#### SPRING 2022 — KANSAS STATE UNIVERSITY



DEPARTMENT OF INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

#### **ALUMNI CONNECTIONS**

Spring 2022

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Department of Industrial and Manufacturing Systems Engineering

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Keep up with us on social media!





Timothy Deines, senior instructor for the industrial and manufacturing systems engineering department and IMSE 251, poses in his lab with his vise. The department requests that alumni "Show Us Your Vise" by sharing a photo on social media using the hashtag #KStatelE4Life.

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## From the Department Head

I wrote in last year's newsletter that the greatest threat to our continuing success is taking our department culture for granted. But what is the K-State IMSE culture? To answer this key question, let's investigate what is common across all the generations of people who have been part of this department.

First, we graduate great students who get great jobs and have great careers! Several of the companies who regularly recruit our graduates have told us that K-State IMSE graduates are among their top performers.

Second, we have great faculty and staff who genuinely care about our students and alumni. Evidence of this fact is found in exit interviews in which students regularly report how much they value their connection with IMSE faculty and staff and how they value that they maintain open offices and seem to want to connect with them. As a result, half our current faculty have won teaching awards and one third of our current faculty have won advising awards. Additionally, four of our current faculty have won NSF CAREER awards and our faculty publish on average five refereed scholarly papers per member annually.

Third, our students are well-connected to each other. A fundamental reason for this is that most of our classes involve team-based projects. These projects are extra work for faculty, but they help students to forge deep connections with one another both in and out of class. Furthermore, our professional academy promotes connections through its sponsorship of the alumni mentor program and the Skill Xcelerator.

During the past year, two alums have invested their own resources to celebrate and promote this culture. As you read about last year, Invest in named faculty positions. Mark and Kinley Neier established an award that recognizes an outstanding alumnus for contributions to advance the department and its students. In addition, Kyle and Emily Grabill recently Now, more than ever, we need your support to maintain established an award in honor of David Ben-Arieh to celebrate and build the department culture. I'm as proud today of our exemplary leadership in furthering the IMSE department culture department, faculty and alumni as I've ever been. Won't you of excellence, teamwork and service. We look forward to telling engage with us and become even more connected? Together, you more about the Ben-Arieh award and the inaugural winners of we'll make K-State IMSE even better tomorrow. Call or email me these great awards in our next edition of Alumni Connections. to talk about how you'd like to contribute toward advancing K-State IMSE.

What can you do to further the IMSE culture of success and excellence?

- · Join the IMSE Professional Academy or advisory council.
- Help to identify and recruit students to K-State IMSE.
- Provide a guest lecture to an IMSE class.
- Mentor an IMSE student.
- Connect with IMSE faculty to engage in research projects.



- Advocate for hiring IMSE interns and graduates.
- Support scholarships for IMSE students.
- Support the department financially to enable student and faculty activities.
- Invest in building the K-State Manufacturing Innovation Lab.

Bradley A. Kramer Bradley A. Kramer

Professor and Department Head Ike and Letty Evans Engineering Chair

# **Ben-Arieh retires after 32 years** =

After 32 years, David Ben-Arieh is retiring from the IMSE department. Ben-Arieh impacted the lives of countless students, made advancements in the profession and has been a great colleague and key contributor to IMSE.

Ben-Arieh grew up in Israel. He attributes his success as a professor to the very strong education he received. He attended a technical high school for five years and earned a Bachelor of Technology in Electronics.

When he turned 18, Ben-Arieh was drafted into the Israeli Air Force as a fighter pilot. He flew several planes while in the air force, including a light subsonic attack fighter airplane, the A4 Skyhawk. Between 1970-1982, Ben-Arieh also worked as a flight instructor.



David Ben-Arieh

Ben-Arieh earned his bachelor's and master's degrees in industrial engineering in Israel at Ben-Gurion University and a doctorate at Purdue University. Upon completing his doctoral work in 1985, Ben-Arieh entered the corporate world as a researcher at AT&T Bell Laboratories in Columbus, Ohio.

