

## Department of Computer Science and Engineering News

Welcome Picnic on September 15  
Welcome New CSE Faculty and Staff  
ABET accredits two CSE programs  
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  
UNT Provost awards Venture Fund grant to CSE Faculty to teach in China  
CSE Faculty attends ICCNT in China  
Invendo Medical's Colonoscope at UNT  
News from Computer Systems Research Laboratory  
Computer Vision and Intelligence Systems News  
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Human Language Technologies Lab News  
News from Information Security and Privacy: Interdisciplinary Research and Education (INSPIRE) Lab  
Professor Mohanty has been elected as the Chair of TCVLSI, IEEE-Computer Society, and Other News from NSDL  
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Dr. Garlick presents paper in Hong Kong  
Dr. Burke presents paper at IEEE Software Technology Conference  
First Chair of Department of Computer Science has died

## Student News

Congratulations to CSE graduates  
CSE Students defend Dissertations and Theses  
Join ACM and ACM-W!  
CSE Students invited to join UNT SWE  
CSE Graduate Student attends Stars Celebration  
UNT SHPE invites CSE Students to join  
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, **Taweekiat 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**.

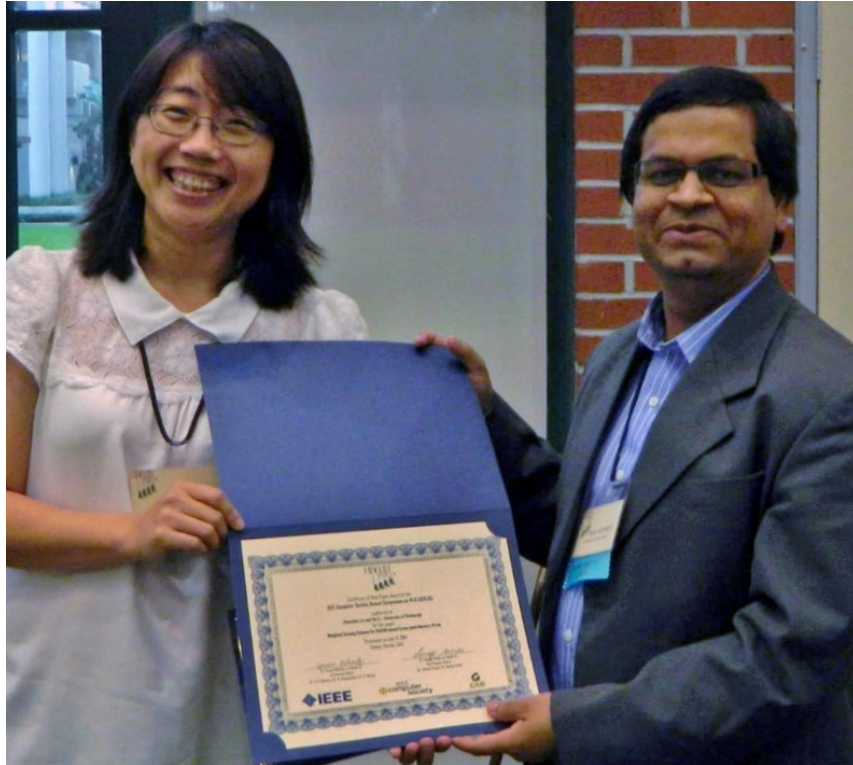


Professor Mohanty has been elected as the Chair of TCVLSI, IEEE-Computer Society, and Other News from NSDL

**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. 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.



### 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



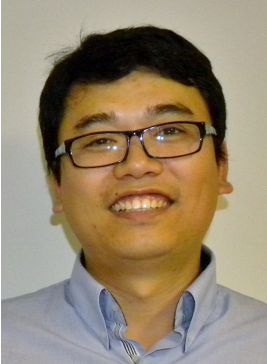
## Ph.D. Graduates in Spring 2014



**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**

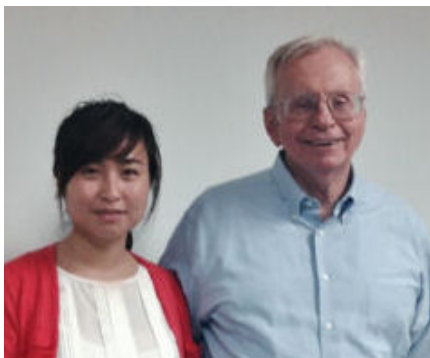
Dissertation: *Modeling Epidemics on Structured Populations: Effects of Socio-Demographic Characteristics and Immune Response Quality*

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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