## **CEAT Highlights**

### **Announcements**

#### **CEAT Holds Annual Faculty, Staff and Student Awards Banquet**

April 30, faculty, staff and students in the College of Engineering, Architecture and Technology were recognized for their contributions and excellence to CEAT.

"Today is a day to celebrate the extraordinary talent we have in our faculty, staff and students. This college has reached some amazing milestones this past year and enrollment continues to grow," said CEAT Dean Paul Tikalsky.



Click here to see the full list of winners.

**May 2018** 



#### Jeffrey Young Selected for Sandia National Laboratory Engineering Science External Review Board

Jeffrey L. Young, OSURF Endowed Chair of Engineering and ECE Head, was selected as a member of the Sandia National Laboratory (SNL) Engineering Science External Review Board. The Board provides assessment and advice to the Sandia Chief Research Officer, Sandia Engineering Sciences Director, and Senior Manager of the Sandia Research Foundation on matters pertaining to the engineering mission and programs of SNL Research Foundation.

The board consists of ten members who hold significant leadership positions at the University of Texas (Austin), University of Tennessee Space Institute, Raytheon Missile Systems, Oak Ridge National Laboratories, Georgia Institute of Technology, Los Alamos National Laboratory, University of California (Irvine), Air Force Research Laboratory, and NASA Langley Research Center. Prof. Young's four year term started April 1, 2018. His primary contribution to the board will be to provide expert engineering and science advice on electromagnetic systems, devices, testing, and simulation.

### Announcements

#### Science Saturday at the WONDERtorium

On Saturday, April 21, CEAT Student Council members volunteered at the WONDERtorium in Stillwater for Science Saturday. CEAT students Ben Davis, Savannah Robisch, Cameron Jump, Jordan Taylor, Grace Kramer, Tyler Goldsmith, Christen Parmley and Tyler Martin led activities which included stomp rockets, catapults, water acidity testing, potato lights, smokey bubbles



and planting flowers.

Designed primarily for children ages 12 and younger, the Oklahoma WONDERtorium is recognized regionally as a cultural and educational institution serving children



and families on-site and through outreach programs. The museum's exhibits and innovative educational programs emphasize hands-on engagement and learning through experience, employing play as a tool to spark the inherent creativity, curiosity, and imagination of children. Exhibits explore science, math, creativity, history, culture, health and wellness, dramatic play and problem-solving.

#### **OSU Employee Overcomes Negativity, Commits to Healthier Life**

Oklahoma State University employee Michelle Stewart identifies and overcomes her cognitive negativity to commit to a healthier life.

Stewart, an accounting specialist for the College of Engineering, Architecture and Technology, has spent the past eight years struggling to get on the right track toward a healthier lifestyle. While experiencing weight gain through her first year of marriage, childbirth and breastfeeding, she has participated in many fitness programs though the Department of Wellness.

Although she has seen progress through the years, it was not until her recent breakthrough in a Department of Psychology research project, COSMOS, that she was able to reach her full potential.



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#### Logan Kunka Ending OSU Career with Awards

Logan Kunka, mechanical and aerospace engineering major, is ending his career at OSU with a bang. Kunka has been named the Sigma Gamma Tau Southwestern Region Undergraduate Award winner, DOE Computational Science Graduate Fellowship (CSGF), and National Science Foundation's (NSF) Graduate Research Fellowship Program (GRFP) honorable mention.

He will begin his master's studies in the fall at Texas A&M University.

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#### Dr. Jennifer Glenn Receives Greek Award

Dr. Jennifer Glenn is currently a Lecturer in the School of Industrial Engineering and Management (IEM). She is a native of Stillwater and earned bachelor's and master's degrees in IEM from OSU where she was named the Outstanding Senior Female Graduate and also the College of Engineering, Architecture and Technology (CEAT) Outstanding graduate.



### **Announcements**

### Fire Community Honors Dr. Lee Bird and Dean Paul Tikalsky

The state of Oklahoma's fire community came together to honor Dr. Lee Bird and Dean Paul Tikalsky for their contributions to the Fire Protection programs Oklahoma State University offers.

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### **Academics**

#### Mercury Remote Robot Challenge at Oklahoma State University

The College of Engineering, Architecture and Technology at Oklahoma State University held their annual Mercury Remote Robot Challenge (MRRC) with participating teams in electrical and computer engineering, mechanical and aerospace engineering and other disciplines in engineering.

