Upcoming Events

Cybersecurity Information Session—October 3, 6:00-7:30 PM in UMBC’s Technology Center, Main Seminar Room 1.007. For more information, and to RSVP visit the web site: www.umbc.edu/rsvp

Engineering Management Information Session—October 16, 6:00-7:30 PM in UMBC’s Technology Center, Main Seminar Room 1.007. For more information, and to RSVP visit the web site: www.umbc.edu/rsvp

Systems Engineering Information Session—October 16, 6:00-7:30 PM in UMBC’s Technology Center, Main Seminar Room 1.007. For more information, and to RSVP visit the web site: www.umbc.edu/rsvp

The 2012 Outstanding Alumni of the Year Awards will be presented on October 11, 2012 in the Shlomo Carmi Retires from UMBC

Shlomo Carmi Retires from UMBC

As Dean, Shlomo possessed this unique ability to make everyone feel important and needed. A kind word and cheerful hello greeted us in the morning, "bon appetit" greeted us at lunch and a sincere wish for a good night sent us on our way home after a day in the office. Shlomo was a combination of Cal Ripken and the Eveready® bunny in that he came to work each day and stayed until his work was done. He was tireless in his promotion of the College and was a great ambassador for UMBC and the College faculty, staff, and students.

Shlomo was driven in his desire to provide an engineering and information technology education to foster our students to be prepared to assume leadership roles after graduation. He saw a direct link between the analytical skills and abilities of our students and the ability to tackle our current and future global challenges.

Although ten years as Dean, two years as an Interim Chair after serving as Dean, and numerous awards, recognitions, and professional leadership positions are certainly good ways of viewing a successful career—there are other things that need to be considered. One consideration is to look at the interaction between a person and his family.

Over the years, we have witnessed the interaction between Shlomo and his wife Rachel and their three children Sharone, Lamore, and Ron. The love and respect that his family showed to Shlomo was readily apparent. In these interactions, their eyes were the pathway to their hearts. Shlomo and Rachel’s children did not fall far from the tree. They, like their parents, are people of integrity, are loving parents who respect their spouses and children, and who make the best use of their talents on a day-to-day basis.

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Welcome to the College of Engineering & Information Technology at UMBC

COEIT and UMBC are dedicated to research, innovation, and education. The College works in partnership with state and federal agencies and industry to promote the transfer of research applications that benefit society. We distinguish ourselves by our continued commitment to cross-disciplinary research and education. We provide outstanding education opportunities to graduate and undergraduate students to contribute to the professional workforce in engineering, computer science, and information systems.

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UMBC has been recognized again as a national leader in innovation and undergraduate teaching by U.S. News & World Report’s Best Colleges Guide.

For the fourth year in a row, UMBC tops U.S. News & World Report’s ranking of “Up-and-Coming” national universities—a designation that recognizes institutions that consistently find innovative ways to improve students’ educational experiences. We share the top spot with George Mason University.

U.S. News also ranks UMBC eighth on a list of the top national universities “where the faculty has an unusual commitment to undergraduate teaching.” UMBC is tied with Duke University, the University of California Berkeley, the University of Chicago, and the University of Notre Dame.

“We are delighted to be recognized as one of America’s most innovative universities and a national leader in undergraduate education,” says President Freeman A. Hrabowski, III. “As Americans consider the costs and value of a college degree, this recognition is a reminder that public universities can be exceptional.”

For more information about the Hrabowski Fund for Innovation, visit the website: https://umbc.edu/innovation

The University’s selection as a leader in undergraduate teaching and as the top innovator is based on survey responses from leaders of higher education across the nation.

UMBC Again Recognized as Leader in Innovation and Undergraduate Education

UMBC tops U.S. News & World Report “Up-and-Coming” Rankings for Fourth Year in a Row

COEIT Alumni in the News

Kyla McMullen ’05, Computer Science is the first African American woman at the University of Michigan to graduate with a PhD in Computer Science. Her work focuses on Human Computer Interaction, specifically in auditory interfaces. She investigated the use of spatial audio in the development of spatial mental maps to increase situational awareness for operators in dynamic, limited sight, divided attention environments.

During UMBC’s 2012 Outstanding Alumni of Year Awards Ceremony on October 11, the Rising Star Award will be presented to Christopher M. Valentine ’06 Information Systems, Director of Contract Research & Development at Northrop Grumman.

