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**UNIVERSITY OF
BRIDGEPORT**

Opening doors. Building futures.

Message from the Dean

The School of Engineering at the University of Bridgeport (UB) is home to the largest graduate engineering program in the State of Connecticut. The graduate program at UB is also the second largest program in New England in terms of both the number of enrolled students and graduates.

Among doctoral research universities in the United States, UB has consistently ranked among the top five international universities according to the *U.S. News & World Report* annual rankings, in addition to ranking near the top within the areas of diversity and small class sizes. Furthermore, the online program offered by the SOE was ranked the top in the nation.

The School of Engineering at UB is home to the fastest growing graduate Biomedical Engineering program and Ph.D. program in Computer Science and Engineering in New England, and over the last several years, the SOE has exhibited the highest growth rate at the graduate level among all engineering schools in the nation.

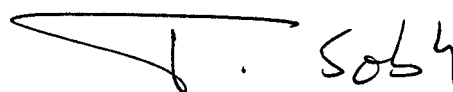
Fields of engineering study at UB include: Computer Engineering, Electrical Engineering, Mechanical Engineering, Biomedical Engineering, Computer Science, and Technology Management. The School of Engineering at UB is internationally renowned for interdisciplinary programming and also offers many research and graduate concentrations, certificates, and dual-degree opportunities within several multidisciplinary fields of study, including: Bio-Technology Management; CAD/CAM; Computer and Information Security; Computer Communications and Networking; Entrepreneurship; Environmental and Energy Management and Engineering; Intellectual Property Management; Manufacturing Management; Microelectronics and Computer Architecture; Robotics and Automation; Service Management and Engineering; Signal and Image Processing; Software Engineering; Supply Chain Management; Very Large Scale Integration (VLSI); and Wireless and Mobile Communications.

Sponsored research funding at the School of Engineering has quadrupled in the last four years. The SOE houses several research centers and laboratories that are internationally renowned within the following areas: Applied Computational Fluid Dynamics; Sustainable Energy and Environment; Cloud Computing; CNC Milling; Robotics, Intelligent Sensing and Control; Multi-Media Information Systems; Nanomaterials & Nanobiomaterials Engineering; PLC Controls & IC; Renewable Energy; Signal Processing and Wireless and Mobile Communications.

SOE students were awarded all the prizes for the graduate engineering research project competition in April 2013 at the regional American Society for Engineering Education (ASEE) annual conference, held at Norwich University in Vermont. Not only is this unprecedented, but it speaks volumes about the innovation, quality and dedication of the SOE students and their supervising faculty.

With a very strong Industry Advisory Board, a high-tech business incubator on campus (CTech IncUBator) and significant collaborative relationships with more than 700 companies and industries in the New England and Mid-Atlantic regions, the School of Engineering has, and continues to place, thousands of engineering undergraduate and graduate students in co-ops and internship positions while they are still in the academic programs, in addition to maintaining a stellar record of full-time job placement upon student graduation.

I hope you enjoy reading our annual report. We all look forward to yet another stellar year for engineering students and faculty at the University of Bridgeport.



Tarek M. Sobh, Ph.D., P.E.
Senior Vice President for Graduate Studies and Research
Dean, School of Engineering



UB SOE Achievements



UB RANKED BY *U.S. NEWS & WORLD REPORT* AS ONE OF NATION'S BEST UNIVERSITIES FOR ONLINE LEARNING.

The University of Bridgeport's online degree programs have been named among the top in the nation, according to the *U.S. News & World Report* ranking, "2013 Best Online Education Programs."

UB's information technology program, which includes master's degree programs in computer science and technology management, was ranked the fourth best in the nation. Its online bachelor's general studies program was ranked 12th, and its online engineering track was ranked 16th.

U.S. News & World Report based the standings on factors that included faculty credentials and training, academic and support services for students, applicants' GPAs and other admissions criteria, program reputation, technologies, student satisfaction, and graduation rates. To be eligible for the U.S. News 2013 rankings, programs had to offer 100 percent of their courses online.

UB has established itself as a leader in distance learning. It was the first university in Connecticut to offer online classes when in

1997 it launched distance-learning courses in human nutrition. Today, the curriculum includes more than 100 online courses. In addition, UB professors who teach online complete training programs to enhance their expertise in technology and expand their knowledge of best teaching practices for the web.

"We're proud of our rankings from *U.S. News & World Report* because we're committed to creating online courses that are engaging for students," said Kris Bickell, UB's director of distance education. "We look forward to expanding our online degree programs and expanding access for students who want the education we're offering, but for various reasons, can't get to our Bridgeport campus."

The number of schools nationwide offering online degree programs has soared in the last decade. In 2012, 62 percent offered distance learning, up from 34.5 percent in 2002, according to a release in January from Babson Survey Research Group. ■



FACULTY RESEARCH DAY 2013: ANNUAL EVENT CELEBRATES BREAKTHROUGHS FROM NANOTECHNOLOGY TO ECONOMICS

On February 1, 2013 a crowd of over 170 packed the University of Bridgeport's Schelfhaudt Gallery to view 116 research posters and talk with their authors at the 2013 Faculty Research Day. The annual event showcasing faculty and student research consists of a morning poster session, followed by a keynote speech, lunch with breakout sessions, afternoon poster talks by selected faculty, and an awards reception.

Since its inception in 2011, the number of poster submissions has increased every year, with this year's 116 posters consisting of 48 submitted by faculty, 59 by graduate students, and 9 by undergraduate students. Participation was vast and included posters from each of these academic units: School of Arts and Sciences, School of Business, College of Public and International Affairs, School of Engineering, all Health Sciences programs, School of Education, and the Shintaro Akatsu School of Design.

Attendees included poster authors as well as other faculty, Industry Advisory Board members, community leaders and partners,

and venture capitalists. A number of members of the UB Board of Trustees also visited the poster session and spoke with faculty and students.

Following the morning poster session, participants were welcomed by Frank Zullo, Esq., Co-Chair of UB's Board of Trustees, and Tarek M. Sobh, Ph.D., Senior Vice President for Graduate Studies and Research. Provost Hans van der Giessen introduced the keynote speaker, Laura Manuelidis, M.D., Professor and Head of Neuropathology at Yale University School of Medicine, who spoke on "Unexpected Segues Into and Out of Medicine."

Lunchtime provided the option to attend one of two presentations or choose general seating. Wendy Garcia, IRB Co-chair, led the session on "Human Subjects Research and the IRB Process" and Yanmin Yu, University Personnel Committee member, spoke on "Area 2: Contributions to Your Disciplines."

The afternoon schedule was highlighted by fifteen featured poster talks. A popular wine and cheese reception with award presentations concluded the day.

A faculty poster competition was added this year, which stimulated 18 submissions vying for one of four \$1,000 awards that were judged by a group of four from academia and industry: Shannon Harding, Ph.D. (Fairfield University), Nathan Hicks (Engineer Alliance LLC, a joint company of General Electric and Pratt & Whitney), Johnathon Walls, Ph.D. (Regeneron Pharmaceuticals), and Wook-Sung Yoo, Ph.D. (Fairfield University). An additional 30 faculty posters were submitted in the non-competitive category. Graduate and undergraduate student awards for first, second, and third places, and honorable mentions were selected by a team of UB faculty judges.

