Message from the Dean

Long-time supporters of the college may be familiar with individual creative inquiry team results. For example, if you get news from the department of civil engineering, you already know the Steel Bridge Team finished first in its regional competition sponsored by the American Society of Civil Engineers. However, you may likely be surprised to see the breadth and depth at which K-State creative inquiry teams are competing to solve technical challenges — many of them competing and producing results similar to the Steel Bridge Team. These competitions are trial by fire, where our students must match wits and skill against their peers from across the country and world. These are situations where we really see how much students have learned in their courses and how far they are willing to go to turn their ideas into a real system. I am constantly amazed by the success of our students, and feel confident we are providing a great training environment for world-class engineers and scientists.

Dean Darren Dawson

The most anxious time was during launch, just because that is so dramatic.

— Sally Ride
American astronaut

The excitement really didn’t start to build until the trailer — which was carrying me, with a space suit with ventilation and all that sort of stuff — pulled up to the launch pad.

— Alan Shepard
American astronaut
K-State College of Engineering’s student competition teams are known for excelling nationally while enhancing real-world skills such as leadership and teamwork.

Philanthropic gifts help drive team success, funding equipment, materials and travel costs that give students hands-on training and industry exposure. Student teams give members a competitive edge in the job market, and support the college mission and K-State’s 2025 goal to enhance the student experience.

“It’s an excellent opportunity beyond the classroom,” said Joe Farrar, president and CEO of Farrar Corporation, a longtime supporter of K-State engineering teams. “Learning what it takes to get something done — coordination, meeting deadlines and follow-through.”

To learn how you can invest in student team success, contact the engineering development office at 785-532-7609 or engineering@found.ksu.edu.

By Hayli Morrison

Supporting Creative Inquiry

Farrar Corporation

Statement for student success
The Kansas State University quarter-scale tractor A-Team placed second overall at the American Society of Agricultural and Biological Engineers' (ASABE) annual International Quarter-Scale Tractor Student Design Competition in 2015 in Peoria, Illinois. This is the 17th time in the last 18 years that the university's teams have won or placed in the top three at the event.

This year's A-Team — juniors and seniors — in placing second out of 26 entries, scored first in the Sportsmanship Award, first in the Campbell Scientific Award, and second in performance events including three pulling and one durability contest.

The university's quarter-scale tractor X-Team — freshmen and sophomores — placed first in pulling in the performance events.

The International Quarter-Scale Tractor Student Design Competition is unique among student engineering design contests in that it provides a realistic 360-degree workplace experience. Teams of students are given a 31-horsepower Briggs & Stratton engine and a set of Titan tires. Design of the tractor is up to each team.

Second place overall 2015 ASABE annual International Quarter-Scale Tractor Student Design Competition:
• First in Sportsmanship Award
• First in Campbell Scientific Award
• Second in performance events

in performance events including three pulling and one durability contest. The university’s quarter-scale tractor X-Team — freshmen and sophomores — placed first in pulling in the performance events. The International Quarter-Scale Tractor Student Design Competition is unique among student engineering design contests in that it provides a realistic 360-degree workplace experience. Teams of students are given a 31-horsepower Briggs & Stratton engine and a set of Titan tires. Design of the tractor is up to each team.

continued on page 6
“One of the most important skills to bring to a professional career is how to work with people. Engineering classes can teach you many things but not this one. That’s why the quarter-scale tractor team and other student design teams are so important for the development of young engineers.”

— Tyler Siebels
A-Team President

“The largest challenge is utilizing the ideas generated by the members and working with the design team to create a successful tractor.”

“As a leader, the most important lesson I learned is to step away and trust your team members to complete the tasks they’ve been assigned.”

“Specific skills I’ve developed over this past year include managerial, financial, accounting, fundraising and general ‘people’ skills.”

