various classes and seminars involving PLC and operator interface programming.
- ◆ Generac/Milwaukee School of Engineering Power Generation and Paralleling classes.
- ◆ California Energy Commission (CEC) and PG&E classes and Seminars on Distributed Generation.
- ◆ Various other industry seminars, Energy Efficiency courses, and Code Classes.

Memberships and Professional Affiliations

- ◆ Association for Facilities Engineering (AFE)
- ◆ Institute of Electrical and Electronics Engineers (IEEE)
- ◆ International Association of Electrical Inspectors' (IAEI)
- ◆ Member of the CEC Distributed Generation Rule 21 Working Group