UNIVERSITY OF NORTH ★ TEXAS™
COMPUTER SCIENCE & ENGINEERING
ALUMNI NEWSLETTER

Greetings from the CSE Chair

Dear CSE Alumni and Friends,

Our Fall 2014 semester has begun! We welcome new faculty members Eduardo Blanco, Patrick Burke, Mark Thompson and new staff member Daisy Gillam. We congratulate Yan Huang on her promotion to Professor, Renee Bryce on her award of tenure, and Qunfeng Dong on his tenure and promotion to Associate Professor. Our CSE Department is growing and we will be searching for one more new faculty member this year.

I am very proud to announce that our newest CSE program, the BA in Information Technology, has been accredited by ABET retroactive to 2012 when our first students graduated from the program. Also, our BS in Computer Engineering program has been reaccredited by ABET. That program was first accredited in 2008. This year we will seek reaccreditation for our BS in Computer Science program. Our CSE Department is proud to offer ABET-accredited programs.

I am excited to announce that our CSE Department has been selected to be one of fifteen Computer Science departments in the U.S. for the BRAID (Building Recruiting And Inclusion for Diversity) initiative to increase the percentage of undergraduate majors that are female and students of color. Another major development for 2014-2015 is Grad Track which will allow our undergraduate students in Computer Science and Computer Engineering programs to complete both the BS and MS degrees in five years. Please read more about these programs and other news below.

It has been my pleasure to travel around the country to meet with our CSE Alumni. Alumni support and mentoring are important to our CSE students. Read below how you can support and mentor our CSE students today. Please contact me to find out how you can help our CSE Department. I look forward to seeing you at the College of Engineering tent at Homecoming on November 8!

Barrett Bryant

Inconsistent Preferences in a Social Network System to Discover Private Friendship Links" was accepted in **ACM CCS-WPES 2014** .

- Dr. Takabi serves as panels chair of the **ACSAC 2014** and Poster/Demo co-Chair of the **ACM CCS 2014** .

Professor Mohanty has been elected as the Chair of TCVLSI, IEEE-Computer Society, and Other News from NSDL

Professor Saraju Mohanty has been elected to serve as the Chair of Technical Committee on Very Large Scale Integration (**TCVLSI**), IEEE Computer Society (**IEEE-CS**). He has been elected for the term September 1, 2014 to August 31, 2016. TCVLSI addresses the interaction among the various key aspects of VLSI design including circuit-level design, system-level design, semiconductor process as well as the computer-aided design techniques. It deals with digital circuits, analog circuits, and mixed-signal circuits. The emphasis of TCVLSI falls on integrating the design, computer-aided design, fabrication, application, and business aspects of VLSI while accounting both hardware and software. TCVLSI sponsors conferences, special sessions, and workshops for the IEEE-CS and in effect serves as the quality control watchdog. This is a unique recognition of technical leadership of Dr. Mohanty in the area of VLSI and nanoelectronics. It will bring significant visibility to UNT.

As a General Chair ISVLSI 2014, Dr. Mohanty distributes a best paper award.

In other news from the NSDL, **Dr. K. K. Mahapatra** , Professor and Dean (Academics), National Institute of Technology (NIT), Rourkela, visited NSDL during Summer 2014. He was sponsored under Technical Education Quality Improvement Programme of Government of India (TEQIP) for visiting a reputed lab/institute in USA. He interacted with various members of NSDL for future research collaboration.

Dr. Mohanty served as a general chair for **IEEE Computer Society Annual Symposium on VLSI** , held in Tampa, Florida, USA, July 9-11, 2014. The event was very-well attended by participants all over the world. ISLVIS 2014 had approximately 100 talks and presentations and 4 keynote talks from leaders from academia and Industry.

Two students from NSDL defended their PhD dissertation and MS thesis. **Karo Okobiah** successfully defended his PhD dissertation titled "Geostatistical Inspired Metamodeling and Optimization of Nanoscale Analog Circuits." **Anthony Hanson** defended his MS thesis titled "General Purpose Computing in GPU - A Watermarking Case Study." NSDL welcomes several new PhD students and MS thesis student members in Fall 2014. In the year so far, the NSDL members have published 14 journal/conference papers, and selected are the following:

- S. P. Mohanty and E. Kougianos, "Incorporating Manufacturing Process Variation Awareness in Fast Design Optimization of Nanoscale CMOS VCOs", IEEE Transactions on Semiconductor Manufacturing (TSM), Volume 27, Issue 1, February 2014, pp. 22-31.

