The School of Engineering (SOE) is witnessing an increasing number of female students. In Spring 2007, there are 142 female students who recently enrolled in our engineering graduate degree programs.

This growing number is a result of the continuing efforts of the SOE administration and faculty. In order to achieve this long term goal, the SOE is now also collaborating with the IBM Academic Initiative to promote women in engineering.

In this regard, SOE recently hosted two representatives from IBM. In their campus visit on January 16, 2007, Paul Kontogiorgis, SSME Ambassador, IT Services Sciences, Management and Engineering also stated that, in the U.S. alone, 1.5 million additional skilled IT professionals were needed by 2006.

According to Kontogiorgis, IBM is planning to hire over 50,000 employees in the next ten years.

To meet this demand, the SOE is now offering a “Service Management and Engineering (SSME)” concentration along with many other new, exciting concentrations.

The concentration is being supported by the IBM Academic Initiative, with free software and lecture notes provided to the faculty and student body.

In addition, the collaboration also provides students with the ability to upload their resumes to the IBM database.

Unique Ph.D. Program is Now Accepting Students

The UB School of Engineering has become a leader. For the past several years, the SOE has housed the largest graduate engineering program in the State of Connecticut. The Adult Education and Enrichment Guide, in its Winter issue, states that: “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.”

Now the UB School of Engineering adds another distinctive characteristic to its leadership role with its new Ph.D. program in Computer Science and Engineering which has been accepting applications since Fall 2006.

The Ph.D. program focuses both on academic and technical abilities of its prospective graduates, offering several areas of concentration. The list of research areas include: (Page 2)
Both student and faculty research papers have won prestigious awards at professional engineering conferences throughout the years.

University News and Achievements

Ph.D. Program at UB

• 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

As Tarek Sobh, Vice Provost for Graduate Studies and Research and Dean of the School of Engineering notes, a Ph.D. program that combines computer science and computer engineering is unusual. “Our program will offer depth and breadth in both disciplines,” he says.

Alumni News and Achievements

Illiot Calderon, 2004 UB graduate in Computer Science now is Bridgeport Area Youth Ministry’s (BAYM) program manager, and has found jobs for many other BAYM graduates. BAYM will take a computer, clean it, update the hard-drive and then sell the refurbished device to someone who cannot afford the market price for a computer.

Bishad Ghimire (MSEE 2004) has become the Director of Information Technology, Standard Oil of Connecticut Inc., Stratford, CT. Congratulations!

Mahmoud Moghavvemi (MSEE 1990) has been appointed as a professor in Electrical and Computer Engineering at the University of Malaya, Kuala Lumpur, Malaysia. Mahmoud works in a variety of research areas within the field of solid-state materials.

Sagar Karki (MSEE and outstanding EE student, 2003) recently married Rakshya Thapa. Mr. Karki is working in Electronics Design for Texas Instruments in Texas. He is also pursuing a Ph.D. in Analog and Digital Electronics Design through Worcester Polytechnic Institute (WPI).

Vikas Singh (MSEE 2006) has been hired as a System Validation Analyst for Boston Scientific Corp. in Boston, MA.

The family of Kiran Gopu established a $20,000 scholarship fund for the School of Engineering.

Prakash Thapa is currently working at EMC-2 Corp., White Plains, NY, as a Senior Software Configuration Release Engineer.

Pradeep David Bolle (MSEE 2007) is working as radio frequency (RF) Engineer at the Beco Group in Chicago. His projects include RF tagging and RFID applications.

Andrew Rosca, a University of Bridgeport graduate and an e-commerce system architect at KOMPO e-Commerce Solutions, has seven years of experience in designing and developing web and backoffice applications in a .NET / SQL Server environment. His most recent projects include several large scale e-commerce, fulfillment, and supply chain management systems.

Abhimanyu is working as a consultant in Oracle applications for ADVO industries in Hartford, CT. He is responsible for troubleshooting the software and hardware involved in the data entry points in their national database.

Sampurna Shrestha (BS CpE 2002) is working at Stonybrook University, Long Island, NY as a Systems Administrator. He is currently completing his MSEE in the implementation of campus wide Fiber Optic Networks.
Alumni News and Achievements

Michael Khoury, (M.S./E.E. 2005) started work recently in Manhattan at Capelli-New York on 34th street. He is an IT business networking troubleshooter and web developer.


School of Engineering in the News

In the initiation of the Connecticut Engineering Loan Reimbursement Program, Dean Sobh commented on the increasing education costs and students’ inability to pay these debts due to the insufficient amounts of aid packages. “Kids are graduating with entirely too much debt” Dean Sobh said in his interview with the CT Post in January 13, 2007.

