



CSSIA Training for the First Historically Black College and University Cyber Defense Competition



John Sands, CSSIA Co-PI, oversees a faculty development training session.

CSSIA is collaborating with the Association of Computer/Information Sciences and Engineering Departments at Minority Institutions (ADMI) to recruit retain and advance minorities, women, and persons with disabilities into the cybersecurity profession. This joint endeavor addresses the important need for increased cybersecurity professionals in the nation while improving the economic status and ability of underrepresented populations to compete in the labor market. Since 2003, the National Resource Center for Systems Security and Information Assurance (CSSIA) at Moraine Valley Community College has provided students with real-learning experiences in information assurance and network security through several initiatives.

After initial meetings with the ADMI partners in April 2013, it was decided CSSIA would host the first Historically Black College and University (HBCU) Cybersecurity competition at

the ADMI 2014 symposium. This underrepresented population outreach effort takes time to educate the faculty at institutions in order for them to prepare their cybersecurity clubs for competitions. The faculty and student development opportunity will build new partnerships for CSSIA's outreach efforts while assisting in showcasing these students to businesses and the government for potential hiring opportunities.

The ADMI board agreed a two-step training process would best prepare faculty by inviting 12 underrepresented population institutions to Norfolk State University, Norfolk, Va., for phase one of training, which was held in September. Forty-six participants gathered to learn what cybersecurity competitions looked like, to become educated on the tools of teaching hands-on skills in cybersecurity and was given access to the CSSIA virtualization data center environment to practice real hacking tools. After meeting, these institutions formed cybersecurity clubs and started training in competitions utilizing the CSSIA virtualization data center that provides them with all curriculum and labs they need.

Tamara Rogers, faculty from Tennessee State College, learned about the ADMI/CSSIA meetings through Dr. Elva Jones, ADMI board member from Winston-Salem State University in North Carolina. Dr. Jones has been encouraging Tamara to participate in ADMI for several years but it was when Tamara received the announcement to participate in the cybersecurity competition that it really sparked her interest. "I wanted

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to get involved because of the hands-on training and the fact that competition resources will be made available,” Tamara stated. After the two-day phase one meeting, Tamara is looking forward to showing her students realistic experiences and interactions in the cybersecurity competition atmosphere.

In February 2014, phase two of ADMI cybersecurity competition preparation training will take place virtually through a mock cybersecurity competition among the 12 HBCU teams enabling students to compete against each other by detecting, deterring and protecting their network from highly skilled penetration testers (a.k.a. hackers) hired to attack their infrastructure.

The first HBCU cybersecurity competition is expected to take place at the April 2014 ADMI symposium in Virginia Beach, Va. This will open up many doors of opportunity for these students to showcase their talent to sponsors, businesses and government officials who will observe the students in action. This also will demonstrate a cybersecurity competition scenario and step-by-step guide for more institutions to get involved.

For more information, contact Ed Leach at leache@aol.com.

“The resources, labs and everything CSSIA provided during this two-day training were wonderful. We are looking forward to starting our cybersecurity teams, but the real wealth is the knowledge and resources we can now incorporate into our curriculum.”

Dr. Elva Jones

Winston-Salem State University

Cybersecurity Competition Teams

- Montreat College
- Tennessee State University
- Jackson State University
- Spelman College
- Mississippi Valley State University
- North Carolina A & T
- Livingstone College
- Winston-Salem State University
- Florida A & M University
- Norfolk State University
- Hampton State University
- Durham Technical Community College

Soon-to-Come to CSSIA Trainings: CIS

Gain the skills needed to make informed decisions on migrating to the cloud. Cloud Infrastructure and Services (CIS) is an open course that covers the principles and concepts of virtualization and cloud Infrastructure technologies. The course is ideal for gaining a broad understanding of the transition from classic data center, to virtualized data center, to the cloud. Prepare for your Cloud Infrastructure and Services Associate (EMCCIS) Certification.

WINTER 2013-14 Train-the-Trainer Schedule

Register now at cssia.org.

Be the first to know when a new training is open for registration and much more by subscribing to CSSIA's e-newsletter. It's the easiest way to stay up-to-date on the latest and greatest of CSSIA. Scan QR code and join today!



