

### INDUSTRIAL AND SYSTEMS **ENGINEERING NEWSLETTER**

Spring 2025



Dear Friends of Auburn ISE,

As we wrap up another successful academic year in the Auburn University Department of Industrial and Systems Engineering, we're excited to celebrate the accomplishments of our students, faculty, and staff. This academic year, we proudly awarded 97 bachelor's degrees, 66 master's degrees, and 14 doctoral degrees, each one prepared to take the next step in their careers as thoughtful, skilled, and forward-thinking engineers. We eagerly anticipate the impact they will make in industry, research, and society.

This spring also brought a milestone achievement for our department. Dr. Alice Smith, Joe W. Forehand Jr. Distinguished Professor, was elected to the National Academy of Engineering in the Class of 2025. Dr. Smith is the first full-time engineering faculty member at Auburn University to receive this prestigious honor. Her induction into the NAE is not only a recognition of her distinguished career, but a proud moment for the ISE department, the Samuel Ginn College of Engineering, and Auburn University.

Several of our undergraduate students also gained recognition for their entrepreneurial spirit. From misting systems to medical tech and heated beverages, ISE students earned top spots in campus and SEC competitions. These results indicate we have some of the most entrepreneurial students at Auburn. We are incredibly proud of their drive to turn bold ideas into real-world solutions.

Looking ahead to the fall, we're pleased to announce new additions within our faculty. Dr. Christian Zamiela has accepted a position as a tenure-track assistant professor in our Systems Engineering team. Dr. Zamiela initially joined the ISE department last year as an assistant research professor after earning his Ph.D. in industrial engineering from Mississippi State University. Dr. Zamiela has already made strong contributions to our research efforts, and we're excited to see his role expand. We also welcome Dr. Casey Eaton to the department as a new assistant professor. Dr. Eaton recently earned her Ph.D. in systems engineering from The University of Alabama in Huntsville. Her work challenges traditional systems engineering frameworks and contributes fresh insights into modernizing how complex systems are designed and implemented. Together, Dr. Zamiela and Dr. Eaton will help grow and strengthen our modelbased systems engineering initiatives.

In addition, I'm proud to recognize two of our faculty members for their well-earned promotions. Dr. Mark Schall has been promoted to professor. As director of the Center for Occupational Safety, Ergonomics, and Injury Prevention, Dr. Schall leads impactful research in wearable technologies, human factors, ergonomics, occupational health, and work-related musculoskeletal disorders. Dr. Konstantinos Mykoniatis has been promoted to associate professor with tenure.

His innovative work in modeling and simulation, robotics, Industry 4.0, and immersive training technologies continues to drive our department forward.

The ISE department had another great year in research awards in 2024, with more than \$12 million in new research initiatives. Additionally, we had a great year with consideration to research expenditures, a measure of how well we are executing our research awards. In 2024, the department had research expenditures totaling almost \$9 million. Research expenditures have increased 211% since 2018. I believe this is a good indication that the research we are executing is considered necessary (evidenced by new research awards) and that we are executing that research well.

Finally, we are proud to share that Auburn University's Samuel Ginn College of Engineering continues to earn national recognition. In U.S. News and World Report's 2025 Best Graduate Schools rankings, the ISE graduate program was ranked No. 14 in the country — a reflection of the outstanding work happening across our department. The ISE undergraduate program is ranked 22nd among public universities, moving up one spot, and up two spots to 30th among all universities.

Please click on the links below to read more about our exciting semester. Thank you for your continued support of Auburn ISE. We hope you have a restful and rewarding summer, and we look forward to sharing more updates with you in the fall.

War Eagle!

**Greg Harris** 

Professor & Chair, Industrial and Systems Engineering Joe W. Forehand/Accenture Distinguished Professor



### Auburn professor elected to the National Academy of Engineering

Alice E. Smith, the Joe W. Forehand Jr. Distinguished Professor in the Department of Industrial and Systems Engineering in the Auburn

University Samuel Ginn College of Engineering, has been elected to the National Academy of Engineering (NAE) as part of its Class of 2025.

NAE members are elected by their peers, and the honor is reserved for outstanding engineering accomplishments. According to an NAE news release, Smith was recognized due to her advancements in computational intelligence as applied to modeling and optimization of complex systems.

Smith is the first full-time engineering faculty member at Auburn University to be inducted into the NAE. She is among 128 new members and 22 international members in the Class of 2025, bringing total U.S. membership to 2,487 and international membership to 336.



#### ISE professor honored with Outstanding Faculty Award

Tom Devall, director of automotive manufacturing initiatives in Auburn University's Department of Industrial and Systems Engineering, was recently honored with the Outstanding Faculty Award from the Samuel Ginn College of Engineering.

ISE seniors Carly Walker and Sydney Patzke were among the students who nominated Devall for the award. Walker praised Devall's teaching and mentorship.

"Dr. Devall is one of the most motivating, welcoming and best professors I have had here at Auburn," Walker said. "He

has been one of the best advisors for my senior design group and boss for the lean lab. He always wants to answer questions and help students when they want hands-on ISE learning. I would recommend his class or advice to anyone interested in manufacturing, process improvement, or just a fun conversation."