Dr. Larry Hmurcik, Chairman, Department of Electrical Engineering, commented on the significant energy consumption of refrigerators during an interview with CT Post. Dr. Hmurcik stated that the refrigerator accounts for about 15 percent of the power used in the average home.

Dr. Hmurcik’s investigation recently settled the case of a factory worker at Plas Pak industries in Norwich.

Dean Sobh was interviewed for the CT Post on January 7, 2007. The article is entitled “4 Students Blazing Trails in Inaugural Class of UB’s Unique Engineering PhD Program”. On February 13th, Dr. Kongar gave an interview to the CT Post, regarding women in engineering.

OCEAN - The New Web Application

We are proud to inform you that our new web application, OCEAN, is now completed and uploaded to the server.

The Online Customization and Enrollment Application Network (OCEAN), developed in the School of Engineering at the University of Bridgeport, under the supervision of Dean Sobh and Dr. Kongar, is an interactive web-based application for inter-disciplinary graduate programs, concentrations, certificates and courses across the Schools of Engineering, Business and Education.

OCEAN allows prospective and current students to customize their preferences in the course selection process depending on the targeted graduate concentrations, degrees, and/or dual degree programs. The application can also be utilized as an efficient advising tool by the Faculty.

We would like to acknowledge Abdelshakour Abuzneid, Alaa Abu Zaghlol, Dimo Sandev, Mert Ozan Bahtiyar and the IT Staff at UB. All contributed their time, and more importantly, their innovative ideas to this software project. In addition, we would like to acknowledge the extensive academic work and leadership provided by Professor Khaled Elleithy, Professor Ward Thrasher and Professor Gad Selig in revamping the graduate programs that are represented in the database of the OCEAN software tool; and the Faculty Members in the Schools of Business and Engineering who provided feedback, content and appropriate curricula for these programs.
“Both student and faculty research papers have won prestigious awards at professional engineering conferences throughout the years.”

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### School of Engineering Faculty Achievements

**Dr. Zhang** and his colleagues have published two papers in the Journal of Sensors and Actuators, entitled “Reverse Response Transients in a Pd-Ni/AlN/n-Si Hydrogen Sensor” and “Response to Hydrogen of a metal/AlN/Si thin film structure: effects of composition and structure of a combination Pd-Cr gate”.

**Dean Sobh** published his work entitled “A Randomized Parallel Algorithm for Computing a Complete Histogram of an Image in Log (n) Steps with Optimal Memory Requirements Using Hypercubes”, in the “Advances in Computer Science and Engineering” journal.

**Dean Sobh, Rik Cousins and Sarosh Patel**’s work, “Course scheduler: An automated schedule generator” is accepted for publication in the journal Advances in Computer Science and Engineering,


**Dean Sobh** and **Dr. Elleithy** wrote a paper entitled “Advances in Computer, Information, and Systems Sciences, and Engineering” to appear in the Journal of New Mathematics and Natural Computation in Fall 2007.

**Sarosh Patel and Dean Sobh** published their work entitled “Online Automation and Control: An Experiment in Distance Engineering Education”, in the December 2006 issue of the IEEE Robotics and Automation magazine.

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**Dr. Xiong** and **Dr. WenBen Jone** submitted a proposal entitled “A Built-In Self Repair Technique for Capacitive MEMS Devices” to the National Science Foundation (NSF) Electronics, Photonics and Device Technologies (EPDT) Program on February 2007.

**Dr. Sobh** served as International Program Committee Member in several IEEE International Conferences on Systems, Man and Cybernetics (SMC). He served as a PC member for the SMC 2005 in Hawaii, SMC 2006 in Taiwan and SMC 2007 in Montreal, Canada.

**Dr. Ausif Mahmood** has been selected as the Conference Technical Program Chair of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering, CISSE 2006.

**Dr. Hu** obtained two free licenses of FLOTHERM software from Flomerics for MEEG 503 (Electronics Cooling) in the Fall 2006 semester. In addition to ten free licenses of CFD software STAR-CCM+ from CD-adapco for MEEG 512X (Computational Fluid Dynamics) in Spring 2007.

**Dr. Lee** was invited as a speaker to talk at Sogang University, Seoul, South Korea. He presented his research in the Multimedia and Databases on March 14, 2007.

**Dr. Gad J. Selig** was awarded the “Certified Outsourcing Professional (COP)” certificate by the International Association of Outsourcing Professionals in December 2006.

