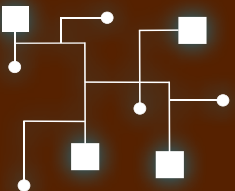


INDUSTRIAL AND SYSTEMS ENGINEERING

SPRING NEWSLETTER 2026



Lehigh Debuts New Courses Harnessing AI for ISE



LEHIGH
UNIVERSITY

P.C. Rossin College
of Engineering and
Applied Science



ISE DEPARTMENT NEWSLETTER SPRING 2026

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Dear Lehigh ISE Community,

It is my pleasure to welcome you to the Spring 2026 edition of the Industrial and Systems Engineering Department Newsletter. This issue highlights another remarkable semester of achievement, innovation, and growth across our department community.

Industrial and systems engineering continues to evolve rapidly as our world becomes increasingly data-driven, interconnected, and technology-enabled. At Lehigh ISE, we remain committed to leading this transformation through excellence in research, education, and societal impact. The accomplishments featured in this newsletter reflect both the breadth of our field and the extraordinary dedication of our faculty, students, staff, and alumni.

One of the most exciting developments this year is the launch of new educational initiatives focused on artificial intelligence for industrial engineering and operations research. These offerings represent an important step in preparing our students to lead in industries where AI, analytics, and optimization are reshaping decision-making and system design. By combining rigorous engineering foundations with emerging technologies, we continue to position Lehigh ISE at the forefront of modern engineering education.

Our faculty continue to make significant contributions to research and scholarship. We are delighted to welcome Professor Jennifer K. Ryan to Lehigh College of Business and

ISE, whose expertise strengthens our growing leadership in applied operations research and supply chain analytics. We also celebrate the outstanding accomplishments of Professor Aida Khajavirad, whose new Office of Naval Research award advances the frontiers of binary polynomial optimization, and Professors Frank E. Curtis and Daniel P. Robinson, whose new book provides an important contribution to the optimization community.

This year also reflects the growing national and international visibility of the Lehigh ISE Optimization Science (LIOS) Program. In August 2026, Lehigh will host GradOpt, MOPTA 2026, and ColOpt—three major events that will bring together leading researchers, students, practitioners, and early-career faculty from around the world. These events underscore Lehigh's longstanding leadership in optimization research and professional development.

We were also honored to welcome distinguished speakers to campus through the Spencer C. Schantz Lecture Series and our departmental seminar series. Their presentations highlighted the expanding influence of industrial and systems engineering in artificial intelligence, optimization, sustainability, infrastructure, and other areas of societal importance.

Equally important are the many awards and recognitions earned by our faculty, students, staff, and alumni. These honors reflect not only scholarly excellence, but also our department's commitment to mentorship, community, experiential learning, and student success. I am especially proud of the collaborative and supportive culture that continues to define Lehigh ISE. This year we won 6 Rossin Engineering awards!

Finally, I would like to congratulate all of our graduating students. Your accomplishments represent years of dedication, perseverance, and intellectual growth. We are proud to welcome you into the global community of Lehigh ISE alumni, and we look forward to seeing the many ways you will shape industry, research, healthcare, finance, technology, and society in the years ahead.

Thank you to our alumni, advisory council members, industry partners, and friends for your continued support and engagement with the department. Your contributions help strengthen our mission and create new opportunities for future generations of Lehigh engineers and scholars.

I hope you enjoy reading about the many accomplishments of our community in this edition of the newsletter.

Warm regards,

LUIS NUNES VICENTE

Timothy J. Wilmott Endowed Chair Professor and Department Chair
Department of Industrial and Systems Engineering, Lehigh University



JENNIFER RYAN

Jennifer Ryan joins Lehigh Business and ISE

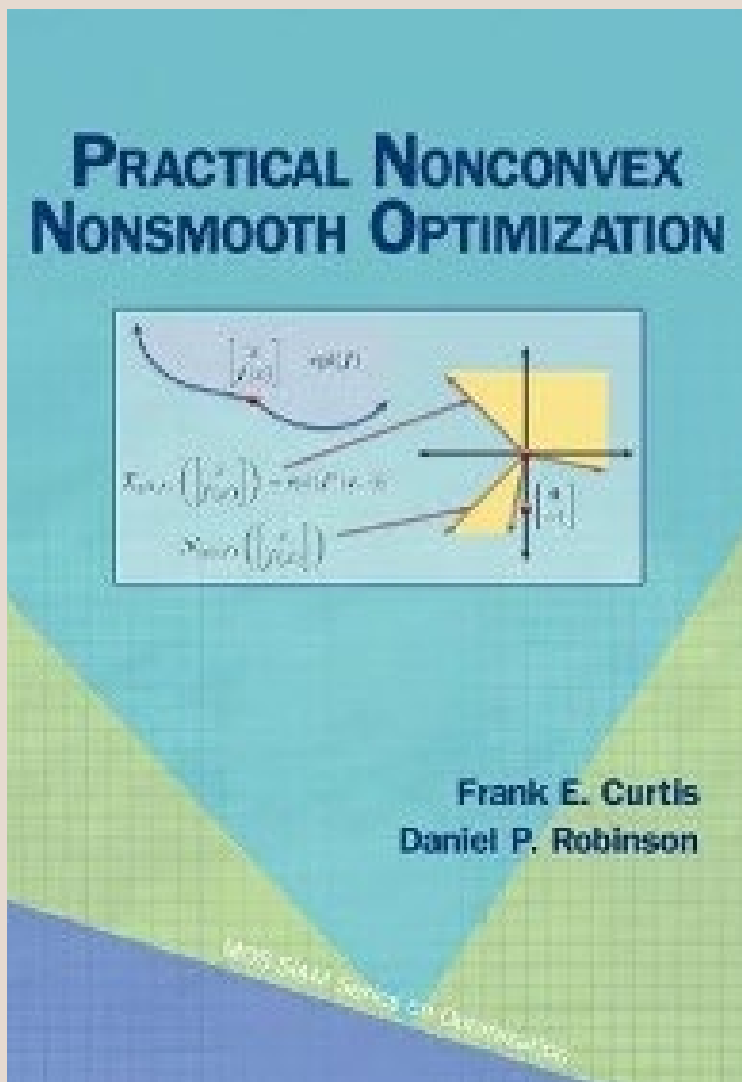
We are very pleased to report that **Jennifer K. Ryan** joined Lehigh, with a main appointment at the College of Business (COB) as the Frank L. Magee Professor and a joint appointment at Industrial and Systems Engineering (ISE). At COB, Jennifer is serving as Chair of the Decision and Technology Analytics Department. At ISE, her research appointment augments our critical mass in applied stochastic modeling, including supply chain and inventory models.