### Auburn Engineering students combine to win \$30,000 in Tiger Cage Competition final round

Two Auburn Engineering students were awarded a combined \$30,000 startup capital in the Tiger Cage Student Business Idea Competition final round on Friday, March 28.

Vincent Visser, a sophomore studying industrial and systems engineering, founded Polar Docks, a misting system designed to help keep docks cool so feet can beat the summer heat, and was given \$10,000 for fourth place.

"I'm going to invest in a trencher to develop my process and build some capital," Visser said. "I'll also spend the rest on marketing to generate more interest, create jobs and grow revenue."

<u>Auburn</u> Engineering



#### hosts Huntsville students for STEM career exploration

Auburn University's Department of Industrial and Systems

Engineering recently welcomed middle school students from the Huntsville Learning Center's STREAM Team program for a day of hands-on STEM exploration.

The visit, coordinated by Allison Ledford, assistant research professor in industrial and systems engineering, aimed to expose students, many from underserved communities, to educational and career pathways.

Ledford, who volunteers with the STREAM Team in Huntsville, said the visit was designed to inspire students to dream big and see what's possible in STEM and manufacturing careers.

"The STREAM Team and ICAMS are both about exposure to the art of what is possible," Ledford said. "When students walk through a space like ICAMS and get to see robots, 3D scanners and real-world applications of technology, it helps them visualize a future they hadn't considered."



Air University
students
continue
leadership
training in Tiger
Motors Lab

For the fifth consecutive year, students from the Air War College and the Air Command and Staff College at Air University visited Auburn University's Department of Industrial and Systems Engineering for an afternoon of hands-on leadership training.

The group participated in an interactive session at the Tiger Motors Lab, commonly known as the Lego Lab, where they explored the principles of continuous process improvement and its role in fostering innovation and leadership.

William DeMarco, director of Air University Innovation and Analysis, said the training has become a core part of their curriculum.

"The students were very impressed with Tom Devall, as always, and the lesson," DeMarco said. "Several mentioned they loved the combination of leadership and application. This is our fifth year, and we will be back every year you will have us."



# Doctoral student awarded ISE department assistantship

Auburn University industrial and systems engineering (ISE) doctoral student Madison Evans has been awarded the annual Dr. Saeed Maghsoodloo Assistantship, recognizing the vital contributions of graduate teaching assistants (GTA) in the Department of Industrial and Systems Engineering.

A native of Atlanta, Evans chose to pursue industrial and systems engineering due to its versatility and broad career opportunities.

"Once I was in the program, I fell in love with the search for efficiency and desire to improve different systems," Evans said.

Evans' current research, led by Greg Purdy, ISE associate professor, focuses on cyber-physical security for manufacturing systems, exploring how cyber-originated attacks can result in physical damage, such as part destruction, tool breakage or even machine destruction.



## Auburn University strengthens global ties through partnership

Auburn University's Industrial and

Systems Engineering (ISE) team continues to play a vital role in an international partnership with the Norwegian University of Science and Technology (NTNU), contributing to groundbreaking research in sustainable logistics.

The Production Management Group and Logistics 4.0 Lab at NTNU are leading the "Sustainable Logistics of the Future" project, an initiative funded by the Research Council of Norway. Auburn University is among the 18 partners involved, with ISE faculty members Alice Smith, the Joe W. Forehand, Jr. Distinguished Professor, and Daniel Silva, associate professor, leading the university's contributions.

Silva spent his recent professional improvement leave at NTNU, contributing significantly to doctoral supervision, lectures, seminars and research activities.



ISE
alumnus
publishes
book to
guide future
engineers

Auburn University Industrial and Systems Engineering (ISE) alumnus John Rogers has released a new book, "A Career Worth Engineering," aimed at helping engineering students transition into the professional world.

Rogers, who earned his master's degree in industrial and systems engineering from Auburn in 2019 and a graduate certificate in occupational safety and ergonomics, completed the program online while working full time.

Now serving as deputy project manager of engineering for General Dynamics Mission Systems in Orlando, Florida, Rogers credits Auburn's program for equipping him with practical tools he continues to use daily.

"I had some really good exposure to topics that I hadn't had in my undergraduate career," he said. "It was really beneficial to get into some more advanced statistics, forecasting techniques and risk management techniques."

#### Student Services Update

We recently celebrated the hard work and achievements of our seniors at the Spring Awards Ceremony! Aubie even made an appearance!

Senior Design teams showcased their projects, partnering with real organizations to solve real-world problems. We also honored our Outstanding Undergraduate Students of the Year!

We can't wait to see all of the ways these seniors make an impact after graduation!



















As a valued member of our alumni community, we are reaching out to invite you to take an active role in shaping the future of our department by serving on the Industrial and Systems Engineering Alumni Council. The Alumni Council plays a vital role in fostering connections among alumni, supporting current students, and advancing the mission and goals of our department. The council is currently accepting nominations. For more information about Alumni Council, click here. Application deadline is June 30. Self-nominations are accepted.

Apply for Alumni Council

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