**Dr. Jeongkyu Lee** and **Abhilasha Tibrewal**, Professors of Computer Science and Engineering, served as judges at the Science Expo 2007, held at the University of Bridgeport on February 7. There were 148 projects from 17 city schools. Bridgeport public schools grades 7 through 12 participated.

**Dr. Kongar** was selected as a Program Committee member for the International Logistics Conference to be held in October 2007 in Istanbul, Turkey.

**Dean Sobh** was selected as a Technical Committee Member at the ASEE Regional Conference in Rhode Island, CT in 2007.
Dean Sobh gave a keynote speech at the Interactive Computer Aided Blended Learning (ICBL) that was held in May 2007 in Brazil. His next keynote address is scheduled for November in Pakistan at the International Conference on Computers, Controls and Communication, at the National University of Science and Technology.


Dean Sobh is an International Program Committee Member in the International Conference on Control and Applications, (CA 2007) in Canada and the International REV (Remote Engineering and Virtual Instrumentation) Conference which will take place in Portugal in June 2007. He will also serve as a PC member in the European Control Conference (ECC) in Greece, the International Conference on Robotics and Applications, (RA 2007) and the Intelligent Data Acquisition and Advanced Computing Systems (IDAAACS 2007). These conferences will be conducted in Germany in July and September 2007.

Dean Sobh won an RIA (Robotic Industries Association) Robotic Research Equipment Award. The award is granted for the period September 2007 – August 2009. Professor Sobh is sponsored for work on the project “Designing a reliable, mobile telerobotic system”.

Dean Sobh is invited to talk at the Tenth JCIS – Joint Conference on Information Sciences, in September of this year. That conference is scheduled to be conducted in Salt Lake City, Utah.

Dr. Kongar has been assigned as a judge for the LODER Third Logistics Contest to be held in Turkey in 2007.

Dean Sobh served as the Conference Chair for the International Joint Conferences on Computer, Information and Systems Sciences and Engineering - CISS 2006 where he was also invited to give a keynote speech. Dean Sobh also served as an International Program Committee Member in the International Conference on Interactive Mobile and Computer Aided Learning, and he also presented the keynote lecture. The conference took place in Amman, Jordan in April 2007.

Dr. Hu served as a judge at the Yale Science Fair in New Haven, held in March 2007. Yale University hosted the annual Olin-Yale-Bayer New Haven Public School Science Fair. Community volunteers, CPEP site coordinators, retired teachers, board members, past science fair supporters and CPEP friends volunteered to be judges and joined in the effort to encourage students interested in Science and Technology. Judges had backgrounds in education, science and technology. This year’s Science fair included representation by the majority of schools in New Haven. Over 200 student projects were presented.

Dr. Elleithy and the mobile/wireless communications group will participate in the 2007 Wireless Telecommunications Symposium.

Standard and Poor’s Society of Industry Leaders invited Dean Sobh as a board member in 2006.

Dr. Lee and his colleague, JungHwan Oh at the University of North Texas will organize the 1st International Workshop on Multimedia Data Mining and Management (MDMM’07) in conjunction with DEXA 2007. The workshop will be held in Regensburg, Germany on September 3-7 2007. Dr. Lee also presented his research work at the 8th IEEE International Symposium on Multimedia that took place between 11-13 December 2006 in San Diego. Recently, his research paper “A Graph-based Approach for Modeling and Indexing Video Data” was accepted by ISM 2006.

Dr. Xiong has been selected as a reviewer of the European Control Conference 2007 (ECC’07) that will take place between July 2-5, 2007 in Greece.

Dr. Hmurcik recently reviewed a manuscript for the Journal of Applied Physics entitled “Extraordinary Hall effect in Co-Pd bilayers” by Gerber and Michael Karpovski.

Dr. Kongar’s research, co-authored by Dean Sobh, “Online Customization and Enrollment Application Network (OCEAN)” was presented at the ICBL 2007 Conference in Brazil in May 2007. This study was invited to be published as one of the best papers of the conference in the i-jet journal.

Kenneth John Faller, Armando Barreto, Dr. Gupta and Nathali Rishe presented the conference paper “Decomposition of Head-Related Impulse Responses by Selection of Conjugate”.
School of Engineering Faculty Achievements

Dr. Gupta participated at the NSF Regional Grants Conference in October 2006 in the University of Maryland.

Prof. Abhilasha Tibrewal was selected as a reviewer for CISSE 2006 and she served as judge for the Science Fair at Bridgeport. Prof. Tibrewal also attended the NSF Regional Grants Conference, in October 23-24, 2006 at the University of Maryland.