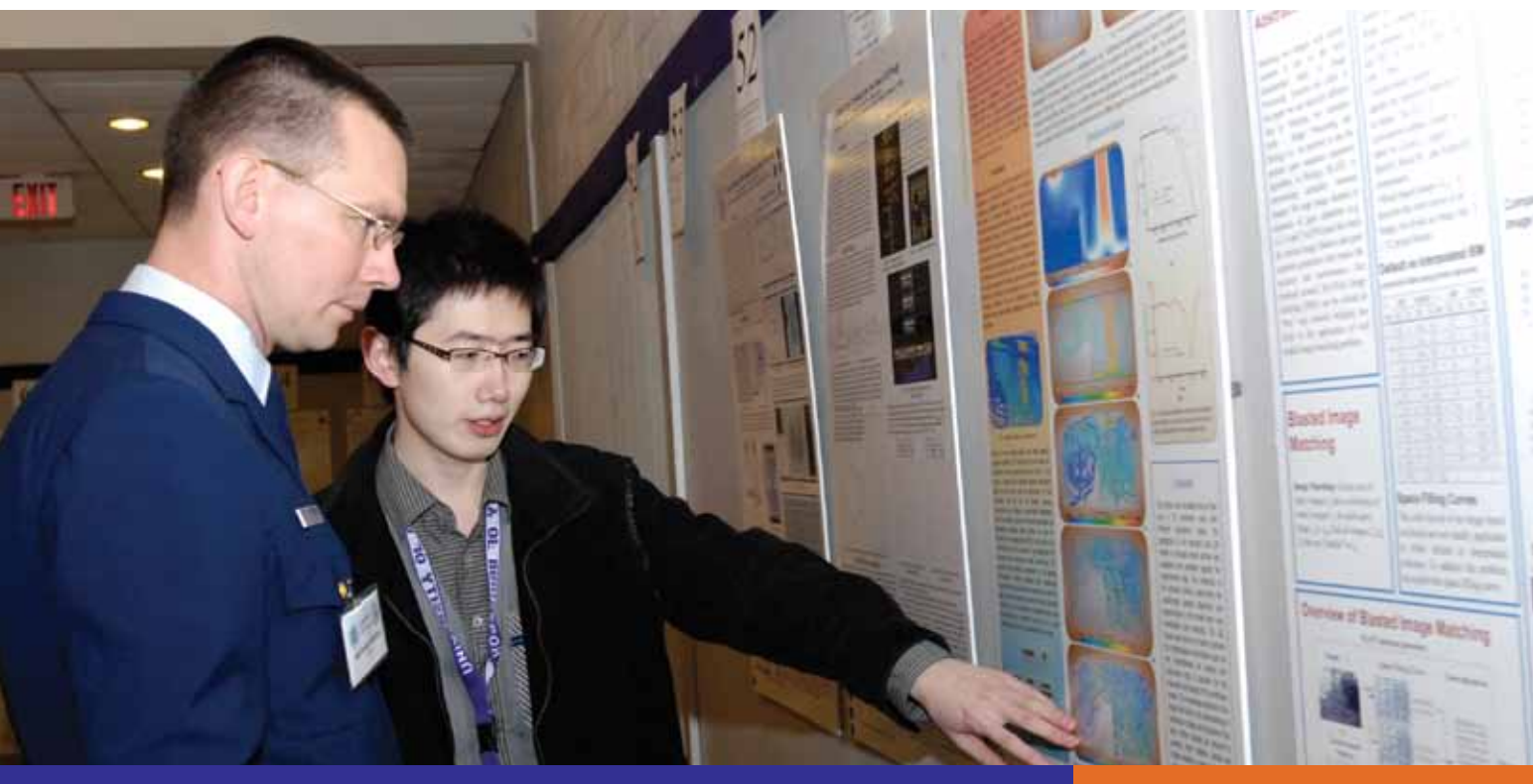
Faculty awards

Maria Gherasimova, Ph.D.

Liane Leedom, M.D.

Prabir Patra, Ph.D.

Stephen Perle, D.C. ■



FACULTY Notes



Doctor Obasa Koswatta (MSCpE 2002), who is a member of the IBM device group at their Fishkill facility, has been working on the development of logic transistors utilizing carbon nanotube technology. This is IBM's project 22SOI.

Professor Khaled Elleithy was elevated to the grade of IEEE Senior member in April 2013. Only eight percent of IEEE's approximately 419,900 hold this grade. As per IEEE, this grade "requires extensive experience, and reflects professional maturity and documented achievements of significance."

Lawrence V. Hmurcik, Professor of Electrical Engineering, reviewed the paper "Design and Fabrication of a High Transmissivity Metal-Dielectric UVB and pass Filter" for the journal *Applied Physics Letters*.

Xingguo Xiong of Electrical Engineering, recently reviewed the paper "Constellation based dynamic ranges with discrete Hartley transformation for efficient orthogonal frequency division multiplexing modulator/demodulator communication systems" for the *Journal of Electrical and Electronic Engineering Research*.

Xiaowei Yu, Xingguo Xiong, faculty advisor's poster, "Voltage-Downscaling with Logic Shut-Down for Low-Power VLSI Design," received 6th place in a student poster competition at the 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

Neal Lewis, Yiran Zhang (MS TM 2011), and Ted Eschenbach (University of Alaska Anchorage) were recognized at the 2013 ASEE



National Conference for winning the PIC 1 Best Paper Award at the 2012 ASEE conference. This paper was one of six best papers recognized out of 1500 papers submitted at the conference. ■



Research Grants

■ **Zheng (Jeremy) Li**, Associate Professor of Mechanical Engineering, was awarded a \$20,000 grant by the Connecticut Space Grant College Consortium for the project, “Computer-aided Analysis and Experimental Study of Nanocoating Technology Applied to NASA and US Aerospace Industry.” (January 1 - December 31, 2013)

■ **Hassan Bajwa**, Assistant Professor of Electrical Engineering, was awarded an \$11,000 grant by the Connecticut Space Grant College Consortium for the project, “Nanoscale Antenna for In-space Power Harvesting Applications” (January 1 - December 31, 2013). Bajwa’s research team includes Jani Macari Pallis, Ph.D., Associate Professor of Mechanical Engineering, and Christian Bach, Ph.D., Assistant Professor of Technology Management and Biomedical Engineering.

■ **Junling (Joyce) Hu**, Chair, Department of Mechanical Engineering and Associate Professor of Mechanical Engineering, was awarded a \$2,000 Everyday Examples in Engineering (E3s) mini-grant by the Stevens Institute of Technology as part of an NSF grant awarded to Stevens (March 1, 2013 to March 31, 2014). Other UB faculty participating in this project are: Navarun Gupta, Ph.D., Associate Chairman of Electrical Engineering and Associate Professor of Electrical and Computer Engineering, and Miad Faezipour, Ph.D., Assistant Professor of Computer Science and Engineering.

UB’s 2013 Faculty Research Day Faculty Awards

Maria Gherasimova, Ph.D., Physics

“Nanoscale Clusters of Ge Islands on Si Self-assembled by a Two-step Growth Process on Residual Surface Trenches”

Liane Leedom, M.D., Counseling

“The Impact of Psychopathy on the Family: A Mixed Methods Approach”

Prabir Patra, Ph.D., Biomedical Engineering

“Graphene Nano Tribology of Biomedical Significance”

Stephen Perle, D.C., Chiropractic

“Therapeutic Forces and Their Transmission from the Skin Surface into the Spine” ■



RESEARCH Spotlight



PRABIR PATRA, PH.D.

Prabir Patra is involved in multiple research projects taking place on campus and across the U.S., in collaboration with researchers at institutions such as Rice University, University of Texas at Dallas, Lamar University, Wesleyan University, and the University of Connecticut, to name a few. All include participation of his UB students. Patra, UB's Director of Biomedical Engineering and Assistant Professor of Biomedical Engineering and Mechanical Engineering, energizes those around him with his creativity and lively de-

scriptions of his research projects.

Patra came to UB in January 2009 following postdoctoral appointments at the University of Massachusetts Dartmouth and Rice University. Patra has numerous publications in the area of nanotechnology and biomedical engineering. He also developed and chairs UB's biomedical engineering department that started in 2010 and currently enrolls close to 80 students.

