

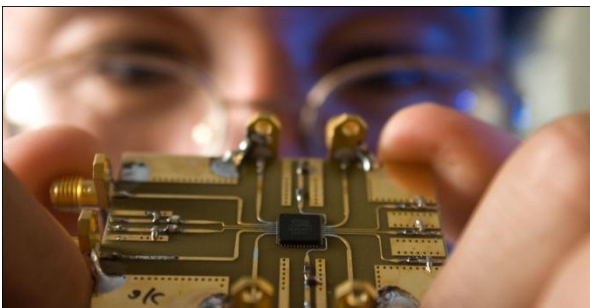
## TED AND KARYN HUME CENTER *for* NATIONAL SECURITY AND TECHNOLOGY

### About the Hume Center

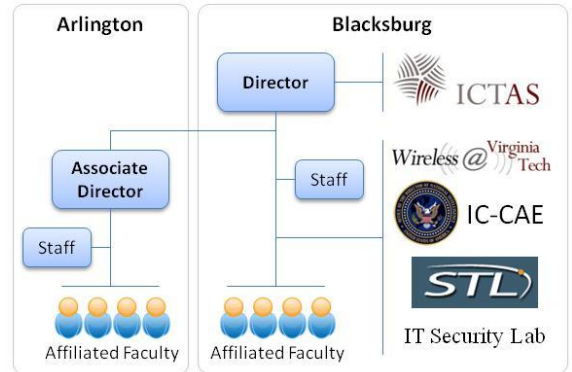
The Hume Center is a unique organization at Virginia Tech focused on developing future leaders for the US Federal Government, and is part of the *Institute for Critical Technology and Applied Sciences*. With an emphasis on the intelligence and defense sectors, the Hume Center promotes educational and research programs geared toward this mission. **Our goal is to be the country's leader in holistically developing the elite science and technology human capital for the Intelligence Community through sustainable and flexible research programs that engage faculty and students to solve the needs of the national security community.** The Hume Center is the umbrella organization for classified research at Virginia Tech.

In cooperation with the Virginia Tech – Howard University Intelligence Community Center for Academic Excellence (IC-CAE) program, student development includes campus events focused on national security topics, academic scholarships and fellowships, study abroad programs, and promotion of summer internship opportunities. Through our campus facilities supporting classified research, students can obtain security clearances and gain experience working in secure environments.

The Hume Center's current research focus is in the following areas: **Cyber Security**, particularly for critical infrastructure; **Wireless Communications**, with an emphasis on software-defined and cognitive radio; and **Software Engineering**, leveraging the latest research to develop to develop turnkey solutions.



### Organization Within University



The basic organizational structure of the Hume Center is shown above. The Center is part of the university, and as a result is a non-profit institution. The Center includes components at both Virginia Tech's main campus in Blacksburg and the National Capital Region offices. The center exists under the Institute for Critical Technology and Applied Sciences (ICTAS), which is a university-level institute. It partners with other research centers within the university to support a broad array of research and educational programs.

### Dedicated Facilities

Virginia Tech has been a cleared facility for nearly half a century and now operates a 20,000 ft<sup>2</sup> facility near the Blacksburg campus capable of supporting education and research in accordance with National Industrial Security Program Operating Manual and Director of Central Intelligence Directives. A similar 14,000 ft<sup>2</sup> facility is planned for our Arlington Research Center, planned to be operational in mid-2011. These capabilities support the Hume Center's sponsored research goals in this very specialized area.

#### Virginia Tech Arlington Research Center



### Points of Contact

[www.hume.ictas.vt.edu](http://www.hume.ictas.vt.edu)

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## TED AND KARYN HUME CENTER *for* NATIONAL SECURITY AND TECHNOLOGY

### Areas of Expertise

- antennas and antenna arrays
- critical infrastructure security
- digital communications & signal processing
- information fusion and visualization
- malware in systems and mobile networks
- modeling and simulation
- network security & intrusion detection
- reconfigurable computing
- satellite communications
- software-defined and cognitive radio
- software engineering
- spectrum security

### Working With Us

The Hume Center can support a number of different relationships with sponsors, based on the nature of the collaboration.

**Affiliates Program:** The Hume Center affiliates program provides partners a direct mechanism for establishing a relationship with the Hume Center, and supporting its research and educational programs through an annual grant.

**Sponsored Research:** Sponsors can establish research contracts with the Hume Center and directly fund university research through the university's Office of Sponsored Programs, which is equipped to handle many forms of contracts, non-disclosure agreements, and other related activities.

**Joint Proposals:** The Hume Center can collaborate with a potential prime on a joint bid for a sponsored program. This allows an industry partner to leverage university research in their proposals.

**Cooperative Research and Development Activity:** Through CRADAs, sponsors can establish joint research goals, teaming agreements, and support secure research programs at the university in the absence of a specific funded contract.

The Hume Center has access to a number of contract vehicles that can ease the process of executing federal funding.



### Affiliates Program

The Hume Center offers an affiliates program to allow the government and private sector to be directly involved in supporting the Hume Center. Benefits of the program include:

- Direct relationship with university faculty and students working in related areas
- Ability to directly recruit Hume Center students for internships and full-time employment
- Representation on the Affiliate Board, providing recommendations as to the direction of the Center
- Preference in teaming efforts for project proposals

There are two fee structures, both with equivalent benefits:

**Founder's Membership:** One-time grant of \$200,000 to the University trust, providing long-term interest income to the Hume Center, and lifetime membership in the affiliates program

**Standard Membership:** Annual contribution of \$30,000 to the Hume Center, with membership to the affiliates program renewed each year

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