Mr. Valentine is a recognized leader in the area of Cybersecurity and Information Assurance. He is currently the Director of the Northrop Grumman Cyber Space Solutions Centers, a comprehensive capability providing leading edge technology solutions to the U.S. Government. His accomplishments include operation of computer incident response centers, and the research and development of advanced concepts for the U.S. Government.

For more information about UMBC Alumni, visit web site: www.umbc.edu/magazine

For more information on this report, including the research methodology and full rankings, are available from U.S. News & World Report, on their website: www.usnews.com/bestcolleges

2012 ALUMNI OF THE YEAR IN ENGINEERING & COMPUTER TECHNOLOGY

Stephanie C. Hill ’86 Computer Science, began her career at Lockheed Martin in 1987 as a software engineer. She currently serves as President for Information Systems and Global Solutions-Civil, which delivers IT systems and services to various U.S. Government agencies, international governments, and regulated commercial industries, including energy, health care, and transportation. Hill was named one of the Top 100 Women in Maryland in 2006, and she also received the Black Engineer of the Year Alumni Award in 2006. She serves on the Governor’s P-20 Leadership Council (STEM Task Force) and also on the Board of Directors for the Greater Baltimore Committee. In May of this year, Ms. Hill wrote a guest essay for College, Inc. (The Washington Post blog), and made the case for “Why the Nation Needs More Female Engineers.”

Ms. Hill continues to support UMBC as a volunteer and as a mentor to students. In Spring 2012, she participated as a panelist in the College of Engineering and Information Technology Diversity Summit as a panelist.

Four UMBC Students Selected as Inaugural NSF CyberCorps Scholars

Four UMBC students in the Department of Computer Science & Electrical Engineering have been selected for scholarships to study cyber-security in the National Science Foundation’s (NSF) Scholarship for Service (SFS) CyberCorps program. The UMBC recipients are Oliver Kubik (BS student in computer science), Brendan Maier and Brandyn Schult (IMF students in cyber-security), and Mary Mathews (PhD student in computer science).

Each student will participate in paid summer internships and have opportunities to engage in mentored research opportunities at the Center for Information Security and Assurance (CISA) and its partners from industry and government. Drs. Alan T. Sherman and Richard Foster direct the program using support they received from their recently awarded $2.5 million NSF grant. The CyberCorps program will produce highly qualified professionals to meet the increasing need to protect America’s cyber-infrastructure.

In each of the next three years, UMBC expects to make as many as 16 awards. Applicants must be accepted to a full-time degree program in a cyber-security-related field (CS, EE, IE, math, physics, education, public policy).

For more information and details, visit the CISA website: www.cisa.umbc.edu

See also for additional information: http://www.umbc.edu/cybr

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**New Faculty Welcome**

The Office of Undergraduate Student Services (Advising for Engineering and Computer Science Majors) welcomes Joshua Abrams and Emily Abrams-Stephens, as Professional Advisors. Mr. Abrams comes to UMBC from an Advising position at Walden University. He is a graduate of Kansas State University and UMBC. Ms. Abrams-Stephens comes to UMBC from an Academic Advising position at Savannah College of Art and Design. She is a graduate of James Madison University and Indiana University of Pennsylvania. Crystal Diaz joins the Center for Women in Technology as the new Assistant Director. Ms. Diaz previously served as an Academic Advisor at the University of Tennessee-Knoxville. Paul Mulhern comes to Information Systems as the Marketing Manager. Mr. Mulhern worked at Booz Allen Hamilton supporting the National Cancer Institute.

**Student Services (Advising for Engineering and Computer Science Majors) welcomes Emily, as Professional Advisors.**

**New Faculty Spotlights**

**Nilanjan Banerjee** (Assistant Professor, Computer Science & Electrical Engineering) works on building renewable energy-driven devices. His research focuses on three key areas: renewable energy driven systems, healthcare systems, and mobile phone-based systems. Dr. Banerjee’s research combines his interest in renewable energy-driven devices with other technologies such as BIG data collection and communication between military bases and tanks.

**Malcom Gethers** (Assistant Professor, Computer Science & Electrical Engineering) focuses on topology optimization, energy harvester design, robust design, and reliability-based design optimization. Dr. Lee explores system sustainability as a key factor for engineering system design based on two important factors: energy sustainability and system reliability. His research is based on design and optimization methods, interdisciplinary multi-physics, design, and design for uncertainty.