In three years, CSSIA has conducted over 80 trainings and more than 1,000 instructors have successfully completed courses. CSSIA is always working toward helping schools address the demand for technicians in the workforce. For the fall/winter TTT series, CSSIA will continue to raise the bar and will offer the most innovative and relevant trainings.

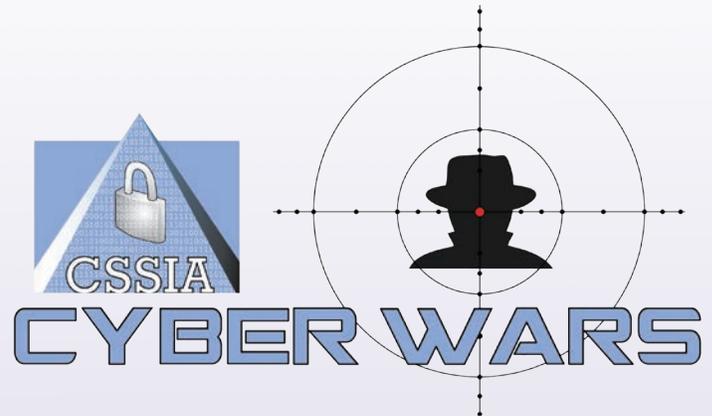
CSSIA CyberWars—Not Your Average Cybersecurity Competition

CSSIA CyberWars is a new type of competition that allows teams to directly communicate with other teams. This platform puts the competitive edge on strong as each team maintains services and guards confidential data while other teams are able to hack each teams networks simultaneously. This challenging and engaging atmosphere enables teams to capture confidential data from opposing teams and interrupt the services of their opponents.

CSSIA CyberWars is played in an open environment enabling participants to exercise a plethora of information technology skills. CSSIA CyberWars utilizes the Cyber Competition Stadium that has been used by CSSIA for Collegiate Cyber Defense Competitions as well as the National Cyber League.

“Feedback is provided to students during the event as to how all teams are performing on an ongoing basis, alerting teams to try harder to challenge top performers. It’s a rock’em, sock’em, no-holds-barred struggle for dominion,” said David Durkee, director of CSSIA Skills Competitions

For more information, visit cssia.org



September CSSIA CyberWars Winners

- 1st place: DePaul University
- 2nd place: Rochester Institute of Technology
- 3rd place: Madison College

CSSIA CyberWars are held once a month.
To register for next cyber wars, visit cssia.org.



Get Ready to Detect, Deter and Secure

Registration is open for the 2014 Midwest Collegiate Cyber Defense Competition.

Students in cybersecurity programs across the Midwest region are starting to prepare for the 2014 Midwest Collegiate Cyber Defense Competition (CCDC) season. The number of Midwest teams competing in the CCDC has continued to grow with more than 40 teams competing last spring. CSSIA hopes to break that record in 2014. Teams are encouraged to register as soon as possible. cssia.org/ccdc

“This is the first time our school has competed in a CCDC event, and we are very pleased to have won at the state level. An advisor told us the CCDC packs five years of real world experience into eight hours and that especially holds true at this point in the game. The teamwork necessary to compete at this level is great example of a soft skill that has been enhanced, because there is no way to seriously compete without a solid team foundation. We find the CCDC experience to be invaluable to our future career paths.”

Team 9 • 2013 MWCCDC

NEW ADDITIONS TO CSSIA’S TRAIN-THE-TRAINER SERIES

LPI Academy:

CSSIA is now offering an introduction to Linux course with curriculum, lab exercises, teaching materials and exam questions. The Linux Professional Institute (LPI) has started the LPI Academy to help academic institutions teach Linux. During this session the LPI Director of Instructor Operations will provide train the trainer instruction designed to help faculty teach a new introduction to Linux course. This new course will prepare students for the LPI Linux Essentials Certificate of Achievement. To learn more , visit lpi.org/partnerships/academy.

Prerequisite: This course is open to all instructors currently teaching Information Communication Technology.

