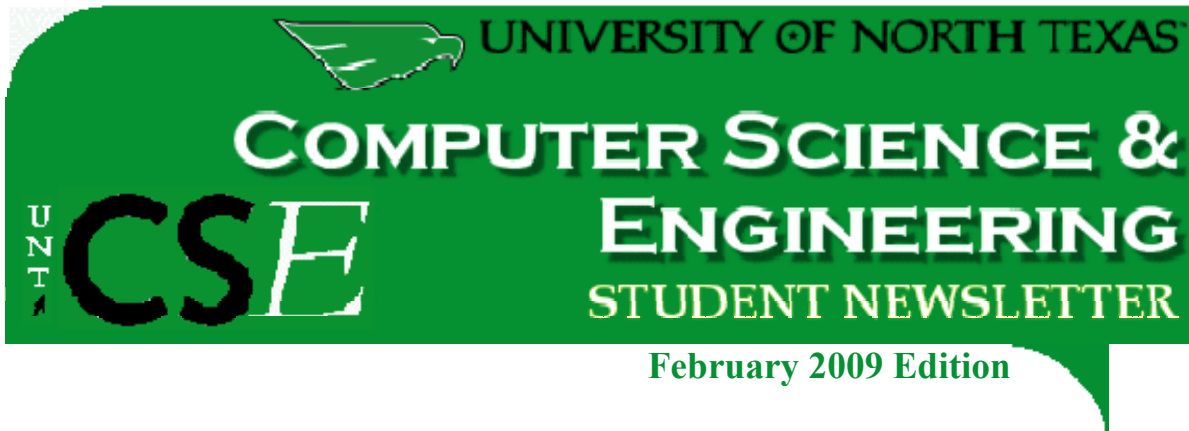# Mohanty, Saraju

From: owner-faculty@cs.unt.edu on behalf of newsletter@cse.unt.edu
Sent: Monday, February 09, 2009 3:14 PM
To: faculty@cs.unt.edu
Subject: February 2009 CSE Student Email Newsletter

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UNIVERSITY OF NORTH TEXAS

COMPUTER SCIENCE & ENGINEERING
STUDENT NEWSLETTER

February 2009 Edition

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Greetings from the CSE Chairman

Dear CSE Students,

This semester we will be preparing for our ABET reaccreditation for our B.S. in Computer Science program. We were last visited by ABET evaluators in 2003. As Chair of the Undergraduate Studies Committee, Dr. Robert Akl is leading a faculty committee to write a Self-Study of our program this semester. All faculty members will have a role in this process. In Fall 2009, a team of ABET evaluators will visit our campus to meet with faculty, staff, and students. I hope we can look forward to a positive evaluation of our program.

At the end of 2008, the CSE department's research funding was more than $1.8 million. In January 2009, we received a new $152,000 from the Texas Workforce Commission's Texas Youth in Technology program. In a few weeks, the Net Centric Software and Systems Consortium will host a kickoff meeting of its NSF Industry University Cooperative Research Center in Plano. For this IUCRC, the CSE department will get $60,000 per year from the NSF and $150,000 each year from industrial memberships beginning in 2009. You can read more about this meeting and other department news in this newsletter.

Student involvement is important for a successful college experience. The CSEagle Ambassador program is expanding and students are invited to apply to be a mentor for this program. Applications are due February 18. One of our most successful programs, Robocamp, will be back for another summer and CSE students will be able to apply to be a counselor for this program. Please read more below about how you can become involved in our CSE department.

Have a good semester and I look forward to seeing you around the CSE department.

Krishna M. Kavi
Professor and Chair

Department of Computer Science and Engineering News

UNT CSE receives $152,000 grant from Texas Workforce Commission

Dr. Robert Akl, Dr. Krishna Kavi and **David Keathly** have received a grant from the Texas Workforce Commission's Texas Youth in Technology Program. The approximately $152,000 two-year grant will be used to fund three initiatives. The first is an extension of the existing CSEagle Ambassador and Mentor program, which provides scholarships to students who serve as departmental ambassadors for recruiting and outreach events and mentor incoming freshman students. The grant will provide funding for additional scholarships over the two year period.

