

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Enabling the Future - Developing the Space Workforce (5)

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EDUCATIONAL INTERNSHIPS AT NASA'S GODDARD SPACE FLIGHT CENTER

**Abstract**

The demand for NASA to support the educational development of students is growing as more institutions become aware of the opportunities for engagement in science and engineering at all levels. NASA's Space Communications and Navigation (SCaN) program office maintains a year-round educational program for undergraduate and graduate students. Within NASA's Goddard Space Flight Center, the Exploration and Space Communications Projects Division implements the SCaN intern program with a focus on space operations, including operations of orbiting spacecraft, space communications, ground activities and networking. Students are encouraged to engage with Science, Technology, Engineering and Mathematics (STEM) concepts outside their classrooms and pursue advanced STEM study within NASA projects. The intern program enables students to work with various NASA projects in solving real-world problems inside the Exploration and Space Communications division. The projects have a lasting impact on both the agency and communications networking. The Exploration and Space Communications provide a wide range of projects based on the students' interests; students have worked on everything from Amplifiers for CubeSats to Solid-State Quantum Communications, leveraging knowledge gained inside the classroom and advice from provided mentors. Utilizing fresh minds and integrating them into NASA's workforce has led to increased capabilities and innovative ideas. The resulting deliverables from projects worked on throughout the summer are presented to a large audience of NASA management, showcasing what the students achieved and learned by completing their project. Interns in the SCaN program have been assigned to the NASA's Near Earth Network facilities in Greenbelt, Maryland, and Wallops, Virginia. They have also been assigned to NASA's Space Network facilities in Greenbelt, Maryland, and Las Cruces, New Mexico. The scope of intern projects will continue to increase as NASA implements more intern programs.