Ben-Arieh decided to pursue a career in academia because it gave him the freedom to explore and learn in many directions. In 1987, he returned to Ben-Gurion University in Israel for three years to work as a professor of industrial engineering. He enjoyed his first academic job as a professor, but missed the kind and warm people of the Midwest in the United States and their way of life. Ben-Arieh and his family returned to the Midwest and settled in Manhattan in 1990 when Ben-Arieh joined the IMSE department.

"My family and I fell in love with this place, and we have lived here ever since," he said.

Ben-Arieh believes that developing relations with students is important to being a good teacher. Teaching gave Ben-Arieh the greatest satisfaction as a professor. He enjoyed enabling students to understand, internalize and develop deep intuition, and become more of an expert in the subject.

"I really try to create a foundation of understanding because that is what makes students better engineers," he said.

Ben-Arieh began his academic research career working to improve manufacturing process planning. Over the years, he has contributed to many fields with a general theme of improving systems using quantitative methods.

"I switched to many different areas of research because the knowledge, technology and methods kept advancing," he said.

In recent years, Ben-Arieh began to apply his systems engineering skills to medical and health care issues. In particular, his work focused on modeling the spread of disease at both the micro level within the human body and the societal macro level.

Ben-Arieh has published more than 70 journal articles related to his research. One of his last papers ahead of retirement was a collaboration with Professor John Wu and a pair of doctoral students in the department on the evolution of the pandemic.

Ben-Arieh co-founded and led the department's Health Care Operations Resource Center. The purpose of the center was to improve the operation of health care systems. The center accomplished this purpose through conducting both research and development projects and applied projects conducted with health systems providers. To guide its efforts, Ben-Arieh created an advisory council for HCOR. This council consisted of administrators and clinicians from large hospitals, rural hospitals and clinics, and health insurance companies. The center had engaged more than 70 students to conduct more than 20 projects to improve health care operations in both large and small operations.

"We brought a lot of awareness to health care in the department," he said. "It required a lot of energy and a lot of commitment and sacrifice."

Actively engaged in promoting the industrial engineering profession, Ben-Arieh has served on the editorial board of three academic journals, provided leadership to multiple professional conferences and served as the chair of the Human Factors Special Interest Group for American Telemedicine Association. He is a fellow of the Institute of Industrial and Systems Engineers and a Society for Health Systems diplomate.

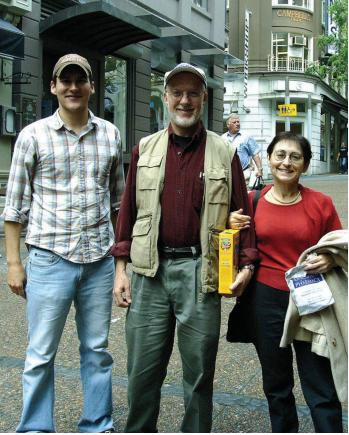
Ben-Arieh also did contract work in his spare time during summers, working at NASA in Cape Canaveral, Florida. He looked at management issues related to space including missile launches and logistics of space exploration, among other things.

"I enjoyed the area and that's why we're going back there after my retirement," Ben-Arieh said.

Ben-Arieh has seen a lot of changes during his time at K-State. Over the course of his career, the department has changed its name, hired new faculty and staff, added degrees, and added and dropped a minor.

"I like to think I was an active part in the evolution of the department and all the many stages we have had," he said. "We are continuously changing, improving and evolving."

Ben-Arieh said it is important to have a happy life in the department and he always felt happy and included, with some of his favorite K-State memories coming from trips with other



Kyle Grabill (left) poses with David and Josefa Ben-Arieh in Auckland, New Zealand, during a trip to present research at an industry conference in 2004.

faculty members. He gave praise to Bradley Kramer, IMSE department head, for being part of the success.

Since the Ben-Ariehs love Manhattan, they are leaving with mixed feelings. Ben-Arieh and his wife, Josefa, will be moving to Cape Canaveral in May 2022. They will be closer to their children and grandchildren. They look forward to visiting family in Israel, chartering a boat in the Mediterranean and visiting Europe before settling in Florida.

