University of Bridgeport

School of Engineering

Recent Events
and
News

Fall 2006

This newsletter may be viewed from our website:
www.bridgeport.edu/sed/news/main.htm

Graduates from the School of Engineering are encouraged to contact us –   Let us know where you are, what you are doing, etc.
Please contact Susan Kristie   kristie@bridgeport.edu
We couldn't do this newsletter without you!

CISSE 2006 is scheduled for December 4-14, 2006. A record-breaking amount of papers (635) have already been submitted. CISSE 2006 is the second conference of the CISSE series of e-conferences. CISSE 2005 (www.cisse2005.org) was the World's first Engineering/Computing and Systems Research E-Conference. CISSE 2005 was the first high-caliber Research Conference in the world to be completely conducted online in real-time via the internet. CISSE 2005 received 255 research paper submissions and the final program included 140 accepted papers, from more than 45 countries. The concept and format of CISSE 2005 were very exciting and ground-breaking. The PowerPoint presentations, final paper manuscripts and time schedule for live presentations over the web had been available for 3 weeks prior to the start of the conference for all registrants, so they could choose the presentations they want to attend and think about questions that they might want to ask. The live audio presentations were also recorded and were part of the permanent CISSE archive, which also included all power point presentations and papers. Springer, the official publisher for CISSE, published the 2005 proceedings in 2 books.

Professors Xiong and Hmurcik of the Electrical Engineering Department recently completed a preliminary study on the use of Light Emitting Diodes (LED's) in signage. Specifically, using large dimension LED's in place of light bulbs in EXIT signs and similar signs can cut down maintenance costs, since the LED's never need replacing. Work was done for Connecticut Analytical Corp. of Bethany.

Dr. Xiong's paper in Proceedings of MWSCAS 2005 has been selected as a finalist for consideration for publication in a special issue of the Springer journal "Analog Integrated Circuits and Signal Processing". You may visit following URL for the detailed information about this journal:

www.springer.com/journal/10470

Dr. Tarek Sobh, faculty and students had several journal articles published recently.
1. Sarosh Patel and Tarek Sobh, " Online Automation and Control: An Experiment in Distance Engineering Education." Journal of Online Engineering", Volume 2, Number 3, August 2006.
2. Tarek Sobh and Abhilasha Tibrewal, "Parametric Optimization of Some Critical Operating System Functions - An Alternate Approach to the Study of Operating Systems Design." To appear, Journal of STEM Education: Innovations and Research, Summer 2006.
3. Raina Petrova, Abhilasha Tibrewal, and Tarek M. Sobh, "An Electronic Web-Based Assesment System." To appear, Journal of STEM Education: Innovations and Research, Summer 2006.
4. Tarek Sobh and Khaled Elleithy, "Advances in Computer, Information, and Systems Sciences, and Engineering", To appear, Journal of New Mathematics and Natural Computation, Fall 2007.
5. Sarosh Patel and Tarek Sobh, "Online Automation and Control: An Experiment in Distance Engineering Education", Accepted for publication in the IEEE Magazine on Robotics and Automation, May 2006.
6. Tarek Sobh, Sarosh Patel and Rajeev Sanyal, "RISCBOT: A Web-Enabled Mobile Platform", published in the March 2006 issue of SERVO magazine.
7. Tarek Sobh, Rajeev Sanyal and Sarosh Patel, "RISCBOT: A WWW Enabled Mobile Surveillance and Identification Robot", Journal of Intelligent and Robotic Systems", Springer Publishers, Volume 45, Number 1, May 2006.
8. Tarek Sobh, Khaled Elleithy, Sarosh patel, "Reverse Engineering of VLSI Chips: A Roadmap", published in the Journal of Engineering and Applied Sciences.
9. Tarek Sobh, Xiao Hong Zhu and Sarosh Patel, "Visualization of Tolerance for Manufacturing", published in the Journal of Engineering and Applied Sciences.

Dr. Hmurcik recently reviewed the paper "Response of Resonant Circuits to Sudden Modifications in Excitation Signal Frequency", for the journal "Applied Physics Letters".

