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### WHO WE ARE

The Center for Space Science and Engineering Research at Virginia Tech (Space@VT) was officially founded during the summer of 2007 within the Virginia Tech College of Engineering which is the state of Virginia's premiere engineering college.

Space@VT is an interdisciplinary research center currently with 8 faculty members, all of which have international reputation in the fields of space science and engineering. Academic appointments of Space@VT faculty members currently lie in the Bradley Department of Electrical and Computer Engineering and the Department of Aerospace and Ocean Engineering.

Space@VT members also include a host of prominent research professors, postdoctoral research associates, graduate, and undergraduate students.

### WHAT WE DO

The Center for Space Science and Engineering Research at Virginia Tech (Space@VT) has broad interests and expertise in the fields of space science and engineering. Research focuses include upper atmospheric science, sun-earth connections, space instrument design, space mission design, remote sensing, magnetospheric and ionospheric physics, ground-based instrument design, ground-based space weather studies, Global Navigation Satellite System GNSS receivers and space weather applications, computational space plasma physics, active space experiments, spacecraft dynamics and control, spacecraft design, spacecraft environmental interactions, and advanced space propulsion systems. Sponsors of Space@VT research include the National Science Foundation NSF, NASA, the Department of Defense DoD, national research laboratories, as well as private corporations.

### OUR MISSION

The mission of Space@VT is to provide forefront research, scholarship, instruction, and educational outreach in the broad fields of space science and engineering. A key focus of the research and educational effort will be the science, technological impact, and utilization of the geo-space environment. Space@VT efforts will also focus on other planetary-space environments as future scientific and engineering interests and opportunities in this direction emerge.

Space@VT strives to utilize a holistic approach to space research and space mission development by combining theory, modeling, observation and education that employ advanced computational techniques, space instrument and space systems development, ground-based instrument development, and experimental data acquisition, analysis and interpretation within a research program that fully involves graduate and undergraduate students.

Space@VT focuses on both graduate and undergraduate education in the broad fields of space science and engineering. Space@VT prepares students to become leaders in their chosen fields whether they are in the private, government, or academic sectors. Space@VT educates University students to make important contributions to society as a whole. Space@VT also strives to work with secondary school students to increase their understanding and appreciation of science and engineering with an objective of increasing their desire to take science and engineering as a career path.

Space@VT works towards engaging underrepresented groups in science and engineering in general and space science and engineering in particular. This engagement includes providing research and educational opportunities and experiences for middle school, high school, and college level underrepresented students.

Space@VT also develops joint research and educational ventures with Minority Serving Institutions (MSIs).

The vision of Space@VT is to be a premiere space research organization of international caliber advancing the broad research, educational, and outreach mission of Virginia Tech.

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