Dr. Xiong has become a member of both the IEEE and the Connecticut Nanotechnology Curriculum Committee, 2006-2007.

Dr. Gupta was assigned as the chair of “Innovations in Engineering” session and “Outstanding teaching award” committee at the ASEE 2007 Conference. Dr. Gupta also served as reviewer for the CISSE 2006 (International Joint Conferences on Computer, Information, Systems Sciences, and Engineering) and EUCA (European Union Controls Association).


Dr. Buket Barkana, a new member of the SOE faculty, submitted and published four research papers since December 2006. Her publications will appear in the IEEE Transactions on Power Electronics, the 20th Canadian Conference on Artificial Intelligence, and the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 06).

Dr. Lee and his colleagues at the University of North Texas and University of Texas South Western Medical Center recently had their paper on Wireless Capsule Endoscopy videos accepted at the ACM Symposium on Applied Computing 2007.

Dr. Ray was selected as a member of the Technical Program Committee of INFOCOM 2007, ICCCN 2007, ROBOCOMM 2007 and PIMRC 2007. Dr. Ray is also a reviewer for INDIN 2007; IEEE Transactions on Networking; and the IEEE Transactions on Wireless Communications.

Dr. Kongar is currently working at the USGS project at Yale University, School of Forestry, Center for Industrial Ecology as a Part-Time Research Fellow.

Dr. Kongar and Dr. Daniel Mueller’s paper “A Data Envelopment Analysis Approach for Material Flow Analysis” was presented at the SPIE International Conference on Environmentally Conscious Manufacturing which took place between October 1-4, 2006 in Boston, MA. Both also worked on the paper “Combining Material Flow Analysis with Data Envelopment Analysis to evaluate the performance of stages in material cycles”. The paper will be presented at The International Society for Industrial Ecology conference, (ISIE, 2007), June 17-20, 2007, Toronto, Canada.

Dr. Ray and his colleagues Roch Guerin and Rute Sofia, have completed two research papers entitled “Distributed Path Computation without Transient Loops: An Intermediate Variables Approach” to appear in ITC 2007, and “A Distributed Hash Table Based Address Resolution Scheme for Large-scale Ethernet Networks” to appear in ICC 2007.

The collaborative work of Dr. Kongar and Dr. Sobh entitled, “Evaluating the efficiency of candidates for graduate study via data Envelopment analysis”, has been accepted for presentation at the 2007 ASEE conference to be held in Honolulu, Hawaii in June 2007.

Dr. Joyce Hu
The 2007 ASEE New England Section Conference Was A Great Success!

The 2007 ASEE New England Section Conference, hosted by the University of Rhode Island in Kingston, Rhode Island, on April 20-21, 2007 had its largest contingent of participants from UB, with 8 full time Faculty, 2 adjunct Faculty and more than 20 students participants.

In the student project competition category; there were 51 students group projects presented in the region; out of these, 13 were from UB; by far, more than any other University; and 4 more than the hosting institution (URI).

Sarosh Patel’s project: Flight Controller for UAV Using Quantitative Feedback Theory [Advisor: Larry Hmurcik], won the third prize overall and his project was the number one ranked Graduate project.

Furthermore, 5 out of 10 Honorable mentions went to these UB student projects:

- A 16-bit Low Power Comparator with Logic Shut-down Techniques, Sudhir Kumar Prasad and Isaac George Mcwan [Advisor: Xingguo Xiong]
- Implementation of a 4-bit Encryptor/Decrptor, Jimmy John [Advisor: Xingguo Xiong]
- Variation Analysis and Quality Control for “Determination of Specific Heat of a Metal” Experiment, Mahesh Baral, Prarthana Sharma [Advisor: Elif Kongar]

Thus, 6 out of our 13 entries won prizes, which, again, by far was more than any of the participating institutions!

Congratulations to all the winning students and their advisors!

We are very proud of your accomplishments!

Furthermore, the following other 7 projects represented UB and received excellent reviews:

- System Level Thermal Analysis of an Electronic System Under Different Condition, Krishna Ram Singh [Advisor: Junling Hu],
- Design of Roshi Khola Micro Hydropower Plan”, Krishna Ram Singh, [Advisor: Junling Hu],
- Logic Simulator Using C++ Based on Event Driven Algorithm”, Li Du. [Advisor: Linfeng Zhang]
- Quality Control in E-Commerce Sector: Eyeglass.com and Amazon.com’Merchant Solutions”, Hosik Choi, [Advisor: Elif Kongar],
- Multimedia Ontology Creation for Wireless Capsule Endoscopy Video”, Mahesh Baral, Pragya P. Rajauria. [Advisor: Jeogkyu Lee],
- Synchronization of Micro-Hydro Plants, Mahesh Dhungel.

