Welcome from the Chair

It has been an award winning year for our faculty with a new NSF CAREER award for Yicheng Tu, an IEEE Fellowship for Sudeep Sarkar, AAAS Fellowship status for Ranga Ranganathan and myself, the Norbert Wiener research award from the IEEE Systems, Man and Cybernetics Society to me and the College Outstanding Research Award to Dr. Miguel Labrador. Srinivas Katkoori was named the USF 2013 Jerome Krivanek Distinguished Teacher.

Our students have also excelled with highlights being a best conference paper award - Yijie Wang; best paper in a conference Ph.D. forum - Himanshu Thapliyal; NSF East Asia Summer Pacific Institute travel award – Adrian Johnson. Matt Morrison received a Provost award for outstanding teaching; Chris Bell, Matt Lewandowski, and Richard Meana, took first place in the 2012 Embedded Systems Challenge (ESC) held at NYU-Poly; and students won the Tampa Hack-a-thon! Congratulations to all the graduate and undergraduate students who have represented CSE so well!

We welcome a new faculty member who starts in the fall, Nate Paul, a Ph.D. graduate of the University of Virginia who has most recently been at Oak Ridge National Labs. His research area is in computer security and we will be offering an exciting new course in embedded system security. We will be visited by ABET for accreditation renewal in the fall for both Computer Science and Computer Engineering. Prof. Ken Christensen has us well prepared to show the quality of our programs. We continue to see enrollment growth and had 130 graduates this year.

We continue our efforts to build scholarships and our 30th Anniversary Undergraduate scholarship fund has its own fund number. It is up to about $6,000 and the endowment goal is $25,000. Please help us get 95 donations at the $200 level, so every year we can provide support for deserving undergraduate students!

Please consider donating, any amount happily accepted, to the 220055 CSE Undergraduate Scholarship Fund at:

https://usfweb2.usf.edu/foundation/asp/ssl/adfdn/funds.asp?dept=ESB&group=TG

Wishing you a great summer here in Florida or wherever you may be (and please drop us an email with your news and/or join our alumni group on Linkedin)!

Best Wishes,
Lawrence O. Hall
Distinguished University Professor and Chair
Dr. Yicheng Tu Receives NSF CAREER Award

Dr. Yicheng Tu has received funding from the National Science Foundation (NSF) totaling $499,883 for the CAREER award proposal titled: CAREER: Enabling high-throughput data management in scientific domains. The goal of this project is to design and implement a novel data management software architecture that allows high-throughput data management services for general scientific communities. This is done through three means:

1. A one-scan-fits-all data processing framework based on repetitive scans of large data sources,
2. A query engine that leverages the massive computing power of modern Graphics Processing Units (GPU) hardware; and
3. The design and implementation of algorithms for popular analytics in three scientific domains on top of the query engine to demonstrate the effectiveness and efficiency of the proposed architecture.

The project is expected to provide a highly efficient solution to satisfy the data management needs of a wide range of scientific fields. To deliver comparable performance, the proposed architecture requires a fraction of the hardware and energy costs needed by existing systems. As a result, it will make scientific studies that are regarded as difficult or infeasible a reality.

USF Named a 2012 CUDA Teaching Center by NVIDIA Cup

The CSE department at USF has been named a 2012 CUDA Teaching Center by NVIDIA Corp. The industrial leader will help bootstrap GPU-related training programs with an equipment donation, textbooks and a cash award for recruiting a teaching assistant. The Teaching Center will be led by Dr. Yicheng Tu and students, faculty and staff will have the chance to learn and gain hands-on experience in software development on powerful parallel computing platforms made up of Graphics Processing units (GPU).

Connect on Facebook and Linkedin

Be sure to like our Computer Science and Engineering page on Facebook to see more news of what's happening in the department.

We hope that you will join our alumni group on Linkedin. The group exists to connect both current students and alumni with each other and the department, as well as discover new job opportunities. The group name is “USF Computer Science and Engineering Alumni/Students.” Join today!

(This group is managed from the Dept. and has no affiliation with the USF Alumni Association. We strongly encourage all of our graduates to join the USF Alumni Association and participate in its activities as well.)
Spotlight on New Grants

Dr. Sudeep Sarkar has received a three-year National Science Foundation (NSF) grant for Ontology-based Perceptual Organization of Audio-Video Events using Pattern Theory. The work is collaborative with Anuj Srivatsava from Florida State University and funded for $497,491.