Please join us in thanking Dr. Ben-Arieh for all he has done to advance K-State IMSE. You can reach Dr. Ben-Arieh directly to express your appreciation by emailing him at davidbe@k-state.edu.



It's not uncommon for those at the end of a long and successful career to set up an endowed scholarship fund as a way to help those with financial needs while preserving their legacy for decades to come. Setting one up as 20-something newlyweds? A much rarer feat, but easier than some might think.

Two young industrial engineering alumni are proving just that by generously giving back to the industrial and manufacturing systems engineering department only a few short years after graduating. In the fall of 2021, **Alonso Talamantes** and **Gabby Dellinger** finalized the Dellinger-Talamantes Vanier Family Scholarship. Talamantes graduated in 2017 with his bachelor's and master's in industrial engineering with a minor in statistics, while Dellinger graduated with a bachelor's in industrial engineering in 2016 before completing an MBA at Strayer University in 2021.

The pair currently reside in Houston with their three rescue animals, cats Alaska and Clementine and a dog named Hershey. Dellinger works for Frito Lay as the quality and food safety department manager, while Talamantes works for ExxonMobil as a sales account manager. They were married in August 2021.

With generous matching available from the Vanier family and their employers, ExxonMobil and Frito-Lay, Talamantes and Dellinger decided it was a good time to set up an endowed scholarship. Their annual pledge will be effectively matched at a 7-1 ratio, with funds being distributed beginning in the fall of 2022 and annually after that. Since scholarships were the sole reason they could afford college, Talamantes and Dellinger are thrilled to be able to set up this endowment so early in their professional careers in order to help others achieve their educational goals.

"I am a first-generation American," Talamantes said. "My mom illegally crossed the border in January 1995 to meet up with my dad, who had residency, so that my siblings and I could live a better life. We didn't have money growing up. We didn't



Gabby Dellinger and Alonso Talamantes on their wedding day

speak English. We lived in a cockroach-infested apartment for some time because it was the only thing that was available.

"To go from that to being a first-generation college graduate, buying a house at the age of 21, making a six-figure salary at ExxonMobil and setting up an endowment at the age of 26 is amazing. I hope my story will inspire others to understand that no matter what your background, you have an opportunity to be your own version of successful." The couple met in IE classes and spent a significant amount of time together while doing Open House activities during college. In fact, involvement in the IMSE department and their classes together were instrumental in bringing the two together.

"Believe it or not," Talamantes said, "we even watched Dr. Wu's SQL videos in my living room together on a big-screen TV."

Both Dellinger and Talamantes were very involved while in college. Talamantes was in the Kansas State University Marching Band all four years of school and even became the head alto saxophone section leader. He was also an Engineering Ambassador, giving tours in both English and Spanish, and a member of Steel Ring, honored as the 2018 St. Patrick winner for his many leadership and academic pursuits.

Dellinger was a member of the Alpha Chi Omega sorority and the Society of Women Engineers. She helped lead Open House for the chemical engineering department in 2015 and for the industrial engineering department in 2016, winning first place.

Both Talamantes and Dellinger remain highly involved with the department. They are mentors for students in the Intro to IE class and are a part of the IE Professional Academy. Talamantes is also a mentor for the Skill Xcelerator program and volunteers for resume critiques. Whenever possible, they come back to recruit for their respective companies. Both love helping current students in any way they can.

If you have any questions for the KSU Foundation, or would like to make a donation or set up an endowment, please contact Gavin Hargrave, senior development officer for the Carl R. Ice College of Engineering by email at **gavinh@ksufoundation.org** or by phone at 785-775-2047.

## Vick honored with PPA award



Julie Vick, of Chanhassen, Minnesota, is one of 10 alumni honored by the Kansas State University Carl. R. Ice College of Engineering for significant early to mid-career success following graduation. She was recognized with the Professional Progress Award on March 5 at the Seaton Society Award Celebration in Manhattan.

