

Computer Science & Engineering @ North Texas

UNIVERSITY of NORTH TEXAS
Department of Computer Science
and Engineering Newsletter
Vol. 1, No.1, Spring 2004
www.cse.unt.edu
Krishna M. Kavi, Chairman

Computer Science Department Joins College of Engineering and Moves to UNT Research Park



The University of North Texas Department of Computer Science has been renamed the Department of Computer Science and Engineering and has joined the Department of Engineering Technology and the Department of Materials Science and Engineering to form the new College of Engineering. Dr. Oscar N. Garcia began his tenure as Dean of the College of Engineering in August 2003. In the future, the College plans to add Departments of Mechanical Engineering and Electrical Engineering.

In January 2004, the Department of Computer Science and Engineering moved with the College of Engineering to a new location at the University of North Texas Research Park at 3940 North Elm Street in Denton. UNT purchased the property, which features four interconnected two-story buildings with 550,000 gross square feet of office space, in November 2001 for \$8.9 million.

The UNT Research Park is a partnership between the university, the city of Denton, and the corporate and entrepreneurial communities of the region. Its goal is to strengthen the region's technical base and accelerate UNT's development as a major research university.

You are invited to visit us at our new home at the UNT Research Park. Please contact Sally Pettyjohn at pettyjoh@unt.edu or call (940) 565-2803 to arrange a tour.

UNT Designated a "National Center of Academic Excellence"

The U.S. National Security Agency and the Department of Homeland Security have designated UNT a "National Center of Academic Excellence in Information Assurance Education." This prestigious award recognizes UNT's strong computer and information security program and places UNT among the top academic programs in computer security in the nation. UNT was among 10 new designees for 2004, bringing the total number of Centers to 59 universities in 27 states across the country.

Dr. Stephen Tate, Associate Professor in the Department of Computer Science and Engineering, directs the Center for Information and Computer Security (CICS), a multidisciplinary center with faculty affiliates from four departments on the UNT campus.

With support from the National Science Foundation and local industry, several advanced research projects are underway at UNT, including projects dealing with security of mobile agents, network protocol security, secure hardware architectures, and cryptographic protocols. This award will pave the way in seeking additional funding for research, curricular development, and scholarships.

B.S. Degree in Computer Engineering Now Offered at UNT

The Department of Computer Science and Engineering began offering courses in Computer Engineering in Fall 2003. The B.S. in Computer Engineering program is designed for students who wish to specialize in computer hardware, communication systems, digital signal processing, micro-controllers, real-time and embedded systems.

Computer engineering students will be exposed to theoretical and practical issues of both hardware and software, in laboratories with state-of-the-art equipment. The program provides a strong engineering background, with an understanding of the principles and techniques of computing.

The first class of Computer Engineering students met in November for a social event. Dr. Krishna Kavi, Chairman, made a presentation about the program.

Searches are underway for new faculty to teach computer engineering courses beginning in Fall 2004.

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New Faculty Join CSE Department

The UNT Department of Computer Science and Engineering added six new faculty members in the 2003-2004 academic year.

David Barrett received his B.S. degree from the University of Virginia and his doctoral degree in Computer Science from the University of Colorado, Boulder. His professional interests include software systems, computer languages, security, and networking. Besides his academic endeavors, Dr. Barrett has worked widely in the computer industry for companies such as Hewlett-Packard, Digital, and several smaller companies. He is an instrument-rated private pilot and likes skiing, hiking, ice-skating, bicycling, and reading.



Back row, left to right: Dr. Ryan Garlick, Dr. David Barrett, Dr. Ram Dantu.

Front row, left to right: Dr. Yan Huang, Dr. Phil Sweany, Dr. Martha Escobar-Molano

Ram Dantu received his Ph.D. from Concordia University in Canada. Dr. Dantu's research interests include wireless networks, network security, and sensor networks. He has 12 years of experience in the networking industry where he worked for Cisco, Nortel, Alcatel, and Fujitsu and was responsible for advanced technology products from concept to delivery. Prior to UNT, Dr. Dantu was Technology Director in Netrake where he was the architect of the redundancy mechanism for VOIP firewalls. Prior to Netrake, Dr. Dantu was Technical Director in IpMobile (acquired by Cisco) where he was instrumental for the wireless/IP product design and delivery to Sprint PCS. Dr. Dantu is an active participant of IETF where he authored several RFCs related to MPLS, SS7-over-IP, and Routing. Dr. Dantu is also a member of the IETF design team for next generation VOIP firewalls. Due to his innovative work, Cisco/Alcatel filed 12 patents.

