

CURRICULUM VITAE

STEVE P. VIROSTEK

QUALIFICATIONS

- Conducted investigations, performed research and wrote reports as a mechanical engineering consultant for a forensic investigation company. Interfaced with clients to discuss findings and conclusions.
- Coordinated and directed the design, assembly, testing and maintenance of numerous complex mechanical systems and fixtures for particle accelerators and electromagnetic launchers during the past 10 years.
- Instituted detailed procedures, schedules and budgets and compiled documentation for hardware design projects at two national labs. Assigned tasks and supervised the work of designers, students and technicians.
- Performed structural, dynamic and thermal finite element analyses of various mechanical systems. Oversaw the associated design, fabrication, installation and testing of hardware.
- Formulated, programmed and implemented simulation and data analysis codes in FORTRAN and Basic.

ACCOMPLISHMENTS

- Devised and incorporated hardware upgrades and implemented revised operation and maintenance procedures to improve the performance and reliability of the 2 mile long Stanford Linear Accelerator.
- Received the Westinghouse Signature Award of Excellence for contributing to advancements in electromagnetic launcher design, fabrication, assembly and testing technology.
- Developed an experimental method for measuring the force history of oblique plate penetration by projectiles for Masters of Science thesis. Target materials consisted of metallics, composites, ceramics and plastics.

- Devised a code to simulate the coupled electro-mechanical behavior of linear induction coil accelerators.
- Configured and operated a PC controlled, 120 channel, digital data acquisition system for collecting test data.

RELATED SKILLS

- **FEA Analysis:** more than 6 years experience as a regular ANSYS user. Currently group FEA specialist.
- **Programming:** more than 10 years coding in FORTRAN; experience with Basic, C, MatLab and Simulink.
- **Computers:** 15 years experience with UNIX, Apple, PC and associated software.
- **Internet:** developed a retail web site using MS Front Page. Experienced using the internet as a research tool.
- **Testing Hardware:** strain gages and accelerometers, strength of materials, flash x-ray, data acquisition.
- **Experimentation:** impact mechanics, high current sliding contacts, data analysis and theory development.

EXPERIENCE

- 9/97 to present **Fire Cause Analysis, Berkeley, CA - Engineering Consultant**
- 1/96 to present **Lawrence Berkeley National Laboratory, Berkeley, CA - Lead Mechanical Engineer**
- 1/94 to 12/95 **Stanford Linear Accelerator Center, Menlo Park, CA - Lead Mechanical Engineer**
- 9/86 to 1/94 **Westinghouse Electric Corporation, Sunnyvale, CA - Senior Mechanical Engineer**
- 6/84 to 8/86 **University of California, Berkeley, CA - Research Assistant**

EDUCATION

Master of Science in Mechanical Engineering, University of California, Berkeley, 1986

Bachelor of Science in Mechanical Engineering, University of California, Berkeley, 1984

Professional Engineering License, Mechanical Engineering, 1992