— Tyler Siebels
A-Team President

A panel of industry experts judge each design for innovation, manufacturability, serviceability, maneuverability, safety, sound level and ergonomics. Teams submit a written design report in advance of the competition, and on site they must sell their design in a formal presentation to the panel, which plays the role of a corporate management team. Finally, machines are put to the test in two performance events — three tractor pulls and a durability course.
American Concrete Institute Student Competition

Kansas State University architectural engineering and construction science students compete in several competitions sponsored by the American Concrete Institute, or ACI. These include the ACI Concrete Construction Competition sponsored by Construction Liaison Committee of the ACI, and the American Society of Concrete Contractors (ASCC) for undergraduate students with interests in construction technology, construction management and concrete industry management. A K-State team has competed six times since 2005, bringing home several first- and second-place awards.

Two other competition teams fielded by K-State have been for the ACI Pervious Concrete Competition and the ACI Concrete Projects Competition, placing top three in certain categories of each. These projects can include computer programs, term papers, student activities, senior design projects and/or special projects.

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Game Development Club

The Game Development Club was founded at K-State with the purpose of uniting students who enjoy computer game development and fostering that passion. From a programming perspective, game development touches on many of the areas in computer science from databases and networking to graphics and physics.

A team from the club participated in Ludum Dare in December 2014, a worldwide, 72-hour, online game jam where the only prizes are “bragging rights and glory,” and the club also sponsored its own 48-hour game jam in February 2015 for 61 K-Staters competing for prizes, and enjoying meals and snacks provided during the experience.

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The central challenge of this year’s competition was the design, integration and construction issues related to an urban vertical farming concept in Milwaukee. The K-State team significantly altered the given program, integrating the vertical farm into its surrounding neighborhood and optimizing the balance between aesthetic, function and long-term sustainability of the operation. By placing as runner-up in the structural design category, K-State remains the only architectural engineering program in the world that has placed in or won at least one of the categories in each of the competition’s six years.

ASHRAE Design Competition

The objective of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, or ASHRAE, design team is to select the most appropriate heating, ventilation and air-conditioning (HVAC) system for a defined building that meets the owner’s requirements. Many factors are considered in the selection including sustainability, human comfort and excellent indoor air quality, while maintaining cost effectiveness over the life of the building.

ASHRAE posts the project criteria for each year’s competition during the fall semester. The K-State team begins work on the project during the spring semester as part of credit course ARE715. The final submission includes a 30-page paper and 15-minute audio-visual presentation. Judging occurs first at the ASHRAE Kansas City Chapter level, winners then move on to the regional level and eventually all finalists are judged at the international level. Award recipients are announced in late summer and prizes awarded at the ASHRAE Winter Conference in January.

The 2014 ASHRAE HVAC System Selection first-place award went to six architectural engineering students from K-State. Since 2005, teams from K-State have received first place five times and placed second three times, which is unparalleled by any other university.
The 2014 Associated Schools of Construction, or ASC, competition, held in Nebraska City, Nebraska, offered four division choices: commercial, design-build, heavy highway, and residential.

Associated Schools of Construction — Design-Build Team

The Design-Build Team typically consists of six students. The 2014 team consisted of five construction science and management students, and one architectural engineering student. Participants compete against 16 other schools in Region IV of the Associated Schools of Construction. Teams design, schedule, estimate and submit a formal proposal to be awarded a project. The focus of team membership is to familiarize participants with the design-build delivery method and the process of submitting a formal construction proposal. The team placed third overall.

Associated Schools of Construction — Commercial Construction Team

Six construction science and management students formed the Associated Schools of Construction, or ASC, Commercial Construction Team. They competed at the 2014 Region IV ASC competition in Nebraska City, Nebraska.

Teams were given a set of drawings and instructions with 18 hours to complete a project proposal which included a full takeoff, budget and estimate; construction schedule; and site logistics, quality control and safety plans. In mimicking a construction project proposal phase in a condensed time frame, they created a qualifications packet which included mock job titles with corresponding resumes, and a mock company history along with financial statements and safety history.

Associated Schools of Construction — Heavy Highway Construction Team

Competition in the Associated Schools of Construction Region IV Construction Management Competition in the Heavy Highway Construction Division requires students to receive a set of construction project documents previously unknown to them and within 16 hours determine methods and means, cost estimate, time schedule and the process to complete the project. They must present their solution to a panel of judges who actually built the project, and are judged on accuracy, content of the report, oral presentation, and ability to answer questions about their solutions. The 2014 team placed second out of eight teams in the Region IV competition.

