

**Mohanty, Saraju**

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



**Greetings from the CSE Chair**



Dear CSE Alumni and Friends,

The end of our Fall semester is approaching and I wanted to share the news of our CSE Department with you. We were visited by ABET evaluators in the past month to reaccredit our Computer Engineering B.S. program and accredit for the first time our Information Technology B.A. program. Thanks to all faculty, staff, alumni and students who met with the evaluators. One of the purposes of accreditation is to achieve continuous improvement, and so based on recommendations from the evaluators, we will be incorporating some new topics into some of our courses. In Spring, we will offer a new special topics course in systems administration.

Our CSE research groups have been busy this semester. Dr. Krishna Kavi's Net-Centric Software and Systems Industry/University Cooperative Research Center just had its semi-annual meeting in October. More members have joined the Human Languages Technologies Lab. Check out more news below from our faculty and research groups. Did you know that our total active funded research projects amounts to \$11,120,895? Gifts to CSE are also growing. Please read more below about how you can contribute to support CSE!

Douglas Lee Hall was our third PhD graduate in the department in 1987 and he is our Alumni Focus in this issue. Greg Thurman, BS 1998, was a "Professor for a Day" during Engineers Week in the Spring semester. We invite you to come back and be "Professor for a Day" in

**December 2013**  
**CSE News**  
**CSE Alumni News**  
**Student News**  
**College of Engineering News**  
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Dr. Kavi at the entrance to the Edinburgh castle.

**Dr. Krishna Kavi**, Director of the Computer Systems Research Lab (**CSRL**) and the NSF Net-Centric Industry / University Cooperative Research Center (**IUCRC**), traveled to Edinburgh, Scotland in September 2013 to present a paper titled "MT-SDF: Scheduled dataflow architecture with mini-threads" at a workshop on Dataflow Models held in conjunction with Parallel Architectures and Compiler Technologies conference. The conference was held on the campus of the University of Edinburgh.

During this trip, Dr. Kavi met **Dr. Richard Kenway**, the Director of the High Performance Computing center at the University of Edinburgh. Kavi discussed possible collaborations with Dr. Richard Kenway. Dr. Kenway was very enthusiastic about collaborating with Dr. Kavi's research group and the NSF Net-Centric Industry/University Cooperative Research Center.

## **Professor Mohanty Guest Edits Journal Special Issue on Nanoelectronics**

**Dr. Saraju Mohanty** was a guest editor for a special issue titled "Design Methodologies for Nanoelectronic Digital and Analog Circuits" for IET Circuits, Devices & Systems (CDS) Journal, which was published as its Volume 7, No. 5, on September 2013. In the current semiconductor technology trend, while the nanoscale MOSFET is still doing well, other nanoelectronics technologies like Multigate FET, Graphene FET, Tunnel FET, are being researched widely as possible successors. In fact, the triple FET has been used in fabricating current high-end processors.



The new technologies may provide new mechanisms to address key issues in the processor design including power consumption, thermal effects, process variation, reliability, and

security while at the same time bring new unknown problems for the design engineers. Overall making robust and efficient chips with high yield while addressing the known and unknown design issues need research. The special issue brings selected papers to drive this research.

Prof. Mohanty was also a guest editor for another special issue titled "Advanced Techniques for Efficient Electronic System Design", for Springer Circuits, Systems, and Signal Processing Journal", which was published as its Volume 32, Issue 6, on December 2013. This special issue of electronic system design including the multi-standard communication, digital watermarking, memory Integrity detection and protection in embedded systems, and information security in a system-on-a-chip (SoC).

In the other news from NanoSystem Design Laboratory (**NSDL**), Dr. Mohanty has been invited to deliver a **keynote address** at IEEE Sponsored International Conference on Control, Automation, Robotics and Embedded System (CARE), to be held during 2013. CARE 2013 is organized by IIT, Jabalpur, India.

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## New members join Human Language Technologies Lab

**The Human Language Technologies (HiLT) Lab**, directed by **Dr. Rodney Nielsen**, has been growing. With a new name, the HiLT Lab replaces the former LIT Lab. Currently, the HiLT Lab's major projects include the Comprehension SEEDING Project, researching new forms of HLT-enabled educational technology that enable enhanced classroom discourse, and the Companionbots project, researching HTL-enabled health and wellbeing interactions with the elderly. Check out more on the new HiLT Lab website at <http://hilt.cse.unt.edu/> or, for up-to-date information, follow them on twitter @hiltlab.

### AWARDS:

**James Glenn** and **Mingyu Lin** won the best poster award at this year's Showcasing Undergraduate Research in Engineering event (see more details in the College of Engineering section in this newsletter).



### NEW MEMBERS:

We are happy to introduce some new additions to the team.