



Institute for Infrastructure and Information Assurance

at James Madison University

The Institute for Infrastructure and Information Assurance (IIIA) at James Madison University (JMU) integrates and supports the University's efforts in the increasingly vital area of homeland security. IIIA actively seeks research sponsorship and provides funding for cutting edge research within the broad context of improving the nation's security. Providing a balance between physical and cyber security is a major goal of IIIA's research agenda along with providing both policy and technological solutions to the security issues facing our nation.



IIIA's core competencies and capabilities align with the 17 DHS-defined homeland security sectors, with an emphasis on infrastructure protection and information assurance. Because of the interdisciplinary collaborations, most research overlaps the sectors. The various projects are organized into these general function categories: Assessment and Modeling, Prevention, Protection, Response, and Education.

Cultivating strategic alliances is one of IIIA's major strengths. IIIA looks for opportunities to hone capabilities and innovation potential so that we can expand our team of researchers and collaboration with new partners. The goal of our **Innovation Partnerships Program** is to enhance applied and interdisciplinary research capabilities at JMU by developing creative and innovative partnership opportunities with industry and government agencies, while providing unique educational experiences for JMU students and professional development opportunities for faculty. We seek partners with whom we can combine capabilities and innovation potential to cooperate on funding opportunities. Long-term cooperative and mutually beneficial relationships are highly valued by the Institute, our faculty and our students.

As we enhance the security of the Commonwealth of Virginia and the nation, we are applying and strengthening the following core attributes:

- Emphasis on applied research, producing quality "deliverable-based" grant and contract products on time
- Services to faculty for proposal/project development
- Student-faculty-staff research teams
- Interdisciplinary, product-driven approach and agile organization
- Extensive strategic alliances with government, industry and academia



- Balanced attention to physical and cyber security/assurance
- Leveraging longstanding degree programs
- Secure software development
- Network simulation and test capability
- Community service emphasis
- Outstanding political support and linkages
- Advanced curriculum development
- Risk assessment tools
- Cyber security and process control laboratories and testbeds

About IIIA

The Institute for Infrastructure and Information Assurance (IIIA) facilitates development, coordination, integration and funding of activities and capabilities of the James Madison University academic community to enhance information and critical infrastructure assurance at the federal, state and local levels. IIIA emphasizes collaborative interdisciplinary research that focuses on developing technologies with student participation and that have potential for public benefit and possible commercialization. Further, the Institute focuses on the integrative, interdisciplinary nature of real-world problems and strives to bridge traditional academic departments to develop solutions to the critical security problems facing our nation.

IIIA Vision is a society strengthened and enriched by increasingly dependable infrastructure fostered by a strong university role in leadership, interdisciplinary education, research and problem-solving.

More info on IIIA? Contact Cheryl J. Elliott at elliottcj@jmu.edu

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IIIA's Genesis

The Institute for Infrastructure and Information Assurance at James Madison University was founded in August 2002 as an interdisciplinary research center focusing on homeland and national security issues.

Named as one of the original seven Centers of Academic Excellence for Information Security Education by the National Security Agency, JMU has established on-line educational programs through a Masters of Science in Information Security and Masters of Business Administration with a concentration in Information Security.

Through these distinguished programs, JMU became known as a leader in computer security and in 2001 successfully competed for a grant through the Commonwealth Technology Research Fund to establish the Commonwealth Information Security Center. This multi-institutional research center helped establish JMU's growing ability to conduct applied research within the information security arena.

In 2002, JMU partnered with George Mason University on the federally funded Critical Infrastructure Protection Project. During the fall of 2002, JMU's president, Dr. Linwood Rose, was appointed as higher education's representative to the National Infrastructure Advisory Council (NIAC) which provides the President through the Secretary of Homeland Security with advice on the security of information systems for critical infrastructure supporting other sectors of the economy.

Through the growth of these research and education programs at JMU, the Institute for Infrastructure and Information Assurance was formed. Under the leadership of Dr. John

B. Noftsinger, Jr., IIIA has provided funding for over forty research projects at JMU and other Virginia universities, has participated on the National Capital Region project with George Mason University, and conducted research for the National Park Service. Partnerships have been formed with George Mason University, the University of Virginia's Critical Incident Analysis Group, Virginia's Institute for Defense and Homeland Security, the Virginia Information Technologies Agency, the Center for Innovative Technology, and numerous private sector businesses. As one of the

founding members of the Virginia Alliance for Secure Computing and Networking, IIIA has helped sponsor training and education programs for information security professional within higher education.

The Institute for Infrastructure and Information Assurance will continue to actively engage in collaborative research, develop innovative education programs, and provide community outreach programs. The Institute is guided by an advisory board that includes a distinguished group of individuals representing business, industry and government.



Congressman Bob Goodlatte and Senator John Warner visited IIIA recently. (From left to right: Congressman Goodlatte; Senator Warner; Dr. John Noftsinger, Jr.; Dr. Jerry Benson, Dean, College of Integrated Science and Technology; and Dr. Douglas Brown, Provost)

For more information on IIIA, visit our website at www.jmu.edu/iiia or contact:

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