The second portion of the grant will fund new freshman scholarships for students entering UNT as CSE students who have previously participated in one of the Robocamp summer programs that began in 2005. The final portion of the grant will inaugurate a series of workshops for High School and Middle School teachers and counselors to introduce them to engineering and computer science and provide them with ideas and materials to motivate students and encourage them to pursue education and careers in math, science, technology and engineering. ↑

Kickoff of NSF Industry University Cooperative Research Center set for February 26 and 27

The Net Centric Software and Systems Consortium will host a kickoff meeting of its NSF Industry University Cooperative Research Center (I/UCRC) on February 26-27, 2009 at the Marriott at Legacy, 7120 Dallas Parkway, in Plano, TX. NSF program managers will be available to address questions regarding the concept of Industry/University Cooperative Research Centers.

These research centers aim to promote cooperative research between industry and universities and are funded primarily through industrial memberships. The main objectives of the centers are:

- To pursue fundamental engineering and scientific research having industrial relevance.
- To produce graduates who have a broad, industry-oriented perspective of their research and practice.
- To accelerate and promote the transfer of knowledge and technology between university and industry.

The research focus of this center is the design, implementation and deployment of highly dependable software and systems in a Net-Centric environment.

Current industrial members of the Net-Centric Software and Systems IUCRC are Boeing, Cisco, Codekko, EDS/HP, Fujitsu, GlobeRanger, Hall

Financials, Lockheed Martin Aero, Raytheon, Texas Instruments and T-System.

Current academic members of the Net-Centric Software and Systems IUCRC are the University of North Texas, the University of Texas at Dallas, and Southern Methodist University.

The first day, February 26, is an open meeting with testimonials from current members and project presentations. The second day, February 27, is open to current members only. There is no fee to attend; however, registration is required. Please register at http://www.netcentric.cse.unt.edu/IUCRC/. ↑

UNT Research features three CSE faculty members

The research of **Dr. Ram Dantu**, Associate Professor, is featured on the cover of the Spring 2009 edition of *UNT Research*. "Computer Scientists Overhaul 911 System to keep up with new Technology" is about Dr. Dantu's work with a multi-university team experimenting on the next generation of 911 services which will address the challenges presented by Internet-based phones and other emerging technology. Dr. Dantu's research lab was also featured in the November 2008 student newsletter.

Dr. Xiaohui Yuan, Assistant Professor, was one of two UNT faculty members who received the 2008 Ralph E. Powe Junior Faculty Enhancement Award from Oak Ridge Associated Universities. Dr. Yuan was one of only 30 faculty members nationwide to receive this award, which is aimed at enriching the research and professional growth of young faculty. Read more about Dr. Yuan's award in this article in *UNT Research*.

Assistant Professor **Dr. Saraju Mohanty's** three-year NSF grant for "A Comprehensive Methodology for Early Power-Performance Estimation of Nano-CMOS Digital Systems" will study the power and performance of digital systems through computer-aided design modeling. Read more about his project in the News Briefs section of *UNT Research*. ↑

CSE hosts NACLO — North American Computational Linguistics Olympiad

The regional competition for the 2009 North American Computational Linguistics Olympiad was hosted on February 4 by the Computer Science and Engineering Department. Twenty-nine high school students from North Texas participated in the competition at the UNT location. NACLO is an educational competition in Computational Linguistics, the science of designing computer algorithms to solve linguistic problems. It challenges students to develop strategies for tackling problems in fascinating real languages and formal symbolic systems. **Rada Mihalcea**, Associate Professor, supervised this event, along with Genene Murphy, Carmen Banea, Courtney Corley, Samer Hassan, and Michael Mohler. For more information about this competition, see http://lit.csci.unt.edu/index.php/NACLO_2009. ↑

Global Software Development Team meets in Istanbul

The Global Software Development International team recently met in Istanbul to review last year's projects and set up a schedule for the coming year's activities. The group members identified in the picture to the right are (from left to right): Dr. Cemile Serce from Atilim University, Ankara Turkey; Dr. Ferda Nur Alpaslan from Middle East Technical University in Ankara, Turkey; Dr. Robert Brazile from UNT, Dr. Kathleen Swigger from UNT, and Dr. George Dafoulas, from Middlesex University in England.