Thanks to all of your hard work on these projects!

In addition to the student competition successes, UB Faculty and students presented these papers on Saturday in the regular research paper track, again, more in number than any other institution:

- Real-Time Binaural Sound Generation Using TI C6713 DSK Board”, Navarun Gupta, Larry Hmurcik, Vaibhav Bhatnagar, Armando Barreto
- A Study on Pulsed Power Supply Based on Separate Excitation”, Yi Zheng, Xiaoming Wang, Xingguo Xiong.
The 2007 ASEE New England Section Conference Was A Great Success!

- A prototype for the design of Simulators, Modelers and Analyzers in Robotics, Christian Craciun, Tarek Sobh.
- Developing the Instructors’ Teaching Techniques: Required Courses for Ph.D. Candidates”, Buket D. Barkana.
- On the Use of Real-Life Accident Case to Effectively Teach the Subject of Electrical Safety in the Engineering Curriculum”, Navarun Gupta, Vaibhav Bhatnagar, Mark Mattie, Lawrence V Hmurcik.
- It is worth mentioning that the papers, “On the Use of Real-Life Accident Case to Effectively Teach the Subject of Electrical Safety in the Engineering Curriculum” by Navarun Gupta, Vaibhav Bhatnagar, Mark Mattie, Lawrence V Hmurcik, and “Flight Controller for UAV Using Quantitative Feedback Theory” by Sarosh Patel and Larry Hmurcik won the best papers in session awards.

In addition, Professors Larry Hmurcik, Navarun Gupta, Tarek Sobh, Xingguo Xiong, Elif Kongar, Joyce Hu, Linfeng Zhang and Saikat Ray participated as judges in the Student competition. Professor Gupta served as the Chair of the Teacher of the year Committee and as a member of the conference organizing committee.

Professors Gupta and Kongar also served as session chairs in the Innovations in Engineering Education session, and Prof. Sobh also served as session chair for the Robotics & Automation session.

Thanks to all of you for your efforts, and to Dr. Gupta for coordinating all the trip logistics and making sure that all went very smoothly.

“Both student and faculty research papers have won prestigious awards at professional engineering conferences throughout the years.”

*Sarosh Patel at the 2007 ASEE New England Section Conference*
In 2006 Dr. Hmurcik consulted for Attorney Jaime A. O’Brien, 382 Springfield Avenue, Summit, NJ 07902-0690. On November 20, 2006, Dr. Hmurcik visited the CSI (Cold Storage Integrated) facility located at 1 Enterprise Boulevard in Secaucus, NJ. He investigated an electric shock that occurred to an employee and discovered that his accident was caused by his own negligence in observing electric safety protocols, and gave details of the same.

Dr. Hmurcik, investigated a case recently in New Jersey at a large food warehouse supplying Shop-Rite’s stores in New York and New Jersey. A licensed master electrician was severely burned when he used his meter to measure a 480-volt source. Dr. Hmurcik found that a 4,000 volt source from the large refrigerators had been coupled to the electrician’s meter. Dr. Hmurcik was assisted in his investigation by Dr. Irv Ojalvo, who was Chairman of the Mechanical Engineering department at UB from 1983 to 1990 and who now runs his own forensics company.

Dr. Hmurcik investigation recently settled the case of a factory worker at Plas Pak industries in Norwich. Plas Pak makes parts (such as plastic trays for frozen food). The worker was repairing an electrical panel with the panel in the ON condition. No appropriate OFF switch was installed by the electrical contractor. He dropped a screwdriver. This caused a short circuit of 4000 amps. The worker did NOT receive any shock. Rather the very high current caused steel and copper pieces in the vicinity of the dropped tool to vaporize and bathe the man in a gaseous metal film.

On Feb 1, 2007, Dr. Hmurcik testified in Kings County Supreme Court, Brooklyn, NY. He testified against the Transportation Authority of New York City. A man was using a sandblaster to scrape paint off the Verrazano bridge. He turned off the sandblaster and removed his protective shields. The sandblaster (though off) turned on, hit the man, and caused permanent muscle damage to him. Dr. Hmurcik found a defect in the electronics controls that caused this. Dr. Hmurcik visited the Verrazano bridge in 2002 to collect his data.

On December 4, 2006, Dr. Hmurcik made a site investigation to the company Ultimate Display. He represented Attorney Joseph Dell. An employee had severe injuries while trying to remove a “clog” of plastic parts in a thermo former machine. This investigation is on going. The machine was turned OFF before the accident by 2 different switches. Yet, it went ON and injured the employee.