Many high quality papers have put Patra on par with his peers. In December 2013, Patra and collaborators from Lamar University and Rice University published his startling findings in the prestigious journal, *Nature Communications*, from Nature Publishing group. The article, "Water tribology on graphene," is a first time report on the unique frictional behavior of graphene that could pave the way for biomedical lubricants and cosmetics. This research also was featured in Patra's award-winning poster at this year's Faculty Research Day. On April 23, 2013 Patra and his collaborator of Rice University again published their seminal work on "Dynamic self-stiffening in liquid crystalline elastomers" in *Nature Communications*. Their unique findings will one day pave the way for the development of self-healing, biocompatible and adaptive biomaterials for tissue replacement. Patra's research focus is driven by his intense pas-



sion to unlock the secrets of nanotechnology in part for medical applications. This intersection of nano-scale invention and medicine has the potential for transformation, from diagnostics to treatment. Whether it is graphene or other biologically inspired nanostructures, Patra's interest is how they might be used in new tools for the diagnosis of disease in developing countries, new methods of drug delivery, or for artificial tissue. Conducting research with colleagues at UB and elsewhere, and with involvement of his students, will continue to consume Patra's time and energy as he seeks to investigate and harness the potential of this newer frontier in science. ■



STUDENT Awards & Scholarships



UB'S 2013 FACULTY RESEARCH DAY STUDENT AWARDS

Graduate Student 1st Place

Ashish Aphale (Biomedical Engineering)

“Fabrication of Electrospun Composite Nanofibers and Their Application in Early Detection of Femtogram C-reactive Protein (CRP)”

Additional Student Authors: Krishna Vattipalli, Isaac Macwan, and Shalini Prasad

Advisor: Prabir Patra, Ph.D.

Graduate Student 2nd Place

Ali Alzaidi (Electrical Engineering)

“Noncontact Textile Electrodes for Wireless ECG System”

Advisors: Prabir Patra, Ph.D. and Hassan Bajwa, Ph.D.

Graduate Student 3rd Place

Varun Pande (Computer Science and Engineering)

“Classification and Detection of Fire on WSN Using IMB400 Multimedia Sensor Board”

Additional Student Author: Wafa Elmannai
Advisor: Khaled Elleithy, Ph.D.

Graduate Student Honorable Mention

Ashish Aphale (Biomedical Engineering)

“Engineering Nanoscale Energy Storage Devices from *C. aerogropila* Algae Cellulose Dispersed in Graphene”

Additional Student Authors: Aheli Chattopadhyay and Kapil Mahakalkar

Advisor: Prabir Patra, Ph.D.

Nazar Fadhil (Biomedical Engineering)

“Power Harvesting from Artery Using Nanoscale PVDF for Implanted Devices”

Additional Student Author: Dleer Saber
Advisor: Prabir Patra, Ph.D.

Undergraduate 1st Place

Taylor Gofstein (Medical Laboratory Sciences)

“Women and Children First? A Statistical Analysis of the RMS Titanic Tragedy”

Advisor: Kathleen Engelmann, Ph.D.

Undergraduate 2nd Place

Emily Geslien (Psychology)

“Did He Ever Love Me? A Qualitative Study of Life with a Psychopathic Husband”

Advisor: Liane Leedom, M.D.

Undergraduate 3rd Place

Theresa Wheeler (Biology)

“Vernalization: Effects of Water Temperature on *Arabidopsis thaliana*”

Advisor: Kathleen Engelmann, Ph.D.

Undergraduate Honorable Mention

Nona Khadivi, Cristina Ayala, Maria Donayre (Dental Hygiene)

“The Use of Probiotics in Oral Healthcare”

Advisors: Sandra Stramoski, RDH, B.S.

UPE Special Recognition Scholarship (\$1250 Cash Award)

Wafa Elmannai



UB STUDENTS SWEEP AWARDS AT THE 2013 REGIONAL AMERICAN SOCIETY OF ENGINEERING EDUCATION (ASEE) ANNUAL CONFERENCE.

The School of Engineering had a historic day on Friday, March 15, 2013 in Norwich University, at the 2013 regional American Society of Engineering Education (ASEE) annual conference. The UB SOE students were awarded ALL the awards for the graduate research project competition. Not only did UB SOE win the first, second and third place awards, which has actually happened before, but this year UB students won ALL the graduate research poster awards (6 awards were given total). Not only is this unprecedented, but it speaks volumes about the innovation, quality and dedication of the SOE students and their supervising faculty!



1st Place

Liali Almazaydeh

“SVM-Based Sleep Apnea Identification using Optimal RR-Interval Features of the ECG Signal”

Advisors: Khaled Elleithy and Miad Faezipour

2nd Place

Isam Hameed

“Vessel Segmentation in Retinal Images with a Novel Network Tracking Algorithm”

Advisors: Buket Barkana

3rd Place

Nazar A. Fadhil and Deleer S. Saber

“Power Harvesting from Arteries using Nano-scale PVDF for Implanted Devices”

Advisor: Prabir Patra

4th Place

Can Ozan Gulcihan and Ece Haznedaroglu

“Reverse Logistics Operation Management via Radi Frequency Identification-Based (RFID-Based) Information Network for End-of-Life Pharmaceutical Products”

Advisor: Elif Kongar

5th Place

Deleer S. Saber and Nazar A. Fadhil

“Intravascular Multi-layered Glucose Sensor for an Artificial Pancreas”

Advisor: Prabir Patra

6th Place

Xiaowei Yu

“Voltage-Downscaling with Logic Shut-Down for Low-Power VLSI Design”

Advisor: Xingguo Xiong ■



Tarek Sobh reports, “The attendees at the conference were very complimentary of UB SOE students and faculty and the comments from other faculty, students, and Engineering administrators were gratifying and should make all of us very proud of our students and faculty.”

FACULTY Publications



A Sample of Book Chapters Published

K. Elleithy and T. Sobh

“Innovations and Advances in Computer, Information, Systems Sciences, and Engineering,” Springer, 2013.

T. Sobh and K. Elleithy

“Emerging Trends in Computing, Informatics, Systems Sciences, and Engineering,” Springer, 2013.

A. Razaque and K. Elleithy

“Detection of Attacks for Restoring Privacy of Users to Improve Mobile Collaborative Learning (MCL) Over Heterogeneous Network,” Communications in Computer and Information Science, Springer, Volume 294, 2012.

A. Razaque and K. Elleithy

“Ambient Intelligence Paradigm to support pedagogical activities over wireless sensor networks,” Ubiquitous Computing and Ambient Intelligence (UCAmI), Springer, 2012.

A. Razaque, A. Alotaibi, K. Elleithy

“Location Based Overlapped Mobility Aware network Model,” Innovations and Advances in Computer, Information, Systems Sciences, and Engineering, Springer, September 2012.

T. Sobh, X. Xiong (editors)

“Prototyping of Robotic Systems: Applications of Design and Implementation,” (ISBN10: 1466601760), Feb. 29, 2012, IGI Global publishing company.

L. Almazaydeh, K. Elleithy, M. Faezipur and A. Abushakra

“An Automated Classification Model using Voice Activity Detection (VAD) Algorithm to Detect Sleep Apnea,” Mobile Health(mHealth): The Technology Road Map, Springer (in press), 2013.

G. Eschenbach; N. Lewis, C. Hartman, E. Lynn

“The Economic Evaluation of Industrial Projects,” 3rd edition, accepted for publication by Oxford University Press.

G. Selig

“The Impact of Threats and Catastrophes on Corporate Governance: How to Minimize Disruption, Mitigate Risks and Manage Business Recovery and Continuity Proactively,” David H. McIntyre and William Hancock, Editors, Business Continuity and Homeland Security, Edward Elgar Publishers, London, England, 2012.

A Sample of Conference and Journal Papers

L. Almazaydeh, K. Elleithy, M. Faezipour, H. Ocbagabir

“SVM-Based Sleep Apnea Identification Using Optimal RR-Interval Features of ECG Signal,” special issue of IEEE Journal on Translational Engineering in Health and Medicine, 2013.

A. Abushakra, M. Faezipour

“Acoustic Signal Classification of Breathing Movements to Virtually Aid Breath Regulation,” in IEEE Transactions on Information Technology in BioMedicine (TITB), also newly named as IEEE Journal of Biomedical and Health Informatics (JBHI), Vol. 17, No. 2, pp. 493-500, March 2013.

I. Alshalabi, S. Hamada, K. Elleithy

“Research Learning Theories that Entail M-Learning Education Related to Computer Science and Engineering Courses,” International Journal of Engineering Sciences, March 2013.

W. Elmannaï, A. Razaque, K. Elleithy

“Deployment of TCP University of Bridgeport (UB) to Control Law Enforcement Depart-

ment over Wireless Mesh Network,” Journal of Communications and Computer Engineering, Volume 3, Issue 1, pp. 40-47, 2013.

