Director's Note CFITS

Center for Forensics, Information Technology, and Security

School of Computing

March 2019

CFITS LECTURE SERIES

Wednesday Lecture and Network Forum

Wednesday Mar 27th @ 2:30PM
Room-2121
Shelby Hall



DIGITAL FORENSICS INFORMATION INTELLIGENCE RESEARCHGROUP

Every Thursday
4:00—5:00 p.m.
Shelby Hall Rm 3104

SYSTEMS PROTECTION AND EXPLOITATION RESEARCH GROUP (SPERG)

Every Friday 10 – 11 a.m.
@Shelby Hall Rm 2327
www.soc.southalabama.edu/sperg/

PARTNER SCHOOL PROGRAM

Contact Keith Lynn at 251-460-7643. For scheduling HOLLA click on the link below.

Schedule HOLLA

Quote of the Month

"The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life."

Bill Gates, Co-Chairman, Bill & Melinda Gates Foundation and Co-Founder, Microsoft

CFITS Speaker Profile

Dave Ratisher
University of South Alabama
T: (228) 424-4641 | E: der1721@jagmail.southalabama.edu

Dave Ratisher is a current graduate student and Master of Science candidate (Spring 2019) in Information Systems at the University of South Alabama's School of Computing. Prior to his return to the academic environment, Dave has engaged in a 30+ year career as an Information Technology professional in a diverse variety of technical roles and industry settings, most recently in the area of ERP Systems administration and implementation, with emphasis on security and change management.

Faculty Profile

Dr. Bob Sweeney
Associate Professor, School of Computing
University of South Alabama
Phone: 251 460 7306
bsweeney@southalabama.edu
Shelby Hall, Room 1209



Dr. Bob Sweeney is an Associate Professor at the University of South Alabama. His research interests include web application security, experiential learning, and DevOps. Dr. Sweeney has previously received funding through the Mobile County Commission, the Department of Defense Information Assurance Capacity Building grant, the Elections Assistance Commission, and Alabama EPSCoR. He has published articles in the Information Systems Education Journal and in the conference proceedings of the Decision Sciences Institute, Americas Conference on Information Systems, International Computer Software and Applications, Information Systems Education, and the Southern Association for Information Systems. He has served as a reviewer for the journal Computers and Security and for the SIGITE and ISECON conferences. Dr. Sweeney received his Ph.D. from the University of Memphis, his M.S. from Memphis State University, and his B.S. from Auburn University.

CFITS

March 2019

Research Spotlight

On-Device Detection via Anomalous Environment

Embedded Systems (ES) underlie society's critical cyberinfrastructure and comprise the vast majority of consumer electronics, making them a prized target for dangerous malware and hardware Trojans. Malicious intrusion into these systems present a threat to economic stability and national security while globalized supply chains and tight network integration make ES more susceptible to attack than ever. The Xilinx Zynq-7020 system on a chip integrates a ubiquitous ARM microprocessor with a high capacity Field -Programmable Gate Array (FPGA). Such high-end ES are widely used in the field and provide a unique and representative platform for investigating the methods of cybercriminals. The research proposed herein suggests a novel Anomaly Detection Systems (ADS) leveraging the Zynq architecture and real time device -level measurements of temperature side- channels. Despite the intuition that device -level side-channels like temperature could provide unique means for comprehensive anomaly detection, the concept is absent from current research. In addressing this gap, a defense-in-depth approach is presented with the potential to recognize zero-day exploits for unparalleled system resiliency.

Authors: Dr. Todd Andel, Professor in CS; Dr. Todd McDonald, Professor in CS; Dr. Ryan Benton Assistant Professor in CS; Adam Gautier, MS Student.

School of Computing Events	
Tuesday, March 5	Mardi Gras Holiday- SoC office closed
Sunday, March 10	Faculty deadline to report previous month's leave through PAWS
Tuesday, March 12	Industry 4.0 Meeting, Room -3104
Wednesday, March 13	Graduate School Open House, Shelby Hall Room -3104
Monday, March 18	Student Spring Break
Tuesday, March 26	Industry 4.0 Meeting, Room -3104
Wednesday, March 27	CFITS Lecture Series, Speaker- Dave Ratisher
Friday, March 29	SPERG, Shelby Hall Room 2327

The University of South Alabama

School of Computing

Invites you to attend

Graduate School Open House

March 13th from 4pm –6pm

Shelby Hall Room 3104

Learn more about our programs and the opportunities in:

Graduate Assistantships

Computer Science Fellowships

School of Computing Scholarships

Scholarships for Service

Internships and Graduate Research

Speak with current students, faculty, take a tour of our facilities and enjoy light refreshments

For more information on this event please contact

Karin Bryson at Kbryson@southalabama.edu