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Message from the Dean



Do you think people ever imagine a world without innovative thinkers and problem solvers? Thankfully they don't have to. What we are doing is enriching the world around them. Whether we are improving the environment, making our highways safer, or teaching future engineers, computer scientists and construction managers, we are making a difference.

Our researchers are developing technology for the physically challenged, creating medical technology, improving highway safety, producing prototypes of products for industry, and making educational opportunities for K-12 students more effective.

As we move towards becoming the engineering school of choice our reputation for excellence is spreading through the accomplishments of our faculty, staff, students and alumni. Our award winning personnel are being recognized for their research, teaching, and outstanding service. Our alumni are leaders of industry and are known for their contributions in their field.

As our reputation spreads through the region we are seeing a continued increase in the demand for our programs. For the fourth consecutive year our undergraduate

enrollment has exceeded our expectations. This fall we are thrilled to be educating 1,088 undergraduate and 211 graduate students. In addition, the incoming freshman class boasts an average math ACT score of 27.98 and an average composite score of 26.59.

To accommodate this increased demand we have added six outstanding faculty members to our computer science, mechanical engineering, and civil engineering departments. They joined an already stellar group of educators in the School of Engineering. Please join me in welcoming them to the SIUE family and our engineering community.

Over the summer we were sorry to say goodbye to three faculty members with 90 years of combined service. It is difficult to lose their intellectual curiosity and dedication toward educating our students; however, we wish them all the best in their retirement.

With all we have accomplished so far, it's not difficult for me to imagine what we will achieve with additional resources. It was exciting to witness the groundbreaking of our 32,000 square foot annex in May 2012. The completion of the annex cannot come soon enough, but is anticipated in fall 2013. Join me as I envision the discoveries that come from our engineering community. I look forward to seeing what the future holds in store for us.

Hasan Sevim, Dean

Upcoming Events

- Oct 8:** Preview
- Nov 10:** Open House
- Nov 12:** Preview
- Feb 21:** Awards Banquet



New Faculty and Staff in the School of Engineering



Igor Crk received his B.A. in computer science and math at Carthage College in Kenosha, Wisconsin, and earned his M.S. and Ph.D. in computer science from the University of Arizona in Tucson. Prior to his appointment at SIUE, he was at IBM working on device driver design and development. He will bring this practical experience to the classroom. His research specialties are in operating systems, human-computer interaction, and energy management.



Jeff Darabi obtained both his M.S. and Ph.D. in mechanical engineering from University of Maryland. He received his B.S./M.S. from Sharif University of Technology in Tehran, Iran. He has over 12 years of academic, industrial, and management experience conducting research in the areas of BioMEMS and microfluidic systems, energy and thermal systems, and multiphysics modeling. He has previously worked and taught at several academic institutions including the University of Maryland, University of South Carolina, and University of Florida.



Gunes Ercal received her B.S. degrees in both computer science and mathematics from the University of Southern California and her M.S. and Ph.D. degrees in computer science from the University of California in Los Angeles. She has taught classes at the University of Kansas and Istanbul Kultur University prior to joining SIUE. Her research interests include graph theory, game theory, randomized algorithms, wireless networks and social networks.



Jianwei Huang earned both his B.S. and M.S. degrees from Nanjing University of Technology in China. In 2010 he received his Ph.D. in civil engineering from Syracuse University. After graduation he worked as a senior project engineer at SDR Engineering in Florida. His teaching and research interests include mechanics of solids, engineering materials, reinforced/pre-stressed concrete design, bridge engineering, design of FRP-structure systems, and structural stability.



Mark McKenney holds a B.S. and M.S. in Computer Science from Tulane University and a Ph.D. from the University of Florida in Computer Engineering. After graduating in 2008, he joined the computer science department at Texas State University where he worked for 3 years working on projects such as high performance geospatial computing and spatiotemporal data modeling and implementation. He has spent the last year with the SIUE School of Engineering teaching computer science classes and supervising student research as a visiting professor.



Abdolreza Osouli earned both his B.S. and M.S. in civil engineering from Sharif University of Technology in Tehran, Iran. In 2009 he received his Ph.D. in civil/geotechnical engineering from the University of Illinois – Urbana-Champaign. Following graduation he worked with Marino Engineering Associates in Urbana, Illinois as a consulting engineer. He has strong interests in the areas of field monitoring, performance-based geotechnical design, soil-structure interaction, resilient and sustainable infrastructure, numerical modeling, and constitutive material models.