Z. Nossire, K. Elleithy, B. Ammourah

“A New Improved Storage Model of Wireless Devices using the Cloud,” International Journal of Computer Networks & Communications (IJCNC), Vol. 5, No. 1, pp. 69 - 80, January 2013.

A. Razaque K. Elleithy

“Controlling Attacks of Rogue Dynamic Host Configuration Protocol (DHCP) to Improve Pedagogical Activities in Mobile Collaborative Learning (MCL) Environment,” International Journal of Communication and Computer Engineering, Volume 3, Issue 1, pp. 15-29, 2013.

A. Alajlan, B. Dasari, Z. Nossire, K. Elleithy, V. Pande

“Topology Management in Wireless Sensor Networks: Multi-State Algorithms,” International Journal of Wireless & Mobile Networks (IJWMN) Vol. 4, No. 6, pp. 17-25, December 2012.

A. Elrashidi, K. Elleithy, H. Bajwa

“Performance Analysis of a Microstrip Printed Antenna Conformed on Cylindrical Body at Resonance Frequency 4.6 GHz for TM01 Mode,” Procedia Computer Science, Elsevier, Volume 10, pp. 775-784, 2012.

L. Zhang, X. Xiong

“Design and Implementation of a Renewable Energy Laboratory Course,” 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

C. Zhang, X. Kang, X. Xiong, S. Zhang

“Design and Simulation of a Three-way Micro-fluidic Mixer based on Pressure Disturbance,” Proceedings of 2012 ASEE Northeast Section Conference, April 27-28, 2012, University of Massachusetts Lowell, MA, USA.

Z. He, X. Xiong, W. Quan

“Design and Analysis of a Novel MEMS Dual Axis Accelerometer,” Proceedings of 2012 ASEE Northeast Section Conference, April 27-28, 2012, University of Massachusetts Lowell, MA, USA.

R. Alataas, K. Elleithy

“Quantum Computing Hardware Implementation Methods: A Survey over Categories,” International Conference on Quantum Information Science and Engineering, Berlin, Germany during May 22-23, 2013.

V. Pande, W. Elmannai, K. Elleithy

“Classification and Detection of Fire on WSN Using IMB400 Multimedia Sensor Board,” 2013 IEEE Long Island Systems, Applications and Technology Conference, Farmingdale State College - State University of New York, May 3, 2013.

A. Odeh, K. Elleithy, M. Faezipour

“Steganography in Arabic Text Using Kashida Variation Algorithm (KVA),” 2013 IEEE Long Island Systems, Applications and Technology Conference, Farmingdale State College - State University of New York, May 3, 2013.

R. Alataas, K. Elleithy

“Cloud Computing Algebra Homomorphic Encryption Scheme Based on Fermat’s Little Theorem,” The American Society of Engineering Education, ASEE 2013, March 14-16 2013, Northfield, VT, USA.

A. Odeh, K. Elleithy, M. Faezipour

“Text Steganography Using Language Remarks,” The American Society of Engineering Education, ASEE 2013, March 14-16 2013, Northfield, VT, USA.

L. Almazaydeh, K. Elleithy, M. Faezipour

“A Panoramic Study of Obstructive Sleep Apnea Detection Technologies,” 28th International Conference on Computers and Their

Applications, CATA-2013, March 4-6, 2013, Honolulu, Hawaii, USA.

A. Odeh, K. Elleithy

“Steganography in Text by Merge ZWC and Space Character,” 28th International Conference on Computers and Their Applications, CATA-2013, March 4-6, 2013, Honolulu, Hawaii, USA.

A. Razaque, K. Elleithy

“Efficient Search (RES) for One-Hop Destination over Wireless Sensor Networks,” 28th International Conference on Computers and Their Applications, CATA-2013, March 4-6, 2013, Honolulu, Hawaii, USA.

L. Almazaydeh, K. Elleithy, V. Pande, M. Faezipour

“OSA Screening Test at the Patient’s Home,” IEEE EMBS Conference on Micro and Nanotechnology in Medicine (IEEE MNMC 2012), Hawaii, USA, December 3-7, 2012.

A. Razaque, K. Elleithy

“Ambient Intelligence Paradigm to support pedagogical activities over wireless sensor networks,” Ubiquitous Computing and Ambient Intelligence (UCAmI), Gasteiz, Spain, December 3-5, 2012.

A. Odeh, K. Elleithy

“Steganography in Arabic Text Using Full Diacritics Text,” 25th International Conference on Computers and Their Applications in Industry and Engineering (CAINE-2012), New Orleans, Louisiana, USA, November 14-16, 2012.

L. Almazaydeh, K. Elleithy, V. Pande, M. Faezipour

“Development of OSA Event Detection Using Threshold Based Automatic Classification,” 25th International Conference on Computers and Their Applications in Industry and Engineering (CAINE-2012), New Orleans, Louisiana, USA, November 14-16, 2012.

V. Pande, W. Elmannai, K. Elleithy

“Optimized Algorithm for Fire Detection over WSN using Micaz Motes,” 25th International Conference on Computers and Their Applications in Industry and Engineer-

ing (CAINE-2012), New Orleans, Louisiana, USA, November 14 - 16, 2012.

W. Elmannai, K. Elleithy, V. Pande

“Efficient and Optical Character Recognition Algorithm for Signature Recognition,” 25th International Conference on Computers and Their Applications in Industry and Engineering (CAINE-2012), New Orleans, Louisiana, USA, November 14 - 16, 2012.

V. Pande, K. Elleithy, and L. Almazaydeh

“Parallel Processing for Multi Face Detection and Recognition,” 25th International Conference on Computers and Their Applications in Industry and Engineering (CAINE-2012), New Orleans, Louisiana, USA, November 14-16, 2012.

L. Almazaydeh, K. Elleithy, M. Faezipour, H. Ocbagabir

“SVM-Based Sleep Apnea Identification Using Optimal RR-Interval Features of ECG signal,” IEEE Healthcare Technology Conference: Translational Engineering in Health & Medicine (IEEE HIC 2012), Houston, Texas, USA, November 7-9, 2012.

L. Almazaydeh, K. Elleithy, M. Faezipour

“Obstructive Sleep Apnea Detection Using SVM-Based Classification of ECG Signal Features,” 34th Annual International Conference of the IEEE Engineering in Medicine and Biology (IEEE EMBC’12), San Diego, California, USA, August 28 - September 1, 2012.

A. Elrashidi, K. Elleithy, H. Bajwa

“Performance Analysis of a Microstrip Printed Antenna Conformed on Cylindrical Body at Resonance Frequency 4.6 GHz for TM01 Mode,” The 9th International Conference on Mobile Web Information Systems, Niagara Falls, Ontario, Canada, August 27-29, 2012.

A. Odeh, K. Elleithy and M. Faezipour

“Steganography in Arabic Text Using Kashida Variation Algorithm (KVA),” in Proceedings of the 9th IEEE Long Island Systems and Applications and Technology Conference (IEEE LISAT’13), Long Island, NY, May 2013.

FACULTY Publications

A. Al-Rahayfeh, M. Faezipour

“Enhanced Frame Rate for Real-Time Eye Tracking Using Circular Hough Transform,” in Proceedings of the 9th IEEE Long Island Systems and Applications and Technology Conference (IEEE LISAT'13), Long Island, NY, May 2013.

D. Saber, N. Fadhil, P. Patra, M. Faezipour

“Intravascular Multi-Layered Glucose Sensor for an Artificial Pancreas,” in Proceedings of the 9th IEEE Long Island Systems and Applications and Technology Conference (IEEE LISAT'13), Long Island, NY, May 2013

H. Ocbagabir, K. Aboalayon and M. Faezipour

“Efficient EEG Analysis for Seizure Monitoring in Epileptic Patients,” in Proceedings of the 9th IEEE Long Island Systems and Applications and Technology Conference (IEEE LISAT'13), May 2013. Long Island, NY, May 2013.

