



NSA/DHS Centers of Academic Excellence in Cybersecurity

COMMUNITY QUARTERLY

Quarterly Newsletter

Discovering and discussing the everchanging landscape of Cyber Security Education for NSA Centers of Academic Excellence designees

Spring 2018 | Issue 1

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Welcome To The CAE Community

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Introducing the New Community Website

In early March 2018, we, the CAE in Cybersecurity Community, sought recommendations and feedback from the community to improve our new website. Our new website is part of an ongoing project to update our image and services.

Updating our logo, marketing material, communications platforms, and now our website, the community is committed to our mission to connect and centralize information within the community.

The new website not only connects and centralizes information within the community as it has in the past, but it also includes a roll out of new features that further this

mission. These new features range from services that are available on the website now as well as services that will become available within the next couple of months.

The services available now include a new map and new user membership policies. The new website now allow anyone interested in gaining membership onto the website and limits access based on his/her affiliation with the community. This benefits our community immensely as we often have members of academia, industry, and government that would like to join our site to learn more about our program and membership.

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Newsletter created by the CAE in Cybersecurity Community in collaboration with the NIETP Program Office.

Putting Research in the Hands of Students

The Information Security Research and Education (INSuRE) program utilizes research networks between Centers of Academic Excellence in Research (CAE-R) in Cyber Defense to build research skills and experience for graduate students. This project provides an opportunity for students to work on problems in cybersecurity with the mentoring of practitioners in the real world rather than only faculty led research.

Melissa Dark, Associate Professor in Computer Technology and Assistant Dean in the School of Technology at Purdue, and Mark Loepker, NSA Security Education Academic Liaison (SEAL) for Purdue, started the INSuRE Project in 2012. The INSuRE project is a non-standard class that brings students, faculty and directors in cybersecurity together to solve real-world problems in cybersecurity.

"I started the INSuRE project because I love project-based learning," Melissa Dark said. "I knew that there were a lot of unaddressed problems that the federal government would like people to work on, and the CAE schools have a lot of talent. They have a big potential labor pool of students that could start working on these problems."

According to Dark, the main goal of the CAE in Cybersecurity Community is reflected in the objectives of the INSuRE project. INSuRE exposes students to real problems early on and gives them the opportunity to work on these problems in order to prepare them for the workforce.

INSuRE has two big picture purposes: "It's to help the federal government get problems worked on, so it contributes to the state of cybersecurity in our country," Dark said. "The second purpose is to give students an opportunity to work on real world problems, to gain valuable practical experience, and in the process of doing that, to build their network of connections in the world of cybersecurity."

Future adjustments are aiding in the expansion of the INSuRE program and increasing availability to a greater number of students. There are two big upcoming changes in the near future of the program.

"Over the course of the next year we're going to add 10 new schools, and we would like them to all focus on offering INSuRE at the upper division undergraduate level. We'd really like to increase our undergraduate participation," Dark said. "The other big change is that we're going to next summer have an INSuRE summer school where we will bring together students and faculty to work on a bigger, harder problem over the course

of the summer."

The INSuRE program has undergone many modifications since its inception. The first INSuRE course took place in fall of 2012 at Purdue, involving five students who formed two groups supported by three technical directors (TD).

In the following years, the course expanded to include a total of twelve universities, six national labs, and two state organizations. All class activities revolved around student projects. TDs presented their suggested problems before students submitted bids and formed groups. Each group of three to five students prepared a proposal, including a literature review, specific aims, and research plan.

From fall 2012 through fall 2016, the INSuRE class

produced 140 project reports on 110 separate problems, and taught 356 students (many of whom have been hired by government organizations).

"We had a group of students look at the security and privacy properties of [Fast Identity Online], and [they] decided that it had considerable weaknesses. That report went in to the sponsors, who wanted us to look at it, and they took that into Congressional testimony to talk about the security and privacy weaknesses of FIDO," Dark said.

With more students entering the program from CAE designated institutions all over the country, the program continues to evolve. According to Melissa Dark, the program will continue to evolve well into the future.