Dr. Xingguo Xiong, with Yu-Liang Wu, and Wen-Ben Jone, published the paper entitled: "Reliability Analysis of Self-Repairable MEMS Accelerometer".   The paper has been accepted at the   21st IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems (DFT 2006), October 4-6, 2006, Arlington/Washington, D.C.   The detailed information about this IEEE conference can be checked from following website: http://netgroup.uniroma2.it/DFT06/

Dr. Tarek Sobh, Dean of the School of Engineering was interviewed in length by the CT Post, in   articles on   August 29 and September 6.   The first article, entitled "Green energy may bring rewards", covered the partnership between MTV and General Electric.   Dr. Sobh's interview included his remarks on our engineering programs, and the importance of solving energy and pollution problems.

In the second article, entitled "Working from home works well", Dr. Sobh commented on telecommuting, and internet traffic.

Professor Hmurcik investigated an accident on Princess Cruise Lines to the Grand Cayman Islands, while the ship was in port in New York City. A passenger was injured on a treadmill in the gym. Dr. Hmurcik reviewed the computer codes and computer error codes governing the machine's operation. This enables one to distinguish between human and machine error.

The ACM Programming Conest was held Saturday, October 14, at Westfield Sate University, near Springfield, Mass., with UB sending two teams. Teams were the "UB Primo" team consisting of Angel Haddad, Subrina Thompson, and Leon Leslie and the "UB Hackerz" team consisting of Kenta Ito, Jovin Joy, and Pranay Chandra. The "UB Primo" team placed 7th out of 15 and the "UB Hackerz" team placed 9th out of 15.

A dedication ceremony for Dr. Paul Bauer, past Chairman of the Technology Management Department, was held on October 4 in the Engineering Technology Building.   A plaque in his honor was placed on the wall on the first floor.   Dr. Tarek Sobh, Dean of the School of Engineering presided over the event. Mrs. Susan Bauer, daughter Carla and son Jon attended, as well as Mrs. Salonen, faculty, staff and students.   President Neil Salonen spoke very eloquently about his time with Dr. Bauer. Dr. Stephen Grodzinsky, Ms. Barbara Maryak and Mr. Gian Gosine also spoke about their personal and professional memories of him.

Ph.D. program   --   Computer Science and Engineering
The much anticipated opening of a new Ph.D. program in Computer Science and Engineering ushers in a new era at the University of Bridgeport – and for engineering and computing professionals throughout the region. The program accepted applications for its inaugural class of Fall 2006, and is accepting applications for future semesters. Nine years in the planning, it was licensed by the Board of Governors of Connecticut's Department of Education in June 2005. "Ours is the first Engineering Ph.D. program in Fairfield County, and the only one in Connecticut, that

will accommodate the scheduling needs of part-time students by making all coursework available in the evening," reports Dr. Tarek Sobh, dean of the School of Engineering. This flexibility is expected to be especially appealing to engineers and computing professionals working in corporations and industry in Fairfield and Westchester counties.

Depth and Breadth
As Dr. Sobh notes, a Ph.D. program that combines computer science and computer engineering is unusual. "Our program offers depth and breadth in both disciplines," he says. Other unique characteristics include the program's teaching and publishing requirements. Recognizing that many of its graduates will pursue academic careers, the program requires all students to teach two courses. "The teaching practicum is an important component," Dr. Sobh says. "Most Ph.D.s in this field are not prepared to teach, and this experience will give our students an edge as they compete for faculty positions." Similarly, the requirement that all students have research articles accepted for publication prior to graduation will demonstrate to prospective employers that they know how to write for scholarly publications, Dr. Sobh says. The requirement is for two articles in high-level refereed journals or one journal and two conference articles. Another highly relevant requirement for all Ph.D. students calls for two courses in global technology management.

The University of Bridgeport has the largest graduate engineering program in Connecticut.
Across all disciplines, the University of Bridgeport has amassed a long and distinguished history in computer science and engineering since it began offering master's degrees in 1970.