Vick is a 2002 graduate of Kansas State University

in industrial engineering. She has an MBA from Baker University. Vick is the senior director of Procter & Gamble product supply transportation and warehousing cost program. In this role, she has the responsibility for the current and future structural savings programs inclusive of the transportation and warehousing network for Procter & Gamble. She joined Procter & Gamble in 2002 as a process engineer and material supply manager and has had the opportunity to work end-to-end with the company's large and complex supply chain.

Vick has been actively engaged with IMSE throughout her career. She was an active member of the IMSE advisory council for two full three-year terms. It was during her tenure on the advisory council that the group established the IMSE Professional Academy. Vick was a key member of the group that established the academy and was one of its earliest inductees. She continues to be active in the academy and in the department by mentoring several students each year and coaching in the Skill Xcelerator program. Vick and her husband, Andy, have three children, Alexis, Aubrey and Tyler.

# What to do when the research bug bites

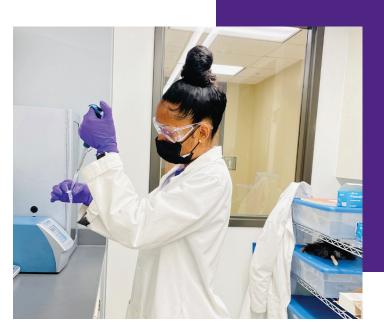
Quite often, students doing undergraduate research enjoy the experience so much they decide to continue their academic studies so they can continue doing research. Two recent IMSE graduates are continuing their research journey while obtaining their master's degrees in the department. **Shiseido Robinson** is continuing her graduate research under Assistant Professor Suprem Das, while **Dakota Angell** is working with Professor Shuting Lei.

#### Shiseido Robinson

Robinson said that undergraduate research is what encouraged her to continue on and get her industrial engineering master's in order to continue doing research. Undergraduate research made her fall in love with exploring theories and ideas at a subatomic level. "Research is so exciting. I know that my curiosity will lead to new discoveries and tomorrow's next big revelation," Robinson said.

She is currently researching additive manufacturing of graphene-based electronic devices. With a current supply chain shortage on batteries and semiconductor chips, research that makes these devices more economical and easier to reproduce and manufacture is critical. Robinson said her research journey has reinforced her belief in the importance of higher education.

"It has given me the opportunity to further my development with scientific and technological innovations and knowledge that affects us every day," she said.



Shiseido Robinson

"The qualities I've gained from the academics, clubs and other programs offered while studying industrial engineering will benefit me not only professionally, but in every aspect of life."

- Shiseido Robinson

Robinson chose industrial engineering as her path because she is a critical thinker and wants a career in which she can physically analyze processes to make things safer and more efficient for people. She would love to someday use her skills to create a safer and better tomorrow as an industrial engineer for NASA.

"I would love to design automated material-handling systems for the movement of parts within their facility and develop reliability and quality management systems to ensure a manufactured product is free from defects," she said. "That could relate to their spacesuits or designing a mission management plan for payload specialists on each space shuttle."

She would also love to help restore the conditions of the New York City Housing Authority, or NYCHA, as a volunteer. Robinson is originally from New York, so she would like to help the NYCHA residents have a safe living environment that would help with children's mental health, well-being, productivity and performance in school.

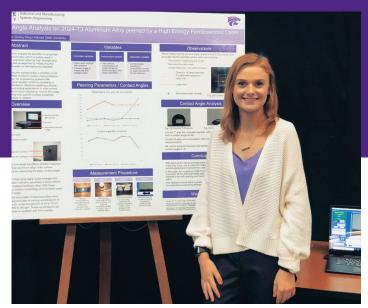
Robinson sees the benefits of her industrial engineering education in a variety of ways, more than just professionally.

"Industrial engineers work in every sector: manufacturing, technology, health care and retail," she said. "The qualities I've gained from the academics, clubs and other programs offered while studying industrial engineering will benefit me not only professionally, but in every aspect of life."
"The goal of my research is to generate a superhydrophobic surface, or a surface that repels liquids such as water and melted polymers," she said.

#### Dakota Angell

While under Lei's advisement, Angell wanted to continue her education because of her involvement with undergraduate research and the opportunities research provides.