Over the course of 2018 alone the program will add 10 new CAE in Cybersecurity designated institutions to the project, and unlike previous institutions, they will focus on offering INSuRE at the upper division undergraduate level.

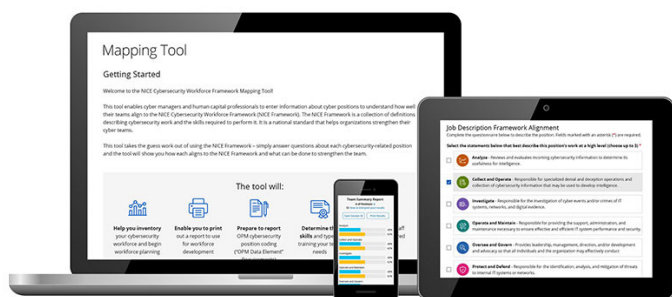
In addition, the INSuRE Project will also host its first summer school session at Purdue University later this year. The INSuRE summer session will bring together CAE in Cybersecurity students and faculty from all over the country to work on more complex problems, and it will provide depth to the student experience; expand the project scope and solutions; allow more students and faculty to concentrate on problems submitted by sponsor organizations; and contribute to a robust Cybersecurity network.

CAE in Cybersecurity designated institutions interested in participating in INSuRE should contact Melissa Dark at dark@purdue.edu.





NICE Cybersecurity Workforce Framework Mapping Tool



The National Initiative for Cybersecurity Careers & Studies (NICCS) is the Nation's one-stop shop for cybersecurity careers and studies. It connects the public with information on cybersecurity awareness, degree programs, training, careers, and talent management.

The Training Catalog connects the public to nearly 3,000 cybersecurity courses offered by organizations across the nation and is growing every day.

On February 26, 2018, the National Initiative for Cybersecurity Careers & Studies (NICCS) deployed the NICE Cybersecurity Workforce Framework Mapping Tool. The Mapping Tool enables managers and human capital professionals to enter information about a cyber position, and generate reports to better understand how well their teams align

to the NICE Cybersecurity Workforce Framework.

The NICE Cybersecurity Workforce Framework Mapping Tool is now available to DHS Federal Employees and contractors who are on the DHS network. If you are a Federal Employee or contractor and having trouble accessing the tool, please contact the NICCS Team at NICCS@hq.dhs.gov.

In the near future, the Mapping Tool will be available to the public for general use. Please stay tuned!



Homeland Security

Visit us at: <https://niccs.us-cert.gov/> or email us at NICCS@hq.dhs.gov for more information.

The National Initiative for Cybersecurity Careers & Studies (NICCS) One Stop Shop for Cybersecurity Careers and Studies!
U.S. Dept. of Homeland Security

Community Feature

Creating a CAE National Articulation Database

Moraine Valley Community College has a CAE National Articulation Database program lead by Stanley Kostka, head of the Midwest Region CRR, and John Sands, Principal Investigator, alongside a team of database developers.

"Unlike a lot of specializations, [cybersecurity] can be taught in several different areas of the college – there are some colleges that teach it in the business area, other ones that would teach it in their engineering and technology area, and others might teach it in computer science," Sands said. "Because of that, there have been a lot of challenges for two-year schools and four-year schools to get together and develop articulation and transfer agreements."

Sands and Kostka recognized the communication issue facing colleges that tried to provide more opportunities for their students by forming articulation agreements. The CAE National Articulation Database is designed to minimize the confusion that conflicting requirements may cause.

"What this program is all about is to better understand the existing transfer agreements that are out there and ultimately enable us as a community to increase our number of transfer agreements for our students to increase opportunities for them and potentially identify best practices," Sands said.

The goal is simple – make it possible for students to more effectively pursue cybersecurity by increasing quality of communication between schools. Sands plans for schools struggling with transfer agreements to use this program to see what other schools are doing, which may result in changes in their programs to better students.

The public will be able to access the general database where they may search for schools by city, state, program area, and transfer agreement to better accommodate students and their parents in choosing an institution that fits the student's individual needs.