The K-State Steel Bridge Team competes in the Student Steel Bridge Competition — the premiere inter-collegiate steel bridge event where civil engineering students design, fabricate and construct a steel bridge. After construction, the bridge is tested at a regional competition by applying a given load. If the bridge performs well enough, it will be tested again at the national competition. The competition is sponsored by the American Institute of Steel Construction, or AISC, and the American Society of Civil Engineers, or ASCE.

This year’s team took first place overall at the regional competition at the University of Kansas in Lawrence. They compiled firsts in efficiency, economy and construction time, and seconds in stiffness, lightness and display to garner the win. They were then qualified for nationals, this year at the University of Missouri Kansas City, where they came in 26th overall, out of 47 teams, with their highest showings being 6th in construction speed and 11th in economy.

Team leaders

Don Powers Co-Captain
Eric Hamilton Co-Captain
Claudia Gonzales Photographer
Faculty adviser
Hayder Rasheed, CE professor

At 2015 nationals, 26th overall out of 47 teams:
• Sixth in construction speed
• 11th in economy

Team leaders

Greg Anderson
Elias Grant
Bradley Habibieh
Jordan Heinen
Luke Helton
Tyler Henley
Coleman Henry
Ismael Hernandez
Jacob Lengquist
Amanda Moorman
Adam Perkins
Darnell Pradera
Vinco Pradera
Car Rodgers
Joshua Schmitt
Auggie Sukolikis
Bryce Vohn

Faculty advisers
Ray Buyle, ARE/CNS asst. professor
Katie Laughmiller, ARE/CNS instructor
James Goddard, ARE/CNS professor

KANSAS STATE UNIVERSITY College of Engineering

Associated Schools of Construction — Commercial Construction Team

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Associated Schools of Construction

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KANSAS STATE UNIVERSITY College of Engineering
“Hands-on training from this team experience is a vital piece of the engineering puzzle that many students don’t take advantage of during their time in the program.”

“Keeping an open mind to all comments and alternative ideas along the way was definitely helpful for me and the success of the team.”

“My confidence level of speaking in front of large groups has improved significantly.”

— Eric Hamilton
Co-Captain

“An important lesson I learned — the key to success is to be open to suggestions from everyone willing to offer advice.”

“Leading this team was a lot like heading up a small construction crew.”

“A skill I developed was finding balance in a design.”

— Donald Powers
Co-Captain

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“Leading this team was a lot like heading up a small construction crew.”

“A skill I developed was finding balance in a design.”

— Donald Powers
Co-Captain
The Kansas State University 2015 BAE Robotics Team won the American Society of Agricultural and Biological Engineers’ annual student robotics design competition for the ninth year in a row. The event took place at the society’s annual meeting in New Orleans with the aim of encouraging undergraduate and graduate students to develop innovative robotic solutions to real-life problems in agriculture.

Automated plant phenotyping — where breeders identify the behavior of plants under certain conditions and determine which plant strains are best suited for those conditions — was the focus of the competition. Student teams constructed fully automated robotic systems designed to simulate the assessment of soybean plants in the field. Each system had to collect and deliver samples of all detected phenotypes in the field, requiring it to identify plants by color and height, and deliver them to a reporting station. The “field” was an 8-by-8-foot board with specially made pieces to represent the plants. Teams earned points for accuracy in phenotype detection and collection, and for elegance and creativity.

Baja SAE Team

Baja SAE is a project sponsored by the Society of Automotive Engineers, or SAE, that challenges student members with designing and manufacturing tasks arising when introducing a new product to the consumer industrial market. Teams compete against one another in designing, building and racing a rugged, single-seat, off-road recreational vehicle for a non-professional weekend off-road enthusiast.

In 2015 the team traveled to Auburn, Alabama, for an international competition and placed 14th in the endurance race. The also competed in a second international competition in Baltimore, Maryland, in 2015.
Chem-E-Car Team

The K-State Chem-E-Car Student Design Team took first place at the American Institute of Chemical Engineers (AIChE) Mid-America Student Regional Conference in April in Lawrence, Kansas. The group is now qualified to compete at the national AIChE meeting in November in Salt Lake City, Utah.

