

MSC NEWSLETTER – JULY & AUGUST 2016

Stevens awarded NSF grant to create a Maritime Cybersecurity Undergraduate Minor and Graduate Certificate. Dr. Susanne Wetzel, Associate Professor and Cybersecurity Program Director, Stevens Institute of Technology and Ms. Beth Austin-DeFares, MSC Director of Education, were awarded a National Science Foundation (NSF) grant to develop interdisciplinary curricula in Maritime Systems and Cybersecurity leading to a Maritime Cybersecurity undergraduate minor and graduate certificate. This effort will address the workforce needs of the maritime and homeland security enterprise to deal with the current and emerging cybersecurity threats to port facility information technology systems, vessel navigation systems, industrial control systems, and networked supply chain management systems among other potential critical infrastructure vulnerabilities.

The Maritime Cybersecurity curriculum will draw upon Stevens existing programs and strengths in the areas of [Cybersecurity](#) and [Maritime Systems](#) together with the university's robust partnerships in industry, government and academia to provide unique experiential learning and research-based opportunities for its students.

Rutgers University and Texas Southern University will partner with Stevens Institute of Technology in the multi-year initiative, to include support in curriculum development, workshops and seminars, and the piloting of course materials.



MSC Director of Education and Stevens Cybersecurity Program Director awarded NSF grant to create curricula and build workforce capacity in Maritime Cybersecurity.

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MSC assists the USCG Sector NY AMSC to increase cybersecurity awareness in the Port of NY/NJ.

MSC provides support to USCG Sector New York Area Maritime Security Committee. The USCG Sector New York Area Maritime Security Committee (MSC) recently conducted a series of maritime cybersecurity discussion-based tabletop exercises for port partners in the Port of NY/NJ. The exercises involved hypothetical cyber threat scenarios impacting the operations of container terminals, passenger ferries, and oil and gas terminal operators.

MSC hosted one of the exercises at Stevens Institute of Technology in Hoboken, NJ, and MSC research PIs from Louisiana State University supported the participation of Mr. Stan McKinney, [Stephenson Disaster Management Institute](#) at Louisiana State University, to co-facilitate the discussion-based exercises with Mr. Brian Onieal, NJ Office of Homeland Security and Preparedness. The purpose of the exercises was to raise the cybersecurity awareness in the Port of

NY/NJ, encourage port partner collaboration and information sharing, and to enhance the cybersecurity posture of the NY/NJ port enterprise. MSC Summer Research Institute students also assisted as scribes to document the event in conjunction with the USCG Exercise Support Team.

A general overview will be presented and outcomes from the Cyber Tabletop Exercises will be discussed at the Sector New York MSC Members at Large meeting being held on September 13, 2016 at the Cape Liberty Cruise Terminal, 4 Port Terminal Blvd., in Bayonne, NJ.

Stevens and MSC host Brookhaven National Laboratory Engineers

and Scientists. Representatives from [Brookhaven National Laboratory](#) joined research PIs from Stevens Institute of Technology and the Maritime Security Center (MSC) for a one-day engagement to discuss the university's research capabilities and projects. Dr. Hady Salloum, MSC Director, provided the Brookhaven representatives with an overview of the Center's projects and discussed opportunities for collaboration in maritime security research among other areas.



Tyler Mackanin completes field-based internship with HSSAI in Falls Church, VA.

Students in the Field:

Tyler Mackanin, Career Development Grant (CDG) Maritime Security Fellow completed a ten-week internship with the [Homeland Security Studies and Analysis Institute \(HSSAI\)](#) in Falls Church, Virginia. Throughout the summer Tyler conducted research on the U.S. Coast Guard's activities in the Arctic region and their ability to respond to environmental, safety and security concerns, as maritime vessel traffic is poised to increase in the Arctic Ocean. Tyler presented his research analysis to a team of HSSAI analysts this past July and will provide an invited talk to the Stevens community on September 8, 2016. He is currently in his second year of graduate studies at Stevens Institute of Technology and is expected to fulfill his fellowship and degree requirements in May 2017.

Hasan Shahid, recent graduate of the DHS CDG Maritime Security Fellowship program at MSC/Stevens, is now employed as a Junior Engineer with [LMI](#). His responsibilities will include working with government test and evaluation program managers to test, evaluate, and assess emerging and commercial technology in operational and laboratory settings.

Research papers prepared by **Alex Pollara, Maritime Security Doctoral Fellow**, in collaboration with his dissertation advisor Dr. Alexander Sutin, Research Professor, Stevens Institute of Technology, have been accepted for presentation at the [OCEANS 2016](#) conference sponsored by the Marine Technology Society and IEEE Oceanic Engineering Society, on September 19 - 22, in Monterey, CA, and the [Acoustical Society of America Conference](#), to be held in Honolulu, HI, November 28 - December 2, 2016. The papers are entitled Feature Extraction for Acoustic Signatures of Small Boats, and Improvement of the Detection of Envelope Modulation on Noise (DEMON) and its application to small boats.

Nicholas Haliscak, DHS CDG Maritime Security Fellow alumni, has assumed employment as a General Engineer in the Logistics Engineering Division at the [U.S. Army's Redstone Arsenal](#) in Huntsville, Alabama.

Maritime Security Center (MSC)
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