

Credentials

Professional Engineer

Pennsylvania License # 20700-E

Education

Master of Chemical Engineering

Villanova University, 1970

Bachelor of Science in Chemical Engineering

Tau Beta Pi Engineering Honor Society

University of Massachusetts, 1964

Continuing Education through programs provided by:

Instrument Society of America

American Institute of Chemical Engineers

Professional Service Positions

Storage Tank Advisory Committee, Commonwealth of Pennsylvania Department of Environmental Protection - Alternate Professional Member

Professional Associations

American Institute of Chemical Engineers

Publications

Automatic Control and Process Dynamics

Notes on the Design of Automatic Process Controls for the Chemical and Power Industry

Patents

Feedforward Control System for a Jet Plate Hydrogenator to Minimize the Venting of Hydrogen.

Underground Antenna for Locating Plastic Natural Gas Piping.

Teaching Experience

Advanced Applications of Process Control and Process Control II as Associate Professor of Chemical Engineering, 1980.

Practical Engineering of Process Control Loops, Instrument Society of America, Philadelphia Section, 1978 and 1980.

Areas of Concentration

Chemical engineering
Process engineering
Computer dynamic modeling
Photomicroscopy
Thermodynamics
Analytical testing
Warnings

Environmental protection
Petrochemical handling & safety chemical
Product liability
Chemical safety
Computer science & programming
Temperature controls
Explosion investigation

Specific Experience & Interest

Chemical contamination
Chemical reactivity
Chemical explosions
Dynamic process analysis
Smoke damage
Friction measurement
Oil spills
Water contamination
Environmental site assessments
Boilers
Fuel gases
Chemical flammability
Dyes

Electrostatic precipitators & filters
Ethanol & methanol
Fuel oil tanks
Industrial furnaces
Gas furnaces
Fuel oil
Ground water remediation
Fuel & gas leaks
Mixing equipment
Pumps
Thermal insulation
Toxic chemicals

Professional Experience

Institute for Products, Engineering & Construction **1999 to Present**

Consulting and forensic engineering services for attorneys and insurance companies. Services involve the disciplines of chemical, process and environmental engineering. Projects address the analysis of industrial process design, systems and components, defects and accidents; as well as the chemical, thermal, physical and combustive properties of solids, liquids and gases.

PECO Energy Company **1986 to present**

Served as Research Engineer, responsible for using mathematical modeling and other advanced techniques to design and analyze process control problems in the power industry. Served as Chemical Engineer in the Energy Engineering Department, working with filtering processes, sulphur dioxide scrubbers and pumping systems. Serve presently as Chemical Engineer in the Environmental Department, specializing in storage tanks and oil spill cleanup.

United Engineers & Constructors, INC. **1972 - 1986**

Senior Consulting Engineer. Responsible for Modeling Simulation, and for Control System Design and Analysis for the chemical, power and steel industries.

E.I. DuPont **1965 - 1972**

Engineer in the departments of Process, Engineering Instrumentation, Control Engineering and Instrument Maintenance.