Outstanding Graduate Student and Faculty Awards

In May of 2014, Parks College awarded its first ever Outstanding Graduate Student and Faculty Awards. The nominations were sought from faculty, students and staff. These awards not only stand to recognize Parks College’s interest and commitment to graduate education and research, but specifically, are intended to recognize individuals who demonstrate commitment to scholarly research, teaching and mentoring, and service to the community. After carefully reviewing all nominees, the review committee selected the following winners. Congratulations Jeff and Matt!

Jianfeng (Jeff) Ma, Ph.D.
Outstanding Graduate Faculty Award Recipient

Comments from the nominators:
Dr. Ma is a rigorous and highly dedicated professor in teaching. He has never been late for even a single class session and he delivers high-quality teaching. His teaching performance shows that he is an expert in his area—solid mechanics. In addition, he is very respectful and friendly to students and very helpful and patient to students when they have questions.

Dr. Ma constantly seeks out opportunities for his graduate students. Currently, he is advising four graduate students. During the last year, he published five journal articles with his graduate students—a noteworthy achievement. Apart from the journal publications, he mentored several students in successfully publishing conference papers.

Samuel (Matt) Vance, Ph.D.
Outstanding Graduate Student Award Recipient

Comments from the nominators:
Matt Vance’s resume highlights the many contributions he has made while at Parks College. These include mentoring activities to the Aero Senior Design teams, talks to AIAA monthly meetings, and providing guidance for many undergraduate and graduate students engaged in unmanned aerial systems projects at Parks. Matt has freely given of his time in any requested capacity to be an ambassador for Parks and Aviation Science. His breadth of experience and approachable, high integrity work ethic are respected and sought out by our staff and most importantly by our students for counsel and career guidance.
MESSAGE FROM THE DIRECTOR

The Office of Parks Graduate Programs is proud to provide you with our Summer 2014 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 more than 100 applications and admitted a large number of highly qualified students for summer and fall 2014. Also, we have welcomed many new students in the spring 2014. A total of 15 students have graduated from engineering and aviation with a MS or PhD degrees this spring or plan to graduate this summer. Parks awarded its first Doctor of Philosophy in Aviation in May 2013 to Dr. Damon Lercel. This May of 2014, Parks awarded its first ever Doctor of Philosophy in Engineering to Dr. Junsik Lee. This is a significant milestone for Parks, please join me in congratulating both Dr. Junsik Lee and Dr. Damon Lercel.

Our faculty and staff have been very busy working on several new graduate initiatives. Parks is diligently working on establishing a new leadership master’s degree that will be the first in the region. Parks graduate programs policies and procedures have been officially approved and in effect since April 2014. This includes admission and degree requirements. We have been also updating many of Parks graduate programs catalogs, brochures and other publications. Also, tuition-only assistantships have been offered to qualified graduate students in addition to our traditional graduate and research assistantships.

As you read on the cover, we introduced two prestigious awards to recognize an outstanding graduate student and faculty member. Please join me in congratulating Dr. Samuel Vance and Dr. Jeff Ma as Parks first recipients of these two awards, respectively.

Our website has undergone significant upgrades to highlight any the changes and modifications to our programs. Please take a moment to browse through the site at http://parks.slu.edu/academics/grad-programs/ and let us know how we can continue to improve. We have continued various means of communications between our office and the students, faculty and departments. Some of these activities are: one-on-one meetings with all active graduate students, and a review of each student’s folder regarding the requirements necessary for the completion of their degree; and one-on-one meetings with many faculty members to gain their insight on how to improve our programs along with the direction of the programs. Starting in the fall of 2014, SLU is mandating annual reviews for each graduate student. More information will be given later this fall. The 500 level graduate seminar that was commonly offered in all Parks departments starting fall 2013 was well attended by our graduate students. The seminar’s main goal is to promote research that is conducted here at Parks and elsewhere by our graduate students, faculty and guest researchers. We hope to see you in our next 500 graduate seminar presentations!

On behalf of Parks Graduate Programs, I wish you a happy and enjoyable summer!

Riyadh Hindi, Ph.D., P. Eng,
Director of Graduate Programs

Parks Celebrates First Engineering Doctorate

At the May graduation ceremony, Junsik Lee, Ph.D. was awarded the first Ph.D. in Engineering from Parks College. Through the Aerospace and Mechanical Engineering Department, Lee finished his degree after completing and defending his dissertation titled “Jet Array Impingement Heat Transfer: Effect of Jet-to-Target Plate Distance, Reynolds Number, Hole Spacing, and Surface Roughness.”

