

Message from Department Head

The pages of this newsletter are filled with news of the achievements of our students, faculty, and alumni. With the announcement of Lesley Strawderman as the new International Paper Endowed Chair, the ISE department now has two endowed faculty positions. As well, with the recent new program endowments from Will Botts and Fred Buie (see fall newsletter), the department is able to expand its support of the various activities and events for both our undergraduate and graduate students.

This past year the department set a new record with the publication of 46 journal papers in 2017. In the last 5 years, we have graduated 47 MS and 32 PhD students while averaging \$3.7M per year in research expenditures. This level of scholarly activity illustrates the productivity of the faculty and staff within the department. I am very proud of their achievements.

I would love to see our undergraduate enrollment grow in the next several years and need your help. Most students I meet have never heard of industrial engineering. Therefore, please be sure to tell every junior-high and high school student you meet what you do as an industrial engineer. You serve as our recruiters, as well as our best advertisement. Don't hesitate to let me know if you have a prospective student that you would like for me to contact.

Hail State!
John

Spring 2018 Graduates

Doctoral:

- **Amirmassoud Aboutaleb** - "Data-driven process optimization of Additive Manufacturing systems." Advisor: Linkan Bian
- **Ruholla Jafari Marandi** - "Self-Organizing Error-Driven (SOED) Artificial Neural Networks (ANN) for smarter classifications." Advisor: Brian K. Smith

Master's Thesis:

- **Ravi Akula** - "Botnet detection using graph based feature clustering." Advisor: Linkan Bian
- **Sara Campbell** - "Using self-organizing maps to identify turns from driving simulator data." Advisor: Brian K. Smith
- **Tomas Marzullo** - "Labor skills in the maintenance department for Industry 4.0." Advisor: Brian K. Smith

Master's Non-Thesis: John Parrish.

Undergraduates:

- Corey Batson, Katelyn Burnette, Christy Gerth, Cassidy Hardy, Mick Harling, Abigail Hatley, Jacob Lewandowski, Abby McPhail, Samuel Miller, Thomas Mogish, Anna Oglesby, Shae Pugh, Clayton Richardson, Kelsey Seiter, and Lincoln Sellers.

Bagley College Distinguished Fellow

Rich Lopez was recognized as a 2018 Distinguished Fellow in the Bagley College of Engineering. Rich graduated from MSU with a BS in IE in 1993 and later earned an MS in Healthcare Administration in 2004 from Virginia Commonwealth University. He currently serves as Vice President of Advisory Services for **HealthTrust Workforce Solutions**. Rich is an active member on the ISE Advisory Board and comes to campus often to talk with students about careers in healthcare. He is married to Lisa Douglas Lopez and they have four children, two of whom graduated from MSU in 2016.



New Advisory Board Members

Breck Stringer

After receiving his BS in IE from MSU, Breck began his career at **Eaton Aerospace** serving in a variety of positions across a range of assignments providing exposure to manufacturing engineering, operations, and marketing. Breck's experience with Eaton has allowed him to work in many different geographical regions of the United States and England. Breck is currently the Plant Manager for Eaton's manufacturing facility in Jackson, Mississippi. He and his team are responsible for all aspects of manufacturing including precision machining, assembly, and automated testing. Prior to his current assignment, Breck served as the Plant Manager for Eaton at their aerospace facility in Bethel, Connecticut from 2010-2013, followed by their fluid conveyance facility in Jackson, Michigan from 2013-2016. In addition to his degree in industrial engineering, Breck also has an MBA from Millsaps College.