The team built and refined its pressure-driven vehicle, the “Bill Snyder Family Chem-E-Car,” over the past school year, and competed against 11 other teams by carrying a predetermined weight and traveling closest to a predetermined distance marker. The K-State car stopped six inches from the set line, a full six inches closer than the second-place car.

Decreasing the weight of the canoe from the previous year is always a priority. Work was done to alter the mix design to find a lighter mix without sacrificing the strength. Removing the ribs and gunwale from last year’s design reduced the amount of concrete in the final product. With the length of 20 feet, the new design emulated the hull design of a standard canoe.

Concrete Canoe Team

The K-State Concrete Canoe Team competes in the Concrete Canoe Competition — the premiere collegiate concrete canoe competition where engineering students design, fabricate, build and race a canoe that is fast, agile and maneuverable; and it’s all done with concrete.

Decreasing the weight of the canoe from the previous year is always a priority. Work was done to alter the mix design to find a lighter mix without sacrificing the strength. Removing the ribs and gunwale from last year’s design reduced the amount of concrete in the final product. With the length of 20 feet, the new design emulated the hull design of a standard canoe.

In 2015, the team competed at the American Society of Civil Engineers, or ASCE, Mid-Continent Student Conference competition at the University of Kansas in Lawrence and fulfilled the four judging requirements: oral presentation, seventh place; overall aesthetics and design of canoe, 11th place; 15-page design paper, 12th place; and the canoe race, for an overall placing of 12th.

Team leaders

David Madden Co-Captain
Michael Whinery Co-Captain

Faculty adviser
Jennifer Anthony, CHE assoc. professor

Concrete Canoe Team

Team leaders

Darren Meyer Vice President
Jacquelyn Ewald Project Manager
Tyler Warren Treasurer

Faculty adviser
Asad Esmaeily, CE professor
Cyber Defense Club

State’s Cyber Defense Club is a competition group with a focus in computer network security and computer security. Its goals are to expand members’ knowledge in firewalls, routers, operating systems, networking operations and defense of large-scale computer operations.

In fall of 2014, the club hosted its first competition at the University of Kansas, and in February 2015 took part in a national competition at Iowa State University. An eight-person K-State team placed third in the National Cyber Defense Competition. Tasks in the competition involve building a small network with several services such as e-mail, chat, Web, etc., and then placing flags on these services consisting of a string of text that when captured by a “red” team would be entered for a loss of points. Scoring at the end is based on usability, number of flags and service up time.

Team leaders
James Howze President
Richard Petrie Treasurer

Faculty adviser
Simon Ou, CIS assoc. professor

Powercat Motorsports Team

Powercat Motorsports is a design-build team in the College of Engineering, made up of primarily mechanical engineers. The main goal of the organization is to design, build, test and race a car under the Formula SAE competition rules. The team meets weekly throughout the school year and has a shop located at the K-State Foundation Center. However, its activities will be moving into the new design team suite following completion of Engineering Hall.

The organization competes in two main competitions: FSAE Michigan, at the Michigan International Speedway in Brooklyn, Michigan, in May; and the FSAE Lincoln held at the Lincoln Airport in Lincoln, Nebraska, in June. In 2015, the team placed 29th overall, including 22nd in autocross, 24th in skidpad and 25th in design, out of 80 entrants at the Lincoln event.

Team leaders
Kelsey Nelson President
Kyle Edwards Ergonomics Team Leader
Zack Kimble Electronics Team Leader
Greg Hopper Drive Team Leader
Mike Meng Engine Team Leader
Mason Smith Suspension Team Leader
Ben Reedy Chassis Team Leader
Zac Thuesen Business Manager
Brett Cook Aerodynamics Team Leader

Faculty adviser
Kevin Wanklyn, MNE instructor
"The biggest challenge in leading this team — communication. Sometimes it is difficult to get everyone on the same page with an organization of our size. Everyone has unique ideas and we have to bring all of those together to successfully build the car and manage the team."