- O. Okobiah, S. P. Mohanty, and E. Kougianos, "Fast Layout Optimization through Simple Kriging Metamodeling: A Sense Amplifier Case Study", IEEE Transactions on Very Large Scale Integration Systems (TVLSI), Volume 22, Issue 4, April 2014, pp. 932-937.

- S. P. Mohanty and E. Kougianos, "Polynomial Metamodel Based Fast Optimization of Nano-CMOS Oscillator Circuits", Springer Analog Integrated Circuits and Signal Processing Journal, Volume 79, Issue 3, June 2014, pp. 437-453.

- O. Okobiah, S. P. Mohanty, and E. Kougianos, "Kriging Bootstrapped Neural Network Training for Fast and Accurate Process Variation Analysis", in Proceedings of the 15th IEEE International Symposium on Quality Electronic Design (ISQED), 2014, pp. 365-372.

- D. Ghai, S. P. Mohanty, G. Thakral, and O. Okobiah, "Variability-Aware DG FinFET-based Current Mirrors", in Proceedings of the 23rd ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI), 2014, pp. 347-352.

- O. Okobiah, S. P. Mohanty, and E. Kougianos, "Exploring Kriging for Fast and Accurate Design Optimization of Nanoscale Analog Circuits", Ph.D. Forum, in Proceedings of the 13th IEEE Computer Society Annual Symposium on VLSI (ISVLSI), 2014, pp. 244-247.

Software Engineering Laboratory (SELL) News

Nu honor society (Computer engineering) and we are trying to revive the Upsilon Pi Epsilon Honor Society Chapter (Computer Science).

Please consider helping us create an active, supportive and vibrant collection of student professional and honor organizations. Contact the department for more information on how you can help.

Student News

Congratulations to CSE graduates

Congratulations to all of our Department of Computer Science and Engineering graduates in **Spring 2014** and **Summer 2014** !
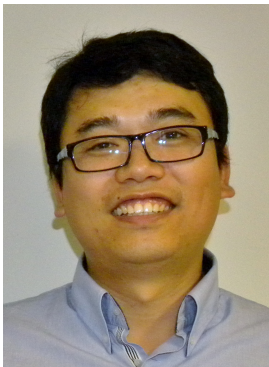
PhD Graduates in Spring 2014

Jedsada Chartree

Dissertation: *Monitoring Dengue Outbreaks Using Online Data*

Major Professor: Armin R. Mikler

Qiang Guan

Dissertation: *Autonomic Failure Identification and Diagnosis for Building Dependable Cloud Computing Systems*

Major Professor: Song Fu

ChiaEn Lin

Dissertation: *Performance Engineering of Software Web Services and Distributed Software Systems*

Major Professor: Krishna Kavi

Oghenekarho Okobiah

Dissertation: *Geostatistical Inspired Metamodeling and Optimization of Nanoscale Analog Circuits*

Major Professor: Saraju Mohanty and Co-Major Professor: Elias Kougianos

PhD Graduates in Summer 2014

Jonathon Doran

Dissertation: *Procedural Generation of Content for Online Role Playing Games*

Major Professor: Ian Parberry

Satyajeet Nimgaonkar

Dissertation: *Secure and Energy Efficient Execution Frameworks Using Virtualization and Light-Weight Cryptographic Components*

Major Professor: Mahadevan Gomathisankaran

and Co-Major Professor: Saraju Mohanty

Martin Joseph O'Neill II

Dissertation: *A Computational Methodology for Addressing Differentiated Access in Response Plan Design*

Major Professor: Armin Mikler

Jorge A. Reyes Silveyra

Dissertation: *Modeling Epidemics on Structured Populations: Effects of Socio-Demographic Characteristics and Immune Response Quality*

Major Professor: Armin Mikler

CSE Students defend Dissertations and Theses

Congratulations to these PhD students for successfully defending their dissertations!

Yiwen Wan

Dissertation: *Trajectories as a Unifying Cross Domain Feature for Surveillance Systems*

Major Professor: Dr. Bill Buckles

Defense Date: June 25, 2014

Patrick Burke

Dissertation: *A New Look at Retargetable Compilers*

Major Professor: Dr. Phil Sweany

Defense Date: August 18, 2014

Congratulations to these MS students for successfully defending their theses!

Anthony Hanson

Thesis: *General Purpose Computing in GPU — A Watermarking Case Study*

Major Professor: Dr. Saraju P. Mohanty

Defense Date: May 1, 2014