In Kansas, statute 75-3207 requires protective eye devices when participating in certain classes. Every student and teacher in all schools, colleges and universities, or other educational institutions, must wear these when participating in any of the following courses:

1. Vocational, technical or industrial arts shops or labs involving experience with —
   a. Hot molten metals or other molten materials
   b. Milling, sawing, turning, shaping, cutting, grinding or stamping of any solid materials
   c. Heat treatment, tempering, or kiln firing of any metal or other materials
   d. Gas or electric arc welding, or other forms of welding processes
   e. Repair or servicing of any vehicle
   f. Caustic or explosive materials

2. Participants in chemical or combined chemical-physical laboratories involving caustic or explosive chemicals or hot liquids or solids, or injurious radiations, or other hazards not enumerated, are required to wear appropriate industrial-quality eye protection devices at all times.

Industrial-quality eye protection devices, as referred to in this section, means devices meeting the standards of the United States of America standard practice for occupational and educational eye and face protection, ANSI Z87.1-2010.

How can you tell if your safety glasses meet the Z87 standard? Safety glasses will be marked on the lenses and frames with the following markings:

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2. Impact Rated Prescription Z87-2
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4. Non-Impact Prescription Z87-2

Remember, prescription safety glasses can only truly be considered protective eye wear if they meet the ANSI Z87 Standard.

Upcoming events

3/1 — Eyestone lecture, 1109 Engineering Hall, 3:00 - 4:00 p.m.
3/7 — USRG/PDA deadline to Office of Research and Sponsored Programs
3/7 — Grad Expo, Alumni Center
3/7 — The Library and Your Research: Using Primary Sources 407 Hale Library, 1:30 - 2:30 p.m.
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3/14 — Spring break week
3/21 — The Library and Your Research: Using Citation Managers 407 Hale Library, 1:30 - 2:30 p.m.
3/22 — Research showcase: Spotlighting research capabilities, facilities and resources Union ballroom, 3:00 - 5:00 p.m.
3/24 — Publishing your research and scholarly work (Graduate Student Council workshop), Union Cottonwood Room, 3:00 - 5:00 p.m.
3/28 — The Library and Your Research: Using Data 407 Hale Library, 1:30 - 2:30 p.m.
3/30 — Graduate Research, Arts and Discovery (GRAD) Forum

For more information about these events, please visit eng.k-state.edu/ergp/events

ERGP Newsletter
March 1, 2016

The College of Engineering presents

Michelle Munson

Michelle Munson, Berkeley, California, is a 1996 graduate of Kansas State University in electrical engineering and physics, where she was a Goldwater Scholar for achievement in science and mathematics, and later a Fulbright Scholar at Cambridge University where she received a postgraduate diploma in computer science. The CEO of Aspera, Inc., she co-invented Aspera’s proprietary transport technology and is responsible for overseeing the company’s direction in collaboration with co-founder Serban Simu. Munson was a software engineer in research and start-up companies including the IBM Almaden Research center before founding Aspera in 2004. She was the 2006 K-State College of Engineering Alumni Fellow — the youngest recipient on record. She has been named Media and Broadcast Technologist of the year for 2016, and has also received national achievement awards from Glamour Magazine and USA Today. Munson is a frequent speaker on technologies and trends around big data transport, cloud infrastructure and mobility.

K-State’s Engineering Research and Graduate Programs, located in DUE 1126, is a gender-neutral space offering a private restroom and a changing table.

Contact:
College of Engineering Dean’s Office 1046 Rathbone Hall (785) 532-5590 deanengr@ksu.edu

Kansas State University, 1048 Rathbone Hall, Manhattan, Kansas 66506.

Phone (785) 532-5844
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engr@k-state.edu
engg.k-state.edu/ergp

Research — k-state.engr
Grad program — k-state_enggrad

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A Kansas State University engineering team is developing a technology collection that can make a big difference in the lives of children with developmental disabilities.

The team’s projects so far have addressed around-the-clock technology: bed-based sensors to track child breathing and heart rates; wearable sensors to track child behaviors; and designs that can improve the quality of life for paraeducators who work with these children.

Now the team has received a three-year $400,000 National Science Foundation grant to expand these ideas and better establish a link between nighttime well-being and daytime learning and behavior. The project, “ENS-GARDE: Research to quantify the health and development of children with disabilities around the clock,” involves several Kansas State University engineering researchers who are combining their expertise.