Dr. Victor Lopez (former student, not pictured) is also participating in the grant activities. Dr. Lopez now teaches at the Technological University of Panama. The researchers currently plan to run several projects this semester with students from the participating universities. Dr. Alpaslan received her Ph.D. in Computer Science at UNT in 1993. For more information about this project, go to https://cory.csci.unt.edu/testSite1. The building in the background of the picture is the Hagia Sophia in Istanbul. ↑

Dr. Ian Parberry named Microsoft MVP for 6th Consecutive Year

For the sixth consecutive year, Microsoft has awarded its Most Valuable Professional (MVP) Award to **Dr. Ian Parberry** in the Windows-XNA/DirectX category. Microsoft presents the MVP Award to thank individuals for their exceptional contributions to technical communities worldwide. Microsoft also benefits from engaging with MVPs through conferences, user groups, code camps, the MVP Global Summit, and other events. MVPs share their independent, real-world feedback with Microsoft, thereby helping Microsoft better understand users' needs, improve current products, and develop future technology.

In April 2009, Dr. Parberry will attend FDG '09, the International Conference on the Foundations of Digital Games. This conference is targeted at researchers making contributions that promote new game capabilities, designs, applications and modes of play. For more information on this conference, go to http://www.foundationsofdigitalgames.org/.

Dr. Parberry is also on the editorial boards of two new journals: Entertainment Computing and IEEE Transactions on Computational Intelligence and AI in Games. ↑

Dr. Mohanty presents an Invited Talk at International Conference

Dr. Saraju Mohanty presented an invited talk titled "Unified Challenges in Nano-CMOS High-Level Synthesis" at the 22nd IEEE International Conference on VLSI Design held in New Delhi, India, January 5-9, 2009. This International Conference on VLSI Design is one of top conferences in VLSI design with a very selective paper blind review acceptance process. In addition, he presented a paper titled "Single Ended

Dhruva Ghai and Dr. Mohanty outside the VDCL

Static Random Access Memory for Low-Vdd, High-Speed Embedded Systems" in the same conference.

VLSI Design and CAD Laboratory (VDCL) also had two presentations at the 27th IEEE International Conference on Consumer Electronics held during January 12-14, 2009 in Las Vegas. Ph.D. student, Dhruva Ghai, presented these two papers. ↑

News from the Language and Information Technologies group

Back row (L-R): Ravi Sinha, Hakan Ceylan, Samer Hassan, Ben Leong, Naveen Kovelamudi, Michael Mohler
Middle row: Carmen Banea, Rada Mihalcea, Tze-I Yang
Front row: Miguel Ruiz, Kino Coursey, Paul Tarau

This Spring, the **Language and Information Technology** (LIT) group was involved in the organization and supervision of the local site for the North American Computational Linguistics Olympiad. In addition, the members of the LIT group had several recent achievements:

- Ravi Sinha and Rada Mihalcea's work on "Unsupervised graph-based word sense disambiguation" will appear as a book chapter in a volume on "Current Issues in Linguistic Theory: Recent Advances in Natural Language Processing", to be published by Johns Benjamins in 2009.
- Hakan Ceylan and Rada Mihalcea's work on "The Decomposition of Human-Written Book Summaries" will appear in the Proceedings of the Conference on Computational Linguistics and Intelligent Text Processing. Hakan will present the paper at the conference in Mexico City, in March.
- Michael Mohler and Rada Mihalcea's work on "Text-to-text Semantic Similarity for Automatic Short Answer Grading," will appear in the Proceedings of the European Chapter of the Association for Computational Linguistics. The paper will be presented by Michael, who will attend the conference in Athens, Greece, in March.
- In a collaboration with Stephen Pulman, Rada Mihalcea's work on "Linguistic Ethnography: Identifying Dominant Word Classes in Text" will appear in the Proceedings of the Conference on Computational Linguistics and Intelligent Text Processing, to be held in Mexico City in March.