Among other distinctions, two years ago, the university was ranked second in the nation in the production of M.S. degrees in computer science for women and fourth for men and women combined. Both student and faculty research papers have won prestigious awards at professional engineering conferences throughout the years. Strong affiliations with many area companies have led to varied internship and co-op opportunities. Graduates have gone on to research and development careers at many of the most distinguished companies locally and nationally. The new Ph.D. program will build on this tradition of excellence.

Research Areas Available for Ph.D. Students
• Computer architecture, VLSI and FPGA
• Design, modeling and simulation of embedded and integrated systems
• Electromechanical systems prototyping and optimization
• Robotics, automation, machine perception and sensing
• Software engineering, Web development and computational sciences
• Systems and computer security and biometrics
•Wireless and mobile computing and networking

Following are the admissions statistics for the Fall 2006 and Spring 2007 semesters.
Fall 2006:
Number of applications: 14
Number of admitted students: 6
Number of students deferred to Spring: 2 out of the 6 admitted
Number of students enrolled: 4 (two full-time, two part-time)

Spring 2007:
Number of applications: 9
Number of students admitted: 3
Number of students deferred from Fall: 2
Number of students enrolled: TBA

These are brief profiles of the four newly enrolled students in the program (Fall 2006):

Syed S. Rizvi is a full-time Ph.D. student of Computer Science and Engineering at the University of Bridgeport. He received a B.S. in Computer Engineering from Sir Syed University of Engineering and Technology and an M.S. in Computer Engineering from Old Dominion University in 2001 and 2005 respectively. In the past, he has done research on bioinformatics where he investigated the use of Linux based cluster search engines for finding desired proteins in input and outputs sequences from multiple databases. For the past year, his research focused primarily on the modeling and simulation of wide range parallel/distributed systems and web based training applications. His current research focuses on the design, implementation and comparisons of algorithms in the areas of multiuser communications, multipath signals detection, multi-access interference estimation, computational complexity and combinatorial optimization of multiuser receivers, peer-to-peer networking, reconfigurable coprocessors and FPGA based architectures.

Abdelshakour Abuzneid is a part-time Ph.D. student of Computer Science and Engineering at the University of Bridgeport. Abdelshakour received his M.S. in Computer Engineering from the University of Bridgeport, he graduated with a GPA of 3.9. Mr. Abuzneid worked as the *Director of Systems Operations* in the School of Engineering since 1997. Mr. Abuzneid helped the department of Computer Science maintain ABET accreditation during the last three comprehensive visits. Mr. Abuzneid was one key member of the committee who worked on the doctoral program proposal that was approved by the Department of Higher Education of the State of Connecticut. Mr. Abuzneid was the first student to join the program. He is hoping to be the first one to graduate from the program with a Ph.D. in Computer Science and Engineering.

Mr. Abuzneid is a very capable networks/systems engineer, MCP and MCSE certified. Mr. Abuzneid is also a PMP candidate. He teaches undergraduate/graduate-level courses in the School of Engineering as an adjunct instructor. He serves on many committees in the University of Bridgeport to enhance the schools technologically. Mr. Abuzneid works with the Schools of Education and Business to help create an interdisciplinary research environment among the different schools in the University. Mr. Abuzneid has published one journal paper, three conference papers and one book chapter. Mr. Abuzneid served on several scientific conferences either as a reviewer or as a member of the technical committees.

Eman Abdelfattah is a part-time Ph.D. student of Computer Science and Engineering at the University of Bridgeport. She received her B.Sc. degree in Computer Science in 1983 from the Faculty of Engineering, Alexandria University, with Honors. In May 2003, she finished her MS Degree in Computer Science from the University of Bridgeport, with a GPA 3.8. She was awarded the "Academic Achievement Award" in Computer Science. This prestigious award is given annually to one student in the M.S. in Computer Science program who has a distinguished scholastic and academic record.

