Our Spring Graduate Seminar 500 was a varied and informative set of speakers representing many fields of engineering. Seminar runs on Tuesdays and features research that varies from repairing wounds with Biomaterials to experimental flight testing with Unmanned Aerial Systems. Every Parks Graduate Student takes at least 2 semesters of Seminar as part of their Masters or Doctoral program, exposing them to perspectives from many professionals working in their fields. In the Fall, Seminar 5000 will feature another set of speakers chosen by our Departments. Check out our speakers and their topics from the spring semester!

**Dennis Barbour, MD, PhD**  
Associate Professor, Biomedical Engineering  
Washington University  
“Using Machine Learning to Reveal Principles of Sensation and Perceptions”

**Glenn Gaudette, PhD**  
Associate Professor at Worcester Polytechnic Institute, Biomedical Engineering  
“From Academic Research to the Patient’s Bedside: A Long and Winding Road”

**Tom Crawford, PhD**,  
Banpu Endowed Chair of Sustainability  
Center for Sustainability, Saint Louis University  
“Geospatial Characterization of Coastal Hazards and Human Biometric Response”

**Srikanth Gururajan, PhD**  
Assistant Professor, Aerospace & Mechanical Engineering, Saint Louis University  
“Experimental Flight Testing with UAS in Support of Fault Tolerant Flight Control”

**Delbert E. Day**  
Professor Emeritus, Ceramic Engineering  
Missouri University of Science & Technology  
“Repairing the Body with Biomaterials/Bioglass”

**Raymond Lebeau, PhD, P.E.**  
Assistant Professor, Aerospace & Mechanical Engineering, Saint Louis University  
“Numerical Simulation of Plasma Actuators”

**Vijai V. Dixit, PhD**  
Parks Professor, Physics  
“Molecular Models”

**Candan Tamerler, PhD**  
Associate Professor, Mechanical Engineering, University of Kansas  
“Tunable Bio-Material Interfaces: From Bio-Self-Assembly to Bio-enabled Remineralization”

**Nick Eldred**  
Senior Project Manager, AECOM  
“The Christchurch Earthquakes-New Zealand”

**Priscilla Tobias, P.E.**  
State Safety Engineer/Bureau Chief  
Illinois Department of Transportation  
“Science of Safety”

**Ryan N. Fries, PhD, P.E.**  
Associate Professor and Graduate Program Director, Civil Engineering, Southern Illinois University-Edwardsville,  
“Study of Real-Time Traveler Information Methods in Illinois”

**Sally Warning**  
Ph.D. Student, Aerospace & Mechanical Engineering, Saint Louis University  
“Design of the Parks College Polysonic Wind Tunnel”
Message from the Director

The Office of Parks’ Graduate Programs is proud to provide you with our Summer 2015 newsletter. I hope you enjoy reading our news!

I am pleased to report that Graduate Education at Parks continues to receive a high number of applications nationally and internationally. We have processed over 60 applications and have admitted a large number of highly qualified students for the Masters and Doctoral programs in Aviation and Engineering for the 2015 Summer and Fall semesters. We will welcome about 40 new M.S. and Ph.D. students. Five students have graduated with their Master’s Degree in Engineering May 2015 and ten students are hoping to graduate Summer 2015 in Aviation Sciences and Engineering.

Our faculty and staff continue to be very busy working on several new graduate initiatives. Parks continues diligently working on establishing a new leadership master’s degree that will be the first in the region. We have also been updating many of Parks graduate programs catalogs, brochures and other publications. In addition, we have revised the college policy on the Ph.D. qualifying exam and candidacy requirements.

Our office continues to focus on international collaboration and recruiting. Just this summer, I went to two conferences, one in Washington DC and the other in Quebec, with the intent to learn how to better serve our international and graduate students. I also invited faculty from the National University of Colombia to visit us in April to discuss potential collaboration and international graduate education. You can read more about that in this issue. Please take a moment to browse through our web page at parks.slu.edu/grad to learn more about our outstanding graduate programs and let us know how we can continue to improve. In 2014, Saint Louis University implemented an Annual Student Review requirement for each graduate student. Most of our graduate students have conducted the Review with the oversight of their Advisors and Department Chairs. I am confident that the conversations these Reviews have facilitated will ensure the success and timely graduation of our students.

