Coastal Virginia Center for Cyber Innovation (COVA CCI)

COVA CCI is southeastern Virginia's node of the Commonwealth Cyber Initiative. It is an engine for research, innovation, and commercialization of next-generation cybersecurity technologies particularly in the areas of **Cyber Physical Systems Security (CPSS), 5G, and Artificial Intelligence (AI) in Maritime, Defense, and Transportation business sectors**.

The Coastal Virginia Center for Cyber Innovation (COVA) seeks to:
1) conduct fundamental research that will lead to breakthroughs in CPS security (CPSS), contributing to the CCI mission of establishing Virginia as a global leader in secure CPS and in the digital economy,
2) foster and accelerate commercialization of CPSS innovation in order to grow and diversify the Virginia cyber economy,
3) expand and diversify the cybersecurity talent pipeline through investments in research capabilities and commercialization efforts, and
4) build a collaborative network within the region of educational institutions, business, and local, state, and federal agencies, and with the other CCI nodes

Governance and Partnerships

Governance: COVA CCI organizational structure is broken down into a Leadership Council and five program committees. The committees are:
1) Academic Curricula Committee
2) Research Collaboration Committee
3) Experiential Learning Committee
4) External Partnership Committee
5) Institutional IT Security Committee.

Each has specific goals tied to the COVA CCI strategic plan and various project initiatives. The Committees have two chairs, one designated from Old Dominion University and one from an associated partner organization.

COVA CCI Partnerships: COVA CCI created a network of over 80 faculty and researchers representing Christopher Newport University, Norfolk State University, Old Dominion University, William & Mary, Regent University, ECPI University, Eastern Shore Community College, Paul D. Camp Community College, Tidewater Community College, Thomas Nelson Community College. COVA CCI is also partnering with over 20 private industry and government agencies including the US Navy, Huntington Ingalls Shipbuilding, CISCO, KBRWyle, Sentara Healthcare, G2Ops, 360IT, MI Technical Solutions to name a few.

Research

COVA CCI supports cutting-edge research in the areas of Cyber Physical Systems Security (CPSS), 5G, and Artificial Intelligence (AI) in Maritime, Defense, and Transportation business sectors.

- Create a secure shared research environment for researchers and businesses to conduct cybersecurity research.

- Develop a 5G testbed to conduct research on the vulnerabilities and opportunities of 5G wireless communication technology.

- Sponsor cybersecurity research projects focused on maritime, defense and transportation business sectors.

- Hire a cluster of cybersecurity researchers at Norfolk State University, Old Dominion University, and William & Mary who will support the development of cybersecurity research and external funding opportunities at these institutions.

- Collaborate with researchers from the other CCI institutions on joint cybersecurity research projects.

Innovation/Commercialization

COVA CCI is supporting innovation and commercialization of research in order to grow and diversify the Virginia cyber economy.

- Provide funds to research teams to assist in converting research into viable business opportunities utilizing entrepreneurial centers, business incubators, and innovation programs.

- Assist in commercialization of new technology by educating researchers about technology transfers and intellectual property.

- Connect researchers and businesses in developing joint grant proposals in support of federal, state, local, and/or private funding opportunities.

- Build a Cyber Innovation Center which will house a data center, research and teaching labs, classrooms, faculty space, a student cyber incubator, and collaboration space for business development.

Talent Development

COVA CCI works with institutions of higher learning and business partners from across the region to create experiential learning opportunities for students at all levels.

- Enhance the knowledge and skills of students through the alignment of existing curricula and creation of new curricula that meets industry's needs creating a pathway between education and jobs.

- Develop experiential learning opportunities for graduate students to work with industry partners on real-world projects and with community colleges on enhancing cybersecurity knowledge and abilities.

- Expand student opportunities for internships with cybersecurity firms to prepare students for a career in cybersecurity.

- Create research opportunities for undergraduate students to explore cybersecurity related topics.

- Develop team building, problem-solving and research skills through the use of an INNOVATE Cyber Challenge where teams of students from multiple institutions work on a unique cybersecurity challenge using the design-thinking approach.

Visit the COVA CCI website - https://sites.wp.odu.edu/cova-cci/.
Contact covacci@odu.edu for additional information on how to become an active partner with COVA CCI.