"If you have a student that is interested in getting into [cybersecurity], and let's say they need to start at a two-year school, [the project] will enable them to better pick a two-year school that has the potential for them to go on and finish a four-year degree or graduate degree," Sands said.

A requirement of becoming a CAE includes possessing an



John Sands, Kevin Anadkat, Stan Kostka

articulation or transfer agreement and some schools have had a very difficult time negotiating those agreements, so it may also be available to locate on the CAE Community website.

This program will consolidate the expansive web of connections among schools into a single database for ease of navigation. While the database is still in development, plans for the near future are in full swing.

"We expect the database to be completely populated by the end of the year, and then we are going to prototype things in spring; we expect to give people credentials January through March to make sure all the information is validated," Sands said. "After that we'll basically start to distribute credentials and allow people to put the toolkit, or the interface on their own website."

They expect everything to be done by June of next year, and there are high hopes for the success of this valuable resource.

"We'll try to keep the community up to date with the information that we're finding and the analytics we're able to run on the data and share that with the community; if a school wants a list of all the articulation agreements between four-year schools and businesses, we should be able to give them that data dump with no problem, and ultimately if the community decides we want to make those types of things available publicly, we could give that ability to every school," Sands said.

Contact John Sands at sands@morainevalley.edu

Community Website Feature

Faculty Opportunities

The CAE Community works hard to foster growth within and around the community. One prime example of growth areas that is an ever pressing need of additional faculty members.

CAE Community member institutions place listings for

faculty openings on the CAE Community site (<https://www.caecommunity.org/resources/cae-faculty-opportunities>).

Active site members can enter listings for open positions at their institutions and the listings are available to the general public.

So if you're looking to make a change, grow your department, or refer a friend, make sure to remember the CAE Community sites' faculty opportunities.

Upcoming Events

CAE Executive Leadership Forum April 19-20

Bellevue, Washington

This is a closed, invitation only event.

For more information, please contact: cae_events@nsa.gov.

19/20
APR

5-7
JUN

National Cyber Summit June 5-7

Huntsville, Alabama

Join academics and professionals in the field of cybersecurity as they discuss cyber training, education, and workforce development.

For more information, please visit: <https://www.nationalcybersummit.com/>

Community College Cyber Summit August 2-4

Gresham and Portland, Oregon

Join community colleges across the nation as they discuss cybersecurity education.

For more information, please visit: <https://www.my3cs.org/>

2-4
AUG

MAY 30/
JUN 1

Faculty Professional Development Workshops May 30-June 1

Sioux Falls, South Dakota

Dakota State University, sponsored by the National Security Agency, is hosting a faculty professional development workshop for all faculty of CAE designated colleges and universities.

For more information, please visit:

<https://www.caecommunity.org/calendar/faculty-professional-development-workshop>

HITECH July 23-26

Miami, Florida

Join the CAE in Cybersecurity Community at the High Impact Technologies Exchange Conference (HI-TECH) in Miami. HI-TEC is a national conference on advanced technological education where secondary and postsecondary educators, counselors, industry professionals, trade organizations, and technicians can update their knowledge and skills.

For more information, please visit: <http://www.highimpact-tec.org/>

23-26
JUL

3RD WED/
MONTH

CAE Forum Third Wednesday of each month

CAE Forum is a live, online webinar where members of the CAE in Cybersecurity Community can give non-technical presentations to the community. Anyone in the community (professors, students, government employees, etc.) is encourage tdo give a presentation.

For more information or to view past recordings, please visit: <https://www.caecommunity.org/resources/cae-forum-resources>

The schedule is full for the remainder of Spring Semester, but we are soliciting presentations for the Fall. To sign up for a slot on CAE Forum, please contact caeforum@caecommunity.org.

CAE Tech Talk Third Thursday of each month

CAE Tech Talk is a live, online webinar where members of the CAE in Cybersecurity Community can give technical presentations to the community. Anyone in the community (professors, students, government employees, etc.) is encouraged to give a presentation.

For more information or to view past recordings, please visit:

<https://capitol.instructure.com/courses/510/pages/welcome-to-the-cae-tech-talks-home>

The schedule is full for the remainder of Spring semester, but we are soliciting presentations for the Fall. To sign up for a slot, please contact caetechtalk@nsa.gov.