> This competition is an international, interscholastic robotics competition that has challenged engineering students since 2010. MRRC competitors design and build a robot capable of performing a specific mission. The robot must be operated remotely from at least 50 miles away.

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#### CEAT Students Making an Impact at 2018 STEM Day at the Capitol

Nine students in the College of Engineering, Architecture and Technology at OSU along with Dean Paul Tikalsky, Jessica Russell from the OSU Regents office and Jamie McAlpine, CEO of McAlpine Energy and alumni mentor to the students, visited the Oklahoma State Capitol Tuesday, April 17 for STEM Day at the Capitol.

According to the State of Oklahoma's Department of Commerce, the state will need to fill over 24,000 technical positions to maintain the current technical

business workload through 2026. Without more funding of STEM programs starting today, the state's educational system will be unable to maintain, much less grow, a viable workforce to meet the existing demand from high-tech industries. It takes 10 years to develop a STEM grad.

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#### ASSE National Scholarships Awarded to CEAT Students

Four students in the fire protection and safety engineering technology program at Oklahoma State University have been awarded scholarships from the American Society of Safety Engineers.

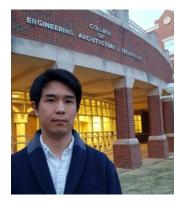
Those students are: Jeron Hamm, Joshua Yates, Taylor Peaster & Dakota Guzier.







### **Academics**



#### **CEAT Student Wins Nationally Competitive Scholarship**

Shinhyu Kang, Ph.D student and graduate research assistant in the OSU school of civil and environmental engineering, has been selected by the American Coal Ash Association Educational Foundation to receive the David C. Goss Scholarship in the amount of \$5,000. Kang has also been invited to attend the ACAA Fall Meeting in New Orleans, Louisiana on October 2-3, 2018.

This scholarship is for students who have an interest in advancing the beneficial use of coal combustion products. The award is based on essays, coursework, academic credentials, recommendations and a demonstrated interest in the utilization of coal combustion products.

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#### **IEM Takes Home Second Place in International Competition**

OSU's Industrial Engineering and Management team has won second place in the Institute of Industrial and Systems Engineers (IISE) Logistics and Supply Chain (LSC) Division's Student Case Competition. They will receive a certificate at the IISE Annual Conference and Expo in Orlando, Fla. May 19-22.

"The 2018 LSC Student Case Competition is an international competition with about 12 undergraduate teams and 12 graduate teams representing the United States and Canada. The OSU team had three IEM graduate students," said Tieming Liu, associate professor in IEM. "Team members include Devaraja Vignesh Radha Krishnan, Raghu Prasanth Muthusamy, and Haarish Soundararajan." Industrial Engineering and Ar ment

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#### OSU student-led teams win over \$40,000 at Love's Entrepreneur's Cup competition

A pair of graduate-level teams from Oklahoma State University made history as winners at the 2018 Love's Entrepreneur's Cup. For the first time in the history of the OSU entrepreneurship program, the teams took first- and second-place in the statewide competition.



Contraire was awarded first place and \$20,000, while Multivate placed second and received \$10,000 in the High Growth Graduate competition.



"We're extremely proud of all of the teams that participated in the Love's Cup Competition," said Bruce Barringer, head of the OSU School of Entrepreneurship. "We enjoy working with engineering students and are having increasing success matching engineering and business students to comprise business plan teams. All of the teams that competed have tremendous future potential."

### **Academics**



#### **Rachel Mosier Awarded for Excellence in Teaching**

Rachel Mosier, assistant professor in Construction Management Technology has been awarded the International Excellence in Teaching Award and the Regional Teaching Award for Region 5 from the Associated Schools of Construction (ASC). Mosier was selected to receive these awards because of her significant contribution to construction education, excellence in teaching and service to the ASC.

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#### Mechanical and Aerospace Engineering Uses Partnership to Bring Education Full Circle

While in college, many students may not understand how the information they are reading in a book may translate into real-world situations. The Mechanical and Aerospace Engineering department in the College of Engineering, Architecture and Technology at Oklahoma State University wants to make sure that information is applied. And they are using partnerships to make that happen.



The MAE 4223 Aerospace Engineering Lab is paired with the Aero Capstone



Project class in the last semester of the students' senior year. Aero Lab is focused on developing student skill in aerospace experiment development and analysis with an emphasis on flight test engineering techniques. To receive the full experience, MAE has partnered with the Aviation and Space program (AVED) in the OSU College of Education, Health and Aviation to allow students a real flight in a Cessna 172.