U.S. Cyber Challenge and CSSIA host Successful Security Competition in Illinois



from left, Dr. Pamela Haney, Vice President of Academic Affairs at Moraine Valley Community College; Dr. Ernest McDuffie, Lead for National Initiative for Cyber Security Education (NICE); Charles Roeske, USCC student; FBI Special Agent Zachary Lowe, and James Adgate, member of (ISC)²

“Attending the invite-only Illinois U.S. Cyber Camp at Moraine Valley was an amazing experience. Beyond being recognized for having a competitive cybersecurity skill set, the Capture the Flag event tested and validated the skill set of participants through interactive challenges. In addition, being trained by security experts within the community and qualified SANS Institute instructors provided an invaluable learning experience.”

Alex Rams

student at U.S. Cyber Challenge Illinois Summer Cyber Camp

More than 30 of the top cybersecurity talent in Illinois, including many veterans, participated in an invite-only intensive cybersecurity instruction and competition camp at Moraine Valley Community College. The U.S. Cyber Challenge, in partnership with CSSIA, hosted the U.S. Cyber Challenge Illinois Summer Cyber Camp for four days that included instruction by SANS instructors, a career fair and a cyber competition.

The camp curriculum included in-depth workshops on a range of topics, including penetration testing, social engineering, tactical attacks and network forensics—all taught by college faculty, SANS Institute senior instructors and other cybersecurity experts. The week was capped off by a virtual “capture the flag” competition and an awards ceremony. Each participant was awarded a competition certificate by the U.S. Cyber Challenge, which was also signed by Illinois Governor Pat Quinn, a supporter of the cybersecurity workforce development. The awards ceremony included remarks from Dr. Ernest McDuffie, Lead for National Initiative for Cybersecurity Education (NICE).

Attendees to this invitation-only camp were selected based in part of their scores from Cyber Quests, an online competition offered through the U.S. Cyber Challenge in April. For more information about the Cyber Camp program and each of the specific camps, visit U.S. Cyber Challenge online at uscycberchallenge.org.

ETHICAL HACKING

The Ethical Hacking Course is an advanced course that covers many of the common attacks used by hackers to exploit systems, such as SQL injection, spear phishing and buffer overflows. The instructor performs a live demonstration of these techniques and shows you how to create, pack, and deploy malware in a realistic network environment. The class also includes demonstrations and labs on IPv6 Exploitation, Denial of Service, and extracting passwords from RAM, and more. Students will get access to 19 hands on labs where they will get to attack systems and use tools part of every hacker’s toolkit, including Poison Ivy, Dark Comet, Metasploit, and Armitage. Attendees of this workshop will better understand the hacker’s perspective and methodology. This course will be taught by Jesse Varsalone, who developed the labs and has experience as a penetration tester and red-teamer.

VMware Horizon View

This hands-on training course builds your skills in the VMware® Horizon View™ suite of products: VMware Horizon View Manager, View Composer, and VMware ThinApp®. This course is based on the VMware Horizon View 5.2 and ThinApp 4.7 releases.

Before attending this course, students must be able to perform the following tasks:

- Create a template in VMware vCenter Server™ and deploy a virtual machine from the template
- Modify a template customization file
- Open a virtual machine console in vCenter server and access guest operating system
- Configure Active Directory services



Dr. Suzana Flores addresses cyber space safety.



Security Awareness Symposium

Between cyber bullies and multitude of scams, social media can be a dangerous place. That's why CSSIA at Moraine Valley Community College sponsored a free Security Awareness Symposium. "These types of symposiums are to gather the community together and understand better approaches to protect children/teens from Cyber Space," said Erich Spengler, professor, Computer Integrated Technologies; Director/Principal Investor, Center for Systems Security and Information Assurance.

Parents were encouraged to attend with their children/teens. Parents were provided with a step-by-step guide on how to address and avoid dangerous situations on social media sites. Dr. Suzana Flores, author of "Am I My Profile Pic," due out in 2014, reviewed topics such as Facebook addiction, emotional manipulators of social media and its effects on relationships and friendships. Moraine Valley Police Chief Patrick O'Connor discussed online bullying, issues of self-identity and self-esteem among children/teens due to social media, online privacy and juvenile financial ID theft.

"These types of events are important to our community so that school officials, parents and community leaders understand the pressures and threats our children are exposed to in today's social media society," said Dr. John Sands, Moraine Valley professor of Information Technology and co-principle investigator of the CSSIA NSF Regional Center. "The opportunity to have Dr. Flores and Chief O'Connor share their knowledge, experience and recommendations will help us keep our kids safer."

