

1. **Name** - Laurence F. Miller, Ph.D., P.E.
2. **Education**
Kansas State University – B.S. – 1964 – Nuclear Engineering
Kansas State University – M.S. – 1966 – Nuclear Engineering
Texas A&M University – Ph.D. – 1976 – Nuclear Engineering
3. **Academic Experience**
Assistant Professor: September 1976 to September 1981
Associate Professor: September 1981 to June 1991
Professor: June 1991 to Present
4. **Non-Academic Experience**
1976-Pres. – Department of Nuclear Engineering, University of Tennessee.
Teaching responsibilities have included a variety of undergraduate and graduate courses. Developed seven new graduate and undergraduate courses and implemented a new concentration of courses for a Radiation Protection program. Directed 76 M.S. theses and 14 Ph.D. dissertations.
1972-1976 – Graduate School at Texas A&M University. Senior Reactor Operator on the AGN-201 reactor, supervised student laboratory experiments, and responsible for maintenance and operation.
1968-1972 – Bettis Atomic Power Laboratory at Naval Reactor Facility Near Idaho Falls, Idaho. Qualified as Engineering Officer of the Watch and trained Navy Personnel on the A1W Plant.
1966-1968 – Astronuclear Laboratory at Large Pennsylvania and Jackass Flats Nevada. Performed neutronics calculations and real time computer programming for nuclear rocket engine testing.
CONSULTING
CTI, Inc., AMS, Inc, ORNL (Part Time Employee)
5. **Certifications or Professional Registration**
Tennessee, Originally in Texas
6. **Current Membership in Professional Organization**
American Nuclear Society, Health Physics Society, Tau Beta Pi, Sigma Xi
7. **Honors And Awards**
Lilly Endowment Post-Doctoral Teaching Awards Fellowship
Technology for Energy Corporation Outstanding Teacher Award (1982)
Departmental Outstanding Teacher Awards (1983-1984, 1986-1987, 2003-2004)
Technical Programme Co-Chair of the ICRS-10 RPS 2004 International Meeting on Radiation Protection and Shielding held in Funchal, Madeira Island (Portugal) 9-14 May 2004
Chair of the Radiation Protection and Shielding Division (2001-2002)
Distinguished Service Award for work on the 1982 Worlds Fair
Chair of the Oak Ridge/Knoxville Local Section (1996-1997)
Technical Program Chair for the Meeting in Nashville in June 1998 (Meeting Attendance of about 1000)
General Chair for the Spectrum 2000 Meeting in Chattanooga (meeting attendance of about 400)
National Program Committee of the American Nuclear Society (ANS) (2001-2003)

Vice Chair of the Scholarship, Policy and Coordination Committee (SPCC) of the ANS(2003-2006); Chair of the SPCC (2007-2009)

President of the East Tennessee Chapter of Health Physics, 2003

Outstanding College of Engineering Faculty Advisor Award (1996-1997)

8. Service Activities

Chair of the UTK Radiation Safety Committee (1989-2001, 2003-2008)

Chair of the UTK Environmental, Health and Safety Committee (1997-2006)

Chair of the College of Engineering Promotion Tenure Committee (2002, 2003, 2009 &2010)

Member of the College of Engineering Promotion Tenure Committee (1999-2001, 2008-2010)

Member of the College of Engineering Curriculum Committee (various)

Faculty Senate (~1992-1995)

Primary Author of the ABET Self Study Document for the Department of Nuclear Engineering

Taught Short Courses on the Fuel Cycle, Radioactive Waste, or Radiological Assessment (1978-present)

Advisory Board for the College of Engineering (COE) Basic Engineering Review Team

9. Selected Publications and Presentations

SELECTED PUBLICATIONS

Jeff Preston and Laurence F. Miller, "SimFuelCycle: A Simulation and Uncertainty Analysis Tool for Evaluation of Nuclear Fuel Cycles," Transactions of the American Nuclear Society, (November 2010)