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### Three College of Engineering, Architecture and Technology seniors receive top honors from the Alumni Association

Three seniors from the College of Engineering, Architecture and Technology have been named 2018 Outstanding Seniors by the Oklahoma State University Alumni Association.

The Outstanding Senior award recognizes seniors who excel through academic achievement; campus and community activities; academic, athletic or extra-curricular honors or awards; scholarships and work ethic during their time at OSU.

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#### For more information about each Outstanding Senior, click the picture below:



**Cassidy Gierhart** chemical engineering Choctaw, Oklahoma



**Tyler Martin** chemical engineering Omaha, Nebraska



Wendy Lau Wong industrial engineering & management Oklahoma City, Oklahoma

### **Academics**

#### **USRI** Attends Unmanned Technology Conference in Denver



OSU's Unmanned Systems Research Institute attended the annual AUVSI XPONENTIAL 2018 expo in Denver, Colo. on April 30- May 3. The expo is an intersection of cutting-edge innovation and real-world applications brought together in one event for all things unmanned. More than 8,500 industry leaders were in attendance from both the defense and commercial sectors to learn the latest on policy, business use cases and technology applications.

The Unmanned Aircraft Systems speciaization is a multi-disciplinary research and education program in the College of Engineering, Architecture and Technology on the campus of Oklahoma State University. USRI is the hub of Unmanned Systems at OSU and throughout Oklahoma.

### **Extension**

#### First FireTech Conference Held at OSU

OSU College of Engineering, Architecture and Technology Professional Development along with the OSU Department of Fire Protection and Safety Engineering Technology held their first FireTech Conference and Expo March 18-21 on OSU's campus, home of the oldest fire and safety related program in North America.

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### **Research**

#### OSU Alumnus Prahalada Rao Awarded \$500k for New Metal 3D Printing Process to Eliminate Flaws

OSU CEAT builds our students to solve big problems after graduation. And alumnus Prahalada Rao is doing just that. Rao received his master's and Ph.D from OSU in industrial engineering and management and is now an assistant professor at the University of Nebraska- Lincoln.



Click here to read more about this research.



#### Forum focuses on drones in agriculture

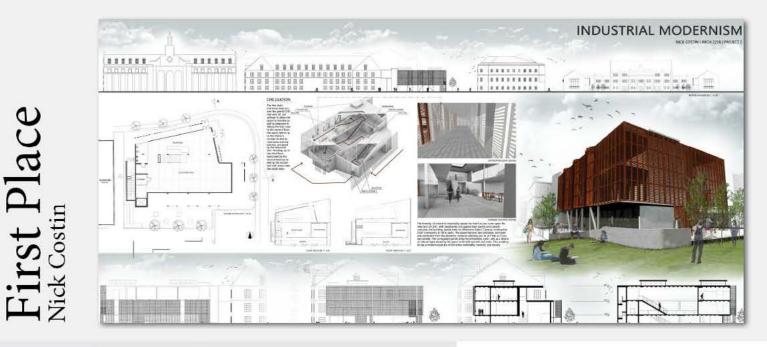
Unmanned Aircraft Systems, or drones, were the focus of the second annual Oklahoma Future of Food Forum held in Enid on Tuesday.

"It's not the vehicle that matters, it's not the images that matter. At the end of the day, it's the data that matters," said Jamey Jacob, director of the Unmanned Systems Research Institute and a professor at the School of Mechanical and Aerospace Engineering at Oklahoma State University. "It's all about data mining and data analytics. That's where the real value of this technology is at. We can't keep track of individual plants, but computers can."



## Site/Space/Structure/Skin

Architecture Students Compete to Design New CEAT Exterior Spaces





This Spring, 64 2nd year Architecture and Architectural Engineering majors prepared proposals for enhancements of the CEAT quadrant of OSU. The students proposed a new 'front door' facility for CEAT, which included exhibit space, a large auditorium, and would be the place where tours for prospective CEAT students would begin. This new element would exist where the ES Annex currently resides, which is a key location that has street visibility and is ideally positioned to be an important point about which all CEAT buildings relate. Dr. Fisher, Head of MAE, and Dr. Young, Head of ECEN, sponsored the student competition & were on the judging panel. The ARCH 2216 studio faculty were Associate Professors Ra, Rodriguez, Stivers, and Adjunct Instructor Moratto. This project was completed in the first half of the spring semester, 2018.

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