MSC Research Update
November 2019

**MSC to Conduct New Project Focused on USCG VTS Radar and Small Vessel Detection.** MSC researchers (Rutgers University) will develop a needs analysis for USCG Vessel Traffic Service (VTS) Centers to assess radar capabilities for detecting small vessels. The researchers will meet with Coast Guard personnel from each of the twelve VTS centers to identify relevant capabilities and gaps that currently exist. A request for information (RFI) document that will allow the USCG to evaluate the state of the art in radar for small vessel detection while also meeting the VTS mission to monitor and advise vessels within the navigational waterways will be delivered at the end of the project. The full work plan is available upon request.

**MSC is Collaborating with the Coast Guard Cyber Command and Sector NY to Deliver a Maritime Cybersecurity Short Course.** MSC will pilot a maritime cybersecurity short course tailored to marine inspectors at the U.S. Coast Guard Sector NY in April 2020. The professional development course will provide an introductory overview of cybersecurity basics including cyber vulnerabilities in information technology and operational technology systems. The professional development course is being developed as a primer for non-computer science/non-technical Coast Guard personnel who are responsible for conducting facility and vessel inspections, to include cyber systems.

**MSC Seeks Stakeholder Input on Student Research Projects.** The Center is seeking input on student team research projects for its [2020 Summer Research Institute](#). The STEM-focused program engages college students in research projects designed to address operational concerns in the maritime and homeland security domain. Last year’s student projects resulted in the development of a Risk Management Dashboard that can be used to visualize and analyze maritime incident trends in the Port of NY/NJ, a prototype design of a drone deployable buoy system and a custom built BlueROV, among other projects. Many of the SRI program alumni are now employed by DHS component agencies and U.S. national laboratories as engineers, security specialists and operations analysts. This year’s program will take place from June 1 to July 24, 2020. Stakeholder input ensures that our student research projects continue to be relevant and reflect the needs and interests of the maritime and homeland security community. Please contact Beth Austin-DeFares (bdefares@stevens.edu) to share your research project ideas.

**MSC Maritime Systems Fellowship Student Joins Federal Ranks.** Hasan Shahid, former Maritime Security Center’s maritime systems fellowship student has joined the [National Urban Security Technology Laboratory’s (NUSTL)](http://www.nustl.gov) Federal ranks as a Staff Engineer. NUSTL is part of the U.S. Department of Homeland Security (DHS) Science and Technology Directorate’s (S&T) Office of National Laboratories, which offers a centralized laboratory-based research, development, test and evaluation (RDT&E) function for DHS. Prior to joining NUSTL as a contractor in 2016, Hasan participated in the MSC’s
Master’s Degree Fellowship program. The rigorous two-year program was funded through a DHS Career Development Grant. As part of the fellowship program, Hasan conducted research in the MSC’s Summer Research Institute and engaged in a ten-week field-based internship with the U.S. Coast Guard’s Research and Development Center. In his career at NUSTL, Hasan has assisted in developing high-level test plans and data collection requirements for S&T’s Next Generation First Responder (NGFR) Apex Program. His work behind the scenes and in the field has also contributed to NUSTL’s System Assessment and Validation for Emergency Responders (SAVER) program and the laboratory’s test and advisory services in support of the national first responder community.