"I have really enjoyed working on a team with students, faculty and companies," Angell said. "This exposure has made



Dakota Angell

me more knowledgeable on how research is applied in the corporate world."

She also has gained organizational, team participation and technical paper writing skills, which will help her in the future. She has had the opportunity to participate in company progress reports and updates, Open House presentations and a conference in Oklahoma. Her research is allowing her to learn more about the field of industrial engineering.

As a graduate student, Angell is continuing her undergraduate research on the femtosecond laser effects on modified surfaces because she wants to learn more about the topic and has enjoyed every minute of her research experience.

After finishing her master's, Angell plans to work full time as an engineer for Cargill in a program that focuses on maintenance and leadership engineering and will be working at a soybean crush facility attached to an oil refinery.

"I will use the knowledge that I have gained to submerse myself in the new position as well as a new field of agriculture," she said.

## Can IE skills help solve K-State football's thirdquarter slump?

Last season, the K-State football team struggled to score in the third guarter. Was the problem rooted in K-State's offensive adjustments or was it that their opponent made better defensive adjustments to the K-State offense?

A K-State IMSE senior design team is using their industrial engineering skills to help K-State win the third guarter. The students on the team are Will Swanson, Nick Nolkemper, Tanner Luce and Ryan Bach. The team is advised by Shing Chang, professor of industrial and manufacturing systems engineering.

"The goal of our project is to create a user-friendly tool that is able to take inputs from an in-game scenario and recommend a play-calling strategy," Luce said.

Swanson has been helping the K-State football team since he arrived on campus. His involvement with the team opened the door for the IMSE team to work on this problem.

Looking at the numbers, the team noticed that the Wildcats have trouble putting points on the board in the third quarter compared to other quarters and other teams.

The team members began this project by laying out a timeline using the DMAIC (define, measure, analyze, improve and control) process to segment their work and achieve their goals. They utilized information they learned in their statistical quality control and big data analytics courses. They then combined data analytics methods with optimization and operations research models to provide improved play-calling strategies.



From left, IMSE senior design team members, Nick Nolkemper, Ryan Bach, Tanner Luce and Will Swanson

"We will polish our play-calling model from the machine learning models used in Manufacturing Information Systems," Nolkemper said. "The end product will be user friendly and adjustable for future improvements to the models."

Due to the complex nature of the problem and the data, the team has taken some innovative approaches. For example, the group staged a debate where two team members started with the hypothesis that K-State's struggles were due to K-State's poor offensive adjustments after halftime. The other two members took the position that it was the opponent's better adjustments leading to K-State's woes. Both teams used the same data and argued their points to gain insight into what was happening.

"We hope our presentations will give the coaching staff important insights so they can have a more productive offense in the third guarter," Bach said.

Members of the design team said that throughout the process they have learned the importance of communication.

"Keeping our client updated on where we are at in the process and understanding their needs is critical to the success of our design," Swanson said.

"Ideas may change with leadership changes," added Nolkemper, "so adapting guickly is necessary."

The team members expect that the applied knowledge they've learned while working with this large data set will benefit them in their future careers.

"We have cleaned up data, analyzed it and built statistical models to illustrate the significance of factors that come into play for offensive play-calling and defensive adjustments," Swanson said.

With all the knowledge the K-State football team will gain from this senior design team, there is hope that we will hear a lot more, "good for a Wildcat touchdown!" over the speakers at future home football games.

Are you interested in sponsoring a senior design project? Contact Brad Kramer at bradleyk@k-state.edu.

## The advantages of additive manufacturing of **3D** aerogels

K-State industrial and manufacturing systems engineering graduate student Halil Tetik's paper entitled "Additive Manufacturing of 3D Aerogels and Porous Scaffolds: A review," was recently published online in the highly respected journal, "Advanced Functional Materials," a collaborative publication with Northeastern and Lawrence Livermore.

