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KANSAS STATE UNIVERSITY | Office of Governmental Relations

# Kansas State University College of Architecture, Planning & Design and College of Health and Human Sciences receive top rankings from DesignIntelligence

Kansas State University's College of Architecture, Planning & Design and the College of Health and Human Sciences continue to rank among the best in the nation according to DesignIntelligence, an independent company focused on the design and construction industry.

The College of Architecture, Planning & Design's graduate program in interior architecture ranked seventh nationally and first among programs at public institutions. The graduate landscape architecture program ranked eighth in the nation overall and fifth among programs at public institutions. The graduate architecture ranked 24th in the nation and 10th among programs at public institutions.

DesignIntelligence's rankings are based on national surveys of hiring professionals, deans and department chairs, and students in the design disciplines. Hiring professionals are asked, based on their experiences in the last five years, which programs are best preparing students for a future in the profession. Deans and department chairs are asked what programs they most admire, and students are surveyed on their satisfaction with the educational institution in which they are currently enrolled or graduated from in the past year.

"This year's DesignIntelligence rankings once again point to the national reputation of excellence embedded in APDesign," said Tim de Noble, dean of the college and fellow of the American Institute of Architects. "More importantly, the breadth of these rankings, including in skill focus areas, reflects our professions' appreciation for the comprehensive and cross-disciplinary educational model unique to APDesign. Clearly, no other program at a state institution garners such accolades across the disciplines as APDesign at K-State."

The graduate programs in APDesign also earned high marks from DesignIntelligence in several design education focus areas. The graduate architecture programs ranks among the top 10 in seven of the 12 skilled focus areas and in the top four programs among public institutions in these seven focus areas. Interior architecture ranked first in all 12 categories among the Council for Interior Design Accreditation accredited programs in public universities. The landscape architecture program ranks in the top five in all 12 design focus areas, including the top ranking in two areas: construction materials and methods, and engineering fundamentals. The program ranks second, behind only Harvard University, in healthy built environments, practice management, project planning and management, and transdisciplinary collaboration across architecture, engineering and construction.

Along with the program honors, both de Noble and Stephanie Rolley, professor and head of the landscape architecture and regional and community planning department, were again included on DesignIntelligence's 25 Most Admired Educators list.

Also listed as one of the nation's best in the 2019-2020 DesignIntelligence rankings was K-State's interior design program, offered by the apparel, textiles, and interior design department in the College of Health and Human Sciences.

This year, the interior design program ranks eighth among the most admired interior design schools in the U.S. Most notably, K-State ranks first in the category of most hired from interior design schools compared to program with similar-sized graduating classes. Graduates of the university's interior design program are enjoying high post-graduation employment rates at multidisciplinary architecture and design firms.

K-State also ranks in the top 10 in 10 of 12 focus areas surveyed by DesignIntelligence. These areas include transdisciplinary collaboration across architecture, engineering and construction; research; project planning and management; interdisciplinary studies; healthy built environments; engineering fundamentals; design theory and

practice; design technologies; construction materials and methods; and communication and presentation skills.

K-State's interior design program is the only one in Kansas for students who want to earn a four-year baccalaureate degree accredited by the Council for Interior Design Accreditation.

## Kansas State University partners with new Feed the Future Innovation Lab for Crop Improvement

Kansas State University is a partner on an international team that includes U.S. universities and national institutes in a new global crop improvement research program to advance plant breeding tools, technologies and methods aimed at delivering crops that can increase yields, enhance nutrition and have greater resistance to pests and disease. The work will be through the new Feed the Future Innovation Lab for Crop Improvement.

The innovation lab will create an integrated research and delivery program with multidisciplinary expertise in advanced agricultural development, from plant breeding and machine learning to quantitative genetics and gender inclusion. The project will support and empower national breeding programs in East and West Africa, South Asia and Latin America and serve as a model for introducing advanced agricultural technologies at scale to countries around the world. The five-year, $25 million grant from the U.S. Agency for International Development, as part of the U.S. government's Feed the Future initiative, was announced Oct. 16 at the World Food Prize in Des Monies.