Prior to joining Lehigh in July 2025, Prof. Ryan served as the founding Chair of the Department of Supply Chain Management and Analytics in the College of Business at the University of Nebraska–Lincoln, where she also held the Van Horne Family Endowed Chair in Business. Jennifer’s research and teaching interests are in the areas of inventory management, supply chain management and applied stochastic modeling. Her work has appeared in a range of leading journals, including *Management Science*, *Operations Research*, *Manufacturing & Service Operations Management*, *Production and Operations Management*, *Decision Sciences*, and *IISE Transactions*. She is the recipient of several National Science Foundation (NSF) grants, including an NSF CAREER grant. Jennifer has served as the Focused Issue Editor for the Supply Chain and Logistics focused issue of *IISE Transactions*.

It is rewarding to see Jennifer contributing to the consolidation of a strong hub in applied operations research at Lehigh, whose expertise includes that of Professors Alberto J. LaMadrid (COB & ISE) and Lawrence V. Snyder (ISE).

In Jennifer’s words, joining both Business and ISE at Lehigh opens “a great opportunity for collaboration on research and education, particularly related to the application of operations research to address the challenges associated with managing complex systems, such as supply chains”.

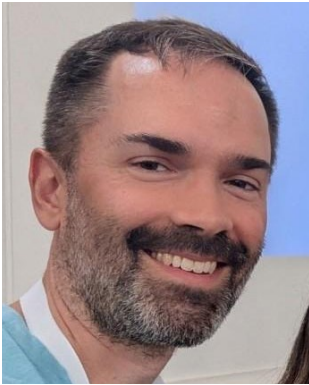
Lehigh ISE faculty publish new book on practical optimization methods



Lehigh University's Department of Industrial and Systems Engineering (ISE) announces the release of *Practical Nonconvex Nonsmooth Optimization*, a new book by ISE faculty members Frank E. Curtis and Daniel P. Robinson. Published by the Society for Industrial and Applied Mathematics (SIAM), the book provides a comprehensive yet accessible treatment of optimization problems involving continuous functions that may be nonconvex, nonsmooth, or both. The softcover volume spans xxvi + 483 pages and is available through **SIAM (ISBN: 978-1-61197-858-2)**. Written with both students and practitioners in mind, the book emphasizes practical relevance while maintaining a strong theoretical foundation.

Practical Nonconvex Nonsmooth Optimization introduces readers to a broad and important class of mathematical optimization problems that arise in modern applications such as control systems, signal processing, and data science. The authors begin with an intuitive discussion of foundational theory, including key properties of nonconvex and nonsmooth functions and fundamental optimality conditions. They then survey some of the most effective algorithms for solving these problems, with an emphasis on methods that are both efficient

(cont.) and implementable in practice. The text focuses on finite-dimensional real-vector spaces, avoiding the need for background in functional analysis, and gradually builds concepts starting from nonconvex smooth optimization. A conversational writing style is used throughout, with detailed proofs placed at the end of each chapter to allow readers to first grasp the core ideas before engaging with technical details.



FRANK E. CURTIS

Frank E. Curtis is a professor at Lehigh ISE. His research centers on the design, analysis, and implementation of numerical methods for solving large-scale nonlinear optimization problems. He has received significant recognition for his contributions, including a DOE Early Career Award, the 2021 SIAM/MOS Lagrange Prize in Continuous Optimization, and the 2018 INFORMS Computing Society Prize. His work has been funded by NSF, DOE, ONR, and ARPA-E, and he has led teams recognized in competitions such as the ARPA-E Grid Optimization Challenge. He is also deeply engaged in the professional community, serving as Area Editor for *Mathematics of Operations Research* and *Mathematical Programming Computation* and as an Associate Editor for leading journals including *Mathematical Programming* and *SIAM Journal on Optimization*.



DANIEL P. ROBINSON

Daniel P. Robinson is also a professor at Lehigh ISE. His research focuses on the theory and practice of nonlinear optimization, with particular emphasis on nonconvex and nonsmooth problems and the development of efficient, reliable algorithms for large-scale applications. He has received notable recognition for his scholarly contributions, including best paper awards at optimization and computational mathematics venues, as well as multiple educational awards. His research has been supported by agencies such as NSF and ONR. Robinson is also highly active in the professional optimization community, serving as an Associate Editor for reputable journals, including *Computational Optimization and Applications*, *Mathematics of Operations Research*, and *Optimization Methods and Software*, and as Area Coordinator for *Optimization Online*, the leading repository of eprints in the optimization community.





AIDA KHAJAVIRAD

Lehigh's Aida Khajavirad wins a \$700K ONR award in partnership with the University of Wisconsin–Madison

Lehigh Industrial and Systems Engineering (ISE) is pleased to announce that Associate Professor **Aida Khajavirad** has been awarded a research grant from the Department of Defense, Office of Naval Research, under the Mathematical and Resource Optimization program. The three-year project titled *Binary polynomial optimization through a hypergraph theoretic lens: theory and algorithms* will run from October 2025 through September 2028. The total award is \$700,000, with \$350,000 allocated to Lehigh University. This is a two-PI collaborative grant submitted in parallel through the two participating universities; the partner PI is Professor Alberto Del Pia of the University of Wisconsin–Madison.

The project tackles the fundamental problem of binary polynomial optimization (BPO), an NP-hard problem with extensive applications in computer science, engineering, and operations research. While quadratic cases are well studied, higher-degree BPO problems remain poorly understood. This research seeks to identify structural conditions, both necessary and sufficient, under which BPO problems can be solved in polynomial time. Building on PI's prior results linking BPO complexity to *hypergraph acyclicity*, the project will develop a new theory that extends beyond acyclic structures to signed hypergraphs that include cycles, characterizing solvable classes through cycle length and type. Additionally, the investigators will study constrained BPO problems by introducing new notions of decomposability and separability, enabling the derivation of polynomial-size linear programming formulations. These theoretical advances will yield strong LP relaxations for general mixed-integer polynomial and nonlinear optimization problems, with applications in binary matrix/tensor factorization, higher-order graphical models, maximum satisfiability, and DoD-relevant domains such as mission planning, command and control, logistics, and cybersecurity.