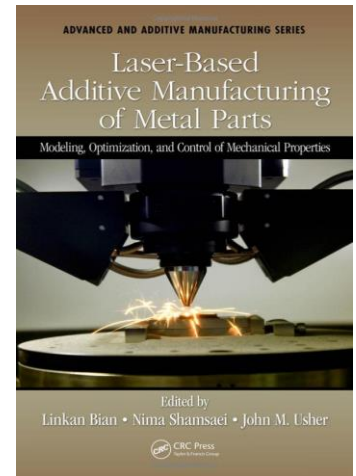
Paul D. Cooper

Paul began his career at the **International Paper (IP) Company** after graduating from Mississippi State University in 1981 with a BS in IE (followed by an MBA from Troy University in 1991). His career began in the project engineering department and progressed to a shift supervisor position, then an area manager position, and ultimately to a department head at one of our paper mills. In 1994, Paul transitioned to IP's Technology Division where he currently works as Manager - Converting Solutions. His group supports IP's paper mills worldwide in the reel, winder, roll handling, pulp bale handling, sheeting, and warehousing areas.

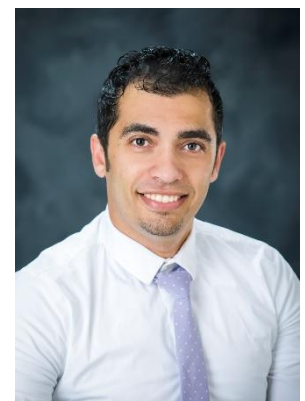


Faculty News

- ISE faculty, **Linkan Bian** and **John Usher**, recently had a new edited volume published by CRC Press. It is entitled “Laser-Based Additive Manufacturing of Metal Parts: Modeling, Optimization, and Control of Mechanical Properties”.



- **Lesley Strawderman**, an Associate Professor and Undergraduate Coordinator in ISE, has been named as the first recipient of the **International Paper Endowed Chair** in Engineering. The endowed chair was created as the result of a \$2.25 million gift from International Paper Co. The chair holder is selected from the departments of chemical, electrical and computer, industrial and systems, and mechanical engineering. The holder also serves as a liaison to International Paper and assists with the identification of research opportunities and recruitment for the college.
- **Raed Jaradat** was elected as a member of the Modeling and Simulation (M&S) Board of Directors. He will serve in this position for two years beginning at the IISE conference in May 2018. The M&S division vision is to promote and share innovative ideas in the field of modeling and simulation, as well as facilitate networking and increase ties between members from academia and industry.



Linkan Bian was elected as a member of the Quality Control & Reliability Engineering (QCRE) board of directors. He will serve in this position for two years beginning at the IISE conference in May 2018. The QCRE division is primarily interested in the theory, methodology, and practice in all technical areas that develop or apply QCRE, and brings together members from academia and industry who share a common interest in topics related to research and practice of QCRE.

Faculty News (continued)

- Visiting Assistant Professor, **Glenda Young** (pictured at center), was recognized by the NSBE student chapter for her outstanding teaching commitment to the NSBE national goal “to increase the number of culturally responsible black engineers who excel academically, succeed professionally, and positively impact the community”.



- **Brian K. Smith** (center of picture below) was chosen as the Faculty Recipient of the 2018 Wesley Ammon New Academic Advisor Award recognizing his outstanding advising of undergraduate students.



John Usher was awarded the status of **Fellow** at the national conference of the IISE professional society. This award recognizes outstanding leaders of the profession who have made significant, nationally recognized contributions to industrial engineering. A fellow is the highest classification of IISE membership. In the history of the department, John is only the second (but definitely not the last) faculty member to receive this award.

Alumni News

- **William (Will) Botts, Jr.** has established a \$25,000 Student Travel Endowment in the department. Will is a 1968 graduate of the Industrial Engineering department and later earned a Master's of Business Administration from MSU. Mr. Botts' was recognized as a Distinguished Fellow of the Bagley College of Engineering in 2014. Will is currently CEO and owner of **KIN-TEK Analytical Inc.** in Houston, TX, a Director of **VUV ANALYTICS** in Austin, TX, and is on the Board of Directors of **ALLVAR, Inc.** in College Station, TX. Earnings from this endowment will provide financial support for both undergraduate and graduate student travel to conferences. This support will provide the department more opportunities for our students to attend and present their research at conferences.