Experts from Cornell University, Clemson University and Kansas State University, along with scientists at the U.S. Department of Agriculture, Makerere University in Uganda, Cultural Practice and RTI International, will initially collaborate with national agricultural institutions in Ghana, Haiti, Nepal, Senegal and Uganda to accelerate the breeding of locally and regionally adapted crop varieties targeted to smallholder farmers. The Innovation Lab for Crop Improvement will be a catalyst for delivering improved tools, technologies and methods for breeding crops such as legumes, roots, sorghum and millet, with the potential to expand to a variety of staple crops in other countries.

Kansas State University's Jesse Poland, associate professor of plant pathology, will serve as one of the new lab's phenomics program leads, and Geoff Morris, associate professor of agronomy, will serve as the lab's trait discovery program lead.

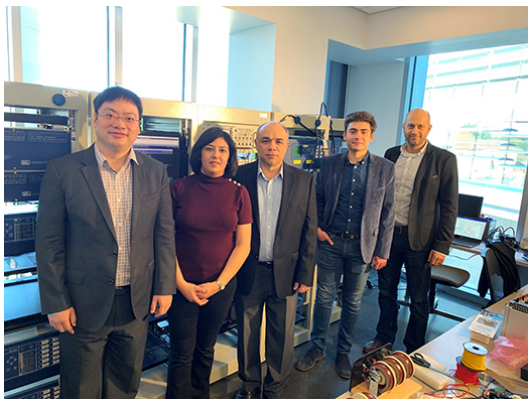
The Innovation Lab for Crop Improvement will work with national agricultural research institutions to gain access to advanced tools, technologies and methods with the potential to accelerate development of crop varieties. Genomic resources allowing for the rapid discovery of novel plant traits will be combined with data-based simulations and optimization techniques to increase the efficiency of plant trait selection, breeding and varietal release. By building capacity and commitment through targeted investments in national programs and collaboration with scientists at top U.S. land-grant universities, the Innovation Lab for Crop Improvement anticipates quick gains in productivity, quality and climate resiliency and reductions in poverty, gender inequality and undernutrition. Competitive research grants provided by the lab will encourage innovation and unlock opportunities for in-country scientists. The ambitious project has the potential to improve staple crops consumed by millions while also addressing vexing challenges like youth involvement, nutrition and food safety in developing countries.

Along with its partnership in the Innovation Lab for Crop Improvement, Kansas State University is home to four Feed the Future Innovation Labs: Innovation Lab for Applied Wheat Genomics, Innovation Lab for Collaborative Research on Sorghum and Millet, Innovation Lab for Reduction of Post-Harvest Loss and Innovation Lab for Sustainable Intensification.

## K-State cancer research team receives $2 million from NSF

Kansas State University researchers, in collaboration with researchers at the University of Texas Medical Branch, have received $2 million in funding from the National Science Foundation Emerging Frontiers in Research and Innovation program to conduct fundamental studies on new treatments for glioblastoma and other cancers.

Led by Stefan Bossmann, university distinguished professor of chemistry, the group includes co-principal investigators Christopher Culbertson, professor of chemistry and associate dean for research in the



## Engineering professor awarded NSF grant to develop grid of nanogrids test bed

Recent advancements in artificial intelligence and the internet of things will profoundly affect the future of

College of Arts and Sciences, and Bala Natarajan, professor of electrical and computer engineering in the Carl R. Ice College of Engineering, all from Kansas State University.

The most common and most aggressive form of an adult primary brain tumor, glioblastoma is characterized by a poor prognosis, with patients often surviving for less than 16 months despite surgical, radiation and/or chemotherapeutic treatments. Bossman said that work on this project is motivated by the awareness that the interaction of tumors with their surroundings, together with metabolic factors, is responsible or altering gene expression patterns, which enable the tumor to adapt and escape treatment.

