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Opportunities in Research in Nuclear Science at MSI[1]

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Nuclear science and engineering, once thought to be a field in decline, is experiencing a remarkable renaissance, with all the major nuclear science and engineering programs in the US having doubled in the past ten years, a growth which continues unabated. Students view the vast potential of nuclear power and radiation as transformative for energy, industry and medicine, but also see the associated challenges of nonproliferation and environmental stewardship as important societal goals worthy of their future careers. In order to replenish the pipeline of critical nuclear skills into the DOE national labs for the national security mission, the NNSA Office of Nuclear Nonproliferation in 2011 launched a major education and pipeline initiative called the Nuclear Science and Security Consortium (NSSC), comprised of seven research universities and four national labs. Against the backdrop of the projected dearth of scientists and engineers in the 21st century who could hold security clearances, the NNSA augmented this program with a MSI component to engage traditionally underrepresented minority institutions and students, and thus reach out to previously untapped pools of talent. This talk will review the NSSC MSI program after one year, including the Summer Fellowship Program and the Research Grant Program, along with the experience of two NSSC universities with long-standing research relationships with MSI partners in nuclear science and engineering. The perspective from the DOE labs will be discussed as well, who are the intended beneficiaries of the transition from students to career scientists.

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