

Credentials

Professional Engineer
Texas (P.E. 79090)

Education

Doctor of Philosophy in Industrial Engineering/Human Factors and Industrial Ergonomics
Texas A&M University. 1980

Master of Science in Experimental Psychology/Information Processing & Learning
Texas A&M University, 1974

Bachelor of Arts in Psychology
University of Cincinnati, 1972

Professional Associations

Human Factors and Ergonomics Society
Ergonomics/Occupational Safety and Health
American National Standards Institute (ANSI)
Consumer Product Safety Commission (CSPC)
Electronic Industries Association (EIA G-45)

Professional Service Positions

American National Standards Institute (ANSI Z35) Committee to establish industrial standards based on human perception, detection and comprehension of displayed information for warnings, symbols and visual displays.
American National Standards Institute (ANSI Z535) Committee for Application of Symbology and Linguistical Content to product Safety Signs and Warning Labels.

Relevant Information

Active Secret and COMSEC Security Clearance

Areas of Concentration

Human factors
Ergonomics
Industrial psychology
Hazard control management
Product safety
Facilities management
Employee training

Industrial engineering
Product testing
Transportation safety
Lighting
Acoustics
Behavioral analysis

Specific Experience & Interest

Industrial accidents
Slips, trips and falls
Signage
OSHA
Workstation design
EPA regulations
Americans with Disabilities Act compliance
Operator controls

Warnings, guarding and labels
Visual displays
Computer workstations
Aviation systems
Technical manuals
Dot regulations
Driver perception
Hazardous materials
Site surveys

Professional Experience

Institute for Products, Engineering & Construction **1999 to Present**
Investigation and expert witness consulting of all manner of accidents and injuries from a Human Factors and Industrial Engineering perspective.

Raytheon Systems Company **1985 - Present**
Lead Human Factors and Product Safety Engineer
Manage Human Factors and Safety requirements for all Corporate Programs. Conduct research to support program efforts in product development and subsystem design and integration. Apply Human Factors and Behavioral principles in the design of visual displays and control panels, software menus, workstation layouts, aviation systems, technical user manuals, and operator/maintainer environments. Establish program plans, test procedures, and analyze test data and report results in technical documentation and/or at scheduled Customer Design Reviews. Prepare budget and technical documentation for contract proposals. Establish Corporate Hazard Communication Program (OSHA 1910) for employee training in safety and health including workstation evaluation for control of Repetitive Stress Injuries (RSI). Integrate HFE/Ergonomic and Safety criteria with mechanical and electrical engineers, software programmers, environmental test, quality control, and manufacturing departments during each appropriate design phase.

Texas Instruments, Inc **1983 - 1985**
Manager, Human Factors/Ergonomics - Consumer Products
Supervised Human Factors Department for budget, personnel staffing, administration, product development activities, and test laboratory. Organized sample populations, methodology and research efforts for prototyped product tests (e.g. joystick controls), analyzed results and articulated production recommendations to the design staff. Established Corporate Ergonomic product design criteria for U.S. and Japan Product Centers. Integrated Human Factors design criteria with Industrial Design, Graphics, Software, Marketing, Packaging and Manufacturing staffs.

Henry Dreyfuss Associates **1979-1983**
Senior Human Factors Engineer - Industrial Design/Consumer Products. Project activities included implementing human factors/ergonomic requirements for consumer product designs. Also conduct research and pilot studies, as well as evaluate scaled mock-ups and prototypes in support of new product development. Worked closely with clients (e.g. AT&T, Bell Laboratories, John Deere and Company, CITICORP, AMF, Polaroid and American Airlines) during all phases of product design to ensure human factors, safety and ergonomic requirements were implemented in final production. Served as a committee member of American National Standards Institute (ANSI Z35) for the purpose of establishing industrial standards based on human perception, detection and comprehension of displayed information for warnings,

symbols and visual displays. Standards were adopted in 1987 for industry-wide use on commercial and industrial products.

Southern Methodist University, Dallas, Texas **1985-1986**
Adjunct Professor, Human Factors and Industrial Ergonomics
Operations Research and Engineering Management Department
Taught Human Factors/Ergonomics courses to undergraduate and graduate level students.

Texas A&M University **1977-1979**
Visiting Instructor, Department of Psychology
Taught courses in Introductory, Industrial and Developmental Psychology to undergraduate and graduate level students.

Texas Department of Transportation **1977-1979**
Project Coordinator; Governor's Office of Traffic Safety
Program Manager for D.O.T project evaluating interactive effects of vehicular design, vibration/noise levels, highway design, perceived rates of speed, and comfortable driving speeds. Responsibilities included proposal preparation, contract and budget coordination, supervising research assistants, data analysis, organizing progress reports, and presenting the findings to the Department of Traffic Safety.

Texas Transportation Institute **1975-1977**
Research Assistant, Texas A&M University
Conducted studies to aid in the design and implementation of real-time information displays that were used on urban freeways and parallel alternative routes. Display designs were based on information processing theory, visual recognition, and reaction times of drivers during simulated highway driving maneuvers. Results of study were used to publish the Texas Manual on Uniform Traffic Control Devices (for streets and highway application).

Major Reports, Publications and Presentations

1. "Safety Assessment Report: White Sands Missile Range Frequency Surveillance System (WSMR-FSS) prepared for Naval Air Warfare Center Training Systems Division, Contract No. N61339-97-C-0030, June, 1999, author
2. "Human Engineering, Ergonomic and Safety Report," Special Operation Forces Intelligence Vehicle (SOF-IV), U.S. Special Operations Command, Contract No. MDA 911-95-D-003, May 1995, author
3. "Acoustical Noise Levels - Test Procedure and Safety Analysis," Quickfix and Advanced Quickfix EH-60L Helicopter, Contract No 96-086-NAS001, January 1995, author
4. "ERGONOMICS: Optimizing the Workstation While Eliminating Causal Factors of Repetitive Stress Injuries," presented to the Richardson Chamber of Commerce, Richardson, Texas, January 1994
5. "Ergonomic Task Analysis and Safety Factors Relevant to the Design of Crew Chief Operator Seat in a Mobile Ground Vehicle: Design and Application, Documented Report presented to the Department of Defense, Drawing No. C5176549, May 1993, author
6. "Applications of Symbology and Linguistical Content for Product Safety Signs and Warning Labels," American National Standards Institute (ANSI Z 535.1 - Z 535.5), Draft Publication 1985; Adopted Distribution, June 1987, Committee Member
7. "Residential Safety and Health Analysis: Termiticide Abatement Program: Design and Application of Safety Labels and Warnings," Dallas, Texas, Consultant, April 1987
8. "Man-Machine Interface Elements and Workstation Configurations for Consolidated Space Operations and Control Stations," NASA Program, Contract No. SSS-CSOC-00004C February 1986, author
9. "Industrial Truck Safety Symbols: Conspicuity and Operator Response Times," Design Application and Graphical Format, Baker-Material Handling Corporation, August 1982, consultant/author
10. "Corporate Standardization of Safety Signs for Industrial and Agricultural Machinery," Corporate Standards developed for John Deere and Company, Moline, Illinois September 1981, coordinator of research/author
11. "The Human Factor in Farm and Industrial Equipment Design," presented to American Society of Agricultural Engineers (ASAE); Distinguished Lecture Series, John Deere and Company, Moline, Illinois, December, 1980 co-author
12. "A Reevaluation of Comfortable Driving Speeds," Consultant to the Office of Traffic Safety, Texas Department of Highways and Public Transportation, Austin, Texas 1977-1979, coordinator of research/author