Mrs. Abdelfattah has worked as a programmer and computer teacher in several institutions from 1983 to 2000. She has authored a book on "Programming using Visual Basic" which was used for teaching Visual Basic for high school students. She worked as a C++ and Java instructor in the Continuing Education Department, Housatonic Community College, Bridgeport, Connecticut. Currently, she is working as an adjunct instructor at the University of Bridgeport.

Eman's research interests are in the areas of networking and communications. She has special interest in developing optimal algorithms for the "register allocation" problem and her research results were published in two international conferences in the areas of circuits and VLSI design.

Eman has actively participated as a committee member of the International Conferences on Engineering Education, Instructional Technology, Assessment, and E-learning (EIAE 05) in 2005 and 2006.

Cristian Craciun is a full-time Ph.D. student of Computer Science and Engineering at the University of Bridgeport. He is a Laboratory Engineer and Adjunct Instructor at the School of Engineering, Fairfield University. He teaches Automated Manufacturing and Electrical Engineering courses at Fairfield University and Electrical Engineering courses at the University of Bridgeport. He has been teaching at the college level for more than 4 years. He has an Associate degree in Electrical Engineering, an Associate and a Bachelors degree in Mechanical Engineering and a Masters Degree in Software Engineering from Fairfield University, and graduated with a GPA of 3.96.   Cristian's appreciation of Mathematics, Science, Engineering and Technology inspired him to teach in the Upward Bound Program at Fairfield University. Cristian has been given two Distinguished Service Awards from the ASEE New England Section in 2005 and 2006. He is also a planning committee member for the ASEE New England Section and a Member of Jury for the Student Competition at the American Society of Engineering Education annual Northeast Regional Conference. He has published and presented seven articles.

Graduate News

Saleh A. AlMansoori (B.S./E.E. 1991) is currently working for the Abu Dhabi National Oil company as an Engineer in Health, Safety, and the Environment (HSE)

Priya Ramaswamy (M.S./E.E. 2006) is currently working as a Junior Engineer at Panasonic (New Jersey) in the System Solutions division.

Suraj Kumar (MSEE/2006) was recently hired as Product Support Engineer in the IT department of Hartford Financial Services of Hartford, CT."

Bhavin Patel (MSEE/2006) is currently employed with HP (Hewlitt-Packard) computers in Houston Texas as a systems administrator.

Taha Barake (BSEE/1990) is currently working as an instructor at the American University of Beriut. He is married to a woman who works as an English teacher.

Ramkumar Srinivasan (MS/CS/1992) is currently living near San Jose/San Francisco (Bay Area) in California. He has worked for Dreyer's Grand Ice Cream for the past nine years. (In the East Coast it's called Edy's.) They merged with Nestle' a few years ago.   He started as a consultant from 1997 to 1999 and converted to a full time employee. He manages Oracle Databases, Oracle Applications and is also the Unix System Administrator (HPUX).

Joseph Bango (BSEE 1989, MSEE 2006) is currently the president of Connecticut Analytical Corp. in Bethany, and has just been named an Adjunct Professor at MSU (Missouri State University), specializing in Bio-mimetics. His appointment stems from a collaboration with Nobel Prize winner and Yale professor John Fenn on using collagen nanofibers for corneal eye repair."

Prakash Thapa (BS/CpE, 2000 and MS/EE, 2006) recently consulted with Prof. Hmurcik (Professor of Electrical Engineering) in determining the origin of an electric fire. The fire was in the Arrow company's voice mail system in New Haven. The fire was shown to have started in the uninterruptible power supply used to preserve computer data in the event of a power outage.

Akthar Syed (MSEE, 2003) is working as a Semiconductor Engineer for Maxim Corp. in Dallas, Texas. His job entails analysis and quality control of the Integrated Circuits used to drive Electro-Optic Lasers.

Sumeet Bhalla (MSEE, 2003) is the EMC test specialist at Nemko Inc., Ottawa, Ontario, Canada. Client companies bring medical equipment to his company in order for him to test the EMI (electromagnetic interference, aka stray radio waves) leakage.