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“Events like this promote K-State as a graduate school destination for regional students and will help us move towards our goals of K-State 2025,” said Noel Schulz, associate dean for research in the College of Engineering.

Besides K-State, students attended from Hastings College, Hastings, Nebraska; Missouri Western State University, Saint Joseph, Missouri; Nebraska Wesleyan University, Lincoln, Nebraska; University of Nebraska, Lincoln; Nebraska; University of Missouri, Kansas City; University of Saint Mary, Leavenworth, Kansas; and Washburn University, Topeka, Kansas.

The workshop was organized with the help of the Office of Engineering Research and Graduate Programs, and lunch was provided by the Office for the Advancement of Women in Science and Engineering, or KAWSE.

Research Quick Reference Guide — resource for faculty

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- Communicating your research through public media — contact Sarah Hancock, sarhan@ksu.edu
- Funding opportunities, including the weekly Funding Connection email and the Pivot system
- Training sessions and workshops offered year round — submitting to NSF/NH/USDA, NSF CAREER, data management plans, Scopus/Web of Science, responsible conduct of research, grant writing basics and more
- Looking to participate in a large and/or multi-institution proposal but don’t know where to start? Contact ORSP
- Internal K-State fellowships and award opportunities
- Evaluation plans and conduct through Office of Educational Innovation and Evaluation (IEIE)
- Education/diversity/broadening impacts — many of the newer requirements for federal funding

For more information on resources in the Research Quick Reference Guide, as well as assistance with the above services, contact Mary Lou Mannis, mimalnis@ksu.edu, or Joel Anderson, jandersonsp@ksu.edu, ORSP development directors.

Other research resources:
- PreAward Services — Effie Swanson, effis@ksu.edu, engineering grants and contracts
- ERGP research activities and support, engg.k-state.edu/ergp/fundinginfo/
- Engineering keywords database, keyers.ergg.k-state.edu/
- Engineering-untenured faculty one-page bio, engg.k-state.edu/ergp/development/bios.html

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Did you know?

The K-State Graduate Research, Arts and Discovery (GRAD) Forum is an annual showcase of K-State graduate student research, scholarly work and discovery. This on-campus event provides graduate students from all disciplines an opportunity to share their work with the K-State community and to gain experience presenting their work in a professional setting. This event will be held March 30, 2016, on the second floor of the K-State Student Union. The deadline to register and submit an abstract is Dec. 18, 2015. Information about participation guidelines, registration and abstract formatting instructions, an abstract template and the online registration form can be found on the Graduate School’s website at k-state.edu/grad/ students/studentcouncil/research-forums/.

The Engineering Research and Graduate Programs Office will reimburse participating graduate students from the College of Engineering with up to $35 toward the printing of their posters for the K-State GRAD Forum. Students will need to bring in their original receipt to Chassy Nichols, 1048 Rathbone Hall, before Friday, April 8, 2016, to be eligible for reimbursement.
The research group is involved in conducting this experimental research as part of a $3.5 million multi-disciplinary project being funded by the Federal Rail Administration, LB Foster/CXT Concrete Ties and the Kansas Department of Transportation. Research and results that improve the viability of rail service are vital for Kansans and the Kansas economy. 

Some engineers really do work with trains

College of Engineering faculty members are working to make U.S. and worldwide train tracks safer with non-destructive testing techniques for railroad ties. Prestressed concrete railroad ties—an essential component for higher speed railway lines—are becoming increasingly popular in the United States. In order for these ties to function adequately over their expected service life, the prestressing force must be fully transferred into the railroad tie at a distance less than 1.5 feet from the end of the tie.

Research at Kansas State University, under the direction of Robert Peterman, professor of civil engineering, along with Terry Beck, professor of mechanical and nuclear engineering, John Wu, associate professor of industrial and manufacturing systems engineering and Kyle Riding, associate professor of civil engineering, evaluates the best combinations of concrete and prestressing steel to meet this objective and ensure long-term performance of the ties.

These faculty have also teamed up with the Advanced Manufacturing Institute (AMI) on the development of a laser-speckle-based testing system that can inspect railroad ties in the manufacturing environment to minimize the number of defective ties placed along the track.

Graduate program highlight

Research and the state

Ten Kansas State University graduate students have been chosen to represent the university at the 13th Capitol Graduate Research Summit, Feb. 2, 2016, at the State Capitol in Topeka. Students were selected based on their research presentation at Research and the State, an annual on-campus event that occurred Oct. 27 in the K-State Student Union. Research and the State is a joint venture between 20 departments. The event was sponsored by the Graduate Student Council, Graduate School, Office of the President, and Office of the Provost and Senior Vice President. Each winner received a $250 scholarship.

At the Capitol Graduate Research Summit, the 10 students will have the opportunity to present and showcase their research in front of the Kansas State University Board of Regents and Kansas legislators. The annual statewide summit for Kansas legislators features current research of graduate students at Kansas State University, the University of Kansas, the University of Kansas Medical Center, Wichita State University, Fort Hays State University and Pittsburg State University. One university professor and one industry representative will judge each poster and student presentation. The top presenter from each university will be awarded a $500 scholarship.

The research group is currently doing testing in a high bay area of the USDA-ARS facility based on a partnership between Kansas State engineering and the facility. This open space provides excellent storage for test railroad ties and ample space for evaluating and testing each tie.

Both graduate and undergraduate engineering students have been involved in conducting this experimental research as part of a $3.5 million multi-disciplinary project being funded by the Federal Rail Administration, LB Foster/CXT Concrete Ties and the Kansas State University Transportation Center.

Research and results that improve the viability of rail service are vital for Kansans and the Kansas economy. 

Safety highlight

Space heater safety

In 2011, U.S. fire departments responded to 33,600 home structure fires that involved heating equipment. These fires caused 400 deaths, 1,520 injuries and $893 million in property damage. The leading factor contributing to the ignition was heating equipment being placed too close to combustible material.

Cool weather is here and many will be plugging in electric space heaters to stay warm. It’s important to have the facilities department on campus investigate any heating issues before using a space heater. If a space heater is deemed necessary, please review the regulations provided by the International Fire Code.

Section 605.10 of the IFC provides guidelines for the permitted use of portable electric space heaters.

- 605.10.1 Only listed and labeled (UL1278) electric space heaters shall be used.
- 605.10.2 Electric space heaters shall be plugged directly into an approved receptacle.
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*Does not include any fall 2017 hiring startup

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Matching/startup commitments

Committed Pending

Fiscal year 2016 $ 1,197,432 $ 18,341
Fiscal year 2017 $ 2,212,602 $ 44,225
Fiscal year 2018 $ 20,000* $ 22,683
Total $ 3,430,034 $ 85,249

*Does not include any fall 2017 hiring startup

Student support $ 134,085 10%
Office operations $ 107,466 37%
Faculty and staff support $ 72,108 53%
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