Seminar 5000 was well attended by our graduate students and included research presentations of renowned professionals in several engineering fields. Masters students attend 2 semesters and Doctoral students attend 4 semesters as part of their Program of Study. Seminar’s main goal is to promote research that is conducted here at Parks and elsewhere by our graduate students, faculty and guest researchers. See our cover to learn more about our Spring 2015 Presenters. We hope to see you in the Fall for more exciting seminar presentations!

On behalf of Parks Graduate Programs, I hope you have had a happy and enjoyable summer!

Riyadh Hindi, Ph.D., P.Eng.
Professor and Director

INSIDE THIS ISSUE:

Spring Graduate Seminar..........................1
Message from the Director..........................2
Visitors from Colombia.............................3
GSA Symposium......................................3
Outstanding Graduate Awards......................4
New Programs Assistant............................4
Outstanding Women in Engineering..............5
Expanding Horizons Program......................5
New Students.......................................6
Graduates...........................................6
Highlights...........................................7
On April 24, 2015 the Graduate Student Association sponsored the 21st Annual Graduate Research Symposium. Students across the university presented their research to a panel of sixty-five faculty judges representing graduate programs across Saint Louis University. Parks Graduate students presented papers and posters detailing their work. A number of Parks College students excelled in their categories and won awards based on their performances. Biomedical Engineering student, Prashanth Somasundaram, achieved a third place finish in the Biological Sciences poster category. Another Biomedical Engineering student, Jacob Laktas, won first place in the Physical Sciences poster category. In the Physical Sciences paper category, Parks Graduate students dominated. Lisa Andes, Civil Engineering student won 1st place, while Biomedical Engineering students Katherine Hixon and Reynaldo Flores placed 2nd and 3rd respectively. Next year’s Graduate Research Symposium is scheduled for April 22nd, 2016 in the Busch Student Center.

Visitors from Colombia

On April 29th, Parks College and Graduate Education at Saint Louis University hosted 3 visitors from the National University of Colombia in Bogota, Colombia (UNAL). Dr. Riyadh Hindi set up the visit to facilitate a collaborative relationship between our universities to benefit our graduate students. Our special guests were Andres Salas Montoya, Assistant Professor, Camilo Younes Velosa, Dean of Engineering and Architecture, and Leonardo David Donado Garzon, Director of Undergraduate & Graduate Studies in Civil and Agricultural Engineering. During their visit, they got to visit with Diana Carlin, Associate Vice President of Graduate Education, Tim Hercules, Director of International Services, and Department Chairs and faculty of Parks College.

GSA Symposium

On April 24, 2015 the Graduate Student Association sponsored the 21st Annual Graduate Research Research Symposium. Students across the university presented their research to a panel of sixty-five faculty judges representing graduate programs across Saint Louis University. Parks Graduate students presented papers and posters detailing their work. A number of Parks College students excelled in their categories and won awards based on their performances. Biomedical Engineering student, Prashanth Somasundaram, achieved a third place finish in the Biological Sciences poster category. Another Biomedical Engineering student, Jacob Laktas, won first place in the Physical Sciences poster category. In the Physical Sciences paper category, Parks Graduate students dominated. Lisa Andes, Civil Engineering student won 1st place, while Biomedical Engineering students Katherine Hixon and Reynaldo Flores placed 2nd and 3rd respectively. Next year’s Graduate Research Symposium is scheduled for April 22nd, 2016 in the Busch Student Center.
Outstanding Graduate Awards

Every year, faculty, staff, and students are encouraged to nominate deserving candidates for the Outstanding Graduate Faculty and Student Awards. A special Committee comprising of faculty, staff, and students representing Parks’ departments chose among those nominated. The Award winners were announced on May 4, 2015 at the Parks Legacy Banquet.

Outstanding Graduate Faculty

We received nominations for five faculty members for the Outstanding Graduate Faculty Award: Amanda Cox, Andrew Hall, Jianfeng Ma, Mark McQuilling, and Silviya Zustiak. The winner for Parks’ Outstanding Graduate Faculty for 2015 is Dr. Silviya Zustiak. Dr. Zustiak is a very patient and knowledgeable mentor. More and more students are requesting to work in her lab under her guidance and she fosters a sense of community and belonging in her classroom. She knows her students’ strengths and shows them faith when they themselves have doubts. Dr. Zustiak helps find funding for student projects and always makes sure she keeps her labs stocked for her students. She works hard to promote Parks College and is responsible for many of her undergraduates becoming graduate students. She has in excess of ten articles published in Biotechnology and Bioengineering Journals. Congratulations to Dr. Silviya Zustiak for inspiring so many students!

