COMPUTER SCIENCE & ENGINEERING
UNIVERSITY OF NORTH TEXAS
STUDENT NEWSLETTER

April 2017 Edition

Department of Computer Science and Engineering News

UNT Computer Science: 45 Years of Changing Lives and Technology
Cornelia Caragea receives NSF CAREER award
CSE Students to present projects on Design Day on April 28
Computer Engineering Teams win top awards at Texas Space Grant Consortium Design Challenge
BRAID funding renewed
CSE Graduate Students in 3MT® competition
Developing High School Teachers of Computer Science Principles
BAIT Program featured at National Convergence Technology Center
CSE Faculty participate in Pathways to Careers
CSE will host UNT GenCyber Summer Program
David Keathly recognized in Faculty Success Newsletter
Stephanie Ludi helps Visually Impaired Students
Dr. Armin Mikler is Keynote Speaker for ACM SIGAPP Symposium
Dr. Bryant and Dr. Fu attend ECEDHA
Prof. Saraju Mohanty Guest Edits an ACM JETC Special Issue
NSF Net-Centric & Cloud Software & Systems (NCSS) Industry & University Cooperative Research Center (I/UCRC) News
Research Innovations in Software Engineering (RISE) Lab News

Student News

Outstanding CSE Students recognized on Honors Day
CSE Faculty recognized by Outstanding Students
CSE Students defend Dissertations and Theses
Ph.D. student presents at ECEDHA Conference
Evan Stone was Professor for a Day in CSE classes

College of Engineering News

CENG Professor named 2017 UNT Distinguished Research Professor
College of Engineering Graduate Student creates exoskeleton to make walking easier

Greetings from the CSE Chair

Dear CSE Students,

As our CSE Department celebrates its 45th anniversary, our senior undergraduate students will present their posters and projects from their capstone courses at the College of Engineering's Design Day on Friday, April 28. Nine teams from Computer Engineering, four teams from Computer Science and five teams from Information Technology will present their projects in front of our CSE Department from 9 am to 11 am. After lunch, each team of students will give presentations about their projects. Please read about all team projects and team members below. Faculty and students are invited to attend Design Day!

Congratulations to Dr. Cornelia Caragea on receiving a prestigious NSF CAREER award! We are pleased to also announce that our BRAID funding has been renewed. For the first time, the UNT Computer Science and Engineering Department will host a number of summer cybersecurity programs for students who are in in 8th-12th grades. CSE faculty members

The ECExpo is to discover the latest advances in ECE technology from more than 40 leading corporations showcasing their products and services to ECEDHA members. This year, Ph.D. candidates from 23 universities including UNT presented their dissertation research. CSE Ph.D. candidate Prabha Sundaravadivel, working with Professor Saraju Mohanty on smart healthcare, presented a poster at the conference. Please read her report in the student section below. ↑

Prof. Saraju Mohanty Guest Edits an ACM JETC Special Issue

Professor Saraju Mohanty was a guest editor for a Special Issue of ACM Journal of Emerging Technology in Computing (ACM JETC) published in March 2017. The special issue titled "Nanoelectronic Circuit and System Design Methods for Mobile Computing Era" presented a set of articles to cover design methods for nanoelectronic circuits and systems. To address new massive markets of the Internet of Things (IoT), high performance with energy constraints, low leakage dissipation, as well as reliability and security still remain critical challenges in the circuits and systems design. Imagine, the life of a battery in a smartwatch is a matter of only 24 hours! The special issue specifically presents design challenges and solutions facing current designers for fast performing, energy-efficient, and reliable computing platforms.

NanoSystem Design Laboratory (NSDL) recent Ph.D. graduate **Dr. Umar Albalawi** joined University of Tabuk, Saudi Arabia as an Assistant Professor. NSDL M.S. (Thesis) student member **Nagaraju Mukka** who received Outstanding Master's Student in Computer Engineering Award for year 2015-2016 joined Sirius XM Satellite Radio. NSDL Ph.D. candidate **Prabha Sundaravadivel** recently attended iREDEFINE workshop in Florida and presented her research as poster titled "Design of Application Specific Architectures for Smart Healthcare." Prabha, who has co-authored half a dozen of peer-reviewed articles, was funded for her travel. NSDL M.S. (Thesis) student member **Vandana Dhayal** recently defended her thesis titled "Exploring SimscapeTM Modeling for Piezoelectric Sensor Based Energy Harvesters." NSDL members have recently published the following articles:

- Swing-Pay: One Card Meets All User Payment and Identity Needs, IEEE Consumer Electronics Magazine, Volume 7, Issue 1, January 2017, pp. 82-93.

- Pay-Cloak: A Biometric Back Cover for Smartphone with Tokenization Principle for Cashless Payment, IEEE Consumer Electronics Magazine, Volume 7, Issue 2, April 2017, pp. 78-88.

- Low-Cost Security Aware HLS Methodology, IET Computers & Digital Techniques (CDT), Volume 11, Issue 2, March 2017, pp. 68-79.