“This is a significant milestone for Parks College. Awarding the first doctoral degree in engineering in the history of the College is one of the tangible outcomes of our long-term commitment to grow our graduate programs and research productivity, which then fertilize research-led excellence in our teaching programs” said Parks College Dean, Theodosios Alexander, Sc.D. “Several additional engineering Ph.D. students are in the pipeline and will soon follow in Junsik Lee’s footsteps.”
**SCHOLARLY ACTIVITIES AND ACHIEVEMENTS**

**Patrick Andrus (AEME)** had a paper accepted for the ASME 2014 International Manufacturing Science and Engineering Conference, MSEC2014/NAMRC 41-4512, June 9-13, 2014, Detroit, Michigan, USA. It is titled, “Numerical investigation of tool performance in milling of Ti-6Al-4V alloy,” with authors J. Ma, Ph.D., S. Condoor, Ph.D., and S. Lei, Ph.D.


**Xiachen Ge (AEME)** had a paper accepted for the ASME 2014 International Manufacturing Science and Engineering Conference, MSEC 2014-4191, June 9-13, 2014, Detroit, Michigan, USA. It is titled, “Numerical Investigation of Two-dimensional Thermally Assisted Ductile Regime Milling of Brittle Materials” with authors J. Ma, Ph.D., S. Lei, Ph.D.

**Frozan Maqsoodi (ECE)** was highlighted in an article from UNews on February 13, 2014 about her participation in international debates, particularly as a founding member of the Open Debate Society of Afghanistan, and her desire to encourage Afghan women to join debate societies and to help implement curriculum changes in Afghan universities.

**Andrew Nelson (AEME)** published an article titled, “Probabilistic Force Prediction in Cold Sheet Rolling by Bayesian Inference” in the ASME Journal of Manufacturing Science and Engineering. Other authors include: Arif Malik, Ph.D., John Wendel, and Mark Zipf from I2S, LLC. Andrew graduated in Dec. 2013, and currently works as an engineer at Phillips 66 in Roxana, IL.

**Gregory Pasken (AEME)** is designing an automated droopsonde launching system for Saint Louis University Parks Airborne System. 2014 AVAPS User Group Meeting. April 22-23, 2014, Boulder, CO


**Matt Vance (Aviation)** published and presented his dissertation, which involved studying factors that affect passengers’ willingness to fly on fully autonomous airliners, on May 1, 2014. It was published on AVweb.com in January 2014. He was awarded first place in the Sigma Xi SLU Chapter Symposium held on Monday, May 5 in Social Science category. His poster was titled, “Analyzing Factors that may be essential to the Decision to Fly on Autonomous Airlines.” Also, he was awarded second place in the Fourth Annual Aviation Graduate Research Symposium held at The Doherty Center for Aviation and Health Research at Lewis University in Romeoville, IL on May 3, 2014.

**John Wendel (AEME)** accepted a job as an automotive engineer at Ford in Fall 2013.

**Feng Zhang (AEME)** accepted a 3-month graduate student summer internship at ALCOA Technical Center in Pittsburgh, PA. This will provide Feng with valuable practical experience on the rolling of aluminum alloys, and will complement his National Science Foundation supported doctoral research with Dr. Malik.

Safi Islam (AEME) was selected as the recipient of the Diversity Fellowship which is awarded through the Graduate Education Office. Safi received his Bachelor of Science in Mechanical Engineering in May of 2014. He will be starting his M.S. the Fall. The fellowship is awarded to newly accepted master’s or doctoral students who demonstrate outstanding scholastic achievement and potential for success in graduate studies at SLU. Students are nominated by their program. Each fellowship award carries a monthly stipend, 18 hours of tuition scholarship during the regular academic year, 3 hours during the summer session and health insurance. The award is for the maximum of two years for a master’s degree recipient and four years for a doctoral degree recipient.

SLU Selects Parks Student for Diversity Fellowship

Amanda Cox, Ph.D., P.Eng., began as an Assistant Professor for the Civil Engineering Department in August 2013. She received her B.S. from the University of Missouri–Columbia, and her M.S. and Ph.D. from Colorado State University where she specialized in hydraulic engineering. She has spent more than ten years conducting research and has completed more than 45 research projects in hydraulic engineering including physical hydraulic modeling of river systems, channel rehabilitation structures, bridge pier scour and outlet works.