Terry Twesten joined SIUE late in 2006 and has worked with both Academic Advising and Admissions Processing/Registrar departments before coming to Mechanical & Industrial Engineering as the new Office Support Specialist. Terry is an alumna of the SIUE School of Education, and she raised two daughters, lived in many US cities, and taught school for a number of years before returning to SIUE as a Civil Service employee.

Retiring Faculty

Special thanks and well-wishes go out to the faculty who have left us this year.



Chiang Lin retired last May after 28 years of service to the Department of Civil Engineering. Professor Lin taught numerous geotechnical courses and was honored in his last year with the Outstanding Teacher Award presented at the annual Engineering Awards Banquet.



After 35 years with the University, **Rex Pierce**, an instructor with the Department of Civil Engineering, retired in May. He earned a reputation with his students for being tough, thorough, and dedicated to their education. Mr. Pierce taught Engineering Graphics & CAD, Surveying, and Computer Applications.



Luis Youn served 27 years, the last three as Chair, with the Department of Electrical & Computer Engineering. His teaching and research interests included power systems, control systems, and planning & scheduling for power plants.

Alumni Achievement

ROB JOHNES was named president of Helmkamp Construction Co. Inc. Johnes has worked for Helmkamp since 1997 and is the first company president who is not a relative of founder Gilbert Helmkamp. As vice president, Johnes coordinated numerous technology improvements, such as the integration of systems for project management, accounting, and customer relationships. He also led training and continuing education.

1998, BS CONSTRUCTION MANAGEMENT

MEGAN HARRIS spoke at Macomb Senior High School about the benefits of pursuing an engineering degree. She stated that students who want to pursue a career in engineering should be good critical thinkers, creative problem solvers and be curious about how things work. After completing her education at SIUE, Harris was hired by The Boeing Co. and has been employed at Boeing Defense, Space & Security in St. Louis since 2009.

2005, BS INDUSTRIAL ENGINEERING

VICKI LAROSE was named Small Business Person of the Year for the State of Missouri. After graduating, LaRose quickly started with Sverdrup Corp. which is now Jacobs Engineering, located in St. Louis. Soon after realizing the potential growth for entrepreneurship opportunities in St. Louis, LaRose and her husband began their own private engineering practice, Civil Design Inc. in 1996. LaRose has offices in St. Louis and Collinsville with over 20 employees.

1990, BS CIVIL ENGINEERING

SOMNATH BHATTACHARYYA was recognized by America's Registry of Outstanding Professionals for his contributions and achievements in construction and highway design. He currently is employed with the U.S. Army Corps of Engineers as a civil engineer in military construction. Bhattacharyya also has been honored by the St. Louis Section of the American Society of Civil Engineers Zone II Daniel W. Mead Award for Young Engineers.

1988, BS CIVIL ENGINEERING

TYRIA RILEY received her Ph.D. in Engineering Management from Missouri University of Science and Technology in May, 2012. Her thesis was titled "A Comparison Analysis of Defensive Routines and Theories-In-Use of Engineering and Non-Engineering Managers." Currently, Tyria serves on the Advisory Board for the Department of Electrical and Computer Engineering and on the Board of the SIUE Alumni Association.

2002, BS ELECTRICAL & COMPUTER ENGINEERING

PAUL GALESKI is the President and CEO of MAVERICK Technologies. In July, MAVERICK Technologies officially launched their new 24/7 Operations Center. PlantFloor24, is the world's first full-service, platform independent, 24/7 hardware, software and process support solution. This concept will change how plants maintain, monitor and optimize their assets.

1983, BS ELECTRICAL ENGINEERING

Computer Science Professor Named Associate Provost for Research and Dean of Graduate School



Jerry Weinberg

Jerry Weinberg was recently named associate provost for research and dean of the SIUE Graduate School. The appointment was made by Interim Provost Ann Boyle and was approved by the Board of Trustees in May. Weinberg, who earned a Ph.D. in computer science from Vanderbilt University in 1996, has served as the acting associate provost for research and dean of the SIUE Graduate School since July 2010. Prior to serving in the acting position, Weinberg was the department chair of computer science in the SIUE School of Engineering from 2005-2010. He joined the SIUE faculty in 1996.

ASEE Data Shows School of Engineering Among Its Top 20

In March 2012, the American Society for Engineering Education (ASEE) released data highlighting the past year's performance. SIUE's School of Engineering was ranked 17th among the 258 public and private engineering schools for students graduated per faculty member. The data indicated that for every tenured/tenure-track faculty member, 4.93 bachelor's degrees were awarded.