“While relationships between sleep quality and daytime performance are well characterized for neurotypical children, these relationships are not well known for severely disabled, autistic children, many of whom are nonverbal and have multiple co-existing disabilities,” said Steve Warren, associate professor of electrical and computer engineering and project leader. “Polysomnographs used for traditional sleep studies require electrodes, wires and equipment that are not suitable for these children. We seek alternative nighttime tools that, once hidden in a child’s bed and bedroom, can provide effective surrogate data when compared to traditional polysomnographies.”

Other Kansas State University researchers involved include Punit Prakash and David Thompson, both assistant professors of electrical and computer engineering, and Bala Natarajan, professor of electrical and computer engineering, along with many graduate and undergraduate students.

The university research team is collaborating with Heartspring Inc., a Wichita-based nonprofit organization that is a therapeutic residential and day school program. Heartspring uses evidence-based and emerging best practices to serve students who often have multiple diagnoses, including autism spectrum disorders, cerebral palsy, speech and language impairments, and other developmental disabilities.

The NSF grant will help the university researchers to develop more effective nighttime and daytime monitoring tools, acquire data from selected Heartspring children in their residential apartments and use these data to establish linkages between nighttime well-being and daytime learning and behavior.

“In contrast to existing approaches, the goal of our effort is to measure sleep quality and daytime well-being by exploiting advanced signal processing algorithms and fusion of information from multiple low-cost noninvasive sensors,” Natarajan said. “The ease of deployment and portability of the sensor suite greatly increases the likelihood of this technology reaching the homes of children with special needs.”

Early elements of this project began in senior engineering design courses managed by Warren, Prakash and other university engineering faculty members. These efforts were supported by a previous NSF grant that provided material and equipment funds for senior design projects geared toward children with severe disabilities and their caregivers. Kansas State University students designed customized devices informed by the needs of the Heartspring children.

Wayne Piercel, a child psychologist and the Heartspring clinical director, is leading the collaborating Heartspring team. Other Heartspring team members include Janine Kesterson, child psychologist; Steve Stoffregen, director of information technology; Dusty Buell, director of marketing; and David Stupay, president and CEO.

Graduate Student Appreciation Week

Graduate Student Appreciation Week will be celebrated at K-State on April 4 – 8, 2016. This is a time to show appreciation to graduate students across campus for their dedicated service and contributions to teaching, research and outreach during the current academic year. The College of Engineering has more than 460 graduate students and each one is essential to the college moving towards K-State 2025 goals. The ERGP office has planned the following events for engineering graduate students:

- **Tuesday, April 5** – Department group pictures
- **Wednesday, April 6** – Graduate student breakfast
- **Thursday, April 7** – Say Cheez Photobooth over lunch
- **The Graduate School is planning an awards banquet on Tuesday evening and an ice cream social on Friday afternoon. Each engineering department is encouraged to schedule an event for its own students on Monday or Friday of that week.**

Graduate program highlight

The ERGP office, with help from the Engineering Graduate Student Advisory Council, is hosting a series of e-seminars during the spring semester. Each e-seminar features a panel of three K-State engineering graduate student alumni who are now working in industry across the country.

The panlists teleconference in using Zoom, which allows for an interactive experience even though they may be many states away. The first e-seminar was held Feb. 23 and featured Amy Bartak (EE ’14), Burns & McDonnell; Kathryn Davis (IE ’10), Walmart; and Jeff Hancock (CE ’00), SMS Consultants.

The e-seminars give undergraduate students who are considering a graduate degree the opportunity to see that an engineering M.S. or Ph.D. degree can lead to something other than academia. The e-seminars also give graduate students an opportunity to ask questions about their transition from a student to a career.