Professor Aida Khajavirad is an Associate Professor of ISE at Lehigh University whose research advances the theoretical, algorithmic, and computational foundations of Mixed-Integer Nonlinear Optimization (MINLP). In addition, she develops optimization algorithms with performance guarantees for data science and machine learning applications, drawing on tools from convex analysis, integer and combinatorial optimization, and high-dimensional probability. Her contributions have been recognized with major honors such as the INFORMS Optimization Society Young Researchers Prize and the INFORMS Computing Society Prize, and her research has been supported by agencies including the NSF, DOE, AFOSR, and ONR. She also serves as an Associate Editor for *Mathematics of Operations Research*, *Mathematical Programming Computation*, and the *Journal of Global Optimization*.

Aida says “Despite the extensive applications of binary polynomial optimization across science and engineering, many fundamental questions in this area remain open. Over the past twelve years, we have developed a solid foundational framework for analyzing and solving this class of problems. This grant will allow us to significantly advance the state-of-the-art on theory and algorithms for binary polynomial optimization and to broaden its impact by addressing optimization problems of practical importance.”

Two 2026 national doctoral awards won by Lehigh ISE Ph.D. students



**SHARMINE
AKTHER LIZA**

We are extremely pleased to report that Lehigh ISE Ph.D. student **Sharmine Akther Liza** won track 3 of the **"3-Minute Thesis Pitch" Competition**, held at the 24th Annual IISE Doctoral Colloquium, Saturday, May 16, 2026, IISE Annual Conference, Arlington, TX. Sharmine's thesis is titled *"Optimizing Inventories in a Multi-echelon Inventory System"*, and it is being developed under the supervision of Dr. Lawrence V. Snyder, Harvey E. Wagner Professor

of Industrial and Systems Engineering at Lehigh.

The competition rewards doctoral students who demonstrate exceptional ability to communicate the significance and impact of their research in a clear, concise, and engaging three-minute presentation. Participation in this prestigious event provided doctoral students with national visibility and opportunities to engage with leading researchers, faculty members, and industry professionals in the industrial and systems engineering community.



**MAN YIU (TIM)
TSANG**

We are also very pleased to report that Lehigh ISE Ph.D. alumnus **Man Yiu (Tim) Tsang** won a **3rd place at the 2026 Pritsker Doctoral Dissertation Award** of the Institute of Industrial & Systems Engineers. Tim's thesis was titled *"Optimization under Uncertainty: Methodologies and Applications"*, and it was developed under the supervision of Dr. Karmel S. Shehadeh, WiSE Gabilan Assistant Professor of Industrial and Systems Engineering.

Tim is now an assistant professor in the Department of Industrial, Manufacturing, and Systems Engineering (IMSE) at Texas Tech University.

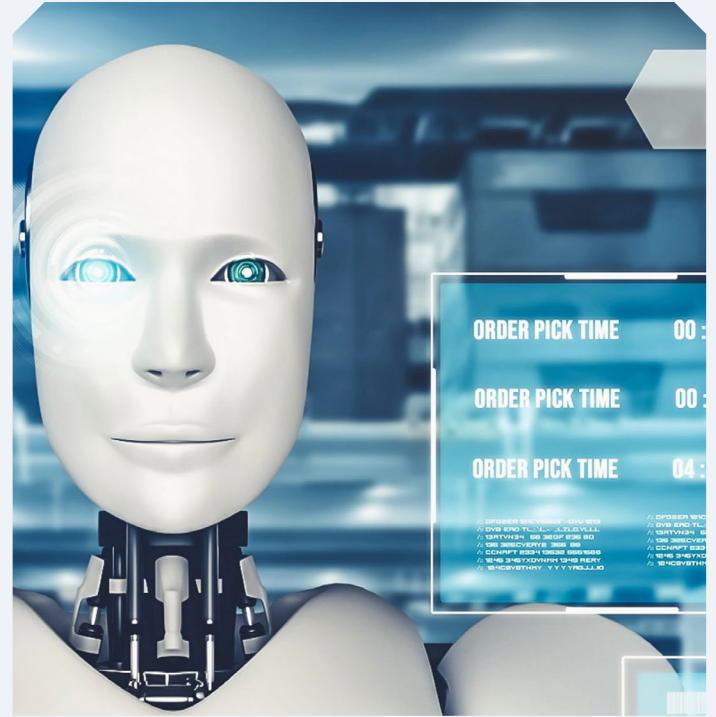
The Pritsker Doctoral Dissertation Award, presented by the Institute of Industrial and Systems Engineers, recognizes exceptional PhD research in industrial and systems engineering. Named after Alan Pritsker, the award honors dissertations with significant academic and practical impact. Candidates are evaluated based on the originality, quality, and contribution of their research. Winners are recognized at the annual IISE conference and gain strong visibility within the research community. The award is considered one of the most prestigious distinctions for doctoral students in the field.

Lehigh ISE debuts new courses harnessing artificial intelligence for industrial engineering and operations research

Lehigh University's Department of Industrial and Systems Engineering (ISE)

is launching two new courses focused on the integration of Artificial Intelligence (AI) into Industrial Engineering (IE) and Operations Research (OR), reinforcing the department's leadership in preparing students and professionals for a rapidly evolving technological landscape. Together, these offerings put practical skills into action with guidance from proven methods, emphasizing impactful and ethical use of AI in complex service and industrial systems. By embedding AI directly into the core of ISE and OR education, Lehigh ISE continues to shape forward-looking curricula aligned with industry needs and societal impact.

The first offering, *Embedding AI in Service Systems and Intelligent Operations*, is a non-credit, university-wide hybrid summer intensive course taught by Assistant Professor Meng Zhao. Designed to close the gap between academic preparation and industry expectations, the program provides hands-on experience with generative AI, optimization engines, and analytics tools in realistic service-system contexts. Through a series of modular Saturday sessions and a culminating industry-focused workshop, students work on projects centered on healthcare and transportation. The course emphasizes ethical AI use, decision support, and automation, equipping participants with practical skills applicable to internships, co-ops, and early professional roles.





Complementing this program is a new summer for-credit course *Artificial Intelligence for Industrial Engineering and Operations Research (ISE 366/466)*, taught by Associate Teaching Professor Charalambos Marangos. This course focuses on the strategic application of modern machine learning AI techniques to complex ISE and OR problems across manufacturing, logistics, and energy systems. Rather than emphasizing foundational algorithms alone, students critically evaluate models, interpret results, and assess ethical implications while working with real-world case studies. Using contemporary software tools and current research literature, the course prepares students to integrate AI responsibly into system design, analysis, and decision-making.



MENG ZHAO

Meng Zhao is a tenure-track faculty member in Lehigh's ISE department whose work centers on high-dimensional analytics, focusing on the development of novel methodology and its application to health and transportation systems. She brings experience in applying analytics and AI tools to real-world service environments and is deeply committed to experiential, interdisciplinary education.