Martha L. Escobar-Molano received her B.S. from University of the Andes (Colombia), her M.S. from University of Massachusetts at Boston, and her Ph.D. from University of Southern California, all in Computer Science. After receiving her Ph.D., she was an Assistant Professor at the University of South Florida. While there, she received the National Science Foundation Faculty Early Career Development award.

Her current research interests include high-performance and reliable storage systems that support multiple media types (video, audio, animations, graphics, images), and multimedia databases.

Ryan Garlick also joined the faculty of the UNT Computer Science and Engineering Department in Fall 2003. As a lecturer and faculty adviser, Dr. Garlick teaches two sections of CSCI 1120 and advises undergraduate students. He received his Ph.D. in Computer Science from SMU in May 2003, with research interests including traffic optimization on optical networks, meta-heuristics, and e-commerce applications.

Yan Huang received her B.S. degree in Computer Science from Peking University, Beijing, China, in July 1997 and Ph.D. degree in Computer Science from the University of Minnesota in July 2003. Her research interests include spatial databases, data mining, and geographic information systems (GIS). Dr. Huang is currently working on developing efficient tools for extracting information from large geo-spatial datasets, which are important for organizational decision making.

Philip Sweany is currently an Associate Professor in the Computer Science and Engineering Department. His primary research focus has been compiler optimization for architectures with instruction-level parallelism (ILP). Currently he is addressing compiler optimization issues for fine-grained multi-threaded architectures. In addition to ILP compiler research, he has published articles in the areas of cooperative, interdisciplinary teaching at the undergraduate level, and development of new faculty orientation programs. He has more than 30 publications in these and related research areas.

Prior to joining UNT in Fall 2003, Dr. Sweany, who received his Ph.D. in Computer Science from Colorado State University in 1992, was a faculty member in the Computer Science Department of Michigan Technological University from 1992-2000, first as an Assistant Professor, and subsequently as a tenured Associate Professor. During his stay at MTU, Dr. Sweany was PI or co-PI on more than \$1,000,000 in funded grants in his research area of ILP compiler construction. In 2000, Dr. Sweany joined Texas Instruments in Dallas, where he worked on TI's compiler for DSP processors. Dr. Sweany left TI to join UNT in August 2003.

We welcome these new faculty members to the Department of Computer Science and Engineering.

Alumni News

Steve Crozier (B.S. 1980) spent 20 years as an entrepreneur in the software industry. He is currently a Ph.D. student in Molecular Biophysics with an emphasis on computational biology at UT Southwestern Medical Center in Dallas.

Donald Alan Wilson (M.S. 1986) attended the luncheon on February 25 during National Engineers Week. He is a programmer/analyst at UNT.

Greg Jones (B.S. 1987) also attended the luncheon on February 25. In 1991, Greg received his M.S. in Interdisciplinary Studies in Computer Science/Computer Education/Research Statistics from UNT. In 2001, Greg earned a Ph.D. in Curriculum and Instruction in Instructional Technology from the University of Texas at Austin. He is currently an Assistant Professor in Computer Education and Cognitive Systems for the Department of Technology and Cognition in UNT's College of Education.

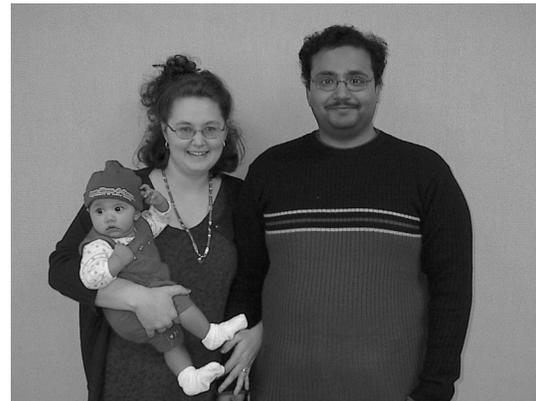
Danny Faught (B.S. 1992) attended the luncheon and toured the new building. In 2001, Danny founded Tejas Software Consulting, which focuses on software testing. He is the publisher of *Open Testware Reviews*, a source of information about freeware and open source test tools.

