

advanced diagnostics, control room automation, and integrated nuclear plant operation.

The simulator is intended for use by undergraduate and graduate students, as well as professionals.

“The simulator will help enhance CASMR’s outreach opportunities and broaden the understanding of the working of state-of-the-art modular nuclear plants among students, researchers, and operators at off-site locations,” said Yassin Hassan, CASMR director and a professor of nuclear and mechanical engineering in the Texas A&M University College of Engineering.

CASMR’s goal is to hasten the development of

new and transformative technologies, materials and modeling, and simulation to make nuclear energy more affordable, sustainable, and rapidly deployable. The center also brings together domestic and international partners to collaborate on nuclear energy initiatives to bridge the gaps between basic research, engineering development, and commercialization.

The simulator is supported by the Department of Energy’s Nuclear Energy University Program through Generic Scientific Infrastructure grants at Texas A&M, Oregon State University, and the Center for Advanced Energy Studies at the University of Idaho. ✕

North Carolina State University, College of Engineering, Department of Nuclear Engineering Multiple Tenured/Tenure-Track Faculty Positions at Open Rank Available

The Department of Nuclear Engineering at North Carolina State University invites applications for multiple open-rank tenured/tenure-track positions to strengthen, expand, and diversify the departmental major thrust areas of reactor systems engineering, radiation interactions and detection, plasma science and engineering, and nuclear fuel and materials, with a focus on state-of-the-art applications to advance nuclear energy as well as emerging interdisciplinary technological and digital engineering areas. Examples include, but are not limited to, modeling and simulation on high-performance computers, autonomous/intelligent/smart integrated systems, cybersecurity, cutting edge experimental research, non-traditional nuclear energy applications, plasma processing, medical imaging, radiobiology and health physics, advanced materials and characterization, and multi-disciplinary intersections among nuclear technologies, infrastructure investment, and climate change mitigation.

The Department of Nuclear Engineering at North Carolina State University, the only nuclear engineering program in the State of North Carolina and one of the premier stand-alone departments with one of the most utilized university nuclear test/research reactor in the United States, offers undergraduate and graduate degrees in Nuclear Engineering (<http://www.ne.ncsu.edu>). Through collaborative efforts with various stakeholders, the department is increasing its footprint on the national and global levels in both advanced nuclear energy systems and nuclear science and engineering applications in emerging areas.

The positions target both the anticipated growth of advanced nuclear technologies (internationally, domestically in general, and in the State of North Carolina in particular) and the emerging interdisciplinary technological and digital engineering sectors in the Research Triangle Park area that surrounds North Carolina State University. The State of North Carolina has adopted a new energy policy (House Bill 951 – a new energy law signed by the Governor) with an accelerated clean energy strategy to complete the transition to net-zero by 2050 by including nuclear energy as part of the clean energy mix. North Carolina is committed to supporting engineering education and research in the state (a state legislative initiative named Engineering North Carolina’s Future) by expanding the College of Engineering at North Carolina State University to meet the rapidly growing needs of talents with advanced engineering skills in emerging areas.

The selected candidates are expected to strengthen and further diversify the Department of Nuclear Engineering in both experimental and computational disciplines, as well as to build synergies with other departments in the College of Engineering for interdisciplinary activities within emerging engineering clusters in broad categories (e.g., interconnectivity, automation, machine learning, and real-time data). The applicants should have the ability to build an externally funded research program as well as to demonstrate outstanding research and scholarship through peer-reviewed publications and technical presentations. The positions also entail teaching both undergraduate-level and graduate-level courses and supervising graduate students. Applicants must have a Ph.D. (or equivalent) degree in Nuclear Engineering, other Engineering fields, or Natural Sciences such as Physics, Chemistry, etc. We are seeking applicants who have strong interdisciplinary interests and who can collaborate across engineering and science disciplines.

Review of applications will begin on March 1, 2022 and will continue until the positions are filled. Applicants are encouraged to submit their application materials before this date. North Carolina State University has a strong institutional commitment to diversity in all areas and strongly encourages candidates from underrepresented groups to apply. The candidates should be committed to working with a diverse student body and to assisting the Department of Nuclear Engineering in enhancing diversity and inclusion.

Application materials should include a curriculum vita, a statement of research, and a statement of teaching philosophy, as well as a list of three professional references. Applications must be submitted electronically through the North Carolina State University portal: <https://jobs.ncsu.edu/postings/154555>