CHARALAMBOS
MARANGOS

Charalambos Marangos, teaching faculty in Lehigh ISE, specializes in industrial and systems engineering projects. His teaching and scholarship emphasize rigorous modeling, critical evaluation of intelligent systems, and the responsible deployment of AI in complex operational settings.

With these two new offerings, Lehigh ISE affirms its position at the forefront of AI-enabled industrial and systems engineering education. By proactively integrating AI into both professional training and core academic coursework, the department is equipping students with the skills, judgment, and adaptability needed to lead in data-driven industries. As AI continues to reshape how systems are designed and operated, Lehigh ISE remains ahead of the curve—setting standards rather than reacting to them.

A Week of Innovation in Optimization: GradOpt, MOPTA, and ColOpt 2026 at Lehigh

Lehigh ISE Optimization Science (LIOS) Program will host a sequence of major international events in August 2026, bringing together students, faculty, industry leaders, and researchers to advance the science and practice of optimization.

These events—the Future Optimization Graduate Student Workshop (GradOpt), the Modeling and Optimization: Theory and Applications Conference (MOPTA 2026), and the Optimization Junior Faculty Colloquium (ColOpt)—will be held consecutively on the Lehigh campus in Bethlehem, creating a dynamic week dedicated to innovation, collaboration, and professional development in optimization science.

Building the Next Generation: GradOpt 2026

The Future Optimization Graduate Student Workshop (GradOpt) will take place on **August 17, 2026**, welcoming undergraduate and master's students considering doctoral study in optimization and related fields.

GradOpt 2026 will host more than 15 outstanding prospective PhD applicants, selected through a competitive process designed to identify highly promising students interested in pursuing advanced research careers in optimization. The workshop provides these future scholars with early exposure to the academic research environment and to the breadth of opportunities available in doctoral education.

GradOpt introduces participants to cutting-edge research and real-world applications of optimization across engineering, data science, finance, artificial intelligence, and beyond. Through faculty presentations, alumni talks, and networking sessions with current doctoral students, attendees gain valuable insights into research opportunities, graduate education, funding options, and career pathways.

Advancing Research Frontiers: MOPTA 2026

Immediately following GradOpt, the **Modeling and Optimization: Theory and Applications (MOPTA 2026)** conference will take place on **August 18–19, 2026**, continuing a long tradition of excellence in optimization research and collaboration.

MOPTA 2026 will feature seven distinguished plenary speakers, representing leading voices in both theoretical and applied optimization. In addition to these high-profile plenary presentations, the conference is expected to include more than 100 contributed technical talks, spanning topics such as continuous optimization, discrete optimization, stochastic optimization, machine learning, data-driven decision-making, and large-scale industrial applications.

(cont.)

The breadth of presentations reflects the growing importance of optimization methods in solving complex problems across industries including energy systems, transportation, supply chains, finance, healthcare, and artificial intelligence. By bringing together leading researchers and practitioners from around the world, MOPTA 2026 will provide a vibrant platform for sharing new ideas, fostering interdisciplinary collaboration, and shaping emerging research directions.

A central highlight of the conference is the **AIMMS–MOPTA Optimization Competition**, organized in collaboration with AIMMS, a global leader in decision optimization technology. This internationally recognized competition challenges teams from academia and industry to develop innovative solutions to complex real-world problems and has become a defining feature of the MOPTA series.

Supporting Early-Career Leaders: ColOpt 2026

Concluding the week, the **Optimization Junior Faculty Colloquium (ColOpt)** will be held on **August 20, 2026**, gathering a select group of nearly 50 talented junior optimization faculty members from institutions across the United States.

ColOpt is designed to strengthen professional networks and research capacity among early-career scholars. Participants will present their research, exchange ideas, and explore collaborative opportunities in an environment tailored to the needs of junior faculty.

The ColOpt 2026 program includes several distinctive features, including:

- A special session on Artificial Intelligence tools for mathematical optimization, highlighting emerging technologies that are transforming how optimization models are developed, analyzed, and deployed.
- A panel session featuring program directors from major funding agencies that support optimization research, offering participants direct insight into funding priorities, proposal strategies, and emerging research opportunities.

These sessions are complemented by interactive discussions focused on career development, interdisciplinary collaboration, and long-term research planning.

A Unified Vision for Optimization Science

Together, GradOpt, MOPTA 2026, and ColOpt form a comprehensive sequence of events that highlights the vitality and growth of optimization science. From training future doctoral students to advancing cutting-edge research and supporting early-career faculty, these events demonstrate the central role of optimization in addressing complex challenges across science, engineering, and industry.

Through initiatives such as these, the LIOS Program at Lehigh University continues to strengthen its leadership role in advancing optimization research, education, and professional development at national and international levels.

SPENCER C. SCHANTZ

lecture series

Lehigh ISE was pleased to have Alejandro Ribeiro, University of Pennsylvania, give a Spencer C. Schantz Technical Talk

ALEJANDRO
RIBEIRO

The Lehigh ISE Department was pleased to announce that **Alejandro Ribeiro**, the Solomon & Sylvia G. Charp Professor of Electrical Engineering, at University of Pennsylvania, gave the **Spencer C. Schantz Technical Talk** titled: "**Learning with Constraints**," on Thursday, April 9, 2026, from 11:00 a.m. – 12:00 p.m. in Mohler Laboratory room 453, 200 West Packer Avenue, Bethlehem, PA.

A luncheon welcoming Professor Ribeiro and celebrating the **graduation of the Lehigh ISE UG and Master's students** (Spring, Summer, and Fall of 2026) was served for faculty and students on the same day, Thursday, April 9, 2026, at Zoellner Arts Center, Butz Lobby (2nd Floor), 420 E. Packer Avenue, Bethlehem, PA 18015 from 12:15 p.m. to 1:45 p.m.

The luncheon provided time for students to mingle with classmates and faculty and proudly acknowledge the culmination of their academic journey before they embark on the next exciting chapter of life.

Please read below to learn more about Professor Ribeiro's lecture and remarkable career.

Abstract: Although most artificial intelligence (AI) systems are designed to minimize losses or maximize rewards, the standard practice of systems design is centered on the specification and satisfaction of requirements. Ignoring requirements results in AI systems that can be brittle, biased, unsafe, or deceptive. The evident solution is to make constraints an integral part of AI systems. In this talk we discuss the incorporation of constraints in supervised, unsupervised, and generative AI systems. Central to our discussion is the investigation of duality properties in these various domains. Duality is the key to unlock statistical generalization results and to develop constrained learning algorithms. We will also introduce innovative uses of constraints in AI systems including everywhere learning – the imposition of constraints on individual samples – and resilient learning – a mechanism for automating constraint specification.

