Working with industry boot camp

As state support of higher education declines, research universities across the country are devoting more time to industry partnerships as a means of replacing public support. Enhancing industry engagement is a common thread that weaves throughout the K-State 2025 action and implementation plans. The Offices of the Vice President for Research, the Kansas State University Foundation and the Kansas State University Institute for Commercialization are collaborating to present a series of training sessions that will provide faculty and staff with tools to establish mutually beneficial industry collaborations and develop sustainable corporate partnerships.

Industry boot camp workshops are underway with more planned in the near future. For upcoming workshop dates and to register for workshops, go to the Office of Corporate Engagement website at k-state.edu/corporate/events/. To view previous boot camp sessions, visit k-state.edu/corporate/wwibc/wwibc.html.

Meet our staff

Noel Schulz  
Associate Dean  
for Research and Graduate Programs  
noels@ksu.edu

Mike Dixon  
Assistant Director  
Video Production Services  
medixon@ksu.edu

Lisa Linck  
Occupational Safety Officer  
lisa@ksu.edu

Carole Lovin  
Research Administrator  
clovins@ksu.edu

Bala Natarajan  
Interim Director  
International Research and Graduate Programs  
balan@ksu.edu

Chassy Nichols  
Business Financial Specialist  
chassy@ksu.edu

Tamara Robinson  
Editor  
tamarar@ksu.edu

Bethany Swimney  
Program Assistant  
beths2@k-state.edu

工程研究和研究生项目

堪萨斯州立大学

研究生院和研究生项目

1048 Rathbone Hall

曼荷兰，KS 66506

3月2日，2015

工作行业启动营

随着州对高等教育支持的下降，研究大学正越来越多地致力于与行业建立伙伴关系，作为取代公共支持的一种方式。增强与行业的合作是一个贯穿于K-State 2025行动计划的共同主题。研究办公室、堪萨斯州立大学基金会和堪萨斯州立大学商业化研究所合作，举办一系列培训课程，为教职员工和工作人员提供工具，以建立与行业的互惠互利的合作伙伴关系，并发展可持续的公司支持。

行业启动营的工作坊正在进行中，并计划在不久的将来进行更多。要了解即将到来的研讨会日期并注册，可以访问公司参与办公室的网站k-state.edu/corporate/events/。要查看以前的启动营课程，可以访问k-state.edu/corporate/wwibc/wwibc.html。

遇到我们的团队

Noel Schulz  
副主任 dean  
研究和研究生项目  
noels@ksu.edu

Mike Dixon  
助理主任  
视频制作服务  
medixon@ksu.edu

Lisa Linck  
职业安全官员  
lisa@ksu.edu

Carole Lovin  
研究行政人员  
clovins@ksu.edu

Bala Natarajan  
临时主任  
国际研究和研究生项目  
balan@ksu.edu

Chassy Nichols  
业务财务顾问  
chassy@ksu.edu

Tamara Robinson  
编辑  
tamarar@ksu.edu

Bethany Swimney  
项目助理  
beths2@k-state.edu

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Carl Ice was appointed to his current position of president and chief executive officer for BNSF Railway on January 1, 2014. Previously, he served as president and chief operating officer since November 1, 2010, with responsibility for day-to-day operations of the company, helping to drive BNSF’s strategies for safety, service, growth, efficiency and technology.

Before his appointment as president and chief operating officer, Ice served as executive vice president and chief operations officer. In this role, he led the team responsible for operation of trains and maintenance of track, structures and rolling stock, as well as sourcing, safety and training. Under his leadership, BNSF became recognized for its safety, on-time performance and productivity.

Ice began his career in the railroad industry with Santa Fe Railway in the industrial engineering department in 1979. He later held positions in operations, finance and information systems. In 1992, Ice was named vice president, administration. He became vice president, carload business unit, in January 1994 and was named vice president, executive, in July of the same year.

In January 1996, Ice was appointed vice president and chief mechanical officer. He became vice president, operations north, in January 1999 and was promoted to senior vice president, operations, in June 1999.

Did you know?