"This is simply a well-deserved testament that our programs are operating most efficiently and maximizing their resources," said SIUE School of Engineering Dean Hasan Sevim. "We should credit our dedicated faculty and staff for such an impeccable accomplishment."

SIUE & Partners Receive \$60K EPA Grant For Study

The U.S. Environmental Protection Agency allocated \$60,000 to the School of Engineering and its partners to evaluate the efficiency and effectiveness of neighborhood green infrastructure in metropolitan St. Louis.

Jianpeng Zhou and Susan Morgan, both professors of civil engineering at SIUE, and partners (the Metropolitan St. Louis Sewer District, the City of St. Louis, and Habitat for Humanity of St. Louis among others,) will conduct a study in the Jeff VanderLou neighborhood in North St. Louis. Previously installed rain gardens and planter boxes will be evaluated for their impact on reducing storm water runoff to combined sewers. The grant will also be used for workshops for neighborhood residents on how to effectively maintain rain gardens and planter boxes.

"This project will benefit Jeff VanderLou neighborhood residents, university students and the entire St. Louis community," said Karl Brooks, EPA regional administrator. "Rain gardens help remove pollutants and reduce storm water runoff."

News Bytes



Industrial Engineering Magazine

The March 2012 issue of *Industrial Engineering Magazine* featured associate professor Sohyung Cho and his supply test bed simulation system.

Belleville News-Democrat

The April 17 edition of the *Belleville News-Democrat* referenced the Southwest Illinois Advanced Manufacturing (SIAM) Center in an article titled "'Manufacturing is back': Metro-east businesses focus on 'green' technology, employee training."

ICT Newsletter

In its August edition, the Illinois Center for Transportation (ICT) spotlighted Huaguo Zhou, assistant professor of civil engineering for his work on the Highway Incident Management Training Guide for the Illinois Department of Transportation.

Journal of Computing in Civil Engineering

At the 2012 Computing in Civil Engineering Conference, Jie Gong, assistant professor in the Department of Construction, was presented with the 2010 Best Paper Award from the American Society of Civil Engineering (ASCE) *Journal of Computing in Civil Engineering* for his paper, "A Computer Vision Based Video Interpretation Model for Automated Productivity Analysis of Construction Operations."

Conversations with Lee Presser

This year, two School of Engineering faculty members have been featured on Charter Communications' "Conversation with Lee Presser." In April, Andy Lozowski, associate professor of electrical and computer engineering discussed solar energy and battery technology, and Dennis Bouvier, associate professor and acting chair of the Department of Computer Science, appeared in August to discuss Cyberwar.

Engineering Awards Banquet

February 21, 2012

Keynote Speaker

Tyria Riley 2002 ECE

Outstanding JuniorsJonathan Denning ECE
Joseph Fehrenbacher ME
Meghan Glaspell CS
Phillip Leatherman CNST
Bradley Ripley CE
Jessica Thompson IME**Outstanding Seniors**Daniel Ahrens ECE
Ryan Hann CE
Matthew Lawson CS
Kerry Lorts CNST
Eray Ozturk IME
Nathan Rohner ME**Graduate Students**Isam Al-Yaseri CE
Jianzhe Huang ME
Ehsan Jahanpour IME
Binod Pant ECE
Sahana Tambi
Sathyanarayana CS**Alumni**Jeffrey Abel CE
Eric Brault ME
Ralph French CS
Michael McPherson CNST
Christopher Polley IME
Tyria Riley ECE**Teaching**Sohyung Cho IME
Jie Gong CNST
Ryan Krauss ME
Chiang Lin CE
Bradley Noble ECE
Xudong Yu CS**Service Awards**

Kim Bateman ERTC

Research

Andy Stefik CS

Long Term Achievement

Albert Luo ME

Research Team Received 2012 ICT "High Impact Project" Award

Huaguo Zhou

An Illinois Center for Transportation (ICT) research project completed by Huaguo Zhou and Ryan Fries, assistant professors of civil engineering, has been selected as the first recipient of the ICT High Impact Project Award.

"This award recognizes the outstanding level of research accomplished by the SIUE research team," Zhou said. "It was the first ICT/IDOT funded research project Ryan and I completed. Six graduate students from three different departments have worked on this project for more than three years. The training guide, published at the ICT website and cited by the National Transportation Research Board e-newsletter, has helped train over 300 first responders in Illinois to date."