Bio: Alejandro Ribeiro is the Solomon & Sylvia G. Charp Professor of Electrical Engineering at the University of Pennsylvania (Penn). His research focuses on the foundations of AI and its applications to network systems, with seminal contributions to constrained learning, graph signal processing, and graph neural networks, including pioneering uses of GNNs in wireless communications, collaborative robotics, and power grids. His research papers have received numerous awards, and his teaching has been recognized by Penn undergraduates. Professor Ribeiro is an IEEE Fellow, a Penn Fellow, and a Fulbright scholar.

Lehigh ISE Spencer C. Schantz Distinguished Lecture Series:

This lecture series is endowed in the name of the late Spencer C. Schantz, who graduated from Lehigh in 1955 with a B.S. in Industrial Engineering. Following progressive responsibilities with several electrical manufacturing companies, in 1969 he founded U.S. Controls Corporation and became its first CEO and President. The Spencer C. Schantz Distinguished Lecture Series was established by his wife Jerelyn as valuable educational experience for faculty, students, and friends of Lehigh's Industrial and Systems Engineering department.

SPENCER C. SCHANTZ

lecture series

MINGZHOU JIN

Lehigh ISE was honored to have Mingzhou Jin, University of Tennessee, Knoxville, give a Spencer C. Schantz Distinguished Public Lecture

The Lehigh ISE Department was pleased to announce that Professor **Mingzhou Jin**, gave a Spencer C. Schantz Distinguished Public Lecture “**Industrial Engineering for the Design and Improvement of Systems with Societal Significance**” on Thursday, April 23, 2026, from 4:15 p.m. to 5:00 p.m. in Mohler Laboratory room 355, 200 West Packer Avenue, Bethlehem, PA.

The **Lehigh ISE Award Ceremony** honoring ISE students, faculty, and staff followed immediately after the lecture (5:00 p.m. to 5:45 p.m.).

The evening concluded with the **Lehigh ISE Banquet Dinner** held at Zoellner Arts Center, Butz Lobby (2nd Floor) 420 East Packer Avenue, Bethlehem, PA 18015 from 6:15 p.m. to 8:45 p.m.

Please read below to learn more about Professor Jin’s distinguished career.

Abstract: Industrial engineering and operations research can be applied to a wide range of systems with significant societal impact, including logistics and supply chains, manufacturing, energy, building construction, agriculture, healthcare, environmental systems, and scientific discovery enterprises. By leveraging advanced decision-making tools and a systems perspective, these approaches enable the design and improvement of such systems, enhancing their efficiency, resilience, and overall contributions to human well-being. In this talk, Dr. Jin will share insights from his experience in applying industrial and systems engineering across diverse domains, as well as his leadership in large-scale, convergent research initiatives.

Bio: Mingzhou Jin is the John D. Tickle Professor and department head of Industrial and Systems Engineering at the University of Tennessee, Knoxville (UTK). He also directs the Institute for a Secure and Sustainable Environment in UTK. He investigates sustainability, supply chain, logistics & manufacturing, building environment & energy efficiency, and transportation systems. His research has been published in the top journals in the field and has been awarded more than \$30 million in grants and contracts from numerous federal and local government agencies and corporations. He is a fellow of the Institute of Industrial and Systems Engineers. He is the current Editor-in-Chief of the journals *Engineering Economist* and *Cleaner and Circular Bioeconomy*. He won several UTK awards. He received his Ph.D. from Lehigh University in 2001.

Lehigh ISE Spencer C. Schantz Distinguished Lecture Series:

This lecture series is endowed in the name of the late Spencer C. Schantz, who graduated from Lehigh in 1955 with a B.S. in Industrial Engineering. Following progressive responsibilities with several electrical manufacturing companies, in 1969 he founded U.S. Controls Corporation and became its first CEO and President. The Spencer C. Schantz Distinguished Lecture Series was established by his wife Jerelyn as valuable educational experience for faculty, students, and friends of Lehigh’s Industrial and Systems Engineering department.

ISE Seminar Series

In Spring 2026, our Seminar Series welcomed an incredible lineup of scholars who shared their pioneering research with the Lehigh ISE faculty and students.

SPRING 2026

TUESDAY, APRIL 21, 2026

Dr. Lin Xiao, Meta

"Quantization through Piecewise-Affine Regularization"

TUESDAY, APRIL 14, 2026

Dr. Sam Burer, University of Iowa

"On the Semidefinite Representability of Continuous Quadratic Submodular Minimization with Application to Moment Problems"

TUESDAY, APRIL 7, 2026

Dr. Akil Narayan, University of Utah

"Certifiable operator learning from data: Building approximations to PDE solution maps"

TUESDAY, MARCH 24, 2026

INFORMS Chapter Distinguished Speaker Series -

Dr. Pascal Van Hentenryck, Georgia Tech

"AI for Engineering Optimization"

TUESDAY, MARCH 17, 2026

Dr. Tamás Koltai, BME

"A MILP Model for Minimizing Makespan in Simple Assembly Lines with Worker Learning Effects"

TUESDAY, MARCH 3, 2026

Dr. Satyen Kale, Apple

"Stacking for faster pre-training of LLMs"

TUESDAY, FEBRUARY 3, 2026

Dr. Jennifer K. Ryan, Lehigh University

"Dynamic Resource Sharing in Private 5G Networks with Slicing"

TUESDAY, JANUARY 20, 2026

Dr. Stefano Coniglio, University of Bergamo

"Spectral Learning on Directed Graphs and Hypergraphs via More Expressive Laplacian Matrices"



2026 Rossin Stout Dissertation Award

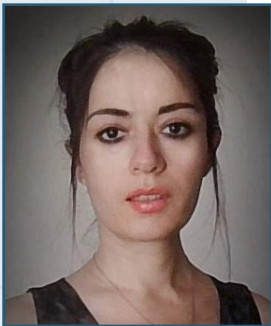


MAN YIU (TIM)
TSANG

Lehigh ISE Ph.D. student **Man Yiu (Tim) Tsang** has won the **2026 P.C. Rossin College of Engineering and Applied Science Elizabeth V. Stout Dissertation Award**. The title of Tim's thesis was "*Optimization under Uncertainty: Methodologies and Applications*", developed under the supervision of Dr. Karmel S. Shehadeh. Tim is now an assistant professor in the Department of Industrial, Manufacturing, and Systems Engineering (IMSE) at Texas Tech University.