Cox taught Hydraulic Engineering during the spring 2014 semester, and she worked with graduate student Samaneh Saadat to publish a paper titled “Stage Discharge Rating Equation for an Elliptical Sharp-Crested Weir”. This summer she is working with graduate student Kayeh Shakiba Nia and undergraduate research assistant Katie Healy on a project funded by the President’s Research Fund award won by Professor Cox. This is a collaborative effort with Dr. Chambers and Dr. Hanes from the Department of Earth and Atmospheric Science that investigates the mounting interdisciplinary scientific and technical issues of reservoir sustainability.

Jalil Kianfar, Ph.D. joined Parks Civil Engineering department as an Assistant Professor in January 2014. Dr. Kianfar specializes in the field of traffic and transportation engineering and he taught the Introduction to Transportation Engineering course and Civil Engineering Computing course in his first semester at SLU.

Prior to joining at Parks College, Kianfar received his B.S. and M.S. at Azad University in Iran, and his Ph.D. from the University of Missouri. He has more than ten years of research and consulting experience in the field of transportation engineering and he has been involved in the development of simulation models for connected vehicles, evaluation of active traffic management strategies, development of travel demand forecasting model, and analysis of pedestrian and transit facilities. Kianfar’s research has been recognized as practice ready by the Transportation Research Board of the national academies. Kianfar is in the process of building the transportation engineering program within the Civil Engineering department. One of his primary goals is to serve the local transportation needs in the St. Louis region. He and a student in the SURE program are currently working together to calibrate micro-simulation car following models to represent driver’s behavior.
The Graduate Education Office has awarded three credit hour tuition scholarships for Spring 2014 to the following Parks’ students. Congratulations!

Ajit George         Hung-Shuo Tai
Yang Luo             Janice McCall
Recent Graduates
SPRING 2014

**Master’s Candidates**

- **Chad D. Andrews** – M.S. Engineering (Aerospace)- Non-Thesis –Advisor: Mark McQuilling, Ph.D.

- **Patrick Andrus** – M.S. in Engineering (Mechanical)- Thesis Title: “Numerical Analysis of Tool Performance in Milling of Ti-6Al-4V Alloy” -Advisor: Sridhar Condoor, Ph.D.

- **Michael Benne** – M.S. in Aviation– Non-Thesis -Advisor: Terry Kelly, Ph.D.

- **Robert Caruso** – M.S. in Engineering (Mechanical)- Thesis Title: “Analysis of Methods for Identifying Customer Pain Points” -Advisor: Sridhar Condoor, Ph.D.

- **Haichen Ding** – M.S. in Engineering (Civil)- Non-Thesis -Advisor: Riyadh Hindi, Ph.D.

- **Bharath Thirumishi Jada** – M.S. in Engineering (Mechanical)- Non-Thesis -Advisor: K. Ravindra, Ph.D.

- **Geoffrey Potts** – M.S. in Engineering (Mechanical)- Thesis Title: “Aerodynamic Loss Investigations of a Cambered Turbine Airfoil in Transonic Flow” -Advisor: Phillip Ligrani, Ph.D.

- **Hung-Shou Tai** – M.S. in Engineering (Electrical)- Non-Thesis -Advisor: Huliyar Mallikarjuna, Ph.D.

**Doctoral Candidates**


- **Samuel (Matt) Vance**– Ph.D. in Aviation– Thesis Title: “Analyzing Factors That May Be Essential to the Decision to Fly on Autonomous Airlines” -Advisor: Arif Malik, Ph.D.

Please send your news to parksgraduateprograms@slu.
SUMMER 2014

**Master's Candidates**

**Nick H. Duong**— M.S. in Engineering (Mechanical)- Thesis Title: “Numerical Investigation of Performance of Micro-Textured Cutting Tool in Manufacturing Processes” -Advisor: Jeff Ma, Ph.D.

**Manuel Posso Escobar**— M.S. in Engineering (Aerospace)- Thesis Title: “The Space Black-Box Approach: Decreasing CubeSat Failure Rates” -Advisors: Sridhar Condoor, Ph.D. and Michael Swartwout, Ph.D.

**Peter Hasser**— M.S. in Engineering (Mechanical)- Thesis Title: “An Efficient Reliability-Based Simulation-Framework for Optimum Laser Peening Treatment” -Advisor: Arif Malik, Ph.D.

**Hui Jiang**— M.S. in Engineering (Mechanical)- Thesis Title: “Aerodynamic Loss Investigatinos of Symmetrical Airfoil” -Advisor: Phillip Ligarni, Ph.D.

**Aditya Nath**— M.S. Engineering (Biomedical)- Thesis Title: “Analysis of Differences in Elastin Expression in a Developing Mouse Artery Using a Constrained Mixture Model” -Advisor: Gary Bledsoe, Ph.D.