Robocamp 2009 Registration opening soon

The **Robocamp** program will start another ambitious year of summer programs for area secondary school students in June of 2009. Current plans are for approximately 10-12 camps over the summer in Denton, Dallas, Lewisville and Carrollton. The schedules for the camp, as well as application forms, are available on the website at http://www.cse.unt.edu/robocamp.

Registration will begin March 15, 2009. The camps are offered at no cost to the participants and registration is on a first come – first served basis. In April 2009 we will begin seeking applications from CSE students who would like to work as camp counselors. Watch your email and the department bulletin boards for more details. ↑

Pam Vincent retires

Pam Vincent has been the Front Office Manager and Student Worker Supervisor for the Department since June 1990. She has worked with four chairs, Drs. Fisher, Godwin, Jacob, and Kavi. Pam has been a continuing force in the department through all these years.

Outside of UNT, Pam loves spending time working in her yard. In retirement, Pam will help her two older sisters, work on family history, travel to visit relatives, and perform volunteer work with the Humane Society and Habitat for Humanity. She also plans to go hiking and swimming with her nieces and nephews.

Thank you, Pam, for your service to our Department of Computer Science and Engineering! To see pictures of Pam's retirement party, go HERE. ↑

Student News

Ping Yu receives Ph.D. in December 2008

Ping Yu received her Ph.D. in Computer Science at the Fall 2008 UNT graduation. Dr. Stephen R. Tate was her major professor and advised her dissertation "Direct Online/Offline Digital Signature Schemes." She defended on Monday, October 20, 2008. In addition to Dr. Tate, other members of her dissertation committee were Dr. Ram Dantu, Dr. Armin R. Mikler, and Dr. Ian Parberry. ↑

Ping Yu with Dr. Tate at graduation

CSEagles Program expanding – Applications Available

CSEagles during Fall 2008 semester.
Front row L-R: Nitya Kandukuri, Jonathan Holman, Kaci Irvin.
Back row: Laura Gonzalez, Brittany Bruno, Gary Tartt, Russell Yermal, Alan White, and Daniel Piers

The **CSEagles Ambassador/Mentor** program is expanding and looking for more students to fill positions. Each participant receives a $1,000 scholarship in return for their participation as a mentor for incoming freshmen students, and for assisting with a variety of recruiting and outreach events throughout the semester. Visit http://www.cse.unt.edu/~dkeathly and click on the CSEagles link on the left for more information. Applications are available on the website and will be accepted until February 18, 2009. ↑

HENAAC Scholars Program offers Scholarships

The **HENAAC Scholars Program** addresses the immense need that the United States has to produce more domestic engineers and scientists. The goal of the program is to insure college retention with a 3.0 grade point average or higher; to guarantee college graduation with an undergraduate technical degree in four-five years; and, to contribute to Hispanic communities by producing role models for future generations and securing the country's place as the finest

technological leader in the world.

Since its inception eight years ago, the HENAAC Scholars Program has experienced tremendous growth and has awarded over one million dollars in educational grants to over 700 deserving recipients. These awards were made possible through the generous support of our outstanding scholarship partners.

To qualify for a scholarship, applicants must be full time college students majoring in science, technology, engineering and math (STEM) with an overall grade point average of 3.0 or higher and active in the Hispanic community. In addition to their scholarship, awardees will receive a complimentary student registration package to the 21st Anniversary HENAAC Conference which will take place October 8-10 in Long Beach, California. This package includes lodging, travel support and the scholarship check presented to them by their sponsor at the HENAAC Student Leadership Dinner. The scholarship application is now available on the HENAAC website. The postmark deadline is April 30, 2009.