His dissertation introduced innovative uncertainty modeling frameworks, decomposition algorithms, and stochastic and (distributionally) robust optimization approaches for modeling and solving emerging real-world problems in healthcare. Congratulations, Tim!

2026 Rossin Excellence in Research Scholarship & Leadership Award



AIDA
KHAJAVIRAD

ISE Associate Professor **Aida Khajavirad** has won the **2026 Rossin Excellence in Research Scholarship & Leadership Award**, which recognizes a Rossin College faculty member who has demonstrated outstanding scholarship and is considered to be a prominent research leader in their field.

Aida works in mathematical optimization and is internationally recognized as a leading scholar in the field of mixed-integer nonlinear optimization. Her research is consistently featured in top-tier optimization journals and conferences and attracts substantial support from governmental funding agencies. Congratulations, Aida!

2026 Rossin Experiential Learning Excellence Award



ANA-IULIA
ALEXANDRESCU-
ANSELM

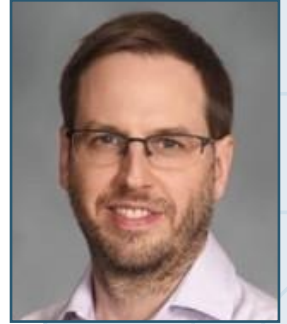
ISE Professor of Practice **Ana-Iulia Alexandrescu-Anselm** has won the **2026 Rossin Experiential Learning Excellence Award**, which recognizes a Rossin College faculty member who champions experiential learning activities, whether through innovative class projects, serving as a team mentor, or engaging undergraduate students in research.

Ana-Iulia has worked creatively and tirelessly to advise hundreds of students on applied projects in the Health Systems Engineering and ISE Outreach programs she directed, enabling them to understand and address real-world problems. Congratulations, Ana!

2026 Rossin Outstanding Doctoral Student Advising Award

ISE Professor **Daniel P. Robinson** has won the **2026 Rossin Outstanding Doctoral Student Advising Award**, which recognizes a Rossin College faculty member who demonstrates tireless commitment to engineering education at the doctoral level.

As shared by a student at the ceremony: *“During a challenging period in my Ph.D., Professor Robinson restored my confidence through insightful encouragement grounded in deep understanding of my work. His mentorship combines intellectual rigor with genuine care, empowering students to recognize their potential and grow as researchers and individuals.”* Congratulations, Daniel!

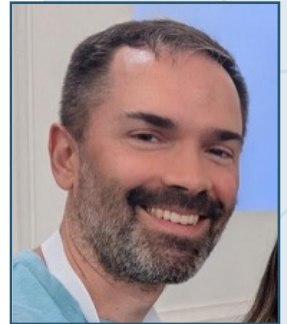


**DANIEL P.
ROBINSON**

2026 Rossin Community Builder Award

ISE Professor **Frank E. Curtis** has won the **2026 Rossin Community Builder Award**, which recognizes a Rossin College faculty member who actively cultivates a strong and connected community within the college and their department.

Frank has been an outstanding mentor to our junior faculty, an exceptionally dedicated director of our Ph.D. Program, and a generous and engaged citizen of the department. Congratulations, Frank!



**FRANK E.
CURTIS**

2026 Rossin Excellence in Undergraduate Student Support Award

ISE Undergraduate Coordinator **Sheila Dorney** has won the **2026 Rossin Excellence in Undergraduate Student Support Award**, which recognizes a Rossin College staff member who is committed to providing outstanding support and guidance to our undergraduate students.

Sheila is an exceptional undergraduate student support coordinator, deeply engaged in student professional development. She organizes awards, mentoring, student councils, career fairs, alumni engagement, and departmental events, while fostering a welcoming environment that students deeply appreciate. Congratulations, Sheila!



**SHEILA
DORNEY**

2026 Lehigh ISE Distinguished Alumni Award



MINGZHOU
JIN

Mingzhou Jin is the recipient of the **2026 Lehigh ISE Distinguished Alumni Award in Academia**. Dr Mingzhou Jin is the John D. Tickle Professor and head of Industrial and Systems Engineering at the University of Tennessee, Knoxville (UTK).

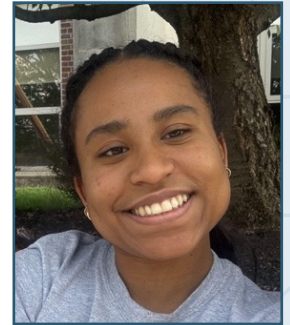
Mingzhou is the John D. Tickle Professor and department head of Industrial and Systems Engineering at the University of Tennessee, Knoxville (UTK). He also directs the Institute for a Secure and Sustainable Environment, ISSE for UTK, and is the PI for the Center for Freight Transportation for Efficient & Resilient Supply Chain (FERSC), a \$10M DOT/UTC tier-1 center. He also co-leads a new \$20M initiative at UTK and Oak Ridge National Lab for advanced manufacturing for affordable building construction. His research interests include operations research, sustainability, supply chain, logistics, building environment, additive and smart manufacturing, energy efficiency, transportation, and data analytics. His research has been well sponsored, with over \$30 million in grants and contracts from many federal and local government agencies and corporations. He has published more than 130 journal papers.

His recent work appeared in *Nature*, *Nature Communications*, *Nature Climate Change*, *Production and Operations Management*, *INFORMS Journal on Computing*, *Mathematical Programming Computation*, *IIE Transactions*, and other top journals. He won the 2024 and 2021 UTK Success in Multidisciplinary Research Award, UTK Research and Creative Achievement Award, Tickle College of Engineering Research Achievement Award, Outstanding Faculty Service Award, and Teaching Fellow Award. He is a fellow of the Institute of Industrial and Systems Engineers. Currently, he is the Editor-in-Chief of the *Engineering Economist*, the Editor-in-Chief of *Cleaner and Circular Bioeconomy*, and the Executive Editor of the *Journal of Cleaner Production*. He received his Ph.D. from Lehigh University in 2001. Congratulations, Mingzhou!

2026 Lawrence E. White Fellowship

Helen Gervacio is the recipient of the **2026 Lawrence E. White Fellowship** for a Master of Science at Lehigh's ISE Department. This fellowship is made available through the generosity of Lehigh ISE alumnus Lawrence E. White ('64, '65, '69) for a full tuition towards 30 credits of master's degree study.

