



Department of Computer Science and Engineering News

Dr. Kathleen Swigger retires after 36 years
Distinguished Speakers at CSE in Spring 2017
CSE hosts Texas Software Engineering Research Doctoral Symposium
HiLT Lab hosts NACLO 2017
CSE hosts NSF Research Experience for Undergraduates
CSE acknowledged in White House Computer Science Education press release
Women in Computing partners with Mozilla
Dr. Buckles visits University of Central Missouri
Prof. Saraju Mohanty Chairs IEEE-iNIS 2016 at Gwalior, India
NSF Net-Centric & Cloud Software & Systems (NCSS) Industry & University Cooperative Research Center (I/UCRC) News
Research Innovations in Software Engineering Lab (RISE) News

Student News

Congratulations to CSE Ph.D. graduates
CSE Students defend Dissertations and Theses
ACM Student Chapter schedules first meeting for Spring 2017
CSE Club for Cyber Security & Intelligence

College of Engineering News

Team Rocket from the College of Engineering qualifies for NASA Competition
College celebrates Engineers Week including Career Fair on February 23

Greetings from the CSE Chair

Dear CSE Students,

Welcome to the Spring 2017 semester at the Department of Computer Science and Engineering! I want to announce that Dr. Kathleen Swigger, Professor, retired after 36 years of service. She joined the "Department of Computer Sciences," then in the College of Arts and Sciences, in 1980. Please read about Dr. Swigger below. We thank her for her service and wish her the best in retirement!

We have several Distinguished Speakers scheduled in February. Also this month, we are hosting the Texas Software Engineering Research Doctoral Symposium. For the first time, we are offering courses in Spring 2017 at [New College at Frisco](#) for a certificate in game programming. We plan to offer courses in cybersecurity and data science in the future.



Since the number of students continue to grow in our department, we are recruiting three new faculty members for Assistant/Associate Professor positions for Fall 2017 in computational life

and research like NSF, Homeland Security, Air Force and other top companies in the U.S.

Thanks to Dr. Prakash Duraisamy, UNT CSE Ph.D. 2012, for sharing this news. ↑



Professor Buckles received a memento from Dean Gail Staines.

Prof. Saraju Mohanty Chairs IEEE-iNIS 2016 at Gwalior, India



Professor Saraju Mohanty is currently the Editor-in-Chief of the IEEE Consumer Electronics Magazine. He was the general chair for 2nd IEEE International Symposium on Nanoelectronic and Information Systems (**IEEE-iNIS 2016**) which was held during December 21-23, 2016 at Gwalior, India. iNIS has been initiated as a sponsored meeting of **IEEE-CS Technical Committee on VLSI** that endorses a league of successful meetings such as ASAP, ISVLSI, and ARITH. The conference had 3 keynote speakers from universities in the U.S., India and research Institute of France. This is the second time he has been the general chair for iNIS which brought significant visibility to UNT. IEEE Women in Engineering was a new initiative started in this conference this year and continues to become a separate session in the future years. The conference proceedings were published by IEEE-CS conference publication services (CPS). NSDL Ph.D. student Prasanth Yanambaka travelled to iNIS 2016 to present his research findings.

In other news from NanoSystem Design Laboratory (NSDL), **Dr. Jawar Singh** from IIT Jabalpur, India visited NSDL research under a theme "Exploring Emerging Technology based Energy Efficient IoT Sensors for Smart Cities" which was funded by Building Energy Efficiency Higher & Advanced Network (BHAVAN) Fellowship Program of Indo-US Science and Technology Forum (IUSSTF), 2016. The funding covered a semester of Research Assistantship, health insurance, round-trip flight charges, and a conference travel support. This is a strong example of active International Collaboration of NSDL/UNT with Indian Universities. All the students are engaged in cutting edge research in areas of hardware security and healthcare using Internet of Things. NSDL student members

More NSDL student news: **Umar Albalawi** defended his Ph.D. dissertation titled "New Frameworks for Secure Image Communication in the Internet of Things (IoT)" in Summer 2016. He joined as an Assistant Professor at the University of Tabuk, Saudi Arabia. NSDL student member **Nagaraju Mukka** received Outstanding Master's Student in Computer Engineering Award for year 2015-2016 and defended his thesis titled "Simulink® Based Modeling of A Multi Global Navigation Satellite System" in Summer 2016. **Gunasekhar Aluru** defended his thesis titled "Exploring Analog and Digital Design Using Open-Source Electric VLSI Design System." In the last year, members of NSDL published a total of 17 journal/conference articles. A selected example include the following:

- E. Kougianos, S. P. Mohanty, G. Coelho, U. Albalawi, and P. Sundaravadivel, "Design of a High-Performance System for Secure Image Communication in the Internet of Things (Invited Paper)", *IEEE Access Journal*, Volume 4, 2016, pp. 1222–1242.
- S. P. Mohanty, U. Choppali, and E. Kougianos, "Everything You wanted to Know about Smart Cities", *IEEE Consumer Electronics Magazine (CEM)*, Volume 6, Issue 3, July 2016, pp. 60–70.
- M. Panchore, J. Singh, and S. P. Mohanty, "Impact of Channel Hot Carrier Effect in Junction and Doping-free Devices and Circuits", *IEEE Transactions on Electron Devices (TED)*, Volume 63, Issue 12, December 2016, pp. 5068–5071.
- P. Sundaravadivel, S. P. Mohanty, E. Kougianos, V. P. Yanambaka, H. Thapliyal, "Exploring Human Body Communications for IoT Enabled Ambulatory Health Monitoring Systems", in *Proceedings of the 2nd IEEE International Symposium on Nanoelectronic and Information Systems (iNIS)*, 2016, pp. 17–22.
- V. P. Yanambaka, S. P. Mohanty, E. Kougianos, and J. Singh, "Secure Multi-Key Generation Using Ring Oscillator based Physical Unclonable Function", in *Proceedings of the 2nd IEEE International Symposium on Nanoelectronic and Information Systems (iNIS)*, 2016, pp. 200–205.



NSF Net-Centric & Cloud Software & Systems (NCSS) Industry & University Cooperative Research Center (I/UCRC) News

Dave Struble recently completed his third year as Innovative Managing Director of Dr. Kavi's Net-Centric and Cloud Software and Systems (I/UCRC). In his IMD role, he developed and institutionalized common processes and methods that have been adopted by all the member universities. Dave's position was funded by a 3-year supplement award from the NSF that ended in December 2016, but he will continue to support the Center in a pro bono capacity. He has also been hired as an adjunct instructor for the CSE department for the Spring semester and is teaching the software development capstone course. Our thanks to Dave for his ongoing support of the NCSS I/UCRC.

The next Net-Centric I/UCRC Industrial Advisory Board (IAB) meeting will take place in Richardson, Texas on April 26-27, 2017. The meeting will be held at The University of Texas at Dallas in the Synergy Park North (SPN) Building at [3000 Waterview Parkway in](#)

Tarau. RISE will be hosting the 2nd TEASER Workshop, described earlier in this newsletter.



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Student News

Congratulations to CSE Ph.D. graduates



Umar Albalawi

Dissertation: *New Frameworks for Secure Image Communication in the Internet of Things (IoT)*

Major Professor: Saraju Mohanty

Assistant Professor in computer science department at University of Tabouk in Saudi Arabia



Garima Bajwa

Dissertation: *Sensing and Decoding Brain States for Predicting and Enhancing Human Behavior, Health, and Security*

Major Professor: Ram Dantu

Faculty member at Capitol Technology University in Laurel, MD

Angel Bravo-Salgado