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UNIVERSITY OF NORTH TEXAS™

COMPUTER SCIENCE & ENGINEERING

ALUMNI NEWSLETTER



Greetings from the CSE Chair



Dear CSE Alumni and Friends,

Our UNT Department of Computer Science and Engineering celebrated its 40th anniversary on October 26, 2012. We are glad that so many of you came back to celebrate with us. It was a fun evening of connecting with old friends and meeting new friends. We are grateful to Nelson Cicchito, BS 1989, whose company Avatier Corp. sponsored this event. Alumni support is very important for the success of our CSE Department.

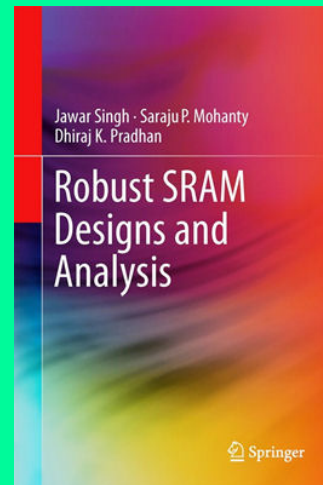
November 2012

**Special Edition
CSE News
Student News
College of Engineering News
UNT News**

I want to share the news of many of our research groups in our CSE Department. We have a new NSF grant to support PhD students in our Center for Information and Computer Security. The Language and Information Technologies group is growing with the addition of Dr. Rodney Nielsen. Dr. Cornelia Caragea will also contribute to this group, and also the Center for Computational Epidemiology and Response Analysis. The Net-Centric Software and Systems Industry/University Cooperative Research Center is also growing and just had its semi-annual meeting. We are building our strength in software engineering with the addition of Dr. Renee Bryce. Please read below about all the activities in our department.

Professor Saraju P. Mohanty recently published a book titled "Robust SRAM Designs and Analysis". This book provides a guide to Static Random Access Memory (SRAM) bitcell design and analysis to meet the nano-regime challenges for CMOS devices. In addition, emerging devices, such as Tunnel FETs are discussed in detail for their applicability for memory design.

Discussions are included to cover nano-regime challenges such as process variation, leakage and NBTI for SRAM design and analysis. Emphasis is placed throughout the book on the various trade-offs for achieving a best SRAM design. The book discusses in detail the most important SRAM bitcell topologies to mitigate nanoscale process variations, as process variations is an ongoing challenge in memory design.



The following are key features of the book:

- It provides a complete introduction to SRAM bitcell design and analysis.
- It presents techniques to face nano-regime challenges such as process variation, leakage, and NBTI for SRAM design and analysis.
- It discusses simulation set-ups for extracting different design metrics for CMOS technology and emerging technology devices.
- It emphasizes different trade-offs for achieving the best possible SRAM design.

CSE attends Grace Hopper Celebration for Women in Computing



Garima Bajwa, Dr. Barrett Bryant, Yiwen Wan, Dr.