To learn more about future Security Awareness Symposiums, contact Lynn Dohm at lynn.dohm@morainevalley.edu

To learn more about Dr. Flores, visit her website at drsuzana-flores.com.

Stay Safe Resources

onguardonline.gov/topics/protect-kids-online

staysafeonline.org/

microsoft.com/security/online-privacy/social-networking.aspx

usa.gov/topics/science/communications/internet/social-networks.shtml

nclnet.org/technology/9-safe-computing/152-social-networking-security-and-safety-tips

Twenty-four middle-school-aged girls were accepted into Girl Tech 2013, a technology-teaching conference hosted at University of Illinois Springfield. The purpose of this conference, which is in its fifth year, is to introduce girls ranging in age from 11-14 years to the wide range of activities offered by computer technology. This age group was targeted since current literature indicates that this is the age range at which many girls lost interest in technology and, ultimately, choose not to pursue careers in a technology-related field.

The two-day conference included seven topic sessions.

- ***The Fabulous Fab Lab***

Using a 3-D scanner, a laser cutter, and a 3-D printer, the girls are taught how to design and make their own jewelry.

- ***Hi-Tech Design***

With T-shirts and color transfers, the girls use the fundamentals of Gimp.

- ***Green Screen and Limelight***

Software and a few simple costumes, the girls act out scenes in front of a green screen and choose the backgrounds for both the scenes and photographs.

- ***Scratch***

The girls learn the elements of game design and create their own computer games.

- ***Geo-caching***

The girls used geo-caching technology with iPhones. They followed a trail of clues in Lats and Longs to a hidden treasure.

- ***I see SUN spots!***

Students use telescopes equipped with solar filters to view the current number and location of sunspots. They examine past sunspot number data and graph those data to compare solar cycles in the past with the current one. The girls also make their own solar viewers, and learn about the impact of the solar cycle on climate.

- ***What's to Eat?***

Technology moves into the kitchen as the girls try new ways to create yummy desserts.

Save the date!
Girl Tech 2014 is June 19 and 20.

Awards and Recognition

Cisco Networking Academy Award for MVCC and UIS



Moraine Valley Community College and the University of Illinois Springfield this summer received a Cisco Networking Academy Award for Going Above and Beyond during the Cisco Academy Conference in San Jose, Calif.

Moraine Valley's Academy Area Manager, Clydene Stangvik, nominated Moraine Valley due to its global focus on data security by establishing the first comprehensive Cybersecurity Center (CSSIA), funded by the National Science Foundation. This funding helped establish the Virtualization Data Center, which is a one-of-a-kind cyber lab with nearly 200 servers from which students can virtually participate in competitions. CSSIA also developed cyber defense coursework to incorporate into the CCNA Security curriculum and has become a national resource to educate institutions for cyber defense competitions, training and career readiness.

The University of Illinois at Springfield received their award because of the innovative approach to growing their program.

In addition to leveraging academy coursework in their Computer Science Department they incorporated it into their Systems Security and Information Assurance curriculum, providing students a background in network security. This was a major factor in their program's growth with a 600 percent increase over 10 years. Their students have been very successful in securing high-profile jobs.

Criteria for Cisco Networking Academy Award for Going Above and Beyond

- Strong contributions to the academy community
- Contributions and partnerships to their local business community
- Success in creating learning and employment opportunities for their students
- Success in encouraging certification and students passing cert exams
- Contributions and partnerships to their "local NetAcad eco-system"
- Not recognized for this category last year
- Recognize behavior other instructors and academies can learn from, replicate, etc.

Systems Security Group Names Award in Erich Spengler's Honor

An award has been created to honor Erich Spengler, Professor, Computer Integrated Technologies; Director/Principal Investigator, Center for Systems Security and Information Assurance, for his many years of dedication and service to cybersecurity education.

The award, entitled Erich Spengler Student Cyber Paper Award, this year was presented to Townsend University graduate students Hui Liu and Steven Andrew Brooks, and Townsend University Professor Shiva Azadegan, for their work in authoring a high-quality paper.

"Our Colloquium would like to make sure Erich knows how very much he means to this group and how very much his work in cybersecurity and cyber hands-on competitions has meant to all the students he has touched in his years of teaching," said Vic Maconachy, president of the Colloquium for Information Systems Security Education.