O. Abuzagheh, M. Faezipour, B. D. Barkana

“SKINaid: A Virtual Reality System to Aid in the Skin Cancer Prevention and Pain Treatments,” in Proceedings of the 9th IEEE Long Island Systems and Applications and Technology Conference (IEEE LISAT '13), Long Island, NY, May 2013.

A. Abushakra, M. Faezipour

“Conceptual Framework of a Virtual Reality Environment to Assist Lung Cancer Patients,” in Proceedings of the IEEE EMBS Micro and Nanotechnology in Medicine Conference (IEEE MNM'12), pp. 20, Westin Maui, HI, Dec. 2012.

A. Abushakra, M. Faezipour

“Estimating Lung Capacity from Acoustic Signal of Respiration,” in Proceedings of the IEEE EMBS Micro and Nanotechnology in Medicine Conference (IEEE MNM'12), pp. 19, Westin Maui, HI, Dec. 2012.

A. Abushakra, M. Faezipour

“Lung Capacity Estimation Through Acoustic Signal of Breath,” in Proceedings of the 12th IEEE International Conference on Bio Informatics and Bio Engineering (IEEE BIBE), pp. 386-391, Larnaca, Cyprus, Nov. 2012.



A. Abushakra, M. Faezipour

“An Automated Approach Towards Estimating Lung Capacity from Respiration Sounds,” in Proceedings of the IEEE Healthcare Innovations Conference (IEEE HIC'12), pp. 232-235, Houston, TX, Nov. 2012.

A. Abushakra, M. Faezipour, A. Abumunshar,

“Efficient Frequency - Based Classification of Respiratory Movements,” in Proceedings of the IEEE International Conference on Electro/Information Technology (IEEE EIT'12), pp.1-5, Indianapolis, IN, May 2012.

L. Almazaydeh, K. Elleithy, M. Faezipour

“Detection of Obstructive Sleep Apnea through ECG Signal Features,” in Proceedings of the IEEE International Conference on Electro/Information Technology Conference (IEEE EIT 2012), pp.1-5, Indianapolis, IN, May 6-8, 2012.

L. Almazaydeh, K. Elleithy, M. Faezipour

“Obstructive Sleep Apnea Detection Using SVM-Based Classification of ECG Signal Features,” in Proceedings of the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology (IEEE EMBC'12), pp. 4938-4941, San Diego, CA, Aug.-Sep. 2012.

S. Bhosale, A. Aphale, I. Macwan

M. Faezipour, P. Bhosale and P. Patra

“Computer Assisted Detection of Liver Neoplasm (CADLN),” in Proceedings of the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology (IEEE EMBC '12), pp. 1510-1513, San Diego, CA, Aug.-Sep. 2012.

L. Almazaydeh, K. Elleithy M. Faezipour, H. Ocbagabir

“SVM-Based Sleep Apnea Identification Using Optimal RR-Interval Features of ECG Signal,” in Proceedings of the IEEE Healthcare Innovation Conference, (IEEEHIC 2012), pp. 278-281, Houston, TX, Nov. 2012.

L. Almazaydeh, K. Elleithy, V. Pande, M. Faezipour

“Development of OSA Event Detection Using Threshold Based Automatic Classification,” in Proceedings of 25th International Conference on Computer Applications in Industry and Engineering (CAI N E 20 12), New Orleans, LA, Nov. 2012.

L. Almazaydeh, K. Elleithy, V. Pande, M. Faezipour

“OSA Screening Test at the Patient's Home,” in Proceedings of the IEEE EMBS Conference on Micro and Nanotechnology in Medicine (IEEE MNMC 2012), pp. 17, Westin Maui, HI, Dec. 2012.

K. Rangarajan, S. Long, N. Ziemer, N. Lewis,

“An Evaluative Economic Development Typology for Sustainable Rural Economic Development.” Community Development, Vol. 43, No. 3, July 2012, pp. 320-332.

G. Eschenbach, N. Lewis,

“Using When to Start Collecting Social Security as a Student Case Study,” Advances in Financial Education, Vol. 10, No. 1&2, 2012.

G. Selig, E. Kongar, N. Lewis, C. Bach, T. Sobh

“The Proposed Ph.D. in Technology Management at the University of Bridgeport - A Case Study,” International Journal of Information and Operations Management Education (accepted for publication; available online).

G. Selig, E. Kongar, N. Lewis, C. Bach

“The Proposed Ph.D. in Technology Management at the University of Bridgeport: A Case Study of Why, What and How?” *International Journal of Information and Operations Management Education*, April-May, 2013.

G. Selig

“Critical Success Factors for Winning Entrepreneurs: Do You Have What It Takes to Become a Bill Gates?” Edith Wheeler Memorial Library Presentation, May 14, 2013.

G. Selig

“Excellence in Program, Project and Portfolio Management: Lessons learned and Critical Success Factors from World Class Case Study Companies,” SNECPM Annual Conference, Hartford, CT, April 29, 2013.

G. Selig

“Achieving and Measuring IT Value to the Business: Why, What, How Much and How? (Based on Current and Emerging Best Practices and Case Studies), Webinar for Computer Aid Inc. (CAI), March 27, 2013.

G. Selig

“Successful Business/IT Alignment, Execution and Governance Best Practices: Why, What and How?” Webinar for Computer Aid Inc. (CAI), October, 9, 2012.

G. Selig

“New Service Delivery Model Strategy and Implementation: How to Minimize Risk and Maximize Opportunity,” in *Proceedings of World BPO/ITO Forum*, New York Athletic Club, New York City, June 26-27, 2012.

G. Selig

“An Overview of Current and Emerging Program and Project Management Best Practices and Lessons Learned,” Webinar for Citibank, NA, May 15, 2012.

G. Selig

“Implementing a Winning IT Governance Strategy and Program,” Webinar for Computer Aid Inc. (CAI), February 29, 2012.

N. Lewis, G. Nicholls, Z. Jiang

“Investigating the Real Option Volatility Parameter,” 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 2012 (presentation only).

G. Nicholls, N Lewis, L. Zhang, J. Hartman

“Breakeven Volatility for Real Option Valuation,” 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 2012 (presentation only).

M. Weng, T. Eschenbach, N. Lewis

“What's the Right Inputs for the WACC?” 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 2012 (presentation only).

T. Eschenbach, G. Nicholls, N. Lewis

“Is PW Useful for the Lorie-Savage Oil Pump Problem?” 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 2012 (presentation only).

T. Eschenbach, N. Lewis, Y. Zhang

“When to Start Collecting Social Security: Designing a Case Study,” 2012 National Conference, American Society for Engineering Education, San Antonio, Texas, June 2012. Winner of the Engineering Economy Division Best Paper Award. Winner of the ASEE Professional Interest Council #1 Best Paper Award. One of six finalists (out of 1506 submitted papers) for conference best paper.

T. Eschenbach, N. Lewis

“Using When to Start Collecting Social Security as a Student Case Study,” 2012 Financial Education Association Annual Conference, Academy of Business Education, Charleston, South Carolina, September 2012. Won Honorable Mention in conference best paper competition.

T. Oun, N. Lewis, T. Eschenbach

“The Mean Reversion Tendency of Oil Prices,” 2012 National Conference, American Society for Engineering Management, Virginia Beach, VA, October 2012.

G. Nicholls, N. Lewis, L. Zhang

“Breakeven Volatility for Real Option Valuation,” 2012 National Conference, American Society for Engineering Management, Virginia Beach, VA, October 2012.

N. Lewis, G. Nicholls, Z. Jiang

“The Real Option Volatility Parameter,” 2012 National Conference, American Society for Engineering Management, Virginia Beach, VA, October 2012.

Y. Xiaowei, X. Xingguo

“Voltage Downscaling with Logic Shut-Down for Low-Power VLSI Design,” poster in 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

M. Zankhanaben, X. Xingguo

“A Novel Magnetic BioMEMS Micropump-mixer with Continuously-adjustable Mixing Ratio,” poster in 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

X. Jingyun, Y. Lile, X. Xingguo, P. Prabir

“A Magnetic Micropump with Tri-membrane Fully Differential Structure,” poster in 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

M. Xiao, X. Xingguo

“Implementation of Genetic Algorithm in Matlab for VLSI Partitioning,” poster in 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT.