The researchers seek to develop novel biophotonic methods to recognize genomewide epigenetic mutations in glioblastoma. Bossman said this methodology will not only permit the early diagnosis of the disease, but will also lead to the identification of both mechanic and metabolic stimuli that lead to cell death in glioblastoma and other solid tumors, and thus can be implemented in new treatments.

The work will have implications that reach far beyond glioblastoma and will apply to virtually all diseases with epigenetic drivers, among them other cancers, neurodegenerative and cardiovascular diseases, obesity and metabolic syndromes, Bossman said.

## Researchers awarded NSF grant to develop open knowledge network for public policy

Two professors from Kansas State University were recently awarded a $1 million National Science Foundation Covergence Accelerator Grant to create an open knowledge network with researchers from five other universities that stitches together data from states on public policy and economic, social and environmental outcomes.

Nathaniel Birkhead, associate professor of political science, and Audrey Joslin, assistant professor of geography and geospatial sciences, both in the College of Arts & Sciences, will collaborate with researchers at Rochester University, University of Notre Dame, University of Virginia, University of North Carolina, Charlotte and North Carolina AT&T State University. They will create a data hub so that policies from different states and areas will be conveniently accessible in one cohesive location. The network will include analytic tools to explore and visualize the data.

The open knowledge network will also reduce the labor needed to look at special data since all information will be linked together.

our infrastructure. One can imagine a smart city with interconnected transportation, utilities and smart buildings, each component capable of working independently and able to resist physical and cyberattacks. As such, each smart building could be considered as a grid of nanogrids capable of forming a larger network.

Behrooz Mirafzal, associate professor in the Mike Wiegers Department of Electrical and Computer Engineering at K-State, has been awarded a three-year $624,404 grant from the National Science Foundation Major Research Instrumentation Program for "Development of a Grid of Nanogrids Test Bed."

"The potential of grid-based networks has become a national priority and attracted the attention of many experts in both industry and academia," Mirafzal said.

This project will develop a hybrid and modular test bed that represents grid-forming smart buildings. Its instrumentation will be a collaborative effort between the electrical and computer engineering, and computer science departments at the university. Co-investigators include Mohammad Shadmand, Hongyu Wu and Fariba Fateh, all assistant professors of electrical and computer engineering; and George Amariucai, associate professor of computer science.

"Although the test bed will be designed for research on electricity infrastructure for future cities, it could be reconfigured for other applications such as testing marine and emerging airborne electrical propulsion systems," Mirafzal said, "and hence, can be applicable to a wide range of emerging applications and test scenarios."

The proposed test bed will provide the capability to examine hypotheses and research ideas on nanogrid controls, hardware, software, communications and security protocols, and standards under numerous operating conditions of the power distribution grid, including faults and anomalies in both islanded and networked modes.

"The grid of nanogrids test bed will feature a highly scalable, modular and reconfigurable architecture consisting of a real-time simulator platform for creating customized power networks designed by local and remote users, a single-phase feeder nanogrid, a three-phase nanogrid implemented in hardware, a modular self-learning inverter and the capability of extending the number of hardware-in-the-loop nanogrids," Mirafzal said.

The project will allow Mirafzal's team members to advance their research in fields such as power grid cybersecurity, energy managements, supervisory control and situational awareness.

## DID YOU KNOW?

The College of Business Administration's National Strategic Selling Institute has been named one of the top sales programs in the country for eight straight years by the Sales Education Foundation?



**K-State Government Relations Staff**
*Sue Peterson, Chief Government Relations Officer*
*Kristin Holt, Government Relations Coordinator*

**Contact Information**
*Office of Government Relations*
*110 Anderson Hall, Manhattan, KS 66506*

*Sam Pittman, Legislative Assistant*
*Logan Long, Legislative Assistant*
*785-532-6227*
*www.ksu.edu/govrelations*