Helen is a Computer Science student at East Stroudsburg University, graduating in May 2026 with a certification in Data Science. She is a member of the National Science Foundation-funded Clear Path Program. She has held internships with ArtsQuest in database management and with Mack Trucks in IT & Digitalization, where she applied data analytics skills to improve business operations. Helen aspires to pursue a career where she can use technology and data to drive innovation and efficiency. She is grateful to be selected for the ISE Fellowship Award. Congratulations, Helen!



**HELEN
GERVACIO**

2026 Van Hoesen Family Best Publication Competition

Lingjun Guo is the Award Winner of the **2026 Van Hoesen Family Best Publication Competition**. This award inspires students to publish influential research, software tools, and applications, and was made available through a generous gift of Everett Van Hoesen '55.

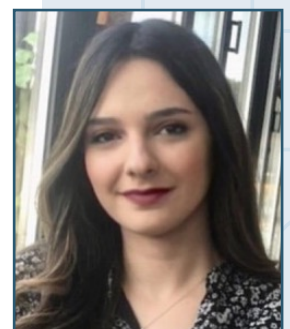
Lingjun will receive a \$1,500 monetary prize for his paper titled "*Progressively Sampled Equality-Constrained Optimization*" co-authored with Professors Frank E. Curtis and Daniel P. Robinson. Lingjun is a third year PhD student in ISE. Congratulations, Lingjun!



**LINGJUN
GUAO**

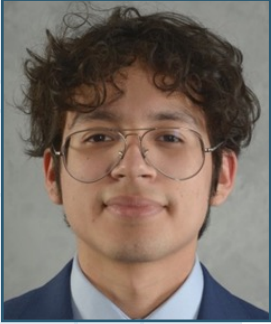
Lara Zebiane received a **Van Hoesen Family Best Publication Competition Honorable Mention** for her paper titled "*Active-Set Identification in Noisy and Stochastic Optimization*," co-authored with Professors Frank E. Curtis and Daniel P. Robinson.

Lara is a third year PhD student in ISE. Congratulations, Lara!



**LARA
ZEBIANE**

2026 Lehigh ISE Community and Culture Award



**NATHAN
BALDERAS**

The Culture and Community Award recognize members of the Lehigh ISE Community who actively cultivate a strong and connected community within the ISE department and beyond. Deserving nominees bring people together, create meaningful engagement opportunities, and inspire a culture of support and shared purpose. Through their efforts—such as mentoring, organizing initiatives that enhance connection, and championing a welcoming environment—they help shape a vibrant and engaged academic community. Our 2026 awardee is:

Nathan Balderas (IBE: ISE and Finance) Nathan has demonstrated exceptional dedication, initiative, and generosity in advancing the Lehigh ISE Outreach Program since Fall 2025. He has played a key role in strengthening alumni engagement by enhancing the ISE Alumni webpage, identifying distinguished alumni candidates, and proactively building connections through extensive outreach. Nathan consistently goes above and beyond expectations—from sourcing advisory council prospects and revitalizing the department’s LinkedIn presence to rapidly supporting program needs with thoughtful, thorough work. His enthusiasm, humility, and unwavering commitment to fostering a strong and connected ISE community make him highly deserving of the Lehigh ISE Community and Culture Award. Congratulations, Nathan!

MIT Supply Chain Excellence Award

Each year MIT presents its Supply Chain Excellence Award to outstanding graduating seniors from Lehigh. The awards recognize students’ potential for leadership in supply chain management and provide tuition scholarships to the MIT Supply Chain Management Master’s Program after a minimum of two years’ work experience in the supply chain sector. Winners were selected based on personal statements and on their academic excellence at Lehigh.

This year Lehigh ISE seniors **Katrina Bui** and **Lucas Koranda** were recognized as the 2026 MIT Supply Chain Excellence Winners. Congratulations, Katrina and Lucas!



KATRINA BUI



LUCAS KORANDA

2026 Lehigh ISE Student, Staff, and Faculty of the Year Awards

Lehigh ISE is honored to announce the following awards in recognition and appreciation of students, staff, and faculty, for their achievements throughout the 2025-2026 academic year. The department congratulates these students and faculty and thanks them for their contributions and dedication to the Lehigh ISE Department.

- Industrial and Systems Engineering Sophomore of the Year: **Charlotte Witmer-Rich**
- IBE Industrial and Systems Engineering Sophomore of the Year: **Juan Diego Cisneros**
- IBE Financial Engineering Sophomore of the Year: **Ben Andresen**
- Industrial and Systems Engineering Junior of the Year: **Emma Tsujimoto**
- IBE Industrial and Systems Engineering Junior of the Year: **Dylan Ferguson**
- IBE Financial Engineering Junior of the Year: **Derek Walasavage**
- Industrial and Systems Engineering Senior of the Year: **Olivia Newman**
- IBE Industrial and Systems Engineering Senior of the Year: **Ruhi Tawde**
- IBE Financial Engineering Senior of the Year: **Akanksha Gavade**
- Industrial Engineering and Operations Research Master's Student of the Year: **Barbara Perevalov**
- Health Systems Engineering Master's Student of the Year: **Lisa Flores**
- Financial Engineering Master's Student of the Year: **Nate Songstad**
- Industrial and Systems Engineering Ph.D. Student of the Year: **Pouya Sampourmahani**
- Staff Member of the Biennium: **Mike MacDougall**
- Undergraduate Faculty Member of the Year: **Professor Rafael Paredes**
- Master's Faculty Member of the Year: **Professor Eugene Perevalov**
- Ph.D. Faculty Member of the Year: **Professor Tamás Terlaky**

DEGREES AWARDED SPRING 2026

M.S. HEALTH SYSTEMS ENGINEERING

- Adam Combs
- Casey Talamini-Kelemen
- Kudakwashe Mundove
- Shiyu Wang

M.S. FINANCIAL ENGINEERING

- Kshitij Bhandari
- Prince Owusu-Ansah
- Nijja Douglas
- Nick Paddock
- Casey Hackett
- Tyler Rodabaugh
- Caleb Johnson
- Estifanos Shekour
- Rishabh Kumar
- Nicholas Wagner
- Yang Liu
- Coby Walmsley
- Tanyaradzwa Masunga
- Zhenyan Zhang

M.S. INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

- Milonee Parekh
- Jundong Zhang

M.S. INDUSTRIAL AND SYSTEMS ENGINEERING

- Yash Bhor
- Prem Milind Sadre

M. ENG. INDUSTRIAL AND SYSTEMS ENGINEERING

- Owne Meng Ou
- Jash Prashant Parikh

M.S. OPTIMIZATION

- Ken Wu

B.S. INTEGRATED BUSINESS AND ENGINEERING HONORS PROGRAM (ISE MAJOR)