P. Umatri, X. Xingguo

“Pre-computation based Logic Shut-down Technique for Low Power Multiplier,” poster in 2013 ASEE Northeast Section Conference, March 14-16, 2013, Norwich University, Northfield, VT. ■

Alumni News and Achievements

Darshini Jayaprakash (MSEE 2011) is working in New York City for Marvel Inc., which makes Marvel comic books, movies, and an assortment of other entertainment items. Ms. Jayaprakash is a database monitor and developer. She uses fusion middleware technology with an applied development framework to catalog all books, articles, movies, and other products produced by the Marvel artists. Ms. Jayaprakash also manages the database to monitor the money owed to artists by Marvel.

Joshua Dibia (MSEE 2011) is working in Stratford, CT for the APTAR Group. He is a design engineer charged with running their CNC machine to make custom parts. Mr. Dibia is responsible for programming the machine and making refinements to the process as needed.

Rajesh G. Bachu (MSEE 2008) is working as a Senior Programmer for L.L. Bean in Freeport, ME. His job entails setting up computer software protocols to improve the user-friendliness of the L.L. Bean website for customers and analyzing patterns in software use that can lead to improvement in the development the software used by the company.

Mayur Patel (MSEE 2011) works at Odyssey Controls as a Controls Systems Engineer. His duties include designing control panel layouts via AutoCAD as well as the wiring and testing of control panels. Mr. Patel's work at UB in the programmable logic control lab of Prof. Toporovsky was key to his obtaining his present job.

Sreekanth Middela (MSEE 2005) started the company Precept Pharma of Bridgewater, NJ a few years ago. He and his staff service pharmaceutical companies by training staff, writing new protocols to meet ever-evolving government regulations, and by writing custom software to catalog the distribution and monitoring of all pharmaceuticals being sold by clients.

Auschall Franklin (MSEE 2008), outstanding student employee at UB in 2008, was promoted to IT project manager for Cisco Systems at their San Jose, CA office. She is the project manager for the Cisco Value Chain Organization, which deals with the financial management of budgets for the company's large-scale projects.

Jayantha Ponnambalam (MS CPEG 1986) has spent the past two decades as Senior Engineer and lead trouble-shooter for the Chicago region of the company Advanced Thermal Solutions Inc. whose products serve the HVAC industry.

Tulashree Thapa (MBA 2007) worked as a student at UB for the Electrical Engineering department for 3 years setting up labs and assisting professors in teaching labs. Recently, she was promoted to senior vice president in charge of Risk and Compliance Analysis for Citigroup, operating out of their Stamford office. Ms. Thapa credits her promotion to her UB MBA, and to her work in the Electrical Engineering Department. Ms. Thapa also reports that she is married and recently gave birth to her second child.

Nicolae Gari (MSEE 2010) has joined the support staff of the company National Grid. The company specializes in the distribution of electric power and natural gas for New England and New York. Mr. Gari's job is to work as the technical support engineer for various renewable energy projects undertaken by the company. The training for his current job began with extensive work at UB in the renewable energy lab of Prof. Linfeng Zhang.

Gilles Mpenbele (MSEE 2007) is now a senior design engineer at Boeing Aircraft in St. Louis, MO. He is responsible for designing

and testing electronic circuit boards, which will improve the GPS guidance system for Boeing's aircraft.

Xie Hanyu (MSEE 2013) started working with DH-Vision in Jessup, MD, as a test engineer. He tests and trouble-shoots the security cameras and automatic image recording devices they manufacture.

Chintan Rajyaguru (MSEE 2010 and MSCpE 2013) was recently hired at Intel in Folsom, CA, as Product Development Engineer. He is responsible for pre- and post-validation of silicon chip sets. Using a configurable modular testing machine with boundary scans, Mr. Rajyaguru validates the circuit design (pre-valid) or die produced (post-valid). Mr. Rajyaguru also recently got married.

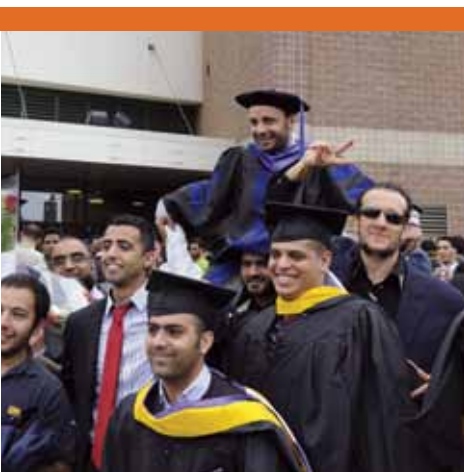
Sushant Singh (MSEE 2013) was hired as a design engineer by AMD (Advanced Micro-Design) in Austin, TX. Mr. Singh designs VLSI systems for microprocessors and next generation graphics systems. He credits obtaining a good job so quickly to his superlative training in VLSI at UB, most especially with Prof. Mahmood.

Mahesh Dhungel (MSEE 2007) has recently passed his PE exam. He is now a licensed professional engineer in the U.S. with the privilege of signing off and certifying legal documents that deal with the subjects of Electrical Engineering.

Six Mechanical Engineering graduates are now working at NurthurEnergy Inc. They are **Nikhil Kandoori, Monish Chauhan, Sureshbabu Tanneru, Sri Harsha Pokuri, Krishna Arva, and Venkata Sai Charan Sunkara**. They are working as design engineers for new technology products development in refrigerated LED lightings, supermarket refrigeration case doors, and design components for HVAC systems.

Five Mechanical Engineering graduates and students have been working for various positions at DiSanto Tech. They are **Mahr Abokhzam, Ali Dow, Abdul Syed Basith, Shahid waqas, and Ravikumar Diwala**.

Vignesh Shanmuganathan is working full time in Flabeg Technical Glass US Corporation after finishing his internship there. ■



RESEARCH Laboratory Lineup



Applied Computational Fluid Dynamics Laboratory

The applied Computational Fluid Dynamics (CFD) lab at the Mechanical Engineering department was established to use CFD as an analysis tool to understand the transport phenomena (fluid dynamics, heat and mass transfer, chemical reactions and electromagnetic effects) in industrial processes and as a design tool to optimize engineering components and system design. Transport phenomena are present in various industrial processes and engineered systems, such as energy conversion, automobile aerodynamics, electronics cooling, HVAC (heating ventilation and air conditioning), welding, casting, etc.

Center for Sustainable Energy and Environment

The Center for Sustainable Energy and Environment (CEE) is led by Dr. Elif Kongar and serves as an interdisciplinary research facility at the School of Engineering to conduct extensive research on energy- and environment-related issues. The mission of the Center is to contribute to the body of knowledge in related areas while increasing awareness on greening activities.

Research areas include life cycle analysis, end-of-life (EOL) products, disassembly for environment, disassembly sequencing, disassembly scheduling, greening curricula, and increasing participation of women in engineering.

The Center also serves as a bridge between researchers and the community, aiming to create enthusiasm for Science, Technology, Engineering and Math (STEM). Dr. Jani Pallis and Dr. Kongar are respectively the current

Society of Women Engineers (SWE) counselor and faculty advisor and aim at increasing the female participation in STEM-related research.

Cloud Computing Cluster

The Cloud Computing Cluster (CCC) develops and implements open-source technologies to support reliable, scalable, distributed computing in non-relational data environments for science and business.

CNC Mini Milling Machine Laboratory

A Haas CNC mini milling machine in the Mechanical Engineering Lab at the School of Engineering is currently being used to support academics and engineering education. Courses offered through the Lab include MEEG 479: CNC Machine Control and Mill, MEEG 423: CAM & CNC Machining, MEEG 424: Advanced CAM & Automation, and some electrical engineering courses. Students acquire knowledge and experience in CNC programming, understand basic machining processes, learn to set up and adjust the tools and fixtures and follow safety procedures. The hands-on machining experiences in this mechanical lab benefit our engineering students in their current academic course learning as well as future career planning employment.