3RD THR/
MONTH

The CAE in Cybersecurity Community invites you to participate in the following upcoming events. To learn more about these events, please visit www.caecommunity.org/calendar or contact us at info@caecommunity.org

New CAE in Cybersecurity Community Website

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In addition, with the 2018 CAE Virtual Career Fair right around the corner, students will also be able to apply for membership onto the site to receive updates, send questions to our team, and learn more about how being a student of a CAE designated institution benefits them.

Another important update is our CAE designated institutions map. Quite often the community and its members rely on this map to demonstrate our national presence, look for areas of development, as well as understand their region. The new map contains all current CAE designated institutions as well as a regional break down. The regional breakdown demonstrates the areas which are maintained by the CAE Regional Resource Centers (CRRCs).

Services that you will see roll out within the next couple of months include a CAE in Cybersecurity Community logo page, CNRC/CRRC pages, and the

NIETP Program Office Repository Page. The NIETP Program Office Repository Page will enable the community to have a centralized place for documents, presentations, and announcements.

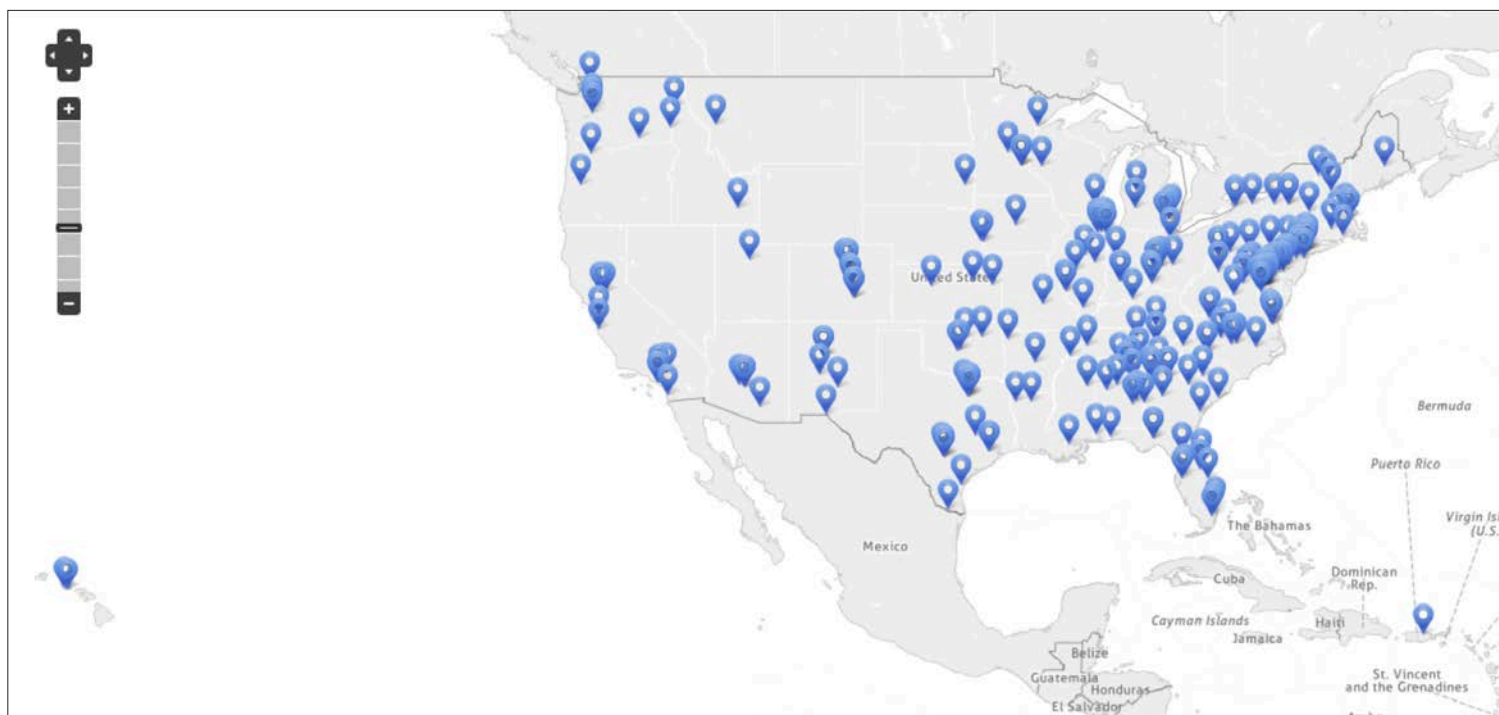
The CAE National Resource Center (CNRC)/CRRC pages will enable members of the community to interact with their regional CNRC/CRRC. These pages will include news, events, contact information, zoom communication information, and external links to additional resources. The CAE logo page will enable members of the community to request the CAE in Cybersecurity Community logo and download our identity manual.

