Bio sketch - Alireza Haghighat
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Dr. Haghighat is professor of the Virginia Tech Nuclear Engineering Program, Mechanical Engineering Department. He is the Director of Nuclear Science and Engineering Lab (NSEL) at the Virginia Tech Research Center at Arlington, VA. He is former (2001-2009) Chair of the University of Florida (UF) Nuclear & Radiological Engineering (NRE) Department and former (2008-2010) Director of UF Training Reactor. Prior to Florida, Prof. Haghighat was a faculty member at the Pennsylvania State University for 15 years.

Prof. Haghighat is a fellow of the American Nuclear Society (ANS). He leads the Virginia Tech Theory Transport Group (VT^{3}G). Over the past 28 years, Prof. Haghighat has been involved in the development of new particle transport methodologies and large computer codes for modeling and simulation of nuclear systems including reactors, nuclear security and safeguards systems and medical devices. He led the development of the PENTRAN 3-D parallel Sn Transport, A^{3}MCNP (Automated Adjoint Accelerated MCNP) Monte Carlo code systems, TITAN 3-D Hybrid code system, INSPCT-s (Inspection of Nuclear Spent fuel-Pool Calculation Tool) tool for monitoring spent nuclear fuel, AIMS (Active Interrogation for Monitoring of Special nuclear materials) for detection of SNM via active interrogation, (CPXSD (Contributon Point-wise Cross-Section Driven) package for automatic problem-dependent multigroup cross-sections, RAPID (Real-time Analysis spent fuel Pool In-situ Detection), and TITAN-IR (TITAN Image Reconstruction code system) for SPECT, and a novel transport algorithm with efficient representation of angular dependency. He has published over 240 papers, received several best paper awards, and presented numerous invited workshops, seminars and papers nationally and internationally.

In Dec 2014, he published a textbook entitled 'Monte Carlo Methods for Particle Transport', CRC Press Taylor & Francis Group

He is recipient of the 2011 Radiation Protection Shielding Division's Professional Excellence Award, and recognition award from Office of Global Threat Reduction for his leadership & contributions to design and analysis for the University of Florida Training Rector HEU to LEU fuel conversion, 2009.

Prof. Haghighat is an active member of the American Nuclear Society, and has served at various leadership positions. He has served as Chair of the Reactor Physics Division (2012-13) and the Mathematics and Computation Division (2005-06), was co-founder of the Computational Medical Physics Working Group, and served as Chair of NEDHO (Nuclear Engineering Department Heads Organization) (2006-07).

Prof. Haghighat contributed to the formation of the SUNRISE (Southeast Universities Nuclear Reactors Institute for Science and Education) not-for-profit organization, Chairman of the Board of SUNRISE since June 2010-2013, and leading the Low Power Critical Facility (LPCF) project. In Jan 2015, he was selected as the Chairman of the Board of VNEC (Virginia Nuclear Energy Consortium) which is being formed as a non-profit organization. Both of these organizations are engaged in research and education of nuclear science an engineering.