Student Highlights

- **Mojtaba Khanzadeh's** paper entitled "Establishing the Process-Structure Relationship Using Tensor Decomposition of Thermal Images" was selected to receive the 2018 IISE Manufacturing & Design Division Best Student Paper Award. Mojtaba, an ISE PhD student, presented the paper at the IISE Annual Conference in Orlando this past May with the award being presented at the Honors & Awards Banquet at the conference.



- **Roy Jafari Marandi**, an ISE PhD student, was one of eight students in the college that were named to the Bagley College of Engineering Hall of Fame. The Bagley College Student Hall of Fame was established in 2007 to highlight students who display high academic achievement and exemplary leadership skills while engaging in internships, volunteer work and student activities.

Student Highlights

- **Madeline Crow**, an ISE Sophomore, wrote an essay, entitled “When One Decision is not Enough,” that was awarded first place in the Upperclassmen division of the **Maroon Edition/Maroon & Write Essay Competition**. Madeline was asked to read her essay at the Maroon Edition luncheon this past April. Madeline placed first in this same competition last year. Who says engineers can’t write!



- **Jack Francis** (ISE PhD student) has been selected to receive the Irving M. Footlik, P.E. Memorial Scholarship for the 2018/2019 academic year from the Material Handling Education Foundation, Inc. The mission of the Material Handling Education Foundation, Inc. is to promote the study of material handling, logistics and the supply chain by exposing students and educators to the industry through financial support.
- Winners of the **J. Ron Walsh Outstanding Industrial Engineering Awards** for the 2017/18 academic year are:
 - Outstanding Senior: **Kelsey Seiter**
 - Outstanding M.S. Student: **Tomas Marzullo**
 - Outstanding Ph.D. Student: **Roy Jafari Marandi**
 - Outstanding Research Paper: **Mojtaba Khanzadeh** for his paper entitled: “In-situ monitoring of melt pool images for porosity prediction in directed energy deposition processes” that has been published in the IISE Transactions journal.

Pictured at right are the 22 MSU-ISE students that attended the **IIE Southeastern Regional Student Chapter Conference** this past February in Atlanta .



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Dean's Scholar

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Mr. & Mrs. Michael Kavanagh

Drs. Jack & Jessica Matson

Mr. & Mrs. Roy F. Pearson

Your support makes a difference...

We wanted to be sure you know that when giving to the University, it is possible for you to make gifts directly to the ISE Department through the MSU Development Foundation. However, this requires that you explicitly specify that your gift is for the Department of Industrial & Systems Engineering.

The gifts that we receive from alumni, corporate sponsors, and other partners directly impact the student, staff, and faculty of the department. The ISE department needs your help with:

- scholarships and fellowships for recruiting and retaining students,
- funding access to state-of-the-art technology through equipment purchases for enhancing classroom and laboratory experiences,
- support for student leadership groups, and
- professorships to attract and retain top-caliber faculty.

These programs are not supported through state appropriations and therefore, are not possible without your help. Such gifts are an investment in the future, helping us to achieve excellence in the classroom and laboratory. You can use the form on the next page to contribute to these programs. You can also contact John Usher (662-325-7624; usher@ise.msstate.edu) or Bennett Evans, Director of Development (662-325-0386; bevans@bagley.msstate.edu) to learn about other ways to support the department.

If you want to make a donation online you can go to msufoundation.com and click on the "Give Now" link at the top right of the screen. When specifying the "Designation" select "College/School/Preferred Area." When a new screen comes up, type "Systems Engineering" and select "Industrial & Systems Engineering (310506)". The account 310506 should appear as the "Selected Designation."

Please join those listed at left who made a difference with their support to the department in the last three years.

Dean's Scholar (cont.)

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Ms. Ashley McCall

Mr. John McLin

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Dean's Delegate (cont.)

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Alumni

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Ms. Margaret Devine

Ms. Megan Vandevender

Students

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