

Planning for the Future: Transatlantic Cooperation in SMRs Workshop

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Dr. Haghghat is professor and Director of the Virginia Tech Nuclear Engineering Program, Mechanical Engineering Department. He is also the Director the Mechanical Engineering Program at the National Capital Region (NCR) Campus, Arlington, VA. He is the former (2001-2009) Chair of the University of Florida (UF) Nuclear & Radiological Engineering (NRE) Department and former (2008-2010) Director of UF Training Reactor (UFTR). Prior to Florida, Prof. Haghghat was a faculty member at the Pennsylvania State University for 15 years.

Prof. Haghghat is a fellow of the American Nuclear Society (ANS). He leads the Virginia Tech Theory Transport Group (VT³G). Over the past 35 years, Prof. Haghghat 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. His efforts has resulted in the development of several advanced computer programs including PENTRAN, A³MCNP, TITAN, INSPCT-s, AIMS, TITAN-IR, and RAPID. For the latter code system, a virtual reality system (VRS) web application has been developed.

He has published over 280 papers, received several best paper awards, and presented numerous invited workshops, seminars, and papers nationally and internationally. In Dec 2014 and July 2020, he published 1st and 2nd editions, respectively, of a textbook entitled ‘Monte Carlo Methods for Particle Transport’, CRC Press Taylor & Francis Group

He is recipient of the 2021 Dean’s Award for Excellence in Service, College of Engineering, Virginia Tech, 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 Reactor HEU to LEU fuel conversion, 2009.

Prof. Haghghat 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).

In 2015, he contributed to the formation of the Virginia Nuclear Energy Consortium (VNEC) nonprofit organization; he is the founding Chairman of the board of this organization (2015-2016), and currently the Vice-chair of the organization.