On October 14, 2006 Dr. Hmurcik worked on a case for a client who was injured on the exercise treadmill machine on the Princess Cruise line to the Grand Cayman Islands. Dr. Hmurcik visited the ship while it was in port in NY. He obtained the computer codes and codes from microprocessor. This enabled him to speak to the issue of the failure of the machine to stop when the client pressed the stop button.

Dr. Gonhsin Liu is consulting for a cellular phone manufacturer in Taiwan. The major area that he works on are mobile multimedia and 3G-WCDMA systems.

Within the last year, Henri Van Bemmelen developed several business decision simulators which can and have been used in class to simulate the consequences of making different departmental productivity assumptions about decisions and external conditions.
More on Faculty Publications & Achievements

Dr. Hu presented two papers. one at IETA06, 2006 and one at ASME-IMECE, 2006.


Dr. Chen, Prof. Tibrewal and Dean Sobh published a paper entitled “A Tool for Data Structure Visualization and User-defined Algorithm Animation” in the Journal of STEM Education. We are proud to announce that this paper was noted as the number one Journal’s referenced articles. Congratulations!

In April 2007, Dr. Hmurcik reviewed the article: “Grounding positions of superconducting layer for effective magnetic isolation in Josephson integrated circuits” for publication in the Journal of Applied Physics.

Dr. Hu attended the American Society of Mechanical Engineers (ASME) 2006 conference held in Chicago in November. She presented her paper entitled: “Effects of Welding Current on Metal Transfer and Weld Pool Dynamics in Gas Metal Arc Welding”.

Dr. Hu and H. L. Tsai, participated in the IEEE International Conference on Industrial Electronics, Technology & Automation (IETA06). They presented the paper “Droplet Acceleration in the Arc”.

Dr. Xiong and his colleagues Y. Wu, and W. Jone, presented the paper “Reliability Analysis of Self-Repairable MEMS Accelerometer” in the 21st IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems (DFT’06) in Arlington, VA, in October 2006.

Dr. Xiong, Y. Wu, and W. Jone are authors of the paper “MEMS Yield Simulation with Monte Carlo Method”. This paper was accepted in the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 06).


Khaled Elleithy and four students from the mobile / wireless communications group presented four papers in the 2007 Wireless Telecommunications Symposium which took place in Pomona California, April 26-28, 2007. The work presented in this symposium is a result of several course projects, masters’ projects and independent studies. Syed Rizvi, and Arif Maqbool have actively participated in the research activities to be presented in the conference.
The University of Bridgeport’s Ph.D. program in Computer Science and Engineering was launched in the fall with four students. The four students have their master’s degrees in engineering and excellent teaching and research experience. Out of the four, there are two attending full time and the other two are part time students.

As Dean Tarek 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.

According to Khaled Elleithy, Associate Dean of Graduate programs and Ph.D. program coordinator, “This new program emphasized the role of the University of Bridgeport as an international university and will increase its visibility worldwide.”

The program includes a track on “Information Technology Globalization”. The new track emphasizes the study of contemporary issues in the fields of global technology ventures, economics and management of the 21st century global engineering and computing enterprise, global/societal and economical impact of emerging technologies, managing the global research enterprise in the 21st century, global intellectual property management and IP implications on technology and computing advances and case studies in technology management across national borders.

By offering a Ph.D. with a globalization flavor, the University of Bridgeport will attract capable students from all over the world.”

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E. Kinber and S. Jain presented two papers at 17th International Conference on Algorithmic Learning Theory (ALT’2006). The conference took place in Barcelona, Spain during October 2006. The papers are entitled, “Iterative Learning from Positive Data and Negative Counter-examples” and “Learning and Extending Languages”.


UB SCHOOL OF ENGINEERING

University of Bridgeport Launches the new Ph.D. program in Computer Science and Engineering

Dr. Khaled Elleithy
Faculty In-depth Coverage


Springer has published two books in July 2006 which include a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. The two books are, “Advances in Systems, Computing Sciences and Software Engineering by Khaled Elleithy.”

Dr. Kongar will present her paper co-authored with Dr. Mueller, “Data Envelopment Analysis for the Anthropogenic Iron Cycle, at the ISIE 2007 conference to be held in June 16.

Dr. Kongar’s paper co-authored with Efendigil, T. and Onut, S., “A Holistic Approach for Selection of A Third-Party Reverse Logistics Provider In The Presence of Vagueness”, was accepted for publication in the Computers and Industrial Engineering Journal. Elif Kongar has an on-going grant with Yale University for the “Service Lifetimes of Mineral End Uses” project, a USGS Mineral Resources External Research Program.