Clinton E. Troutman (B.S. 1994) is currently an independent computer consultant for home, home office, and small business in Fort Worth, TX.

Bill Benninghoff (B.S. 1997) following his graduation, was a software engineer with Motorola in Fort Worth, working on the network infrastructure for their CMSA wireless phones. In 2000, he became a software engineer with Cisco Systems in Richardson, TX. He currently leads a software team at Cisco working on the "Call Manager" voice over ip telephony product.

Drena Laster (B.S. 1996, M.S. 1998) is an Adjunct Professor at UNT. She teaches an introductory class in computers to undergraduates. Drena considers her main job to be taking care of her five children: Ben 24, Sharon 22 (BS in CSCI), Matt 14, Austin 6, and Victor 3 in Gainesville, TX. Until shortly after the birth of her last son, she taught full-time and served as the Undergraduate Advisor for the Department of Computer Science for two years.

Yancey Yeargan (B.S. 1998) recently joined the staff of the Department of Computer Science and Engineering as Systems Administrator.



Devender Gollapolly (M.S. 2000) (above) came to the luncheon with his wife, Christina, and daughter, Aisha. He is a consultant with Sabre, Inc.

JOIN FRIENDS OF CSE TODAY

I want to support the activities of the Computer Science and Engineering Department by donating:

_____ \$1,000 President's Council _____ \$500

_____ \$250 _____ \$100 _____ \$50 _____ \$25

Name _____

Address _____

City _____ State _____ Zip _____

Email _____

Phone (_____) _____

My company will match my gift.

Or go to www.unt.edu/development for additional ways to make a gift. Please be sure to designate your gift for Computer Science and Engineering.

Thanks for your support!

We Want To Hear From You

Bill Benninghoff writes: "The most beneficial class I took in my UNT days was the 4010/4020 software development course taught by Don Retzlaff. It really helped me get a handle on the software development lifecycle and what it would be like to write code for large projects. Ian Parberry was another influential professor in my course of study at UNT. I am very grateful for the education I received at UNT—it has made a tremendous difference in my life."

If we have made a difference in your life, please write to tell us. Send your updated information and news for the next alumni newsletter to Genene Murphy, genene@unt.edu. If you would rather receive this newsletter electronically, send us your email address.

National Engineers Week at UNT

As part of the College of Engineering, the CSE Department participated in National Engineers Week, February 23-27, 2004. Thirteen business and industry professionals accepted our invitation to be "Professor for a Day" at Research Park.

On February 25, the department sponsored a luncheon for students, faculty, and alumni of the College of Engineering, followed by a tour of the new building. Photos of our activities during National Engineers Week are on the department's website.

The ACM sponsored three contests for students. Results are shown below.

Congratulations to the Winners!

C++ Contest

1st - Erik Carson
2nd - Joshua Taylor
3rd - Dean Kusler

Honorable Mention:

John Rizzo
Andy Borman
Jeremy Wilson

Remote Control Car Contest

1st - Ryan Crawford
2nd - Tyler Cole
3rd - Michael Padilla

Computer Game Contest

1st place - Jesse Davis
2nd place - Tyler Cole
3rd place - Sean-Mikel Flowers

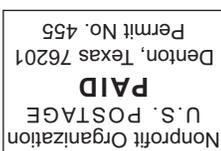


Dr. Robert Akl (left), Assistant Professor, presents Bill Miller with a certificate of appreciation for being "Professor for a Day" in his class.

Thanks to our "Professors for a Day"

Fletcher Dunn, Terminal Reality
Dennis Frailey, Raytheon
Bill Miller, Allegiant Integrated Solutions
Elizabeth Otenaike, Lockheed Martin
Krish Pillai, Nortel Networks
Barry Poff, Labinal Corinth
Jim Ryan, Ryan Associates
Charles Shelor, Via-Cyrix
Paul Sherman, Perceptive Sciences
Les Smith, Tarrant County
Deborah Stokes, Nortel Networks
Tom Thompson, Tarrant County
Terry Tuck, Labinal Corinth

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UNIVERSITY
of
NORTH TEXAS
Account # 62054
College of Engineering
Department of Computer Science
and Engineering
P.O. Box 311366
Denton, Texas 76203-1366