

CURRICULUM VITAE



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EDUCATION

Ph.D. in Nuclear Engineering, University of Illinois, Urbana-Champaign (1987).
M.S. in Nuclear Engineering, University of Illinois, Urbana-Champaign (1983).
B.S. in Mechanical Engineering, Middle East Technical University, Turkey (1980).

EXPERIENCE

Aug. 2017-present	Head, Department of Nuclear, Plasma, and Radiological Engineering (NPRE)
May 2016-present	Director, Master of Engineering in Energy Systems Program
May 2016-present	Director, Energy and Sustainability Engineering Program (EaSE)
Oct. 2015-present	Professor, Institute for Sustainability, Energy, and Environment (iSEE, UIUC)
Aug 2013-Aug 2017	Associate Head for Academic Programs (NPRE)
Aug. 2006-present	Professor of Nuclear, Plasma and Radiological Engineering (NPRE), and Professor of Computational Science & Engg., University of Illinois (UIUC)
Aug. 2013-Aug. 2017	Associate Head of Academic Programs, NPRE
Aug., 2000-Aug. 2006	Associate Professor of Nuclear, Plasma and Radiological Engineering, and Associate Professor of Computational Sci & Eng, University of Illinois (UIUC)
May-June 2003	Visiting Professor, University of Pisa, Pisa, Italy.
Aug., 1996-2000	Assistant Professor of Nuclear Engineering and Assistant Professor of Computational Science & Engineering, University of Illinois (UIUC)
Summer-2001	Visiting faculty under the UNDP's TOKTEN program, PIEAS, Islamabad, Pakistan
June-July, 1999	Visiting Professor, Delft University of Technology, The Netherlands
Sept. '92-Aug. '96	Assistant Professor of Mechanical and Nuclear Engineering, (UVA)
1988-1992	Research Assistant Prof. of Nuclear Engg. and Engineering, Physics, UVA

HONORS & AWARDS

- Grainger College of Engineering Teaching Excellence Award (2020)
- Campus Award for Excellence in Graduate and Professional Teaching, UIUC (2018)

- Campus Award for Excellence in Guiding Undergraduate Research, UIUC (2017)
- American Nuclear Society's Arthur Holy Compton Award (2016)
- American Society of Engineering Education (ASEE) Glen Murphy Award (2015)
- Fellow of the American Nuclear Society (Elected 2014)
- Ph.D. advisor of three recipients of American Nuclear Society's *Mark Mills Award* for best Ph.D. dissertation (2003, 2005, and 2010).
- *Young Members Engineering Achievement Award*, American Nuclear Society, 1999.
- Partial list of excellent teachers, UIUC (1996-2019)
- *ANS Students Award for Excellence in Undergraduate Teaching*, Department of Nuclear, Plasma and Radiological Engineering, UIUC (over ten times since 1996)
- General Electric (Teaching) Scholar, UIUC, 1997.
- *Outstanding Teaching Award*, Department of Mechanical, Aerospace and Nuclear Engg, UVA (1994).
- University of Virginia's *Allan Talbott Gwathmey Memorial Award* for best graduate research in basic sciences (1988).
- American Nuclear Society's *Mark Mills Award* for best Ph.D. dissertation (1987).

SOME SELECTED PUBLICATIONS (Rizwan-uddin)

Rizwan-uddin and J.J. Dorning, **A Chaotic Attractor in a Periodically Forced Two-Phase Flow System**, *Nucl. Sci. Eng.*, **100**, No 4, 393-404 (1988).

Rizwan-uddin, **Comparison of the Nodal Integral Method and Non-Standard Finite-Difference Schemes for the Fisher Equation**, *SIAM J. Scientific Computing*, **22** (6), 1926-1942 (2001).

E.P.E. Michael, J.J. Dorning and Rizwan-uddin, **Studies on Nodal Integral Methods for the Convection-Diffusion Heat Equation**, *Nuclear Science & Engineering*, **137**, 380-399 (2001).

Bradley Wescott and Rizwan-uddin, **An Efficient Formulation of the Modified Nodal Integral Method and Application to the Two-Dimensional Burgers' Equation**, *Nuclear Science & Engineering*, **139**, 293-305 (2001).

R. Zboray, W.J.M. de Kruif, T.H.J.J. van der Hagen and Rizwan-uddin, **Investigating the Nonlinear Dynamics of Natural-Circulation, Boiling Two-Phase Flows**, *Nucl. Tech.*, **146**, 244-256, (2004).

A. Dokhane, D.Hennig, Rizwan-uddin, R. Chawla, **Semi-Analytical Bifurcation Analysis of Two-Phase Flow in a Heated Channel**, *International Journal of Bifurcation and Chaos*. **15**, 8, 2005.

Stefano Markidis, G. Lapenta and Rizwan-uddin, **Multi-scale Simulations of Plasma with iPIC3D**, *Mathematics and Computers in Simulation*, **80**, Issue 7, 1509-1519 (2010).

Anjie Hu, Longjian Li, Rizwan-uddin, **Force method in a pseudo-potential lattice Boltzmann model**, *Journal of Computational Physics*, **294**, 78-89, (2015).

Anjie Hu, Longjian Li, Rizwan-uddin and Dong Liu, **Contact Angle Adjustment in Equation-of-State-Based Pseudopotential Model**, *Physical Review E*, **93**, 053307 (2016).

Pengfei Wang and Rizwan-uddin, **A modified, hybrid nodal-integral/finite-element method for 3D convection-diffusion problems in arbitrary geometries**, *International Journal of Heat and Mass Transfer*, **122**, 99-116 (2018).

Rizwan-uddin, **Virtual Reality for Education, Training and Dose Reduction**, *Nuclear Plant Journal*, **36** (5), pp. 30-33 (2018).

Dieter Hennig, Carsten Lange, Rizwan-uddin, Abdelhamid Dokhane, Alexander Knospe, **Principles for the application of bifurcation theory for the systematic analysis of nuclear reactor stability, Part 1: Theory**, *Progress in Nuclear Energy*, **115**, 231–249 (2019)

Dieter Hennig, Carsten Lange, Rizwan-uddin, Abdelhamid Dokhane, Alexander Knospe, **Principles for the application of bifurcation theory for the systematic analysis of nuclear reactor stability, Part 2: Application**, *Progress in Nuclear Energy* **113**, 263–280 (2019)

Qiyue Lu and Rizwan-uddin, **Stability analysis of nuclear-coupled thermal hydraulics for a natural circulation lead-cooled fast reactor**, *Annals of Nuclear Energy*, **149**:107747 (2020)