Syed S. Rizvi and his colleges Khaled Elleithy and Aasia Riasat published their work entitled “Stored and forward one-bit round robin routing algorithm for faulty links optimization and load-scalability in hypercube networks”.

These authors are also currently working on the paper “Trees and Butterflies Barriers in Mattern’s GVT: A Better Approach to Improve Latency and the Processor Idle Time”.

In March 2007, Dean Sobh was invited by Springer Publishers to write a book on “Online Engineering, Automation and Robotics”. He also received an invitation from Nova Science Publishers to write a book on Computer Vision.

Faculty In-depth Coverage

Dr. Junling Hu, Professor of Mechanical Engineering, and Dr. Jeongku Lee, Professor of Computer Science and Engineering attended the kick-off meeting at the Pratt & Whitney Museum with Dr. Navarun Gupta, Dr. Xingguo Xiong, Dr. Linfeng Zhang, Dr. Saikat Ray and ten students enrolled in various degree programs at the School of Engineering.

Dr. Elleithy’s paper “Fast And Flexible Architectures For RNS Arithmetic Decoding” was selected as one of the top cited papers in the publication history of the Journal of IEEE Transactions on Circuits and Systems II- Analog and digital Signal Processing - one of the most Prestigious Journals in the field of Electrical and Computer Engineering—between year 1990 and 2000.

Dr. Elleithy’s paper discusses implementations of a fast and flexible residue decoder for residue-number-system (RNS)-based architectures which is based on the Chinese remainder theorem. The implementations are modular and are based on simple cells, which lead to efficient VLSI realizations. The paper has been cited extensively in literature and the reported implementations were used by many researchers in highly parallel arithmetic units based on RNS.

Dr. Selig was the advisor to MBA and TM student teams that won the CT Business plan competition in the Fall, 2005, Spring 2006 and Fall 2006. Four UB graduate teams competed in the Fall 2006 CT Business Plan competition on December 8, 2006. One of the UB graduate teams consisted of both Technology Management and MBA students. This group won the first prize of $1,000 in the Graduate Level – New Venture Enterprise category. The team members were: Ming-Hsun Shieh (TM), Kuan-Pei Chen (TM), Tung-Lin Tsai (TM) and Shishir Shakya (MBA). The team designed an inflatable “Air Jacket” product, which is a safety jacket to be worn by motorcycle riders to reduce injuries from accidents. Other universities that competed included the University of Hartford, Southern CT State University, Quinnipiac University, Western CT and Central CT. Twenty one business plans were submitted by CT based universities. Twelve plans were chosen to be presented at the finals. UB had four teams in the finals representing the Schools of Engineering and Business. Dr. Gad Selig was the advisor for all four teams. UB also received a trophy to commemorate the win. The business plan competition is sponsored by the CT Department of Economic Development and the CT Venture Group.


Students and More

Subrina Thompson, B.S. student in Computer Science, has been recognized by the United States Achievement Academy as a National Collegiate Engineering Award Winner for 2005 – 2006. Subrina was also recognized as an All-American Scholar Collegiate Award Winner.

Twelve students from Computer Science and Engineering attended the New England Board of Higher Education (NEBHE) Science Network meeting on November 18, held at the Massachusetts Institute of Technology (MIT). Wilfred Amuri, Kenneth Amuri, Armin Fako, Aben Jacob, Jovin Joy, Lyon Leslie, Uche Mejeche, Divya Guruprasad Pavagada, Joshua Scazziore, Bertrand Simon, Subrina Thompson and Hercules Roger attended the meeting.

Last Fall, students from Prof. Henri Van Bemmelen’s project management class prepared a paper and concept (including CD ROM) about the needs and requirements for on line training for the distance learning program.

The University of Bridgeport was part of the annual Lego League Challenge held at John Winthrop School in Bridgeport in December 2006. The theme was “Circus Robotix”. The Lego Challenge 2006 was for the teams to design, build and program a robot to accomplish the Challenge Missions on the Field. Teams explored current or potential applications of nanotechnology and learned what the experts and other groups are doing in this area.
Engineering Colloquium Series and Guest Lectures at the SOE

In March 22, Dr. Alan Grodzinsky, Director, Center for Biomedical Engineering, Professor of Electrical, Mechanical, and Biological Engineering, MIT gave a talk to SOE students and Faculty entitled “Molecular Electromechanics and Mechanobiology of Cartilage: Relevance to Arthritis and Cartilage Injury”.