- Asaf Dvir
- Yingi Ma
- Axel Ekberg
- Victoria Swider

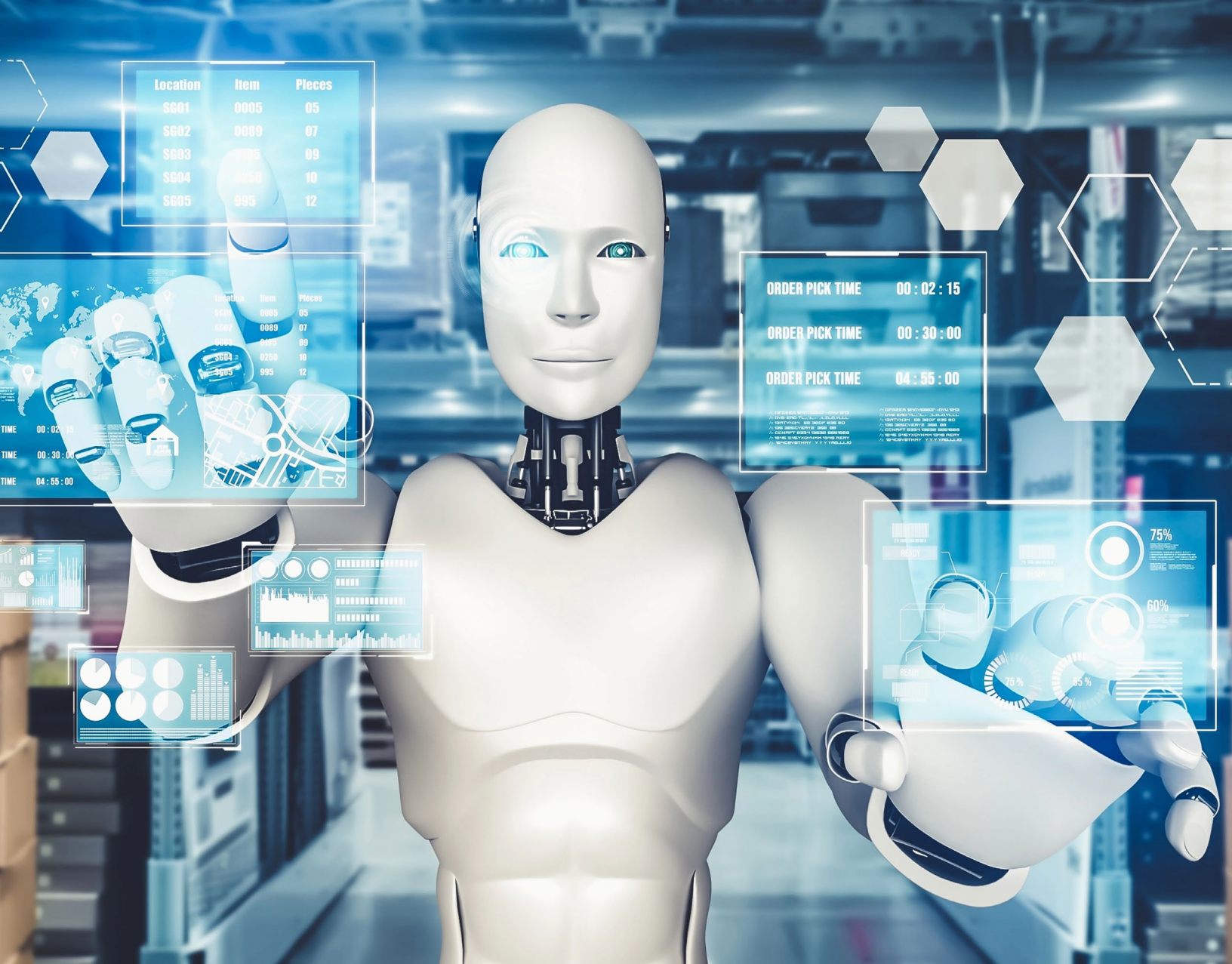
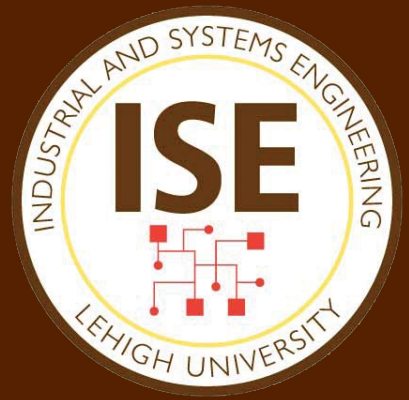
B.S. INTEGRATED BUSINESS AND ENGINEERING HONORS PROGRAM (FINANCIAL ENGINEERING MAJOR)

- Ryan Crookham
- Brandon Harness
- Akanksha Gavade
- Tim Isola
- Hanna Gordon
- Smritha Srinivasan
- Darin Gulibon

B.S. INDUSTRIAL AND SYSTEMS ENGINEERING

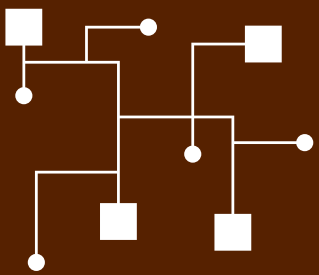
- Thacksheel Alleck
- Jessica McCurry
- Caroline Arnold
- Connor McDowell
- Emily Bramah
- Reed Miller
- Katrina Bui
- Simba Mucharemba
- Tom Burke
- Jacob Nail
- Leo Carle
- Olivia Newman
- Jack Cao
- Sydney Parlett
- Cara Chiappinelli
- Hayley Pham
- Tinotenda Chibvuri
- Jason Roberts
- Aidan Cochran
- Conor Ryan
- Timi Dansalami
- Maggie Sena
- Zoe Day
- Sandeep Singh
- Matthew DeCerbo
- Smritha Srinivasan
- Julia Dzurenko
- Victoria Swider
- Jessica Fiske
- Ruhi Tawde
- Akanksha Gavade
- Sophia Verbic
- Brandon Harness
- Ryan Visich
- Chris Highman
- Zaylin Wang
- Aidan Judd
- Jane White
- Sophie Lin





Location	Item	Pieces
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S603	0495	09
S604	0750	10
S605	995	12

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ORDER PICK TIME	00 : 30 : 00
ORDER PICK TIME	04 : 55 : 00




LEHIGH UNIVERSITY | P.C. Rossin College of Engineering and Applied Science

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