Tetik, along with Nasrullah Shah, former visiting Fulbright research scholar from Pakistan and Dong Lin, associate professor of industrial and manufacturing systems engineering, did a thorough review of additive manufacturing technology, which has been widely used to fabricate 3D aerogels having complex geometries that cannot be created through conventional fabrication methods.

#### Q: What is additive manufacturing?

A: Additive manufacturing is the process of creating an object by building it one layer at a time, an example being 3D printing. This process is in direct contrast to subtractive manufacturing, which creates an object by cutting away at a solid block of material until the final product is complete.

#### Q: What are aerogels, and what advantages are there to creating them through the additive manufacturing process?

A: Aerogels are a class of highly porous materials with attractive properties for a variety of applications, including tissue engineering, electrochemical energy storage, controlled drug delivery, sensing and soft robotics. Additive manufacturing also provides other advantages, such as an ability to design the porosity of the aerogels, which enables tuning the physical properties of the final product. Multi-material printing enables multi-material aerogels with enhanced performance for different applications.

#### Q: Are there different ways to additively manufacture aerogels?

A: To date, three major additive manufacturing technologies A: Another option is the use of aerogels for sensors and have been proposed: extrusion, inkjet and stereolithography. actuators, including 3D-printed devices that are responsive Each is followed by an appropriate drying process. In the review to external stimuli. The aerogels can be used for sensing produced by Tetik, the details of steps included in the additive different phenomena and for external stimuli and can be used manufacturing of aerogels and porous scaffolds are discussed and for making the 3D-printed structure move. The review also a general frame is provided for their additive manufacture. Then, highlights the use of aerogels for environmental applications, the different post-printing processes are addressed to achieve such as 3D-printed, complex structures for generating purified/ the desired porosity, mechanical strength and functionality. drinkable water using solar energy, among other ideas.



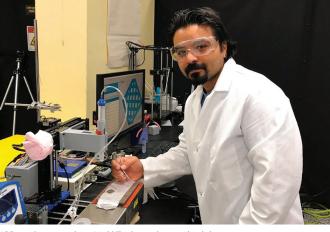


IMSE graduate student, Halil Tetik, working in his lab

#### **Q: What sort of practical applications** can this method produce?

A: The applications and possible future use of these 3D-printed aerogels/porous scaffolds made from a variety of materials are highlighted in Tetik's review. This method could produce aerogels with the potential to aid systems that store electrical energy, such as batteries and super capacitors. Another option discussed is the use of aerogels for systems that generate electrical energy using ambient energy, such as converting human motion to electrical energy for wearable devices. Lastly, the review highlights the aerogel/porous scaffold use for biomedical applications for tissue engineering. Some examples include regenerating human tissue from patient's cells on a 3D-printed scaffold or targeted drug delivery that would include loading 3D-printed patches with specific drugs that would allow for controlled release at a given target site.

#### Q: Are there other applications the researchers are investigating?



## **Q&A with K-State Graduate Student Council president**

IMSE doctoral student **Pingping Chen** served as K-State's Graduate Student Council, or GSC, president-elect from May 2020 through May 2021 and then as GSC president from May 2021 through May 2022. As the president this past year, Chen served as the primary contact and spokesperson for the council, was responsible for overseeing and facilitating all GSC activities and was responsible for representing graduate student interests on the graduate council as well as Faculty Senate. We recently caught up with her to ask some questions about her time as GSC president.

#### Q: Why did you decide to run for the GSC president position?

A: I was interested in joining GSC because I enjoyed and benefited from the workshops and events held by GSC and I wanted to get involved in planning events that could benefit more students. After getting to know more about the GSC, I realized that there are few members from the engineering department, and no members from IMSE, so that was another great reason to be part of the GSC.

I ran to be an officer because I felt disempowered as an international graduate student. I now believe that all of our graduate students have the power to make changes, work with the university to make graduate life thrive and create new opportunities for the K-State graduate student community. This was a lifechanging experience for me.

## Q: What did you hope to accomplish while serving as president?

A: My first goal as president was to increase the diversity of GSC, especially to get more students from the engineering, math and physics discipline involved. The GSC is lacking voices from these STEM fields. It's necessary for GSC to become more inclusive in order to better represent all graduate students at K-State.