In order to make a smooth transition to our new website and services, we decided to use a similar Drupal Platform to host our website. This means that despite our roll out features, members will be able to use, understand, and navigate the new website. CAE

designated institutions are still able to publish content (news, events, faculty opportunities, etc.) onto the site after it is approved. To aid the community in this effort, we've also added a FAQ page and are finishing the process of adding user guide on frequently used content creation areas. In addition, we will also be adding more information on how you can solicit special services from the community including registration forms, special announcements, and additional pages to the site.

As our membership and website continue to grow, we will continue to look to the community for guidance and recommendations. The CAE in Cybersecurity Community would like to thank all of those that provided feedback and recommendations for the new site.

If you have any questions, comments, or recommendations for features, please contact info@caecommunity.org.



The New CAE in Cybersecurity Website Map

University of Washington Bothell to Host CAE Executive Leadership Forum

On April 19 and 20, University of Washington – Bothell (UW – Bothell) will host the CAE Executive Leadership Forum in Bellevue, Washington. This event, opened to executives at CAE-CD designated universities, will provide executive leadership with the opportunity to network with peers to address critical challenges in cybersecurity.

In addition to our esteemed CAE presidents, the forum will also feature industry and government professionals who have a stake in cybersecurity education.

It has become increasingly important for academic

standards to be aligned with employer needs in order to ensure education programs adequately prepare the next generation for future cybersecurity challenges. The forum provides executive leadership from CAE-designated institutions, industry and government a platform to discuss cybersecurity education challenges across the nation.

For more information, email cae_events@nsa.gov or call 410-854-6206.



Key agenda items include:

State and Federal Governments with representatives from:

- State Senate
- National Guard TAGs
- State CIOs
- NSA, DHS, NSF, NICE, and Department of Labor
- Congress and OMB

Building a Cybersecurity Workforce for Industry Panel:

Murray Kenyon
VP, CS Workforce Development
Information Security Services
US Bank

Bill Boni
Senior Vice President
T-Mobile

Scott Aaronson
VP, Security & Preparedness
Edison Institute

Site Visits to nationally recognized companies:


- T-Mobile
- Microsoft

The CAE-CD program office uses the contact information uploaded into www.iad.gov/nietp to send out routine reminders, solicitations, and event invitations. Please ensure that you have updated your information with the correct contacts from your institution.

CAE Program Staff Contacts

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- **Rory Smith**
CAE SEAL Program Manager
- **Latasha McCord**
DHS Program Manager for Cybersecurity Education & Awareness Branch

Spring Edition 2018



Centers of Academic Excellence
Cyber Security
VIRTUAL
Career Fair

This Virtual Career Fair is FREE for students, alumni, and employers to attend

Job seekers in Cybersecurity are invited to interact via chat sessions and meet top-notch employers.

For more information: info@caecommunity.org

REGISTER AT: www.caecommunity.org/virtualcareerfair



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CAE in Cybersecurity
Community in collaboration
with the Program Office.



Contact

CAE Program Office

- askcaeia@nsa.gov
- <https://www.iad.gov/NIETP/>

CAE Community Office

- info@caecommunity.org
- <https://www.caecommunity.org>

To submit ideas, stories, photos, events, feedback, or more, please email us at info@caecommunity.org