— Kelsey Nelson
President

"This experience will be beneficial because of the extensive amount of teamwork involved. The ability to work well with others is very valuable in the workplace and this leadership role has given me the opportunity to do just that."

— Kelsey Nelson
President
ECE Robotics Team

Team leaders
Richard Habeeb  President
Brian Braul  Vice President
Brandon Dunn  Treasurer
Brandon Miller  Secretary

Faculty adviser
Bill Kuhn, ECE professor

KSU Robotics is a team that designs robots for competitions around the U.S. Open to all students, it is primarily made up of computer engineering and mechanical engineering majors. The team had planned in 2015 to compete in the Oklahoma State University Mercury Robotics Competition where remote-controlled robots traverse through an indoor obstacle course.

Although they had nearly completed building their robot, technical problems prevented the group from taking part in the OSU competition, but the process did meet team goals of building a new robot every year while passing on needed skills to newer team members. Two competitive events are planned for 2016: Oklahoma State University Mercury Robotics Competition, and The University of California, San Diego, Micromouse Competition.

Fountain Wars Team

Team leaders
Chloe Boudreaux  Co-President
Chris Shultz  Co-President
Aaron Akin  Treasurer
Conner Legleiter  Secretary
Kevin Garman  Social/Fundraising Chair
Phil Mahoney  Social/Fundraising Chair

Faculty adviser
Trisha Moore, BAE asst. professor

Fountain Wars is a student design team that must design a structure to complete two technical tasks and an aesthetics display. Fountain Wars gives students an opportunity to design, build, test and compete annually at the international meeting and Fountain Wars Design Competition at the American Society of Agricultural and Biological Engineers, or ASABE, Conference.

Eight team members went to New Orleans, Louisiana, in July 2015 for the ASABE International Conference, placing 3rd in the Fountain Wars competition and received top scores on their written report and special recognition for their innovative fountain design. Each competition requires an oral presentation on the team design and a professional poster, as well as the technical and aesthetic displays.
Geo-Wall Team

Team leader
Benjamin Nye Captain

Faculty adviser
Stacey Kulesza, CE asst. professor

The K-State Geo-Wall Team designs and builds a mechanically stabilized earth, or MSE, wall using poster paper and brown wrapping paper. It competed against five other universities in April 2015 at Lone Star Lake near Lawrence, Kansas, at the regional American Society of Civil Engineers, or ASCE, student competition. Striving to build the strongest MSE wall using the least amount of reinforcing paper, each team had to present a wooden box with a base, four vertical sides and no top. The front panel and part of the two side panels are removed for the competition to expose the paper face of the MSE wall, which needs to retain approximately 227 kg of sand with an additional 27 kg vertical surcharge load centered 2.54 cm behind the paper wall face. The K-State team’s wall was able to retain the sand with no deflections, using only 1.6 grams of paper reinforcement for a third-place finish at the regional ASCE conference. The team has competed at the regional conference the past two years, with a goal to win the 2016 regional competition, and qualify and compete in the national Geo-Institute competition in Phoenix.

Human Powered Vehicle Design Team

The K-State Human Powered Vehicle Design Team strives to provide a diverse, creative design environment that encourages its members to become proactive leaders in accounting, design, engineering analysis, management, manufacturing, marketing, and testing.

Team leaders
Matthew Lambert  President
Alan Tamusunas  Vice President
Elijah Alexander  Frame Designer
Safiya Woodward  Public Relations Manager
Keith Huddleston  Business Manager
Thomas Marietta  Design Lead
Michael Omana  Fairing Designer
Carter Kise  Shop Manager
Chris Robins  Shop Manager

Faculty adviser
Mo Hosni, MNE professor

The organization is an extracurricular, student-led, engineering design team that each year designs, builds, tests and races a new human-powered vehicle. In the spring semester, students compete against 30 collegiate teams at the American Society of Mechanical Engineers’ Human Powered Vehicle Challenge where teams are judged in four categories: design, speed, endurance and innovation.