Dr. Miguel Labrador recently received funding from the VA in the amount of $35,000. The funding is to design and develop an Android-based system to track VA patients in external environments and integrate the system with the existing smart home tracking system. The two systems combined will provide real-time assistance to caregivers and doctors about the whereabouts and activities of the VA patients.

Dr. Swaroop Ghosh has received a three-year grant from the Semiconductor Research Corporation in order to address the long-term research needs of the semiconductor industry. The project will explore circuit and system design using Domain Wall Memory (DWM) for future high-density embedded caches. As part of this project, the PI and his students will collaborate with lead researchers from Intel, IBM and AMD to model, simulate and fabricate DWM circuits. The project duration is one year and the total funding amount is $270,000.

Student News cont’d

CSE doctoral student, Adrian Johnson, was the recipient of a prestigious NSF East Asia Summer Pacific Institute (EAS-PI) fellowship to conduct research in China. His research, titled “Study of On-Body Immersive Learning System in Chinese Society” was in collaboration with Linmi Tao, professor at the Institute of HCI and Media Integration at Tsinghua University in Beijing, China. Adrian is a member of the Robot Perception and Action Laboratory (RPAL) under Dr. Yu Sun.

CSE graduate students, Chris Bell, Matt Lewandowski and Richard Meana took first place in the 2012 Embedded Systems Challenge (ESC) held at NYU-Poly. All three students are currently pursuing Master’s degrees under Dr. Srinivas Katkoori in the area of hardware security.

Professor Chandra Kambhamettu, a CSE alumnus, has recently been recognized for his development of a novel camera system to map the surface topology of Arctic sea ice, as part of a collaborative NSF project involving scientists at the University of Delaware, the University of Virginia and the University of Alaska, Fairbanks, to assess walrus habitats.

Cadet Edward Riley, a Computer Engineering student, was selected as the AFROTC Southeast Region (SER) Air Force Association Cadet of the Year. He will now compete at the national level for the AFA Cadet of the Year.

CSE Faculty Research Awards

Prof. Larry Hall and Prof. Nagarajan Ranganathan were both elected as 2012 AAAS Fellows, Dr. Hall for his outstanding contributions to scalable pattern recognition and Dr. Ranganathan for his distinguished contributions to the field of computer science and engineering, particularly for the development of algorithms and architectures for VLSI systems and applications.

Prof. Sudeep Sarkar was named a 2013 IEEE Fellow for “Contributions to Computer Vision.” The IEEE Grade of Fellow is conferred by the IEEE Board of Directors upon a person with an outstanding record of accomplishments in any of the IEEE fields of interest.

Dr. Larry Hall received the 2012 Norbert Wiener award from the IEEE Systems, Man and Cybernetics Society at the IEEE International Conference on SMC in Seoul, Korea. The award is “To recognize significant contributions to research in systems science & engineering, human-machine systems and/or cybernetics.”

Dr. Miguel Labrador received the College of Engineering’s 2012 Outstanding Research Achievement Award. The award recognizes both national and international scholarly accomplishments. In 2012, Dr. Labrador was part of an interdiscipilinary research team that received seven patents pertaining to wireless technologies. His research has attracted REU students from all over the U.S. and Latin America to USF.
Teaching Awards

*Excellence in teaching*

Dr. Srinivas Katkoori has been named the USF 2013 Jerome Krivanek Distinguished Teacher. The award will be formally presented by the President and Provost at a fall ceremony. The students applauded this great achievement and recognition of excellence in teaching.

Matthew Morrison received the 2012-13 Provost’s Award for Outstanding Teaching by a Graduate Teaching Assistant in the STEM Category.

Student Awards

*Student accomplishments in research and scholarship*

Himanshu Thapliyal, a CSE Ph.D. student, was given the best paper award in the Ph.D. forum at the 2012 IEEE Annual Symposium on VLSI Design held in Boston, MA. His adviser was Dr. Ranganathan. His paper was titled, "Design, Synthesis and Test of Reversible Circuits for Emerging Nanotechnologies."

Yijie Wang, a Ph.D. student, and Dr. Xiaoning Qian were awarded the Best Paper Award from the Asia Pacific Bioinformatics Conference 2013 for the paper titled "A novel subgradient-based optimization algorithm for blockmodel functional module identification."

CSE Ph.D. student Anand Kumar has been awarded a prize of 35,000 Indian Rupees (about $650) in the Second Doctoral Colloquium, organized by the Institute for Development and Research in Banking Technology (IDRBT), Hyderabad, India. Anand presented his work titled, “Secured Processing of Analytical Queries in Large Datasets.”