

VIRGINIA ALLIANCE FOR SEMICONDUCTOR TECHNOLOGY

ACADEMIC AFFILIATES †



POWERING VIRGINIA'S SEMICONDUCTOR TALENT AND TECHNOLOGY, TOGETHER.

The United States CHIPS and Science Act has presented new opportunities to restore U.S. leadership in semiconductor manufacturing. This historic act will spur new jobs across the semiconductor supply chain and advance the nation's economy and national security.

Capitalizing on this exciting moment in time, the **Virginia Alliance for Semiconductor Technology (VAST)** was created to elevate Virginia as a leader on the forefront of the burgeoning semiconductor industry. Based in Northern Virginia with a network spanning the entire Commonwealth, VAST will leverage the region's existing strength as home to about 75-percent of Virginia's semiconductor industries.

The semiconductor alliance will serve industry and the semiconductor, microelectronics, and nanotechnology ecosystem by creating a collaborative network of Virginia's preeminent universities to provide easy access to state-of-the-art research facilities across the Commonwealth of Virginia and provide valuable certifications to bolster workforce access in these rapidly evolving fields.

*VAST Headquarters

†Academic affiliates includes members (GMU, NSU, UVA, VCU, and VT) and partners (NOVA).

VAST | *At a Glance*

Accelerating Research, Innovation, and Hands-On Training

VAST will power the semiconductor and nanotechnology industries by providing seamless access to cleanrooms, labs, and equipment at universities across the state. This platform will allow startups, small businesses, and students to search, schedule, and receive training on tools that meet their financial and technical needs and are geographically convenient to them. This platform will reduce the time and cost between concept creation and prototype implementation for new semiconductor innovations.

Fueling a Robust, Adaptive, and Scalable Workforce Pipeline

VAST will rapidly train talent in high-need, industry-driven areas through three 10-week Fast Track to Semiconductor Careers certificate programs which are initially centered around:

- Chip Fabrication and Nano Characterization
- Semiconductor Packaging and Characterization
- Semiconductor Equipment Maintenance and Repair

These scalable and adaptable programs will provide targeted access to veterans and underrepresented communities.

Laying a Foundation for Future Growth

Through initial funding from a GO Virginia grant, VAST will establish a unified network that will be the foundation for future partnerships and economic prosperity. VAST will:

- Serve as an advocacy organization for attracting federal funding and private sector investment within the semiconductor and nanotechnology industry to the Commonwealth
- Grow a robust semiconductor startup and innovation ecosystem in collaboration with the Virginia Innovation Partnership Corporation
- Inspire and engage K-12 students in future careers in semiconductor and nanotechnology industries through STEM camps and virtual fab tours
- Grow a robust workforce development strategy with required agility to meet the needs of the industry
- Expand internship, scholarship, fellowship, and apprenticeship opportunities in semiconductor and related fields for Virginia students

Impact will be measured by establishing short-term and long-term quantitative and qualitative metrics to drive data-driven investments and decision making.

BY THE

NUMBERS

6/15

6 Academic Affiliates to grow to more than **15** in subsequent phases

>35,000sq. ft

Federating **>35k sq ft** of shared Semiconductor Fabrication Facilities

>30,000sq. ft

Federating **>30k sq ft** of shared Material Metrology & Semiconductor Packaging Facilities

150/600

Serving more than **150 faculty research groups** & training more than **600 highly-skilled university students**

300

Will upskill **300 veterans & adult learners** annually through the Fast Track to Semiconductor Careers Certificate Program

“Virginia is a great home for chips, microelectronics, and nanotechnology...There is a lot we can do regionally, and together we can do a lot more. This alliance leverages our collective strengths and mobilizes partners throughout the state.”

– MASOUD AGAH, Founding Director and Concept Creator of VAST