Team leader
Matthew Lambert  President
Alan Tamusunas  Vice President
Elijah Alexander  Frame Designer
Safiya Woodward  Public Relations Manager
Keith Huddleston  Business Manager
Thomas Marietta  Design Lead
Michael Omana  Fairing Designer
Carter Kise  Shop Manager
Chris Robins  Shop Manager

Faculty adviser
Mo Hosni, MNE professor
The K-State Unmanned Aerial Systems Team — students from mechanical and nuclear engineering, computing and information sciences, and electrical and computer engineering in the College of Engineering — designs, builds and flies an unmanned aerial vehicle that performs a specific flight path, identifies ground targets and completes other tasks completely autonomously. It has three sub-teams: airframe, autopilot and image analysis.

The team has placed in the top 10 out of 40+ international teams every year it has participated in the AUVSI SUAS International Competition. This year 19 students will travel to the Naval Air Station Patuxent River, Maryland, for the event to try and better last year’s showing of fourth place overall, which included second in oral presentation, fourth in journal entry and fifth in mission.

Companies such as Lockheed Martin, Northrup Grumman, NavAir and others attend the competition to recruit future employees, making it a great networking environment for students.

Team leaders

- Collin Pierce  President
- Matt Don  Vice President
- Steven Blits  Treasurer
- Blake Smethers  Shop Manager
- Sydney Schinstock  Sponsorship Chair
- Chris Piggott  Webmaster

Faculty advisers

- J. Garth Thompson, MNE professor

Unmanned Aerial Systems Team

Fourth place overall in 2014 international competition: second in oral presentation, fourth in journal entry and fifth in mission

Team leaders

- Thomas (Hank) Winterscheidt  President
- Jeff Rosebaugh  Vice President
- Seth Haronomus  Treasurer
- Hayden Borth  Shop Manager
- Jamie Stadler  Sponsorship Chair

Faculty adviser

- Terry Beck, MNE professor

SAE Aero Design Team

The K-State Aero Design Team takes part in the Society of Automotive Engineers, or SAE, Aero Design intended to provide undergraduate and graduate engineering students with a real-life engineering challenge.

First and foremost a design competition, students perform trade studies and make compromises to arrive at a design solution that will meet the mission requirements while still conforming to the configuration limitations. To help teams develop both written and oral communication skills, a high percentage of their score is devoted to the design report and oral presentation required in the competition.

SAE Aero Design features three classes of competition — regular, with the purpose to develop the fundamental understanding of flight; advanced, requiring teams to have a systems approach to design while integrating disciplines such as aeronautical, mechanical, electrical and computer engineering; and micro, requiring teams to make trades between two potentially conflicting requirements — carrying the highest payload fraction possible, while simultaneously pursuing the lowest empty weight possible.

Team leaders

- Thomas (Hank) Winterscheidt  President
- Jeff Rosebaugh  Vice President
- Seth Haronomus  Treasurer
- Hayden Borth  Shop Manager
- Jamie Stadler  Sponsorship Chair

Faculty adviser

- Terry Beck, MNE professor

Fourth place overall in 2014 international competition: second in oral presentation, fourth in journal entry and fifth in mission

Team leaders

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- Steven Blits  Treasurer
- Blake Smethers  Secretary
- Sydney Schinstock  Sponsorship Chair
- Chris Piggott  Webmaster

Faculty advisers

- J. Garth Thompson, MNE professor
- Dale Schinstock, MNE assoc. professor

SAE Aero Design Team

The K-State Aero Design Team takes part in the Society of Automotive Engineers, or SAE, Aero Design intended to provide undergraduate and graduate engineering students with a real-life engineering challenge.

First and foremost a design competition, students perform trade studies and make compromises to arrive at a design solution that will meet the mission requirements while still conforming to the configuration limitations. To help teams develop both written and oral communication skills, a high percentage of their score is devoted to the design report and oral presentation required in the competition.

SAE Aero Design features three classes of competition — regular, with the purpose to develop the fundamental understanding of flight; advanced, requiring teams to have a systems approach to design while integrating disciplines such as aeronautical, mechanical, electrical and computer engineering; and micro, requiring teams to make trades between two potentially conflicting requirements — carrying the highest payload fraction possible, while simultaneously pursuing the lowest empty weight possible.

