



**CSSIA**, the Center for Systems Security Science Foundation (NSF) Advanced Resource Center. Since 2003, CSSIA has experiences in information assurance and network security through several program improvement supportive initiatives. These initiatives include expanding and enhancing cyber security skills events and competitions, building a national infrastructure to deliver faculty workshops, establish mentoring programs for secondary and post secondary teachers and faculty, and developing national infrastructure models for skills and learning based on the creation of scalable and affordable remote virtual lab environments.

and Information Assurance is a National Technological Education (ATE) National provided students with real-world learning

### **CSSIA Instructs Cyber Security Educators**

Since 2004, CSSIA has instructed more than 2000 teachers and college faculty in cyber security related areas. Surveys show that 73% or over 1,460 are already using or plan to use curricula and instructional materials provided at the professional development programs. In follow-up interviews, most of the educators reported that learning how to implement hands-on, complex laboratory exercises was the most valuable aspect of the workshops. The CSSIA at Moraine Valley Community College applied for and was designated as one of the first five CAE2Y institutions in the country. The staff at CSSIA has served as mentors for other institutions pursuing the CAE2Y designation.

### **CSSIA Directly Impacts Students**

CSSIA's impact on student success has been extraordinary. Carlos Marquez, an information technology graduate from Moraine Valley Community College, is an example of a successful student. He explains, "As a high school graduate in 2005, I was accepted to many universities, but Moraine Valley's Center for Systems Security and Information Assurance had the right staff and equipment. CSSIA gave me the opportunity to enhance my skills, have an internship, and participate in the Collegiate Cyber Defense Competitions. If it was not for CSSIA, I would not be where I am today: employed by Dell Secureworks."



### **Collegiate Cyber Defense Competitions Give Students Experience with Real World Security Challenges**

CSSIA operates the Midwest Collegiate Cyber Defense Competitions (CCDC) providing students with hands-on cyber security experiences. Since organizing the first Midwest competition in 2006, CSSIA has grown to support over 300 participating students each year in both multi-state and regional competitions. In 2008, CSSIA formed the Competition Advisory Board (CIAB), which has increased industry participation and added more real-world workplace experiences to the competitions. From 2006 to 2011 over 1120 students have participated in these competitions.

### **CSSIA Virtualization Datacenter (CVDC)**

The staff at CSSIA has become leaders in the area of classroom virtualization. In 2011 the CCDC competitions thrived with the successful deployment of the CSSIA Virtualization Data Center. The CVDC enables us to expand the number of teams able to participate in the competition while at the same time reducing costs and increasing the ability to replicate complex competition environments. The establishment of a standardized data center has enabled cyber security educators to develop multiple curriculums that can easily be deployed and shared by institutions interested in teaching cyber security and IA related programs. The CSSIA virtual environment currently supports five complete courses available for the standardized environment and plans to develop additional courses including Ethical Hacking, Digital Forensics, Security+, Hardening Microsoft and Linux OS platforms.



### **Collaboration – CSSIA Affiliate and Partnership programs**

CSSIA is committed to serving the needs of the higher education academic community in the areas of curriculum, faculty development, cyber skills competitions and underrepresented outreach. The CSSIA affiliate and partnership programs are available to support these efforts. The **CSSIA Affiliate** program concept is simple. An affiliate may use CSSIA's logo in printed and electronic form. Affiliates benefit by receiving faculty training, program development opportunities and various toolkits with the goal of continuous improvement of their cybersecurity, virtualization and storage programs. As resources are available, affiliates may also request services such as CSSIA Virtualization Datacenter (CVDC) lab access for faculty lab evaluation, CAE2Y program mapping and guidance to participate in cyber skills exercises. These opportunities and services are offered to affiliates at free or reduced costs as resources are available. The **CSSIA Partnership** program extends the affiliate program with the objective of greater dissemination of program improvement objectives. Partners may participate with CSSIA in the sharing and dissemination of resources to the academic community and collaboration with CSSIA to host faculty development opportunities using CSSIA's course registration systems and their own or CSSIA's Virtualization Datacenter (CVDC). Partners are encouraged to share their resources as available to assist other academic institutions in program improvement and work with CSSIA to develop and disseminate best practices for cybersecurity and related program development. CSSIA also supports the VMware IT Academy™ and EMC Academic Alliance™ programs in faculty training and support capacities.

**For more information, please visit our website, <http://www.cssia.org>**

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