Outstanding Graduate Student

We received nominations for five students for the Outstanding Graduate Student Award: Emily Kalaf, Feng Zhang, Safi Islam, Xianchen Ge, and Ying Tung. The winner for Parks’ Outstanding Graduate Student for 2015 is Emily Kalaf. Emily is a true leader. She founded and is serving as President in the Alpha Eta Mu Beta Honor Society for Biomedical Engineering. She is very strong academically, maintaining a high GPA while also helping other graduate students and even undergraduates in their studies. She has three journal publications and has presented her research at eight conferences. Her lab skills in microscopy make her the local expert, assisting other students AND faculty. She also teaches two laboratory classes. Congratulations to Emily Kalaf for being so deserving of the honor to be 2015’s Outstanding Graduate Student!

New Graduate Programs Assistant

Nicole Mispagel is a native to the St. Louis Metro East area. She has a varied work background, beginning her post-college career for a small St. Louis start up. Most recently she worked for four years as District Executive for the Lewis & Clark Boy Scout Council. Nicole is very excited to start a career at Saint Louis University and hopes to help many students fulfill their educational aspirations. She enjoys spending time with her family, writing, reading, sewing, and playing team sports. She currently resides in Illinois with her husband, Christopher, and their daughter, Norah.
Outstanding Women in Engineering

Lindsay Hill, PhD student in Biomedical Engineering, recently awarded Diversity Fellow, shares a little about herself and her goals.

“My name is Lindsay Hill. I have a bachelor’s degree in Mathematics and Physics from Baker University—and I am currently a Doctoral student in Biomedical Engineering at Saint Louis University. There are many reasons why I chose to pursue a career in Biomedical Engineering, but the reason that solidified my choice was when my younger brother became ill with the Stevens-Johnson syndrome. One of the complications is permanent blindness and the doctors were worried that my brother may suffer from this. A Biomedical Engineer from Kansas University Medical Center was able to send tissue from an amniotic sac to cover his eyes and, thus, prevent blistery lesions from causing serious eye problems. After witnessing what seemed like a miracle to my brother, I knew that this was the field that I wanted to go into. Thus, I aspire to work towards improving health care procedures and the quality of life for patients, to do for others what the Biomedical Engineer did for my brother. As a person that grew up in a diverse environment from my neighborhood, my school, and my family, I am truly honored to receive the SLU Diversity Fellowship. As a Diversity Fellow, I will help encourage others to understand that challenges such as difficult classes, race relations, or gender differences can be overcome and that nothing should stand in the way of pursuing their dreams.”

Lisa Andes, PhD student in Civil Engineering, recently awarded Presidential Fellow, shares a little about her background and research.

“My name is Lisa Andes. My Bachelor’s Degree is in Civil Engineering from Northern Arizona University in Flagstaff, AZ. After earning my Bachelor’s Degree, I went on to get a Master’s Degree in Ocean and Coastal Engineering from Oregon State University in Corvallis, Oregon. Since my Master’s degree I have had the opportunity to work in both engineering consulting and government environments as an Ocean/Coastal Engineer in the San Francisco Bay area. As an engineering professional, I used my experiences to reach out to aspiring scientists and engineers through participation in the science, technology, engineering and math (STEM) outreach programs (U.C. Berkeley Engineering for Kids Day), to introduce and engage high school students (as a Redwood City High School Design Team Mentor), engineering interns, and junior engineers to coastal engineering and science. My professional and academic experiences have demonstrated the importance of lifelong learning, which has led me to Parks College where I am pursing a Ph.D. in Civil Engineering. My dissertation topic focuses on sediment mechanics and mitigation near tributary junctions along the Mississippi River. Today as a Presidential Fellowship recipient, I am focused on completing my dissertation as well as mentoring other students to achieve their academic potential. Outside of my academic interests, my hobbies include: running, hiking, and cooking.”

Learn more about Saint Louis University Graduate Education Fellowships by visiting http://www.slu.edu/graduateeducation/employment-and-financial-support/fellowships.