Ryan Fries

The team was selected for the award based on its commitment, teamwork and technical expertise, and was formally presented with the award in February at the 98th Annual Transportation and Highway Engineering Annual Conference.

Electrical & Computer Engineering Professor Wins 2012 Paul Simon Outstanding Teacher-Scholar Award

George Engel

In April, at the Annual Paul Simon Award Ceremony, George Engel, professor of electrical and computer engineering was presented with the SIUE Paul Simon Outstanding Teacher-Scholar Award for 2012.

The Simon Award is presented annually to an SIUE faculty member who shows a significant contribution in the area of research and demonstrates the ability to incorporate that research activity into the classroom.

Mechanical Engineering Professor Awarded the 2012 Distinguished Research Professor Award

Keqin Gu

Keqin Gu, chairman and professor in the Department of Mechanical Engineering was named the 2012 recipient of the Distinguished Research Professor Award. The award is an academic rank rewarding faculty members who have demonstrated outstanding and sustained contributions to research and creative activities. Gu will be recognized with the rank of SIUE Distinguished Research Professor for the duration of his tenure at SIUE. Gu developed a method to discretize Lyapunov-Krasovskii functionals, which are used for the stability analysis of time-delay systems. The system is known worldwide as Gu's discretization.

Environmental Resources Training Center's Director Receives Outstanding Service Award

Paul Shetley

In February, Paul Shetley, director of the Environmental Resources Training Center (ERTC), was awarded the Clarence W. Klassen Outstanding Service award at the 2012 Illinois Association of Water Pollution Control Operators (IAWPCO) banquet in Springfield.

The award is presented each year by the IAWPCO to an individual whose achievement in the wastewater field within the state best exemplifies the standards of extraordinary personal service.



February

21: Annual Awards Banquet
Tyria Riley, Keynote Speaker
2002 ECE

March

24: Engineering Open House
Over 500 in attendance!

April

1: Honors Day
Hal Gentry, Keynote Speaker
1982 CS

May

5: Commencement
166 Students Graduated

- 144 Undergraduate
- 22 Graduate

June

Engineering Summer Camps

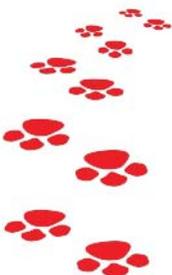
July

26: ERTC holds ceremony for
30th graduating class

August

4: Summer Commencement

- 19 Undergraduate
- 39 Graduate



Engineers Without Borders Recognized For Community Service

When Hurricane Mitch pummeled Pimienta, Honduras in 1998, it destroyed a bridge that was a vital artery for transportation in and out of the small community.

Until last summer, Pimienta residents traveled without the convenience of the bridge. Thanks to the multidisciplinary efforts of the Southern Illinois University Edwardsville School of Engineering’s chapter of Engineers Without Borders (EWB-USA SIUE) and collaborating entities, the Puente La Nana Bridge Culvert Project was completed and recently selected as the Outstanding Community Service Project of the Year for 2011-2012 at the recent SIUE Kimmel Leadership Awards Ceremony.



Students Receive Award For Project To Eliminate Sewer Waste

The old cliché, “When it rains, it pours” can have unfavorable, unsightly and costly ramifications in communities with aging sewer systems. But a group of engineering students designed an award-winning method to eliminate sanitary sewer overflow into natural water systems.

“This is a problem in St. Louis because the sewer system is outdated,” said Jessica Eichhorst, a recent civil engineering graduate. Eichhorst, along with other recent grads Allison Albrecht and Erica Coombs, worked for one semester on a class assignment that was part of a Metropolitan Sewer District (MSD) project. Their work “Eliminating Sanitary Sewer Overflows by Implementing Green Infrastructure” garnered third place at the national PB (Parsons Brinckerhoff) Student Design Competition, held by the Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers. The team also included the students’ advisors, professors Ryan Fries and Jianpeng Zhou.

St. Louis is one of about 800 cities nationwide affected by sewer overflow-related water pollution.



Left to Right: Dr. Ryan Fries, Erica Coombs, Allison Albrecht, Jessica Eichhorst, Dr. Jianpeng Zhou

The students prepared a control sewer overflow plan for 19 homes in one St. Louis County neighborhood, with the help of MSD project engineer, Bob Miller. The total cost was estimated at \$521,000.

“The strength of this project is that they went beyond the technical solution,” Zhou said. “They added the approach of using green infrastructure, which is a new concept. And our team only had one semester to work on their project, while the other teams had a year.”