Dr. Grodzinsky’s talk was the start of our new Engineering Colloquium Series, designed to include all the disciplines that are of interest to the SOE family.

Dr. Daniel B. Mueller, Associate Research Scientist, School of Forestry, Center for Industrial Ecology, Yale University on April 26.

Dr. Mueller’s lecture was entitled “Growth and Sustainability: the Yale Stocks and Flows project” where he summarized the on-going research at the Center for Industrial Ecology, School of Forestry, Yale University.

Both talks were followed by Q&A sessions where students and faculty members were able to direct questions to our guests.

On April 5, Mr. Andrew Rosca gave a lecture on his service company, KOMPO, for the School of Engineering (SOE) graduate students. Mr. Rosca, following an introduction to the service industry and its challenges, presented KOMPO’s clients and the services they receive.

Mr. Rosca explained how KOMPO has leveraged its expertise in various areas (technology, marketing, product design) to boost the business of its largest client, Steve Madden Inc.

As part of this case study Mr. Rosca discussed how KOMPO has streamlined the supply chain of Steve Madden. His talk was followed by a Q&A section, where SOE graduate students were able to ask him questions regarding service management and supply chain management.

On June 12, Mr. Michael M. Begg, of LaSalle Solutions discussed the life cycle management of today’s complex technology products. Mr. Begg’s talk focused on four main parts, viz., Hardware Acquisition, Financial Solutions, Disposition Services, Asset & Contract Management. In addition Mr. Begg included a discussion of some of the main players in today’s technology marketplace, including Cisco, IBM, Sun & EMC.
Second International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering

ISSE 2006, the Second International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering, concluded; and it was a great success!

CISSE is the World’s first high-caliber Engineering/Computing and Systems Research Conference in the world to be completely conducted online in real-time via the internet.

CISSE 2006 was sponsored by the University of Bridgeport and the Institute of Electrical & Electronics Engineers (IEEE). The conference chairs were: Prof. Toshio Fukuda from Nagoya University, Japan, and Professors Tarek Sobh and Khaled Elleithy from the University of Bridgeport.

CISSE composed of the following four conferences:

1. International Conference on Industrial Electronics, Technology & Automation (IETA)
2. International Conference on Telecommunications and Networking (TeNe)
3. International Conference on Systems, Computing Sciences and Software Engineering (SCSS)

According to Prof. Tarek Sobh, “CISSE 2006 received 690 research paper submissions and the final program included 370 accepted papers, from more than 70 countries. The whole concept and format of CISSE is 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 pick and 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 are part of the permanent CISSE archive, which includes all power point presentations, papers and recorded presentations. The Conference book proceedings are published by Springer, the world’s leading publisher of science and engineering research manuscripts, journals and books.”

Prof. Khaled Elleithy mentioned that “all aspects of the conference were managed on-line; not only the reviewing / submissions, registrations, etc.; but also the actual conference. Conference participants - authors, presenters and attendees - only needed an internet connection and sound available on their computers in order to be able to contribute and participate in this international ground-breaking conference.

The on-line structure of this high-quality event allowed academic professionals and industry participants to contribute work and attend world-class technical presentations based on rigorously refereed submissions, live, without the need for investing significant travel funds or time out of the office.

Suffice to say that CISSE received submissions from more than 70 countries, for whose researchers, this opportunity presented a much more affordable, dynamic and well-planned event to attend and submit their work to, versus a classic, on-the-ground conference.”

The CISSE conference audio room provided superb audio even over low speed internet connections, the ability to display PowerPoint presentations, and cross-platform compatibility (the conferencing software runs on Windows, Mac, and any other operating system that supports Java).

In addition, the conferencing system allowed for an unlimited number of participants, which in turn granted the opportunity to allow all CISSE participants to attend all presentations, as opposed to limiting the number of available seats for each session.

The implemented conferencing technology, starting with the submission & review system and ending with the online conferencing capability, allowed for a very high quality, fulfilling event for all participants.

CISSE 2007 (http://www.cisse2007.org) is planned to be held December 3-12, 2007.

For more information about CISSE 2006 and CISSE 2007, please visit:

http://www.cisse2006.org
http://www.cisse2007.org
The recycling program to be initiated in University of Bridgeport is seeking help from the Alumni. Please contact Elif Kongar (kongar@bridgeport.edu) for your possible contributions and donations to make UB a green campus !!!

Big Successes

Big Responsibilities

A periodic newsletter for engineering educators, edited by Elif Kongar, Ph.D., Tarek M. Sobh, Ph.D., P.E., Susan Kristie and Dimo Sandev.

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