In addition, I wanted to push GSC as a better platform to implement initiatives that matter to students. GSC is a community in which the graduate students share their interest in developing new initiatives for their peers. The students usually have ideas for resources they would like to see at K-State. As the president of GSC, I wanted to encourage more students to propose their ideas to GSC and help bring those ideas to fruition.



## Q: Do you feel like you accomplished the goals you set out to accomplish?

A: In 2021-2022 we've seen the GSC become more inclusive with more department representation, more students from STEM departments and more total students on committees. The GSC now has 50 students from 34 different graduate programs engaged in leadership roles. We have more graduate student representatives in three more university committees and one more graduate senator in the Student Governing Association.

While GSC president, our leadership team began to initiate and advocate for several things that are important issues for graduate students. We began to discuss ways to get more pay for graduate assistantships and ways to help equalize pay across departments. We also began to discuss ways to build a community where graduate students can express their concerns and get help with mental health issues. One thing we noticed is that mental health help needs to be more visible on K-State graduate student websites. And finally we began discussing the possibility of adding graduate students to university committees. We now have graduate student representation on the University Planning Committee and the University Diversity Committee.

#### Q: How has your experience been as the GSC president?

A: I enjoyed being president of the GSC because I care a lot about the graduate student experiences at K-State and this gave me a chance to support all K-State graduate students.

As graduate students, we tend to be so focused on our research that we forget we are a part of a larger community. As the president of the GSC, I got to meet a great diverse population of graduate students and hear how their experiences vary across departments. I was also able to interact with the deans and administration, which helped me understand more about how a university is run.

## Q: Would you encourage other students to run for GSC offices or other leadership roles?

A: The answer is yes! I would advise new graduate students at K-State to meet people outside their department to enhance their graduate student experience by meeting people with different talents and expertise. From my experience serving as president-elect last year and then president of the GSC this year, I gained so many valuable skills throughout this experience.

Whether they decide to enter academia or industry after graduation, graduate students will need skillsets that include networking, presentation skills, leadership skills, mentorship training and team management. Taking leadership roles and being actively involved in GSC is a good way for graduate students to gain these tremendous skills.

## IMSE Advisory Council Active Members | Fall 2021

Brett Beem – TVH Parts Co.

Judy Bloch – Medallia

**Louis Burley** – Purina Animal Nutrition, Land O'Lakes Inc.

Mark Chalfant – BG Products Inc.

**Robert C. Copple** – Ascension Via Christi Hospital in Manhattan

Mauricio de la Serna – Electromech Technologies

Kyle Franklin – Lockheed Martin

Paul Garcia – John Deere Foundry

Mike Heatwole – Mars Wrigley

Dresden Huston – PepsiCo

**Shelley Jaderborg** – Torotel Products Inc.

**Mandy Kelley** – Department of Energy's Kansas City National Security Campus – Honeywell

Brian Moore – Walmart Inc.

Mark Neier - Deloitte Consulting LLP

Rachel Olson – Hallmark Cards Inc.

**Connie Satzler** – EnVisage Consulting Inc.

**Chad Sharp** – Hill's Pet Nutrition/Colgate-Palmolive

Brian Spano – Wilson & Company

Mason Stewart – Garmin International Inc.

Shayne Wahlmeier - Walmart Supply Chain

# IMSE Professional Academy



#### **Distinguished Academy Members**

Ryan Aeschliman Christopher Althoff Nicole Becker Curtis Bryant **Rayme Collins** Bob Copple Sarah DeHaven Emma Devane Dave Dohrmann Diana El-Koubysi Brad Fouse Kyle Franklin Bryce Garver Doug Gish Patrick Hessini Kelley Hughes Bryce Huschka Dresden Huston Mandy Kelley

Brad Kramer Jim Lee **Amy Martens** Amy May Ryan McGuire Mark Neier **Rachel Olson** Jansen Penny Anita Ranhotra Ashley Ransom **Connie Satzler** Michelle Schlie Larry Strecker Alonso Talamantes Lorrie Tietze Jen Tryom Julie Vick Shayne Wahlmeier

