

## Dates to Remember

### WEDNESDAY LECTURE & NETWORK FORUM

August 19, 2:30-4:00pm

Guest speaker Alvaro A. Cardenas

### CFITS VOLUNTEER OPPORTUNITIES

July 13-17 & July 20-24

High School GenCyber Camp

Call the School of Computing Main

Office 460-6390 for more

information on volunteering.

## PRESS RELEASE

### FTC Kicks Off "Start With Security" Business Education Initiative

June 30, 2015

The Federal Trade Commission is expanding its efforts to help businesses protect consumers' information through a new initiative that will provide them with more information on data security.

#### Read more:

<https://www.ftc.gov/news-events/press-releases/2015/06/ftc-kicks-start-security-business>

## Quote of the Month

"For cyber-physical systems, "breaking into the system" is not the same as "breaking the system". To "break into the system" you need expertise in cyber-security, but to "break the system" you need expertise in process control. The same way attackers need to bring interdisciplinary work in this field, cyber-security and control experts need to work together to design next-generation defenses for cyber-physical systems. "

### Alvaro A. Cárdenas

Asst. Prof., Dept of Computer  
Science, Erik Jonsson School of  
Engineering—Univ. of Texas - Dallas



## Wednesday Lecture & Network Forum

Featuring Alvaro A. Cardenas

August 19, 2015, 2:30-4:00pm

University of South Alabama

Shelby Hall, 150 Jaguar Dr., Rm. 2119

## August Lecture: Towards Resilient Control of Cyber-Physical Systems

*Wednesday Lecture and Network Forum on Information Assurance  
for Computing Professionals*

The security of CPS has been an international priority because of our dependence on reliable and affordable services provided by these infrastructures such as electric power, water, oil and gas etc. Despite interest of multiple stake holders in this problem, there is still a language barrier between security practitioners and control/operation engineers that limits their potential benefits of their interactions.

In his talk he will give an overview of the relationships between security concepts and control concepts and then describe a generic approach to identify the vulnerability of systems at the physical and control layer, and then propose resilient control algorithms that can survive their mission critical objectives even when faced with successful attacks partially compromising the system.

He will show use-cases in industrial process control of anaerobic and chemical reactors, and in frequency control as well as demand-response control in the power grid. In particular, for the power grid example he will show how a paper

published in a top security conference does not take full-advantage of control theory in their formulation, and we show how to identify simpler and more powerful attacks, and at the same time mitigate their effect.

*Alvaro A. Cárdenas is an Assistant Professor at the Department of Computer Science in the Erik Jonsson School of Engineering at the University of Texas at Dallas. He holds M.S. and Ph.D. degrees from the University of Maryland, College Park.*

*Before joining UT Dallas he was a postdoctoral scholar at the University of California, Berkeley, and a research staff at Fujitsu Laboratories of America in Sunnyvale California. He has also been an invited visiting professor at the University of Cagliari in Italy, an intern at INRIA-LORIA in France, and a SCADA intern working with PLCs.*

*His research interests focus on computer security, cyber-physical systems, network intrusion detection, and wireless networks. He has received the best paper award from the IEEE Smart Grid Communications Conference, and the Army Science Conference.*



## 2015 YEF SCHOLORSHIP AWARD

NFIB Leadership Council members honored the immediate past chairman of the Alabama Leadership Council Les Barnett, Barnett Farms, (Mobile) with the naming of a 2015 Young Entrepreneur Foundation (YEF) scholarship honoring his service as Chairman. The scholarship winner is Andrew Howell who will be attending the University of South Alabama, which is Barnett's alma mater.

Les was elected to President of the Alabama NFIB Leadership Council for 2013 and 2014, and served as President 2.5 years, until Tuesday May 5, 2015.

## CAE DESIGNATION RENEWAL

The Legislature of the State of Alabama has issued a "Resolution" signed by Governor Bentley recognizing the University of South Alabama (School of Computing) being re-designated as a National Center of Academic Excellence in Information Assurance / Cyber Defense, as certified by the U.S. National Security Agency and Department of Homeland Security. The new designation is based on updated academic criteria for Cybersecurity education and is effective through 2021.

A recognition ceremony for the CAE designation at Shelby Hall was held in February, and the certificate was awarded at the CISSE conference in Las Vegas in June.

For more info: [https://www.nsa.gov/ia/academic\\_outreach/nat\\_cae/index.shtml](https://www.nsa.gov/ia/academic_outreach/nat_cae/index.shtml)

NFIB in Alabama annually awards scholarships to college bound students as part of its "Young Entrepreneurs" program. During his [Barnett] term, NFIB put even more focus on education and workforce development than before. NFIB Leadership is aware of his long standing commitment to K-12, 2 year and 4 year college education, especially as it relates to the workforce development needs of our state. For these reasons, the organization decided to commemorate Les' term as President by naming a scholarship in his honor, and specifying its award to a student at USA, his home.

Les Barnett is a successful entrepreneur, who retired in 2008 to pursue his passions, including the Alabama Forest Owners Association, the NFIB, K-12 STEM Education and the USA School of Computing. In 2011, Les was appointed Director of the USA Center for Forensics, Information Technology and Security, and serves in that capacity today. Les has also served the First Congressional District of Alabama for many years as a Board member on the Alabama Educational Television Commission, and was recently re-appointed to another ten year term by Governor Robert Bentley.

## CAE DESIGNATION AWARDED IN VEGAS

The National Center of Academic Excellence certificate was officially awarded to representatives of the USA School of Computing attending the 19th Colloquium for Information Systems Security Education (CISSE) held June 15-17 in Las Vegas, NV.

The School of Computing was recently re-designated as a National Center of Academic Excellence in Information Assurance / Cyber Defense, as certified by the U.S. National Security Agency and Department of Homeland Security. The new designation is based on updated academic criteria for Cybersecurity education and is effective through 2021. Faculty members Angela Clark and Michael Black were responsible for the work that earned re-designation.

As noted on NSA.gov, "NSA and the Department of Homeland Security (DHS) jointly sponsor the National Centers of Academic Excellence in IA/CD programs. The goal of these programs is to reduce vulnerability in our national information infrastructure by promoting higher education and research in IA/CD and producing a growing number of professionals with IA/CD expertise in various disciplines." Students attending these institutions are eligible to apply for scholarships and grants through the Federal Scholarship for Service program supported by the National Science Foundation.



*Pictured [above right] at the conference are Dr. Leonard Reinsfelder, Deputy Director for Education and Training, NSA; Dr. David Johnson, Provost & Sr. VP of Academic Affairs; Angela Clark, Sr. Instructor; Todd Anel, Associate Professor; Ms. Lynne Clark, Chief of the National Information Assurance Education and Training Program, NSA; and Ms. Jacqueline Sullivan, Acting Program Lead for the DHS National Cybersecurity Training and Education Program.*

The School of Computing is currently soliciting project proposals for senior project CIS 497 FALL 2015. The course description is given below.

### CIS 497 Senior Project (W) 3 credits

*Development and documentation of a comprehensive software and/or hardware project. Oral and written reports will be required. Senior standing and instructor permission are required. This course is to be taken by seniors in the last semester they plan to graduate.*

**Important dates:** **July 15, 2015 Shelby Hall 9:15am**—Industry Partner Proposal Workshop  
**July 22, 2015**—Submission of proposal deadline

Contact Bob Sweeney for more information about submitting a proposal: [bsweeney@southalabama.edu](mailto:bsweeney@southalabama.edu)

Call For  
Senior  
Project  
Proposals