THE HARRY AND DIANE VAN TREES CADET PROFESSIONAL DEVELOPMENT AWARD

Academic Year
2020 – 2021

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The Harry and Diane Van Trees Electrical Engineering and Computer Science Endowment is a gift from Dr. and Mrs. Harry Van Trees, USMA '52. Dr. Van Trees graduated first in the Class of 1952, received his Sc.D. from M.I.T. and became a Professor of Electrical Engineering at M.I.T. He authored a four-volume series of Detection and Estimation Theory which educated three generations of engineers on the theory underlying all radar, sonar, and missile defense systems, such as Iron Dome. He served as Chief Scientist of both the US Air Force and the Defense Communications Agency. Later, as Acting Assistant Secretary of Defense (C3I), he originated the MILSTAR satellite system. Their endowment supports the EECS Department by funding superb Cadet Professional Development Program opportunities that would otherwise be impossible. Their generosity provides invaluable support to the mission of EECS, ***to educate and inspire cadets to be leaders of character, prepared to think critically, innovate, and apply engineering and technology expertise as Army Officers.***

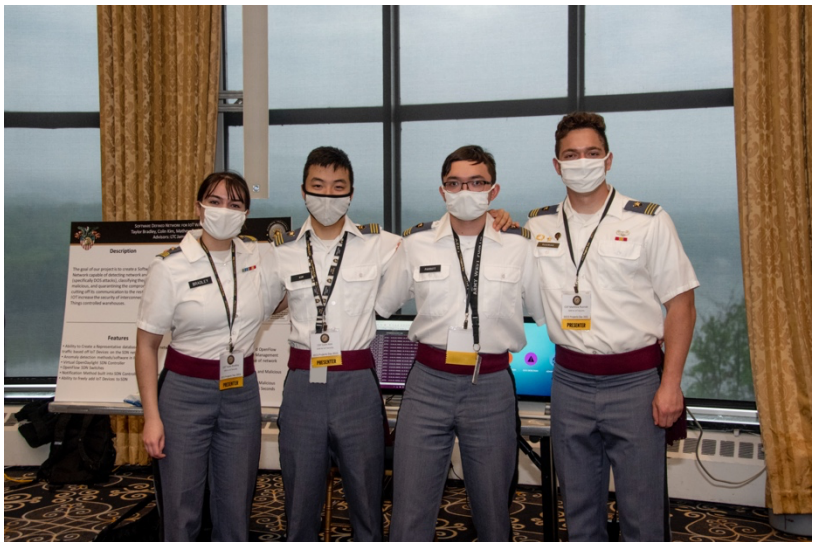
The Harry and Diane Van Trees Electrical Engineering and Computer Science Endowment provides for immediate cadet professional development needs, such as trips to the National Conference on Undergraduate Research to present top research papers and to regional conferences to participate in engineering and scientific workshops. The Endowment will also support a trip to MIT Lincoln Laboratory or a similar facility, normally for graduating seniors. It will support senior "capstone" engineering design projects in several ways including selected skills training opportunities, for example in lab technique, equipment utilization, and other aspects of professional practice not covered in EECS courses, but which will deepen the project experience; travel including trips to coordinate with project customers and to compete in design contests. Support will include one or more summer internship opportunities in a domestic or international industrial, military, or government research setting (under the established Dean's Academic Individual Advanced Development program), and professional or scholastic society activities.

Each year, the graduating cadet in the Electrical Engineering, Computer Science or Information Technology major whose accomplishments best exemplify achievement and initiative in professional development will be recognized through the Harry and Diane Van Trees Cadet Professional Development Award, which is a mounted cadet saber.

For the Class of 2021, the Harry and Diane Van Trees Cadet Professional Development Award is presented to Taylor Bradley. Taylor earned a degree in Computer Science, and she will attend Johns Hopkins University next year as a GEM Fellowship award winner in their master's program for Security Informatics. As part of her fellowship, she will intern with the Institute for Defense Analyses to explore doctrinal graphics for cyber operations wargaming. Taylor also won (and declined) offers to attend the Carnegie Mellon Master of Information Technology Strategy program, a Fulbright grant to study in the Netherlands, and a Lincoln Laboratory Fellowship.

Taylor's MA103 instructor, Dr. Elie Alhajjar (ACI/Math faculty) served as Taylor's primary research mentor at West Point through independent study research that resulted in a journal article (accepted, to appear) that they co-authored. She also participated in an Advanced Individual Academic Development experience with the National Security Agency's Weapon and Space Department, Missile Exploitation Branch, where she gained data processing skills that she was able to apply later in an insider threat detection project.

Aside from her academic and research work, Taylor was a valuable member of the EECS Systers Association of Computing Machinery Women's chapter, serving as the treasurer.



Taylor Bradley and the SDN for IoT Security team on Projects Day 2021.

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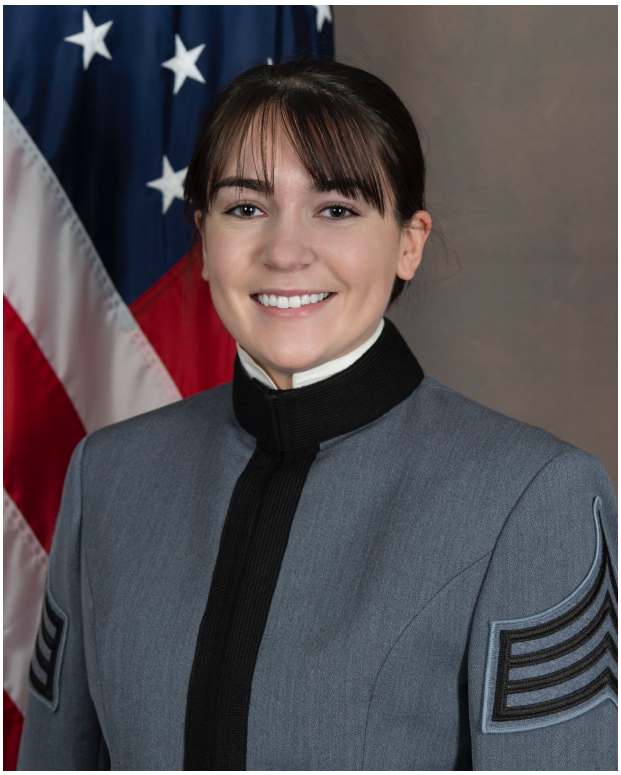

Taylor Bradley is the recipient of the
2021 Harry and Diane Van Trees Cadet Professional Development Award