Team leaders

- Thomas (Hank) Winterscheidt  President
- Jeff Rosebaugh  Vice President
- Seth Haronomus  Treasurer
- Hayden Borth  Shop Manager
- Jamie Stadler  Sponsorship Chair

Faculty adviser

- Terry Beck, MNE professor
Wildcat Wind Power Team

Team leaders
Tanzila Ahmed President
Tyler Aden Vice President
Larwyn Edmonds EE Co-Lead
Armando Marquez EE Co-Lead
James Remley CFO
Jace Meyer Secretary
Josh Loyd EE Specialist
Shane Smith Srv. ME Lead
Aaron Akin Jr. ME Lead

Faculty advisers
Ruth Douglass Miller, ECE assoc. professor
Aaron Akin Jr. ME Lead
Shane Smith Sr. ME Lead
Josh Loyd EE Specialist
Jacob Meyer Secretary
Aaron Akin Jr. ME Lead

Wildcat Wind Power is a competition team tasked with designing and building a turbine with the aim to compete against other educational institutions across the United States. Electrical and mechanical engineering students provide a skill set of design and efficient small-scale wind turbine.

This year’s team competed at the 2015 Collegiate Wind Competition at the National Wind Technology Center under the United States Department of Energy in Boulder, Colorado. Wildcat Wind Power placed seventh overall with a first-place rating on its design report. The primary activity was to run their wind turbine in the tunnel through a series of tests: manual braking, detection of loss of load braking, power production, cut-in wind speed and durability.

Creative Inquirer Roster

Steve Debes
Lucas Demott
John DeVaault
Katie Dhuyvetter
Matt Don
Brian Dyer
Tazrid Ahmed
Tyler Aden
Josh Milholer
Tanzila Ahmed
Tyler Aden
Larwyn Edmonds
Armando Marquez
James Remley
Jace Meyer
Josh Loyd
Shane Smith
Aaron Akin

Mark Duncan
Branden Dunn
Will Duren
Alex Zlenkowskii
Mitchell Easley
Larwyn Edmonds
Kyle Edwards
Lea Evans
Brian Enrather
Jacquelin Ewald
Kaleb Fochtman
Grant Ferland
Bryan Foggan
Cole Fincham
Krissten Fischer
Caleb Fleming
Brian Foote
Mitchell Fowler
Justin Fraizer
John Gaito
Kevin Garman
Aaron Gleason
Ian Goeing
Claudia Gonzalez
Rodolfo Gonzalez
Elias Grant
Jared Gross
Brendan Gundam
Alex Guastafino
Kate Gutierrez
Richard Habeeb
Bradley Halibib
Eric Hamilton
Dave Hammond
Christopher Handyside
Patrick Harwell
Zach Havenskamp
Jordan Heinen
Luke Helten
Tyler Henley
Cohonner Henry
Ethan Henry
Ismael Hernandez
Seth Henneman
Tyler Hinnen
Robert Witt

Aaron Hoffman
Greg Hopper
Kellan Horner
James Howze
Andrew Hunter
Keith Hubbard
Brandon Hubert
Peter Jenson
Sdffen Johnson
Nathan Jones
Caleb Mitchell
Adam Molleker
Tyler Montgomery
Amanda Moorman
Brett Morey
Nate Moyer
Connor Munk
Laura Neilsen
Kelsey Nelson
Keon Nguyen
Adam Niccl
Simon Trent Novelly
Benjamin Nyk
Eric Nyh
Kyle Olson
Alex Nytko
Jacob Oeffmann
Michael Orman
Joshua Padley
Tanner Parker
Jonathan Pascoow
Thomas Patry
Dwright Pearson Jr.
Adam Perkins
Ben Peterson
Lars Peterson
Richard Petrie
David Maddin
Phil Mahone
Davon Martinetti
Armando Marquez
Dathan Marts
Aaron Mason
Peter Maier
Seth Matchavari
Zach McCull
Nick McGee

