UNIVERSITY OF NORTH★TEXAS
COMPUTER SCIENCE & ENGINEERING
ALUMNI NEWSLETTER

Greetings from the CSE Chair

Dear CSE Alumni and Friends,

In Fall 2017, our Department of Computer Science and Engineering continues to grow as we now have 33 faculty, over 1,100 undergraduate students, almost 200 M.S. students, and over 100 Ph.D. students. This semester we welcome two new faculty members to our department and another new faculty member will join us in Spring 2018. Congratulations to Dr. Rodney Nielsen on receiving tenure at UNT. Since our enrollment has been growing, our space at Discovery Park has expanded and we have added new research labs and faculty offices in 2017.

In addition to our classes on the UNT Campus at Discovery Park, CSE is offering an **Executive Master's in Computer Science** with concentrations in data science and cybersecurity at the **New College in**

Prof. Saraju Mohanty selected as IEEE Distinguished Lecturer

Congratulations to **Professor Saraju Mohanty** on being selected as an IEEE Distinguished Lecturer! **IEEE Distinguished Lecturers** are engineering researchers, engineers, and professionals who lead their disciplines in new technical developments which may in turn shape the global community. The IEEE Distinguished Lecturers specialize in the area of interest of a specific Society who may travel to various technical and regional groups to lecture at events. Professor Mohanty will have many talks including the following as a part of the Distinguished Lecturer program: (1) Everything You Wanted to Know about Smart Cities and (2) Everything You Wanted to Know about Internet of Things (IoT).

Professor Mohanty received the Society for Technical Communication (**STC**) 2017 Award of Merit for his outstanding contributions to IEEE Consumer Electronics Magazine. The STC is a professional association dedicated to the advancement of technical communication.

The Glorious India Award was conferred on Professor Mohanty in 2017. The Glorious India Award recognizes the exemplary contributions of all U.S.-based Non-Resident Indians (NRIs) who have made India proud and inspired people around the Globe to further enhance their skills and chase their dreams. The award is for the Indian Americans who have made outstanding contributions in education, media, literature, medicine, law, and politics. During May 2017, the **Glorious India Expo** took place at the New Jersey Convention & Exposition Center in Edison, NJ.

Clement Cole, a grad student at UNT, is a REV student (Research Experiences for Veterans) and is mentored by both Dr. Krishna Kavi and Dr. Robin Pottathuparambil. His summer project consisted of building a neural network architectural design on an FPGA. The purpose of this project was to expose how utilizing parallelism techniques such as instruction pipelining of multiple components within the neural network can improve on the throughput of a neural network application. The application implementation aspect was to demonstrate how such hardware architecture can be used in handwriting of numeric figures can be identified using the neural networks. Based on his research exposure, Clement decided to pursue his M.S. degree at UNT starting in Fall 2017.

The REU students describe working with Dr. Kavi and their mentors as a beneficial and rewarding experience, and would recommend it to anyone looking to expand their professional growth beyond the normal curricula.

News from the NanoSystem Design Laboratory (NSDL)

Professor Saraju Mohanty is the Director of the NanoSystem Design Laboratory (**NSDL**). Following are selected news items from the NSDL. Ph.D. candidate **V. P. Yanambaka** co-authored the following article in a top-notch avenue of the discipline: Process Variation Analysis and Optimization of a

FinFET based VCO, IEEE Transactions on Semiconductor Manufacturing (TSM), Volume 30, Issue 02, May 2017, pp. 126-134.

In summer 2017, Ph.D. candidate **Prabha Sundaravadivel** travelled to Germany to present the following papers at the 16th IEEE Computer Society Annual Symposium on VLSI (ISVLSI), 2017: (1) Reconfigurable Robust Hybrid Oscillator Arbiter PUF for IoT Security based on DL-FET (2) Dopingless Transistor Based

Dr. Saraju Mohanty at IEEE POCO

Hybrid Oscillator Arbiter Physical Unclonable Function. These papers were co-authored by V. P. Yanambaka. Professor Mohanty also travelled to ISVLSI 2017 held at Bochum, Germany.

Professor Mohanty attended **IEEE Panel of Conference Organizers (POCO)** in Sydney, Australia. The IEEE POCO is the annual event for leading scholarly conference organizers around the globe. IEEE organizes this event to share ideas with all scientific associations and non-profit conference organizers. Prof. Mohanty attended both the above meetings as the Chair of **Technical Committee on VLSI** of IEEE-CS. Prof. Mohanty would like the acknowledge IEEE-CS for sponsoring his travel.