Civil Engineering Student Wins IWEA Clean Water Scholarship

Damien Di Vittorio, undergraduate student in the Department of Civil Engineering, has been awarded the Illinois Water Environment Association (IWEA) Clean Water Scholarship for 2012. The \$1,000 scholarship was designed to aid students preparing for careers working with the water environment. Di Vittorio served as the SIUE chapter president of Engineers Without Borders and took part in a 2-week engineering mission in Pimienta, Honduras in 2010. That trip inspired him to focus on environmental engineering and water, waste water and storm water management.



Damien Di Vittorio



School of Engineering Chapter of Chi Epsilon Honored

The SIUE chapter of Chi Epsilon, a national honor society for civil engineers, recently received the Susan C. Brown Outstanding Chapter Performance Award at the Chi Epsilon National Conclave. The SIUE chapter received the award for the third consecutive conclave, the only chapter of 135 to achieve this distinction. Chi Epsilon meets every two years at a national conclave of chapter representatives to address business matters and acknowledge the recipients of awards and scholarships. The Susan C. Brown award is given to recognize chapters that continue to initiate members and that are in good standing with the national office during the time between the biannual conclaves.

ITU Dual Diploma Student Is ITU Valedictorian And Commencement Speaker

Eray Ozturk is one of the most outstanding graduates of the Southern Illinois University Edwardsville School of Engineering's dual diploma program in industrial engineering. This collaboration started in 2007 between Istanbul Technical University (ITU) and SIUE. Each year, 35 Turkish students of the highest caliber are accepted into the program. Students study their freshman and junior years at ITU, and their sophomore and senior years at SIUE. Eray's GPA was 4.0 at SIUE and 3.96 at ITU, which placed him first among the 3,000 ITU graduates. ITU asks its valedictorian to give the student address at its common commencement for all its graduates. Eray was decorated with an ITU high-honor medallion by Rector Muhammed Sahin and awarded several prizes from prominent engineering companies. Eray is planning to continue his graduate studies either at Stanford or the Massachusetts Institute of Technology (MIT).



Eray Ozturk

Civil Engineering Student Wins 2012 Best URCA Paper Presentation

In June, the SIUE chapter of The Honor Society of Phi Kappa Phi awarded Jessica Eichhorst, undergraduate student in the Department of Civil Engineering, the 2012 Award for the Best Undergraduate Research and Creative Activities (URCA) Paper Presentation. Eichhorst's paper, "Sustainable Bioretention Media Study," was written as a requirement for her URCA position, which included developing a method for and conducting hydraulic conductivity tests on sustainable bioretention media. She will continue this research as an SIUE civil engineering graduate student. URCA is a program committed to giving undergraduate students the chance to engage in the types of work that professionals in their chosen fields do in the "real world." It provides hands-on experience and fosters meaningful mentoring relationships with professors to give students not only excellent education, but also provide them with the tools they need to succeed as future graduate students, employees and citizens.



Jessica Eichhorst



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We're on the web:

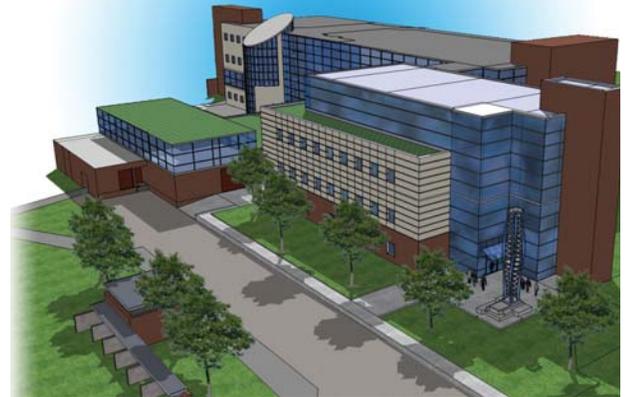
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*Educating tomorrow's engineers,
computer scientists, and
construction managers today.*

The mission of the School of Engineering is to provide excellent innovative engineering, computer science, and construction education to citizens of Illinois, the greater St. Louis metropolitan area, and representatives of the global community. The School focuses on strong undergraduate education and graduate programs that serve the needs of full-time students and employed professionals. The faculty conduct basic and applied research and outreach activities in partnership with others that contribute to technological advancement in our fields.

School of Engineering Building Extension Construction Begins!



Construction on the Engineering building extension began in early May this year. As of printing, electrical and water conduits have been routed from the original building to extension location, and the footprint is clearly visible, outlined in a neat concrete foundation. Completion is expected in Fall 2013.