Digital/Biomedical Embedded Systems and Technology Laboratory

The D-BEST research lab focuses on digital/embedded systems designs, as well as wireless and computer networks with applications to bio-inspired research areas. D-BEST Lab members explore research findings on the following:

- Respiratory signal classification and synchronization with virtual medical animations to assist lung cancer patients
- Sleep disorders and apnea detection using ECG and SPO₂ signals
- EEG signal processing and classification for stress/fatigue early detection
- Multipath routing and error detection in wireless multimedia sensor networks
- Security in wireless infrastructure networks

Interdisciplinary Robotics, Intelligent Sensing, and Control (RISC) Laboratory

The Interdisciplinary RISC Lab resides in the Computer Science and Engineering department at the University of Bridgeport. It was formed in 1995 by its founder and coordinator, Professor Tarek Sobh, in order to conduct research in a variety of robotics-related fields, and as a step toward the development of commercially applicable projects. Research interests include reverse engineering and industrial inspection; CAD/CAM and active sensing under uncertainty; robots and electromechanical systems prototyping; sensor-based distributed control schemes; unifying tolerances across sensing, design, and manufacturing; hybrid and discrete event control, modeling, and applications; mobile robotic manipulation; and developing theoretical and experimental tools to aid in performing adaptive goal-directed robotic sensing for modeling, observing, and controlling interactive agents in unstructured environments.

Multimedia Information Group

The Multimedia Information Group (MIG) of the Department of Computer Science and Engineering was founded by Professor Jeongkyu Lee in August 2006. MIG's research explores the technology and application of multimedia and information including video surveillance system, graph-based video database management system, and medical videos.

Nanomaterials and Nanobiomaterials Engineering Laboratory

Recent times have seen a significant amount of research focused on the understanding of various physical properties associated with nanoscale materials, either by themselves or in conjunction with polymers. Nevertheless, for nanotechnology advances to impact human life, designing these materials and hybrid materials with desired properties and integrating these properties in future technology development is needed. Thus, it is necessary to have complete control over their structure, properties, and arrangement through growth and modification processes.

Renewable Energy Research Laboratory

Sustainable energy is an increasingly important component of the new energy mix. Lab experiments cover the technologies of energy conversion, utilization, and storage in solar, wind, fuel cells, and hybrid systems. The smart micro-power grid is also designed and

optimized through a simulation with consideration given to cost and environmental effects.

PLC and Controls Laboratory

The PLC Laboratory at the Electrical Engineering Department is led by Prof. Jack Toporovsky. This lab introduces students with little or no background to PLC systems (programmable logic control systems). Students learn the theory of PLCs: they read, design and understand basic ladder logic; they are aware of potential problems and hazards; they learn to perform common procedures such as editing programs, forcing, clearing faults, etc. Students also learn how to connect to PLC systems and how to effectively and logically troubleshoot PLC system problems using RSLogix 500/5000, Factory Talk software, Mitsubishi PLC and HMI software. The Controls Lab, located in the Engineering Building (Tech 210), is used for both instruction and research.

Signal Processing Research Group Laboratory

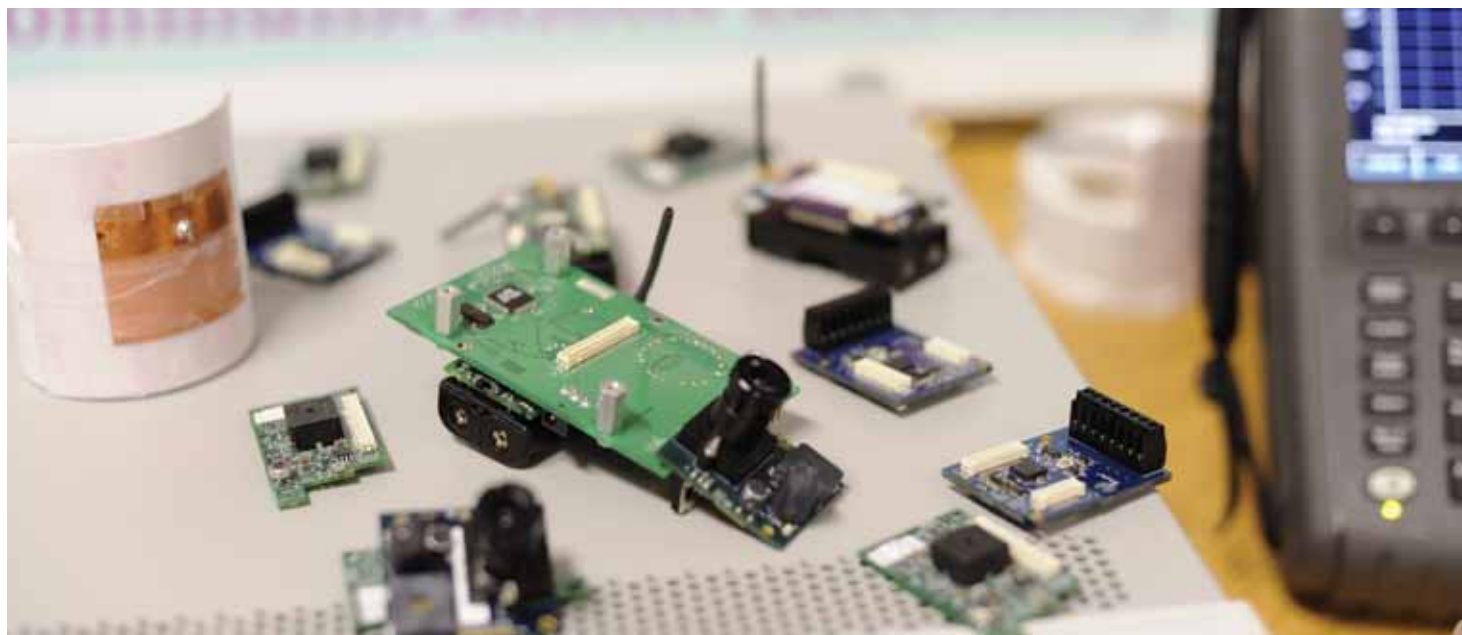
The Signal Processing Research Group (SPRG) resides in the Department of Electrical Engineering. It includes four major areas: Speech, Audio, Bio, and Astronomy. Speech and Audio research projects are led by Prof. Buket D. Barkana. Bio and Astronomy research projects are led by Prof. Navarun Gupta.



Wireless and Mobile Communications Laboratory

The Wireless and Mobile Communications (WMC) Laboratory at the Computer Science and Engineering Department is led by Dr. Khaled Elleithy. The mission of the WMC Laboratory is to advance the state of the art in wireless and mobile communications. The following projects are currently being conducted in the WMC Laboratory:

- QoS of Multi-User Communications for Cellular Networks
- Bit Error Rate Performance of Multi-User Wireless DS-CDMA Receivers
- Power-Efficient Wireless CDMA Systems
- Fundamental Limits and Optimality of Wireless Mobile Ad Hoc Networks
- Power-Efficient Wireless CDMA Systems
- Performance Optimization of Multi-User Receivers ■



UB SOE Interdisciplinary Programs

The Graduate Studies Division continues to offer several new initiatives, including interdisciplinary concentrations that may be incorporated into graduate programs of the Schools of Business, Engineering, and Education and Human Resources. Matriculated and non-matriculated students may earn professional graduate certificates in any of the concentration areas listed below by satisfying the area requirements. Students do not need to be enrolled in a degree program. Each of the following requires three or four courses to complete. For more information, feel free to contact Prof. Gad Selig at gadselig@bridgeport.edu or Prof. Khaled Elleithy at elleithy@bridgeport.edu.