#### **Academy Members**

Lisle Alderton	Meghan McNally
Spencer Bontrager	Sarah Ramsey
Sara Coash	Justin Salmans
Tyler Coverdale	Kristine Sheedy
Rebecca Doll	Brad Steinlage
Evan Grimm	Dustin Thompsor
Dean Herl	Chris Tonn
Heath Hild	Susan Van Houter
Jeff Hopkins	Brian Ward
Todd Lakins	Ken Ward
Brandon Mais	Madelynn Yalowit
Christopher Maldonado- Martinez	Brian Zerr

tz

Interested? Reach out to **imse@k-state.edu** or academy membership chair, Curtis Byrant, at **curtisbryant1@gmail.com** for more information.

#### **Sponsored Academy Members**

Gabriela Armendariz Brett Beem Judy Bloch Nadalie Boss Louis Burley Kyle Carlyle Jack Carter Suprem Das **Bob Davis** Lindsay Eckman Juliane Francia Paul Garcia Kvle Grabill **Cassidy Harper** John Harrington Perry Henry Abbie Hilliard Andrew Huschka Shelley Jaderborg

Steve Johnson Kerry Kaiser Gabrielle Lobo Larry Loomis Valen McDaniel Mark Miller Michael Mylin Natasha Peeples Audra Ratliff Brant Roney Justo Santacruz Mason Stewart Caleb Sutton Kathryn Thomas Tony Veith Lucas Verschelden **Rachel Vonderheid Brian Wenger** 

The following are membership levels and member status listings based on CY 2020 involvement:

#### **Academy Member**

Exemplary graduate or friend of the Kansas State University Department of Industrial and Manufacturing Systems Engineering who has completed the membership application and orientation.

#### Sponsored Academy Member

Academy member who meets either the time commitment or financial commitment as outlined in membership guidelines.

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## Department News

# Congratulations, 2021 IMSE graduates!

## B.S. Industrial Engineering *Spring*

Mohsen Mohammed Al Ishaq Abdulmuttalib Alishag Dakota Angell Vanessa Anudike **Robert Bisagno Connor Brandley** Ethan Copple Nicholas Degenhardt Rebecca Doll Lindsay Eckman Diana El-Koubysi Brandon Gilbert Nathan Gish Evan Grimm Weston Grove **Eric Headley Chase Helling** Jacob Land Jared Loomis Jacob Marshall Valen McDaniel Kathryn McKenzie Christian Meyer

John Miauel Colin O'Brien Nathan Oswalt **Dvlan Pandiaris** Maria Paramo Perez Jansen Penny Jared Pierce Caleb Reed **Kyle Rollins** Andrew Schutte **Tessa Seeberger** Kathryn Sommers Sarah Strouse Markus Sturdevant **Caleb Sutton Robert Wasinger Ruby Weninger** Madelyn Yalowitz Brandon York Summer

#### Sydney Fitchett Marshal Hall

## Jacob Riley

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#### Fall

Muhannad Alshughaythiri Jack Carter Richard (Alec) Clayton Karisa Goss Hannah Grelk Daniel Grice Danielle Lindquist Ethan Lopez Michael Mylin Mitchell Porter Shiseido Robinson Jack Rottinghaus Jarrett Williams

#### B.S./M.S. Industrial Engineering

Summer Kathryn Collins

#### M.S. Industrial Engineering Spring

Wenjun Xiang

#### Fall

Samuel Long Chenna Padmanabhan

#### M.S. Operations Research

**Spring** Alex Vitt Brett Watkins

#### Summer

Joshua Krause Daniel Ball Cori Jackson

#### Fall

Rochelle Anderson

#### Master of Engineering Management

#### Spring

David Burleson Evan Engwall James Mckay Sam Puent

#### Fall

Andrea Hopkins

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#### Department of Industrial and Manufacturing Systems Engineering

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Advisory council member Brian Spano interacting with students at the advisory council networking luncheon held in October after their fall meeting.