Martin R. Williamson, Indraneel Sen, Alex Green, Dayakar Penumadu, and L. F. Miller, "Monte Carlo Modeling for Multivariate Optimization of Transformational Neutron Detectors", Transactions of the American Nuclear Society (June 2010)

J. Preston and L.F. Miller, "Management Tool for Uncertainty Analysis of Advanced Nuclear Fuel Cycles," Transactions of the American Nuclear Society, (June 2009)

Stephan Janson and Laurence Miller, "Heat Load Characteristics of Thorium Based Molten Salt Spent Fuel," Transactions of the American Nuclear Society, (June 2009)

Trent L. Nichols, George W. Kabalka, Laurence F. Miller, Michael T. McCormack and Andrew Johason. "Implications for Clinical treatment from the Microdosimetry," International Conference on Neutron Capture Therapy, Nov 2-7, 2008 Florence, Italy

Jeff Preston and L. F. Miller, "Reduction of Repository Heat Load Using Advanced Fuel Cycles," International Conference on the Physics of Reactors "Nuclear Power: A Sustainable Resource" Casino-Kursaal Conference Center, Interlaken, Switzerland, September 14-19, 2008

L.F. Miller and Jeff Preston, "Digital Pulse Shape Discrimination," Radiation Protection Dosimetry (2007) doi:10.1093/rpd/ncm052

- L.F. Miller, J. Preston, Brian Thomas, J. McConnell, J. Hou, T. Anderson, and M. Humberstone "Uncertainty Analysis Methods for Equilibrium Fuel Cycles," Transactions of the American Nuclear Society, (June 2007)
- L. F. Miller, T. Anderson, J. Preston, M. Humberstone, J. Hou, J. McConnell, and Luc Van Den Durpel "Evaluation of Various Fuel Cycles to Control Inventories of Plutonium and Minor in Advanced Fuel Cycles" Proceedings of ICAPP 2007 Nice, France, May 13-18, 2007 Paper 7288
- Jeff Preston, B. Thomas, T. Anderson, M. Humberstone, J. Hou, S. Frederiksen, J. McConnell, and L.F. Miller, "Assessments of Uncertainties in Advanced Equilibrium Fuel Cycles," GLOBAL 2007, Advanced Nuclear Fuel Cycles and Systems, September 9-13, Boise, Idaho (September 2007)
- Matthew L.F. Miller, R. E. Pevey, L. F. Miller and A. I. Hawari, "Lifetime Predictions for Three Fuel Reloading Scenarios in the PULSTAR Reactor at NCSU," Transactions of the American Nuclear Society, (June 2006)
- Mark S. Wyatt, Laurence F. Miller, "A Comparison of Monte Carlo and Model-Based Dose Calculations in Radiotherapy Using MCNPTV," Nuclear Instruments and Methods in Physics Research A 562 (2006) 1013-1016
- L.F. Miller, J. Preston, T. Anderson, J. McConnell, F.R. Mynatt, and Luc Van Den Durpel, "Utilization of Fast Reactors to Control Inventories of Plutonium and Minor Actinides in Advanced Fuel Cycles" Transactions of the American Nuclear Society, (November 2006)
- L.F. Miller, M.F. Fontana, Ricky Summit, Igor Petrusky, Matthew Miller and Scott Outten, *Advanced Nuclear Plant Review Update for Tennessee Valley Authority* Contract Report, Department of Nuclear Engineering, The University of Tennessee, February 2005
- L.F. Miller, Robert E. Uhrig, Mario Fontana, Vijaya Kantubhukta, Matthew Miller, and Scott Outten, *Sustainable Production of Power Using Nuclear and Alternative Energy* for Tennessee Valley Authority Contract Report, Department of Nuclear Engineering, The University of Tennessee, April 2005
- 10. Professional Development During The Past Five Years**
Attended a number of conferences.