HENAAC realizes that students have limited resources to attend conferences and other beneficial networking events. It is for that reason that we offer travel support for college students (in a variety of disciplines related to STEM) interested in receiving travel funding to attend the HENAAC conference. HENAAC is once again prepared to grant $140,000 in travel and conference registration sponsorships to qualifying individuals. Individual applications and additional information will be available on the HENAAC website in March 2009.

To take advantage of these outstanding opportunities, students should visit http://www.henaac.org to obtain the necessary applications and to sign up for the HENAAC monthly e-bulletin. If additional information is needed, contact kathy@henaac.org. ↑

Internships for Students at NVIDIA

The **NVIDIA DVS** Operations team is seeking highly motivated intern and co-op students to contribute on a skilled team responsible for NVIDIA's automated build and verification system. DVS (Driver Validation System) enables NVIDIA's high performance development teams across the globe to develop and deliver NVIDIA's industry leading product line. DVS is a global, mission-critical system with 1400+ compute nodes that performs 35,000+ software builds and 50,000+ tests each day.

Successful candidates will thrive on challenges, demonstrate a high level of initiative, work successfully as part of a team and independently, have excellent communication and decision skills, and possess an exceptional technical aptitude.

Intern and co-op projects are dependent on the capabilities and experience of the student. Example projects include:

- Implement the DVS Configuration Management Database (CMDB)
- Perform a comprehensive business continuity risk analysis and action plan
- Model the DVS process to identify bottlenecks and performance improvement opportunities
- Implement a repeatable and reliable infrastructure patching process
- Define and implement the DVS regression test plan
- Develop the DVS capacity model
- Implement repeatable data center processes
- Define and implement the DVS Disaster Recovery test plan
- Implement DVS performance monitors and alerts

Qualifications include:

- Junior, senior, or grad student in MIS, CS, or Computer Engineering program
- Overall GPA of 3.5 or better
- Previous internship or technical job experience
- Strong problem solving, critical thinking and decision skills
- Strong written and verbal communication skills
- Statistics and data analysis classwork and/or projects

To find out more information about this and other internships, please go to the UNT Internships and Cooperative Education website at http://coop.unt.edu/. ↑

Advisors' Corner — What is this Pre-stuff anyway?

Some of you may have noticed that your official degree classification changed during the Fall semester and now you are PRE-something. There are actually two types of PRE now in the College of Engineering. You could be Pre-Engineering which means you are not math-ready for the basic engineering courses. In this category you will actually become a student in the College of Arts and Sciences until you are ready to start Calculus, then you will transfer to the College of Engineering as a PRE-something major.

The PRE-somethings (like PRE-CSCI) means that you are working on your College of Engineering core requirements in Math and Science. Once you complete your core requirements such as MATH 1710 plus one other calculus-based math course, two courses in Physics, and one other science, as well as ENGL 2700 Technical Writing and ENGR 2060 Professional Presentations, you will be admitted to your upper level professional program in your major area. Until that time you will be blocked from enrollment into any 3000 or 4000 level courses.

So finish those Math, Science and Communications core classes!!! If you have questions schedule an appointment to see your friendly advisors by calling the office at 940-565-2767. ↑

College of Engineering News

National Engineers Week to be held March 2-6

The UNT College of Engineering will host its annual celebration of **National Engineers Week** during the first week in March to promote the college and engineering as a profession. On Thursday, March 5, the College of Engineering and the UNT Career Center will sponsor a Career Fair at Discovery Park. Other activities are being planned. For more information about Engineers Week, please see the posters that will be around the College of Engineering. ↑

Jana Dean retires from the College of Engineering

Jana Dean retired from the College of Engineering on January 30, 2009. She served the University of North Texas for 33 years. When the College of Engineering was founded in 2003, Jana Dean was the Assistant to the Founding Dean, Dr. Oscar Garcia. When Dr. Garcia stepped down last year, she became the Assistant to Dr. Costas Tsatsoulis, the new Dean for the College of Engineering.

Jana started full-time with UNT in June 1977. After serving the University in a variety of capacities, she was elected Secretary of the Board of Regents in January, 1995, a position she has held since that time in addition to the other positions she has worked at UNT. We wish Jana all the best in her retirement. ↑