Kenneth McCloud
Josh Medeiros
Mike Meng
Darren Meyer
Jordan Reinsing
Jacob Meyer
Luis Miguel
Brandon Miller
Dane Miller
Kevin Minfret Jr.
Ryan Missocz
Austin Juwamura
Caleb Kaiser
Jason Kane
Levi Karlhoef
Garrett Kass
Rebecca Keating
Justin Kelller
McKenna Kelly
Zack Kimber
Anna Kitzberger
Carter Klise
Isaac Klugh
Ethan Koch
Dylan Kraus
Matthew Lambert
Connor Leglaiter
Jacob Lengquist
Alex Lespagnol
Ethan Linden
Harvey Liu
Weston Loer
Tanner Lott
Boaz Love
Josh Loyd
Tyler Mary
Richard McArdle
Mary Maddern
Darin Maddad
Phil Mahone
Davon Martinetti
Armando Marquez
Dathan Marts
Aaron Mason
Peter Maier
Seth Matchavari
Zach McCull
Nick McGee

Srirama Sanke
Matt Saner
Jared Schafe
Danny Schrapaz
Jason Sneir
Jenav Schinost
John Schmitt
Austin Schmirtz
Justin Schmirtz
Benjamin Nyk
Alex Nytko
Jacob Oeffmann
Michael Orman
Joshua Padley
Tanner Parker
Jonathan Pascoow
Thomas Patry
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Adam Perkins
Ben Peterson
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Richard Petrie
David Maddin
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Armando Marquez
Dathan Marts
Aaron Mason
Peter Maier
Seth Matchavari
Zach McCull
Nick McGee

Yveshadeen Haynes
Matt Trafton
Thaddeus Tuck
James Tyson
Tony Rodriguez
Nick Rubbo
Harold WIdlander
David Vogel
Cathlyn Vos
Daniel Wagner
Daniel Wang
Tyler Warren
Justin Watson
Kayla Wehkamp
Yong Wu
Luke Weller
Ryan Wheelch
Luke Westland
Michael Whirey
Morgan Whitham
Ben Williams
Hawthorne Wilson
Thomas Winterscheidt
Safia Woodyard
Ryan Woodburn
Megan Workman
Brad Worsam
Ryan Yen
Bruce Young
Jarred Yost
Jarred Zaborac
Bryce Yohn
Ryan Yenni
Brad Worsham
Megan Workman
Brad Worsam
Ryan Yen
Bruce Young
Jarred Yost
Jarred Zaborac
Bryce Yohn
Ryan Yenni
Brad Worsham
Megan Workman
Launch is produced by the Kansas State College of Engineering to document the accomplishments in building our student creative inquiry teams and solving extreme technical challenges. Each year, hundreds of students participate on more than 20 creative inquiry teams, K-State’s highly successful blend of undergraduate research and practice, to compete in regional, national and international events on topics ranging from wind power to unmanned aircraft. Most competitions are sponsored by technical societies, such as SAE International — the global association of engineers — and related technical experts in the aerospace, automotive and commercial-vehicle industries. Working professionals create challenging problems they know from first-hand experience are difficult to solve and will test skills needed in industrial practice after graduation. Competition organizers know the winning solutions will require innovative ideas that can be shaped to meet realistic constraints such as safety, cost or time limits, the way real-world research and development is done. These are daunting tasks and here we show how K-State students have risen to these challenges.

Alan and Jan Levin have made a commitment for a hallmark feature in the Phase IV building addition, the Alan and Jan Levin Student Design Team Suite. Their gift of designated space for student competition teams will allow students to create engineering designs while developing practical skills in leadership and collaboration.

Philanthropic gifts help drive team success, funding equipment, materials and travel costs that give students hands-on training and industry exposure. Student teams give members a competitive edge in the job market, and support the college mission and K-State’s 2025 goal to enhance the student experience.

To learn how you can invest in student team success, contact the engineering development office at 785-532-7609 or engineering@found.ksu.edu.

“The College of Engineering gave me a home and a goal in life. It definitely changed my life and made all the difference in the world. There are so many people out there who can succeed if they just have someone to give them a helping hand. And if they succeed, then that’s just a benefit to us all.”

— Alan Levin, ME ’69
Founder, Port of Tucson, LLC; owner, Cushing Business Center, Century Park Research Center, Tucson Frozen Storage, and Levin & Sons Construction Company
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