The next e-seminar on March 8 will feature Amit Gupta (CS ’01), Microsoft Corp.; Mark Hopkins (EE ’09), Tradewind Energy; and Bryce Huchka (IE ’07), ExxonMobil. The third e-seminar on April 5 will feature Sarah Appleton (ARE ’15), Wallace Engineering; Henry Bonifacio (BEE ’13), USDA-ARS; and Lou Von Thaer (EE ’83), Lexis. Both will be held from 5:00 – 6:30 p.m. in 1109 Engineering Hall followed by a reception in the Fiedler Hall atrium from 6:00 – 6:30 p.m.
The NSF grant will help the university researchers to develop more effective nighttime and daytime monitoring tools, acquire data from selected Heartspring children in their residential apartments and use these data to establish linkages between nighttime well-being and daytime learning and behavior. "In contrast to existing approaches, the goal of our effort is to measure ERGP Newsletter March 1, 2016

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**ERGP Newsletter March 1, 2016**

**Upcoming events**

- **3/3** — Eyestone lecture, 1109 Engineering Hall, 3:00 - 4:00 p.m.
- **3/6** — Using Primary Sources, 407 Hale Library, 1:30 - 2:30 p.m.
- **3/8** — Global Campus Best Practices Seminar, Paslay Auditorium, 2:30 p.m.
- **3/8** — Engineering e-seminar, 1109 Engineering Hall, 5:00 p.m.
- **3/8** — Grad Expo, Alumni Center
- **3/9** — Communicating your research to the public (Graduate Student Council workshop), 227 Union 3:00 - 5:00 p.m.
- **3/14** — Spring break week
- **3/21** — The Library and Your Research: Using Citation Managers, 407 Hale Library, 1:30 - 2:30 p.m.
- **3/22** — Publishing your research and scholarly work (Graduate Student Council workshop), Union Cottonwood Room, 3:00 - 5:00 p.m.
- **3/24** — Engineering Research and Graduate Programs Graduate Program — kstate.engr grad program — kstate_enggrad

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**Meet our staff**

Noel Schula, Associate Dean for Research and Graduate Programs

Jeff Gibisch, Safety Coordinator

Carole Lovin, Research Administrator

Chassy Nichols, Business Financial Specialist

Tamara Robinson, Editor

Bethany Swinney, Program Assistant

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**Research Showcase: Spotlighting Research Capabilities, Facilities and Resources**

March 22, 3 - 5 p.m., Grand Ballroom, K-State Student Union

The event will highlight research infrastructure and faculty expertise in K-State research, scholarly and creative activity, and discovery (RSCAD) in support of the vision and goals for K-State 2025. Faculty and industry representatives will gain understanding of K-State research activities and capabilities across all campuses to identify and promote campus expertise, focus areas, and resources; and to facilitate strategic relationships and opportunities between K-State researchers and industry partners.

Contact: Richard Potter, rmpotter@ksu.edu, 785-532-1840.

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**Did you know?**

Research—kstate.ergp

Education—kstate.enggres

Grad program—kstate_engggrad

Webpage—ergp.k-state.edu

Phone (785) 532-5844
Fax (785) 532-7810

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**Kansas State University**

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Contact: Richard Potter, rmpotter@ksu.edu, 785-532-1840.

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**Michelle Munson, EE ’96**

**CEO and co-founder Aspera, Inc.**

Michelle Munson, Berkeley, California, is a 1996 graduate of Kansas State University in electrical engineering and physics, where she was a Goldwater Scholar for achievement in science and mathematics, and later a Fulbright Scholar at Cambridge University where she received a postgraduate diploma in computer science. The CEO of Aspera, Inc., she co-invented Aspera’s fast™ transport technology and is responsible for overseeing the company’s direction in collaboration with co-founder Serban Simu. Munson was a software engineer in research and start-up companies including the IBM Almaden Research center before founding Aspera in 2004. She was the 2006 K-State College of Engineering Alumni Fellow — the youngest recipient on record. She has been named Media and Broadcast Technology of the year for 2016, and has also received national achievement awards from Glamour Magazine and USA Today. Munson is a frequent speaker on technologies and trends around big data transport, cloud infrastructure and mobility.

**The College of Engineering presents**

**Everstone Distinguished Lecture Series**

**Michelle Munson**

Thursday, March 3, 2016

3:00 p.m., Room 1109 Engineering Hall

**How engineering (actually) changes the world — my experience as an inventor, entrepreneur and tech CEO**

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**Engineering Research and Graduate Programs**

Kansas State University

1048 Rathbone Hall

Manhattan, KS 66506

Phone (785) 532-5844
Fax (785) 532-7810

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ERGP Newsletter March 1, 2016

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