

Credentials

**Professional Engineer**  
State of Texas



Education

**Doctor of Philosophy in Safety Engineering (in progress)**  
Kennedy Western University

**Bachelor of Science in Mechanical Engineering**  
University of Texas at Arlington, 1976

**Bachelor of Science in Mathematics**  
University of Texas at Arlington, 1971

**Bachelor of Arts**  
University of Texas at Arlington, 1967

**Continuing Education**, including:  
Crash Survival Investigator's School, Arizona State University, 1978  
Statistical Process Control, Southern Methodist University, 1992  
Engineer as Leader and Manager, Texas Tech University, 1993

Professional Service Positions

Advisory Board Member, American Automation, Inc.

Professional Associations

American Society of Mechanical Engineers (ASME), Electronics and Electronic Packaging Division (EEPD)  
Society of Reliability Engineers (SRE)  
Semiconductor Equipment and Materials International (SEMI) Standards Program  
Association of Proposal Management Professionals (APMP)

Relevant Information

Security Clearance: Secret/COMSEC (active)  
Holder of 3 patents, 2 pending

Areas of Concentration

Mechanical Engineering  
Electrical Engineering  
Materials Engineering  
Industrial Engineering  
Process Engineering  
Aeronautical Engineering  
Avionics  
Electromagnetics  
Fire Prevention  
Hydraulics  
Metallurgy  
Surveying

Product Development & Testing  
Construction & Workplace Safety  
Safety Engineering  
Warning, Guarding & Labels  
Machine Design  
Human Factors  
Aircraft Safety & Crash Investigation  
Biomechanics  
Ergonomics  
OSHA  
Railroad Safety  
Telecommunications

Specific Experience & Interest

Consumer products  
Portable power tools  
Electrical hazards & safety  
Flammability  
Americans with disabilities act  
Air conditioning systems & equipment  
Airworthiness  
Aircraft crashworthiness  
Jails  
Crash testing  
Exercise equipment  
Automatic door openers  
Golf course accidents  
Grinders  
Medical equipment  
Models  
Packaging equipment & products  
Recreational accidents  
Plastics design & defects  
Saws

Industrial accidents  
Electrocution & shock  
Hazardous materials  
Automatic doors  
Appliances  
Lawn mowers & equipment  
Lighting design & equipment  
Batteries  
Bicycles  
Bridges  
Building design & defects  
Communications systems  
Concrete construction  
Roads & highways  
Grounding  
Helicopters  
Roads & highways  
Ignition systems  
Stairways  
Wheels & tires

## Professional Experience

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### **Institute for Products, Engineering & Construction**

**1999 to Present**

Consulting and forensic engineering services for attorneys and insurance companies. Projects involve a spectrum of engineering disciplines and focus on safety issues relating to consumer, commercial and industrial products, construction jobsites and industrial workplaces, recreational products and activities, and automotive and aircraft transportation.

### **Consulting Engineer**

**1996 to Present**

Overall responsibility for engineering firm specializing in industrial design, new product design, development and testing, and systems engineering and integration. Services include design assessments, preparation of user, installation and technical manuals.

Typical projects include:

- Retail point of sale interactive kiosk design, prototype build, and production
- Relocation of manufacturing facility
- Development of consumer product utilizing interactive television
- Construction equipment design assessment, redesign and prototyping
- PC based Jail Inmate Management System upgrade.
- Mechanical short course for power plant on-site personnel
- Helicopter cockpit and avionics upgrade

### **Electrospace Systems, Inc. - Department Manager**

**1978-1996**

Managed multidisciplinary specialty engineering department with responsibility for product support, test and evaluation engineering. Directed development, construction and operation of corporate environmental and electromagnetic effects test laboratories; planned acoustic test facility. Participated in development of Engineering, Specialty Engineering, Test, Systems Engineering, Components, Standards, Configuration Management Processes; conducted training classes. Managed test programs for corporate and outside customers, and supported over 100 other programs, including ground fixed, ground mobile, airborne (rotary and fixed wing), and marine (shipboard) platforms. Provided technical and cost input to more than 400 proposals, including oversight of complete technical volumes. Authored more than 300 technical documents. Initiated corporate and departmental policies, procedures, processes, and practices, including ISO 9000 series and European Union (EU/CE) criteria compliance.

### **Bell Helicopter**

**1966-1978**

Reliability/Maintainability/System Safety Engineer. Supported special projects, research programs, and new development efforts. Implemented and managed successful XV-15 Tilt Rotor Aircraft System Safety and Reliability program through design and test phases. Served as Field Test Engineer at U.S. Army Aviation Test Board during OH-58A R&M demonstration flight test program. Helped establish System Safety/Flight Safety Group, developed hazard analysis and data analysis, created Safety Data Analysis Center, provided technical safety support to legal department, performed aircraft accident analyses.