

## **SUMMARY VITA - James R. Cunningham, Ph.D., P.E.**

*Professor Emeritus and Adjunct Instructor*

**Years on Faculty:** 36 (original appointment 08/73)

**State Registered:** Tennessee (1975)

### **Degrees:**

Louisiana State University	Chemical Engineering	B.S., 1963
University of Florida	Chemical Engineering	M.E., 1970
University of Florida	Chemical Engineering	Ph.D., 1972

### **Other Related Experience:**

Acting Dean, College of Engineering and Computer Science, University of Tennessee at Chattanooga, July 2007 to July 2008

Post Doctorate Research Associate (NSF) - University of Florida, Chemical Engineering Department, October 1972 to September 1973.

Graduate (Research) Assistant - University of Florida, Chemical Engineering Department, September 1970 to October 1972.

Graduate (Teaching) Assistant - University of Florida, Chemical Engineering Department, September 1968 to September 1969.

Technologist - Shell Chemical Company, Technology Department, Norco, Louisiana, February 1968 to August 1968. July 1963 to January 1964.

Egress Systems Mechanic - Staff Sergeant (E5), United States Air Force, Strategic Air Command, 306 Bomb Wing, Field Maintenance Squadron, McCoy AFB, January 1964 to January 1968

Natural Gas Processing Trainee - Texaco, Inc., Domestic Producing (Gas) Division, New Orleans, Louisiana, July 1963 to January 1964.

### **Consulting and Patents**

Desoto, Inc., Judd Road, Chattanooga, Tennessee, Report Title: Caustic Waste Neutralization, May 1984 to July 1984, Developed the methodology for controlling the pH of wastewater.

Tennessee Valley Authority, Solar Applications Branch, Chattanooga, Tennessee, June 1978 to August 1983, Developed computer models for sunspace performance, trombe wall performance, parameter estimation, natural ventilation and large building performance. Investigated over-heating in closed loop flat plate solar collectors.

Nation Hosiery Mills, Inc., Chattanooga, Tennessee, Report Title: A Hot Water Heating System Utilizing Indirect Cooldown Water, December 1975 to January 1976, Developed a heating system employing the re-use of energy from water warmed during the cooldown of the dye liquor and knitted goods.

Pittsburg Knitting Mills, Inc., South Pittsburg, Tennessee, Report Title: Indirect Cooldown Water Recovery and Condensate Recovery, November 1975 to January 1976, Developed a heating system employing the re-use of water warmed during the cooling of the dye liquor and knitted goods.

Scholze Tannery, Inc., Chattanooga, Tennessee, Sponsor: Tennessee Valley Authority, Division of Environmental Planning, Report Title: Solid Waste Materials Reclamation Study, September 1974 to February 1975, A survey of the solid wastes at the Scholze Tannery was performed, with recommendations for reclamation. A drying process for the reclamation and re-use of the lime slurry was proposed.

Advanced Waste Management Systems, Hixson, Tennessee. Environmental site surveys in Georgia and Tennessee

Forensic and expert witness projects with local attorneys.

### **Principal Publications of Last Five Years**

None.

### **Scientific and Professional Society Memberships**

American Institute of Chemical Engineers

American Society for Engineering Education

Chattanooga Engineers Club (Past President)

Order of the Engineer

Tau Beta Pi

**Honors and Awards**

1981-82 Engineering Teacher of the Year  
1981-82 Norbert Koch Faculty Service Award  
1988-89 Engineering Professor of the Year  
1991 Outstanding Engineering Teacher Award  
1993-94 Engineering Faculty Award  
1994 Cole Outstanding Engineering Teacher Award  
1996-97 Outstanding Engineering Faculty Award  
1997 Cole Outstanding Engineering Teacher Award  
2002-03 Outstanding Engineering Faculty Award  
2006 Cole Outstanding Engineering Teacher Award  
2006 Faculty of the Year, Joint Council of CECS Student Organizations  
2006 Engineer of the Year, Chattanooga Area National Engineers Week

**Institutional Service in the Last Five Years (committee assignments, etc.)**

Chair of the Engineering Undergraduate Curriculum Committee, 4 years.  
Chair of the Engineering Assessment Committee, 5 years.  
Member of the Engineering Rank and Tenure Committee, 5 years.  
Member of the Physics and Geology Rank and Tenure Committee, 3 years.  
Member of the University Undergraduate Curriculum Committee, 3 years.  
Member of the Athletics Committee, 3 years.  
Member of the University Facilities Use Committee, 5 years.

**Professional Service in the Last Five Years**

State of Tennessee Water Quality Control, 5 years  
Member of the Community Advisory Panel for W. R. Grace, 5 years.

**Professional Development Activities in the Last Five Years**

Attended instructional retreats on problem-based learning sponsored by UTC Walker Teaching Resource Center, 5 years.  
Audited Geology 445 Hydrology (3)  
Attended ABET Commission Summit, October 2006.