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

Congratulations to **Dr. Krishna Kavi** on his 15 years as a Professor with the UNT Department of Computer Science and Engineering! Dr. Kavi was Chair of the CSE Department from 2001 to 2009. He founded the NSF Net-Centric & Cloud Software & Systems (NCSS) Industry & University Cooperative Research Center and became the Director in 2009.

CSE Students defend Dissertations and Theses

Congratulations to this Ph.D. student who successfully defended his dissertation!

Venkata Kishore Neppalli

Dissertation: *Extracting Useful Information from Social Media Data during Disaster Events*

Major Professor: Dr. Cornelia Caragea

Defense Date: March 21, 2017

Congratulations to these M.S. students for successfully defending their theses!

Sreedevi Koppula

Thesis: *Automated GUI Test Generation for Android Applications Using Q-learning*

Major Professor: Dr. Renée Bryce

Defense Date: March 20, 2017

Vandana Dhayal

Thesis: *Exploring SimscapeTM Modeling for Piezoelectric Sensor Based Energy Harvesters*

Major Professor: Dr. Saraju Mohanty

Defense Date: March 21, 2017

Krishna Chaitanya Sanagavarapu

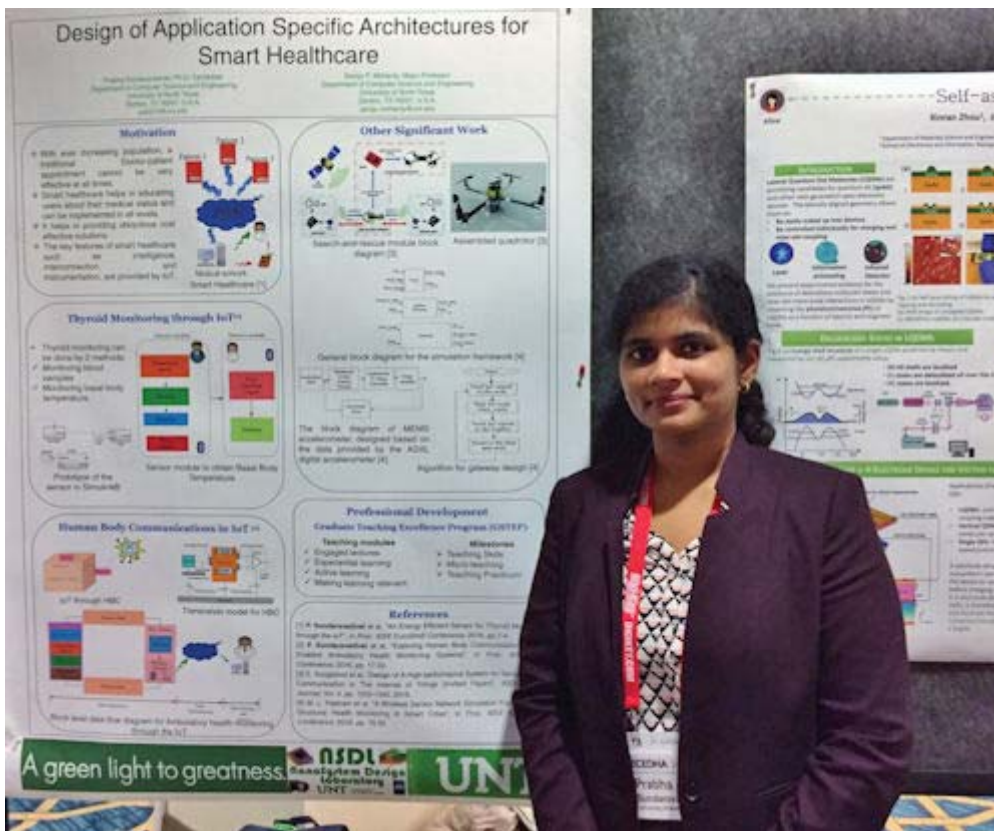Thesis: *Determining Whether and When People Participate in the Events they Tweet About*

Major Professor: Dr. Eduardo Blanco

Defense Date: March 24, 2017

Ph.D. student presents at ECEDHA Conference

Prabha Sundaravadivel, a Ph.D. candidate advised by Professor Saraju Mohanty from Nano System Design Laboratory (NSDL), was nominated for the 2017 iREDEFINE workshop which happened in cooperation with the ECE Department Heads Association (ECEDHA) at the ECEDHA Annual Conference during March 17-18, 2017 at Miramar Beach, Florida. The main focus of this workshop was to increase the participation of women and underrepresented minorities (W-URM) in the departments of Electrical and Computer Engineering in the US. As part of this initiative, 40 Ph.D. students were selected from Universities across the United States and Canada, and they were given guidance on effective teaching, writing NSF proposals, difference between various types of institutions and how to prepare application materials for a faculty position.

In addition to that, the workshop gave insights on the expectations from the hiring committees from different institutions. This two day workshop also included a poster session where students were allowed to display their work to the Department Heads and interact with them regarding potential job opportunities. Prabha said it was a unique experience to meet and