

Department of Computer Science and Engineering News

- Welcome Picnic on September 15
- Welcome New CSE Faculty and Staff
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- Grad Track offered for Undergraduate Students
- Distinguished Speakers in 2014-2015
- Top 10 Reasons for CSE Majors to Join Teach North Texas
- Bug Wars REU at CSE in Summer 2014
- RoboCamp has Successful Summer
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- CSE Faculty attends ICCCNT in China
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Student News

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- CSE Students defend Dissertations and Theses
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- CSE Students invited to join UNT SWE
- CSE Graduate Student attends Stars Celebration
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- CSE Graduate Student attends conference in Greece
- Career Fair at Discovery Park on October 2

College of Engineering News

- College welcomes Biomedical Engineering Students
- Showcase of Undergraduate Research in Engineering

Greetings from the CSE Chair

Dear CSE Students,

I want to welcome you to our CSE Department in Fall 2014 and invite you to our CSE picnic on Monday, September 15, beginning at 11:30 am. Welcome to our new faculty members



(L-R) Parisa Kaghazgaran, Masoud Narouei, Dr. Hassan Takabi, Yassir Hashem, Suraiya Tairin

Welcome to our newest CSE lab directed by **Dr. Hassan Takabi!**

- Our undergraduate intern from Thailand, **Taweeiat Trongwongsa**, was named winner of the Summer Undergraduate Program in Engineering Research poster presentation for his poster titled "Detection and Validation of Identity Cloning and Fake Profile Attacks in Social Networks."
- Dr. Takabi traveled to Japan to attend the 9th ACM Symposium on Information, Computer and Communications Security (ASIACCS 2014) and workshops where he presented the paper "Privacy Aware Access Control for Data Sharing in Cloud Computing Environments."
- Four new graduate students (**Parisa Kaghazgaran, Yassir Hashem, Masoud Narouei, and Suraiya Tairin**) join the lab in Fall 2014. Yassir is recipient of SFS Scholarship and will be co-advised by Dr. Takabi and Dr. Dantu.
- **Dr. Lei Chen**, Associate Professor of Computer Science at Sam Houston State University, joins the lab as visiting scholar for Fall 2014 semester.
- Our joint work with researchers from University of Pittsburgh titled "Exploiting Users' 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**.

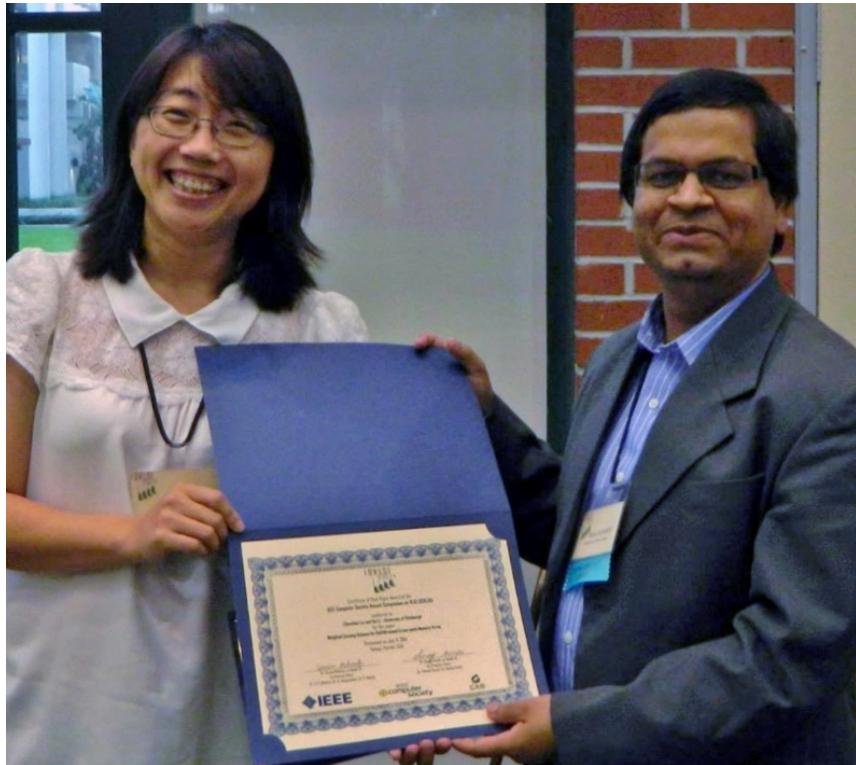


Professor Mohanty has been elected as the Chair of TCVLSI,
IEEE-Computer Society, and Other News from NSDL

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. Koulianios, "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.



News from Trusted Secure Systems Lab (TSSL)



TSSL members (L-R): Umar Albalawi, Patrick Kamongi, Tawfiq Shah, TSSL Director Mahadevan Gomathisankaran, Srujan Kotikela, and Mohan Tarigopula.

[TSSL](#) has had a busy and productive year so far in 2014. We have published 5 peer-reviewed journal and conference articles and one book chapter. We also have several articles under submission. The published articles and book chapters are:

- Ontology-based Privacy Setting Transfer Scheme on Social Networking Systems (Chen-Yu Lee, Krishna M. Kavi, Mahadevan Gomathisankaran), In The 2014 International Conference on Security & Management (SAM 2014), 2014. (In Print)
- Component Rejuvenation for Security for Cloud Services (Chen-Yu Lee, Krishna M. Kavi, Mahadevan Gomathisankaran), In The 2014 International Conference on Security & Management (SAM 2014), 2014. (In Print)
- Glitch resistant private circuits design using HORNS (Mahadevan Gomathisankaran, Akhilesh Tyagi), In 2014 IEEE Computer Society Annual Symposium on VLSI

Ph.D. Graduates in Spring 2014



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

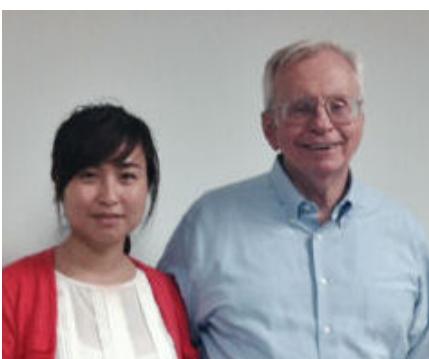
Dissertation: *Modeling Epidemics on Structured Populations: Effects of Socio-Demographic Characteristics and Immune Response Quality*

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



Sarada Karlaputi

Thesis: *Evaluating the Feasibility of Accelerometers in Hand Gestures Recognition*

Major Professor: Dr. Robert Akl

Defense Date: July 10, 2014. ↑

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