Bio-Tech Management

CAD/CAM

Computer and Information Security

Technology Entrepreneurship and
New Venture Creation

Environmental and Energy Management

Global Program and Project Management

Health Care Management and Systems

Information Technology

Intellectual Property Management

Manufacturing Management

Modern Database System

New Product Development and Management

Quality Control

Service Management and Engineering

Software Engineering

Robotics and Automation

Strategic Sourcing and Vendor Management

Supply Chain Management

Wireless and Mobile Communications

Corporate and Government Security and
Continuity Management

Computer Communications and Networking



ENGINEERING Colloquium Series



Web Service QoS Prediction via Location-Aware Collaborative Filtering

Mingdong Tang Associate professor and chair of the Department of Computer Science with the Hunan University of Science and Technology Mingdong Tang is an associate professor and chair of the Department of Computer Science with the Hunan University of Science and Technology, China. Currently, he is a visiting scholar at Missouri University of Science and Technology, USA. Mr. Tang holds a B.S. degree in Electrical Engineering from Tianjin University, a M.S degree in Control Engineering from Shanghai University, and a Ph.D. degree in Computer Science from the Institute of Computing Technology, Chinese Academy of Sciences. His current research interests include services computing, social computing and cloud computing, with an emphasis on service discovery and service selection. Mr. Tang has published over 20 academic papers in international journals and conferences and is a senior member of China Computer Federation (CCF) and a member of IEEE and ACM.

MenTORing CD8+ T cells for tumor immunity

Dr. Protul A. Shrikant Assistant member in Department of Immunology at Roswell Park Cancer Institute

Dr. Protul A. Shrikant joined the staff of Roswell Park Cancer Institute in 2000 as an assistant member of the Department of Immunology and as a Special Fellow of the Leukemia & Lymphoma Society of America, after completing a National Multiple Sclerosis Society Fellowship at the University of

Minnesota, Center for Immunology, Department of Laboratory Medicine and Pathology Minneapolis, MN. He currently serves as an Associate Professor in the Department of Immunology and holds a position with the Departments of Microbiology and Immunology for the University at Buffalo, School of Medicine. Dr. Shrikant received his Master's Degree from the University of Bridgeport, CT (1985) and his Ph.D. in Cell Biology (1995) from the University of Alabama at Birmingham, AL. He serves as a reviewer for these journals: Clinical Cancer Research, Cancer Research, Journal of Immunology, Immunological Investigations and Journal of Leukocyte Biology.

Interactive Digital Television: Past, Present, Future?

Dr. Peter Kootsookos

Peter Kootsookos works for Emuse Technologies Ltd. on advertisement decisioning and mobile applications. Mr. Kootsookos holds B.E. and M.Eng.Sc. degrees in Electrical Engineering from the University of Queensland and a Ph.D. in Systems Engineering from the Australian National University. Since leaving graduate school, he has spent time as a professor, in government research labs, and in commercial industry. Mr. Kootsookos has been an IEEE member since he was a Junior doing his B.E., and he is currently a Senior Member serving as Secretary of the IEEE's Connecticut Section.

Know your "value" in today's job market!

Steve Bouchard President of SRB Consulting Group & Senior Global Sourcing Manager, Hubbell, Inc.

Aimee Marcella Director - Career Services Center at the University of Bridgeport

Steve Bouchard, President of SRB Consulting Group, is a member of the Professional Association of Résumé Writers & Career Coaches and is a Certified Professional Résumé Writer. He holds a Bachelor of Science degree in Electrical Engineering from the University of Connecticut and an M.B.A. from the University of Bridgeport. Mr. Bouchard also holds the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED AP) credential and maintains active memberships in several professional societies including business administration, engineering and supply chain management. Mr. Bouchard's professional background includes a diverse range of experience, including work for both public and private companies in sales, application engineering, product development, marketing, as well as key roles in start-up ventures. Mr. Bouchard is currently employed by Hubbell, Inc. as a Senior Global Sourcing Manager. When not working, he spends most of his time in the outdoors hiking, cycling and running, and is trained in SOLO Wilderness First Aid and Outdoor Leadership.

Aimee Marcella, Director of Career Services at UB, originally began her career path as many students do by asking, "What's next?" After she received her Bachelor of Arts in English from Southern Connecticut State University, Ms. Marcella began a successful career in non-profit management (specifically in development and fundraising), where Connecticut's Beardsley Zoo and the American Cancer Society were among her previous

employers. Like many career changers, she knew that there were new career directions she would like to explore. A proud UB graduate, Ms. Marcella has her Master's in Counseling (College Student Personnel) and hopes that her experiences professionally and academically can offer students positive support and empowerment to achieve career success.

Interviewing Skills & Resume Tips: An interactive session featuring a panel of industry professionals providing live “mock interview” feedback as well as resume reviews

Aimee Marcella and Blair Pugliese UB'S Career Services Center

Aimee Marcella, Director of Career Services at UB, originally began her career path as many students do by asking, “What's next?” After she received her Bachelor of Arts in English from Southern Connecticut State University, Ms. Marcella began a successful career in non-profit management (specifically in development and fundraising), where Connecticut's Beardsley Zoo and the American Cancer Society were among her previous employers. Like many career changers, she knew that there were new career directions she would like to explore. A proud UB graduate, Ms. Marcella has her Master's in Counseling (College Student Personnel) and hopes that her experiences professionally and academically can offer students positive support and empowerment to achieve career success.

Blair Pugliese is a graduate of Eastern Connecticut State University where she obtained her Bachelor degree in psychology. Ms. Pugliese's passion for the college experience has led to the pursuit of her Master of Science degree in Counseling with a concentration in college student personnel, which is preparing her for a career in Student Affairs. Ms. Pugliese has been a graduate assistant in the Career Services office since 2011. She has been an active team member in marketing the Career Services office to students, faculty, and employers through career events, presentations, and a growing online presence. Her training and knowledge cover areas such as

resume/cover letter building, job search assistance, mock interview practice, and strategies for networking. In the future, Ms. Pugliese would like to have a career in college academic advising.

Network Security and its Industry Practice

Mr. Shankar Chandrasekhar Technical Lead in Morgan Stanley Information Security Operations Center

Shankar Chandrasekhar is a technical lead with Morgan Stanley Information Security Operations Center. Mr. Chandrasekhar holds a Master of Computer Science from the University of Bridgeport. He also holds many security certifications including CCNA, CCNP, MCP, JNCIA, JNCIS (CEH), VCP (VMware). He joined Morgan Stanley SOC (Security Operation Center) after graduating from UB. He also works on network and authentication components for Morgan Stanley in New York City.

Importance of Mobile Learning and Privacy of Users

Mr. Abdul Razaque Ph.D. student at University of Bridgeport

Mr. Abdul Razaque is editor-in-chief for the *International Journal of Engineering and Technology* (IJET). He worked as adjunct professor in University of Northern Virginia during 2010-2011. Mr. Razaque also served as head of computer science department in model colleges setup from 2002 to 2009 in Pakistan. He also led several projects as project director for promoting the trend of information technology (IT) in Pakistan funded by United Nation Organization (UNO) and World Bank during 2005 to 2008. He has been a member of the technical program committees for more than 80 international conferences and journals with IEEE, ACM, Springer and Elsevier. He is senior member and fellow of International Association of Computer Science and Information Technology (IACSIT).

Improving Cloud Service Reliability – A System Accounting Approach

Dr. Wu Zhengping Assistant Professor of Computer Science and Engineering at the University of Bridgeport

Dr. Zhengping Wu is an assistant professor of Computer Science and Engineering at the University of Bridgeport. He received his Ph.D. in Computer Science from the University of Virginia. He has authored or co-authored eleven book chapters and over fifty peer-refereed papers. His research interests include trustworthy computing, distributed systems, cloud computing, information security, operating systems, and medical informatics. He has served as a reviewer for numerous conferences and journals, including IEEE Transactions on Services Computing, IEEE Transactions on Systems, Man, and Cybernetics (A), IEEE Transactions on Fuzzy Systems, IEEE Transactions on Control Systems Technology, and IEEE Transactions on Industrial Electronics. He has served as chairs and session chairs in ICWS, COMPSAC, CollaborateCom, ICCCN, and committee members in numerous conferences. He is a member of IEEE.

■ This is a periodic newsletter for engineering educators, edited by Ahmad Abushakra, Christine Hempowicz, Ed.D., and Susan Kristie. This newsletter is sent to you from the School of Engineering, University of Bridgeport, 221 University Avenue, Bridgeport, CT 06604.

An electronic version of the SOE newsletter is available at <http://www.bridgeport.edu/soe/newsletter>. To contribute information and news to this newsletter, please send it by email to Kristie@bridgeport.edu.

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