Expanding Horizons Program

Mary Jennerjohn and Miranda Pizzella, Ph.D. students in Aerospace Engineering, are finishing their time as Clare Boothe Luce Graduate Fellows. They were both awarded an opportunity to take part in the Expanding Horizons Program from June 22 through July 9, 2015, traveling to Seoul, Korea. They were featured in a recent issue of Momentum, the Newsletter of the Clare Boothe Luce Program. You can read the full article here. http://www.hluce.org/files/documents/Momentum3.pdf

Check out our Winter Edition of the Parks Graduate Newsletter for more details on their trip to Seoul, Korea.
Please welcome the following new graduate students to Parks College

- Owais Aamir, M.S. Aviation
- Anisa Ashraf, M.S. Biomedical Engineering
- Joshua Beltz, M.S. Aerospace & Mechanical Engineering
- Andrew Dunn, M.S. Biomedical Engineering
- Kevin Feltz, M.S. Biomedical Engineering
- Ahalya Hegde, M.S. Electrical & Computer Engineering
- Faress Hraib, Ph.D. Civil Engineering
- William Jayne, M.S. Aerospace & Mechanical Engineering
- Parin Kadakia, M.S. Biomedical Engineering
- Sreeteju Lakkam, Ph.D. Aerospace & Mechanical Engineering
- Yuhao Liao, M.S. Electrical & Computer Engineering
- Bawan Mahmood, M.S. Civil Engineering
- Salar Malekzadeh, Ph.D. Aerospace & Mechanical Engineering
- Osama Ali Mohammed, Ph.D. Civil Engineering
- Florian, Noller, unclassified
- Priya Patel, M.S. Electrical & Computer Engineering
- Abdolrasol Rahimi, Ph.D. Biomedical Engineering
- Armin Saraei, M.S. Aerospace & Mechanical Engineering
- Dhuree Seth, Ph.D. Aerospace & Mechanical Engineering
- Saahil Sheth, Ph.D. Biomedical Engineering
- Daniel Siao, Ph.D. Aviation
- Nicole Sniffen, M.S. Civil Engineering
- Sai Krishna Tanikonda, M.S. Aerospace & Mechanical Engineering
- Nicholas Temofeew, M.S. Biomedical Engineering
- Han Wu, M.S. Aerospace & Mechanical Engineering
**IEEE Competition**

Frozan and her team (other members include Jiean Lou and Mark Wisniewski) stood first in IEEE (Institute of Electrical and Electronics Engineers) Region 5 Standards paper competition, winning a prize of $800 for their paper “Creating a Standard for the Data Transmission Industry: Guide for the Creation and Implementation of Quick Response Codes.” The competition was held in New Orleans on April 17, 2015.

---

**International Association for Bridge Maintenance and Safety (IABMAS)**

Graduate structural engineering students in the Civil Engineering Department submitted four abstracts, all of which were accepted for the 2016 International Association for Bridge Maintenance and Safety (IABMAS) Conference in Foz do Igacu, Brazil. The submissions include Md Ashiquzzaman for “Validation of Field Exterior Girder Rotation in Non-Skewed Bridge due to Construction Load with Finite Element Analysis,” Justin Schmeltz for “Analysis of Exterior Bridge Girder Rotation due to Eccentric Construction Loading using TAEG Software,” Ying Tung for “Behavior of Bridge Decks under Drying Shrinkage using Large-Scale Testing,” and Mehdi Motaleb for “Numerical Study to Investigate Web-Gap Distortion of an Existing Retrofitted Bridge.”

---

**NSF Career Award**

On April 1, 2015, Dr. Arif Malik, assistant professor in the Aerospace and Mechanical Engineering Department, was awarded the National Science Foundation (NSF) Faculty Early Career Development award for his project titled “Highly-Efficient Dynamic Prediction Models for Quality Improvement in Cold Rolling.” This $500,000 grant for 5 years is a testament to Dr. Malik’s hard work and dedication to quality research and work in his field. Much of the grant money goes towards graduate student research and funding graduate students.

---

**Students Honored by X-Culture**

Two Parks College graduate students were part of the 20 MBA students from the John Cook School of Business named “Best Students” by X-Culture, a cross-cultural global competition in international business. Safi Islam, Masters student in Aerospace & Mechanical Engineering, and Yue Dong, Masters student in Biomedical Engineering, were part of the team representing Saint Louis University and 2 of only 100 students worldwide to be awarded the Top 100 Student Award.

---

**New GSA Representatives**

We have new GSA (Graduate Student Association) representatives: Lisa Andes and Katie Hixon. Please welcome them and support them as they represent Parks Engineering programs in the Graduate Student Association.

---
Graduate Programs

ADDRESS:
3450 Lindell Blvd.
McDonnell Douglas Hall, Room 1025
St. Louis, MO 63103

PHONE:
314-977-8306

EMAIL:
parksgraduateprograms@slu.edu

WEBSITE:
parks.slu.edu/academics/grad-programs