Here are some important numbers from the fall 2014 semester:

- 307 M.S. students were enrolled
- 165 Ph.D. students were enrolled
- 17 undergraduate students presented at the Undergraduate Poster Forum
- 32 M.S. students graduated
- 3 Ph.D. students graduated
- 54 graduates and guests attended the College of Engineering graduate graduation reception

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Seventeen Kansas State University engineering undergraduate students from seven different departments participated in the second Engineering Undergraduate Research Poster Forum Dec. 4 in the Engineering Atrium.

Research topics included, among others, advanced materials and processes, energy and water. Twenty-two faculty and graduate students were involved in judging the posters. "In addition to gaining experience in presenting their work in a professional setting, the forum also gives students an opportunity to share their research activities with fellow K-State students and faculty," said Noel Schultz, associate dean of research and graduate studies in the College of Engineering. "Increasing our undergraduate research activities is a key objective of K-State 2025."

"To have our online graduate program ranked in the Top 20 by U.S. News & World Report is a proud accomplishment for both the college and university," said Darren Dawson, dean of the College of Engineering. "It is a strong indicator of the high quality of our students and faculty, as well as the research they are pursuing."

K-State offers online engineering master's degrees in software engineering, mechanical engineering, electrical engineering, chemical engineering, civil engineering, nuclear engineering, engineering management and operations research.

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Sang would also organize hands-on educational activities. He is planning nanotechnology-oriented summer workshops for high school science teachers and female high school students.

“I want to create excitement about the opportunities in nanotechnology and also make others aware of the challenges related to scalable manufacture and high-cost that is currently hindering introduction in practical applications,” Singh said.

The National Science Foundation’s Faculty Early Career Development Program is one of the foundation’s most prestigious awards for supporting early career faculty who effectively integrate research and education within the context of their institution’s mission. Faculty recognition and awards are an important part of Kansas State University’s plan to become a Top 50 public research university by 2025.

With his CAREER award, Singh will study large-scale production of ultrathin sheets—a few atoms thick and several micrometers wide—of transition metal dichalcogenides, or TMDs. Nearly 40 types of TMDs have been identified, including naturally occurring molybdenite.

Little is known about the structure of TMDs and their mechanical, electrical and electrochemical properties, Singh said.

Some of Singh’s other research has focused on using graphene oxide to improve sodium— and lithium-ion flexible batteries and creating carbon nanotubes for better laser detectors and rechargeable batteries.

"For long-term sustainability it is important to look at alternative energy production routes as well as methods for efficient energy storage and distribution,” Singh said. “This requires exploration into new materials and designs that can offer superior performance with improved efficiency and at a fraction of the cost.”

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Engineer receives NSF CAREER award for nanotechnology research, educational outreach

A prestigious award will support a Kansas State University engineer’s research on nanosheets and will help organize educational activities for high school students and teachers.

Gurpreet Singh, assistant professor of mechanical and nuclear engineering, has received a $500,000 National Science Foundation CAREER award, “Scalable liquid exfoliation processing of ultrathin two-dimensional metal dichalcogenides nanosheets for energy storage devices.”

Singh will use the award to develop ultrathin metal sheets that can help produce better rechargeable batteries, supercapacitors and catalysts for photoelectrochemical hydrogen production.

The award will help with more than research — Singh also will organize hands-on educational activities. He is planning nanotechnology-oriented summer workshops for high school science teachers and female high school students.

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Little is known about the structure of TMDs and their mechanical, electrical and electrochemical properties, Singh said.

Some of TMDs’ physical and chemical properties can address energy-related concerns. For these TMDs to improve technology, they must be produced in ultrathin sheets, Singh said. Bulk quantities of...
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Carole Lovin
Research Administrator
clovin@ksu.edu

Bala Natarajan
Interim Director International Research and Graduate Programs
bala@ksu.edu

Chassy Nichols
Business Financial Specialist
chassy@ksu.edu

Tamara Robinson
Editor
tamarar@ksu.edu

Bethany Swinney
Program Assistant
beths2@k-state.edu

Did you know?

K-State notion of nondiscrimination. Kansas State University is committed to nondiscrimination on the basis of race, color, ethnic or national origin, sex, sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, veteran status, or other non-merit reasons, in admissions, educational programs or activities and employment, including employment of disabled veterans and veterans of the Vietnam Era, as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries concerning Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans With Disabilities Act Amendments Act of 2008, has been delegated to the Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, (Phone) 785-532-6220; (TTY) 785-532-4807.

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