**Soobum Lee** (Assistant Professor, Mechanical Engineering) has over 30 years of experience in the development of medical devices and scientific instrumentation. In addition to teaching, Dr. Rothman serves as faculty advisor for the UMBC ASME campus chapter.

**John Park** (Lecturer, Computer Science & Electrical Engineering) has extensive industry experience in operating systems, real-time control systems, artificial intelligence/machine learning, digital imaging and graphics, and bioinformatics. Before being appointed as Lecturer, Mr. Park was a part-time instructor for four years. Mr. Park looks forward to the opportunity to apply his experience and knowledge to a broader range of courses.

**Christopher Hennigan** (Assistant Professor, Chemical, Biochemical and Environmental Engineering) concentrates his research interests on several topics in the area of software maintenance and evolution, such as feature and concept location in source code, change impact analysis, software measurement, traceability link recovery and management, software repository mining, developer recommendations and refactoring.

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Dr. Ghosh’s research explores the fundamental process mechanisms that control pollutant fate in soils, sediments, and aquatic environments. He uses multi-disciplinary tools to investigate exposure and bioavailability of organic and metal pollutants to organisms. The new understanding is used to develop novel remediation technologies and site-specific remediation goals.

**Upal Ghosh** has been promoted to Professor of Chemical, Biochemical and Environmental Engineering.

**Tim Oates** has been promoted to Professor of Computer Science & Electrical Engineering.

**Dr. Oates’ research focuses on artificial intelligence, machine learning, robotics, and natural language processing. He directs UMBC’s Cognition, Robotics, and Learning (CoRAL) lab, which seeks to understand how artificial systems can acquire grounded knowledge from sensori-motor interaction with their environment that enables cognitive activities like natural language communication and planning.**

**COEIT New Faculty Promotions and Appointments**

**COEIT Welcomes New Faculty**

**John Park** (Lecturer, Computer Science & Electrical Engineering)

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**New Lecturers**

**Neil Rothman** Lecturer Mechanical Engineering

**John Park** Lecturer Computer Science & Electrical Engineering

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**Submit updated faculty news items to coeit@umbc.edu**
ABET accreditation, which is voluntary and achieved through a peer-review process, provides assurance that a college or university program meets quality standards established by the profession for which the program prepares its students. ABET is recognized by the Council of Higher Education Accreditation.

The National Science Foundation (NSF) funds multiple scholarships throughout the nation. In the past six years, two scholarship programs have been funded for the CWIT scholars at UMBC. The Scholarships in Information Technology and Engineering (SITE) Scholars Program ran from 2007 and closed in October 2011. During the program’s four-year run, 30 SITE Scholarships were granted.

The New Scholars Retreat was held August 10-12. The annual retreat is staffed by older CWIT scholars and affiliates, and introduces the CWIT freshman and incoming T-SITE Scholars to their first taste of the CWIT community. For more information about the CWIT Affiliates program, visit the CWIT website: www.cwit.edu/affiliates/

Finin and Joshi receive NSF award to study linked data privacy

Wendong Zhu, Professor of Mechanical Engineering, has been awarded $410,000 from the National Science Foundation Division of Civil, Mechanical, and Manufacturing Innovation (CMMI) to support the acquisition of a three-dimensional scanning laser vibrometer system.

Dr. Zhu’s research can be grouped into three areas: 1) model validation, design, and testing; 2) vibration-based damage detection and health monitoring; and 3) renewable energy and energy harvesting. This equipment will improve research infrastructure and promote collaborative research among universities, government labs, and industry.

The results will benefit society and various industries by advancing technical knowledge, and will especially impact the infrastructure health monitoring and energy incentives.

Two other UMBC students have received NSF awards in the past year. Neha Sardesai, a graduate student in Electrical Engineering, received a $144,000 award for her oral presentation. For more information, visit the MIRTHE website: www.mirthecenter.org

Zhu receives NSF award from CMMI

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Another Winning Season: SAE Baja 2012 Year Review

Unfortunately, the car was involved in a collision 45 minutes into the four-hour endurance race, knocking the team out of a top ten finish. Even with this disappointment finish to the season, the team accumulated enough points to finish with an overall 3rd out of 253 teams for the year. The team has already identified areas of improvement for next year and has started working on the 2013 vehicle—three months ahead of other universities!

For more information about these races, and the Baja Team, visit the COEIT website: http://coeit.umbc.edu/umbc-baja-2012-year-review