The award honors Erich and his involvement with student-centered cyber education and for his long-time advocacy of teaching cybersecurity with hands-on education. His leadership



Erich Spengler, Director/Principal Investigator of CSSIA (second from left) receives an award in his honor with (from left) Tamara Shoemaker, Operations Manager of CISSE; Dr. Dan Shoemaker, CISSE Paper Chair; and Sharon Katterman, Director of Resource Development and Institutional Effectiveness at Moraine Valley.

has been key in developing cyber competitions in information assurance and has had an effect on colleges and universities around the nation.

HI-TEC Educator of the Year Award Presented to Erich Spengler



Erich Spengler (left) CSSIA PI and John Sands, CSSIA Co-PI.

The HI-TEC Educator of the Year Award was presented at the High Impact Technology Exchange Conference (HI-TEC) in Austin, Texas, to Erich Spengler, Principal Investigator of CSSIA (National Center for Systems Security and Information Assurance) at Moraine Valley Community College.

Dr. Pamela Haney, vice president of Academic Affairs at Moraine Valley, in her nomination, said, "Erich Spengler has been a national leader in building and expanding educational programs in cybersecurity. His tireless effort, imagination, and enthusiasm have helped to develop a generation of cyber warriors across the country. Erich has served on almost every major board and workgroup addressing the growing need for cybersecurity professionals in the United States. He has testified before the U.S. Congress, contributed to the development of the NIST NICE framework, and contributed greatly to the National Collegiate Cyber Defense Competition. Under Erich's leadership, the National Security Agency named Moraine Valley Community College as one of the first five Centers for Academic Excellence in Two-Year colleges (CAE2Y).

Erich wears many hats as the principal investigator of CSSIA. First and foremost, Erich provides leadership and innovation. He has assembled a successful and enthusiastic team that has established a national reputation in training, curriculum development, and outreach in helping community colleges build cybersecurity programs. Erich has developed virtual teaching and learning environments that have been adopted around the world. He is a recognized master teacher, holds numerous industry certifications, and has taught dozens of train-the-trainer workshops.

Erich works tirelessly to keep Moraine Valley at the national forefront of cybersecurity. He works with top corporate and federal officials. His name is recognized at hundreds of colleges across the country. But his crowning achievement is that he never loses his passion for teaching, and he never loses his humility. No matter how busy Erich is, he always finds time to teach. And no matter how many awards and accolades are received by CSSIA, he always attributes those achievements to his team and colleagues. "

The High Impact Technology Exchange Conference (www.highimpact-tec.org) is produced by a consortium of National Science Foundation Advanced Technological Education centers and projects and is supported by grants from the National Science Foundation and contributions from corporate and industry partners.

Graduate Credit Certificate Program for CSSIA Classes

The Computer Science Department is offering online graduate credit classes for college teachers participating in the CSSIA Train-the-Trainer Classes.

Courses include all prior and current training offered by CSSIA and CISCO Networking Academy Instructor classes.

Visit cssia.org to read more.



The Computer Science Department at the University of Illinois Springfield has more than **820** majors for fall semester!

Software Assurance for Executives

All SAE course materials, including videos, additional slide sets and supporting materials, are now posted at the Software Engineering Institute, Carnegie Mellon.

To learn more, go to cert.org.

SAVE THE DATE

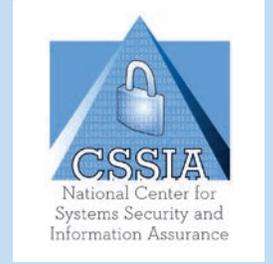
2014 Cyber Defense and Disaster Recovery Conference
University of Illinois at Springfield
Issues Surrounding Distributing Storage
March 14, 2014

Stay Connected!

Make it easy to stay connected to CSSIA. Sign up for our e-newsletters. We will keep you updated on the latest and greatest of CSSIA including trainings, conferences and competitions. For more information, contact Lynn Dohm, communications coordinator/faculty development, at lynn.dohm@morainevalley.edu or (815) 717-6546.



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National Resource Center
for Systems Security and
Information Assurance
(CSSIA)

Learn more about CSSIA!

cssia.org

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