THE CYBERSECURITY CHALLENGE

Government, industry, and consumers depend on secure and reliable networks and information systems for daily communications and transactions. Vulnerabilities to cyber attacks could lead to disruptions in critical services such as telecommunications, banking, utilities, data storage, and transportation. Addressing the cybersecurity threat requires innovative collaboration between the public and private sectors.

The University of Maryland responded to this challenge with the creation of the Maryland Cybersecurity Center (MC^2). MC^2 is partnering with government and industry to provide educational programs to prepare the future cyber-security workforce, and develop new, innovative technologies to defend against cybersecurity attacks.

CYBER SECURITY RESEARCH

@ The University of Maryland

Cybersecurity Center

UNIVERSITY OF MARYLAND
DIVISION OF RESEARCH
www.umresearch.umd.edu
www.cyber.umd.edu
301-405-4175

UNIVERSITY OF MARYLAND

AN IDEAL LOCATION

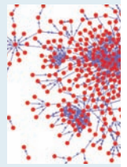
The University of Maryland's proximity to the nation's capital and close interactions with key federal agencies, such as the National Security Agency (NSA) and the National Institute of Standards and Technology (NIST), **make College Park an ideal place for cybersecurity education, research and technology development.**

Maryland leads the nation in information technology jobs and more than half of the nation's internet traffic passes through the Washington, D.C. metropolitan area. As the University System of Maryland's flagship campus, **the University of Maryland, College Park, will help "connect the dots" in the region's burgeoning federal and private cyber initiatives.** The nearby location of the nation's Cyber Command gives MC² the opportunity to serve both the nation and the state.

60+ faculty involved in research and/or education related to cybersecurity

A HOLISTIC APPROACH TO CYBERSECURITY SOLUTIONS

MC² is unique in its holistic approach to cybersecurity education, research and technology development, stressing "more-than-tech," interdisciplinary solutions. **MC² brings together experts from engineering and computer science with colleagues from across campus in fields such as economics, social sciences and public policy** to help establish broad-based cybersecurity initiatives.



INNOVATIVE RESEARCH AND A REPUTATION FOR EXCELLENCE

Maryland researchers are applying their expertise in key areas, including wireless and network security, secure software, cyber supply chain security, privacy in social networks, cybersecurity policy, cryptography, attacker behavioral analysis, health care IT, multimedia forensics, and the economics of cybersecurity.

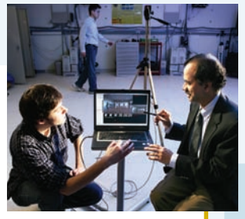
The University of Maryland ranks among the top 20 public research universities in the nation. The National Security Agency (NSA) designated the University of Maryland as a National Center of Academic Excellence in Information Assurance Research. The University of Maryland was also **named an Intelligence Community "Center of Academic Excellence"** by the Department of Homeland Security, one of only 14 universities in the nation to be selected.

EDUCATING THE NEW CYBERSECURITY WORKFORCE

MC² is taking a unique approach in educating the future cybersecurity workforce to serve industry and government needs in Maryland and the Washington, DC metropolitan area. **MC² will offer innovative, hands-on educational programs** to undergraduates, graduate students, and industry professionals, **emphasizing a "teaching hospital" model** that allows students to experience practical cybersecurity challenges.

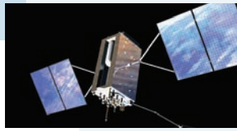
Reflecting the national priority to support math and science education and encourage young students to pursue cybersecurity-related careers, **MC² will offer a new K-12 CyberCamp.** This summer program will target students from Maryland schools, which were ranked first in the nation for two consecutive years by EducationWeek. MC²'s K-12 programs will promote science, technology, engineering and math (STEM) initiatives, and **develop an early connection with talented students to populate the future cyber workforce.**

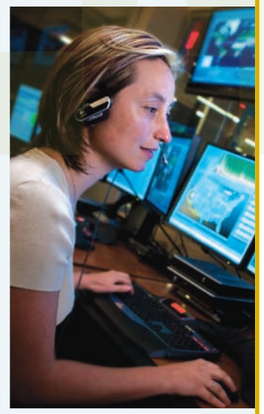
CYBERSECURITY TECHNOLOGY COMMERCIALIZATION AND ENTREPRENEURSHIP



MC² will draw on the University of Maryland's technology commercialization resources, including the Maryland Technology Enterprise Institute (Mtech), to introduce new cybersecurity technologies. Since its creation in 1983, Mtech has had a $22.5 billion impact on the Maryland economy through innovative tech commercialization programs, including VentureAccelerator and the Technology Advancement Program. Maryland's Dingman Center for Entrepreneurship offers programs to encourage enterprise creation, holding its annual Cupid Cup business plan competition each year. **This tech commercialization ecosystem will help bring cybersecurity related technologies developed by MC² researchers to the marketplace,** creating small businesses and bringing new economic growth to the region.

200+ student members of the Cybersecurity Club





CORPORATE PARTNERSHIPS IN CYBERSECURITY

MC²'s Cyber Partners Program is designed to establish mutually beneficial, strategic relationships with organizations that share a commitment to advance the cybersecurity field through collaborative efforts. The program is designed to **promote long-term partnerships that yield high-impact results** for both the university and the corporate sponsor. Partners benefit through invitations to special events, research previews, special student recruitment opportunities, employee education, visibility and corporate recognition. Additional information is available at **www.cyber.umd.edu/partners/**

For more information about the Maryland Cybersecurity Center, visit

www.cyber.umd.edu