INDUSTRIAL AND SYSTEMS ENGINEERING

FALL NEWSLETTER 2024

Lehigh ISE Launched iMopta!

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

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READER FEEDBACK:

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skd220@lehigh.edu

Dear Lehigh ISE Community,

As the crisp air and vibrant colors of fall settle over Lehigh's beautiful campus, we welcome you to this edition of the Lehigh Industrial and Systems Engineering (ISE) newsletter.

Autumn at Lehigh is a time of change and growth, much like the exciting developments happening in our department. I'm thrilled to share some of the highlights with you.

In this issue, we celebrate Professor Karmel S. Shehadeh, who has recently accepted editorial positions at three prestigious international journals. This achievement is a testament to her expertise and contributions to the field, making us incredibly proud.

We also feature two research grants awarded by the Office of Naval Research to our esteemed faculty. Professors Curtis, Robinson, and Nunes Vicente are at the forefront of optimization research, working on groundbreaking projects that will shape the future of data-driven and derivative-free methodologies.

Our students continue to make us proud, with Adrian Harkness and his team claiming first prize at the Yale Quantum Hackathon, and Man Yiu (Tim) Tsang winning second place at the YinzOR Flash Talk Competition. Their success is a true reflection of the excellence and innovation fostered in our department.

We are excited to announce the redesign of our master's programs, now offering an enhanced Industrial Engineering and Operations Research (IEOR) program, a unique Master's in Optimization, and a revamped Health Systems Engineering (HSE) program. These programs are tailored to meet the evolving demands of industry, business, and healthcare.

This year's MOPTA conference was another resounding success, bringing together over 140 participants. We also launched the inaugural iMOPTA workshop, promoting collaboration between academia and leading industry innovators in energy and sustainability.

The Lehigh ISE Career Fair 2024 provided an exceptional opportunity for students to connect with industry leaders, while our celebration of 100 years of Industrial Engineering at Lehigh marks a significant milestone in our history. We look forward to commemorating this century-long journey with our community.

Finally, we were honored to host Professor José Blanchet from Stanford University for the Spencer C. Schantz Distinguished Lecture, which enriched our academic discourse as part of MOPTA 2024.

As we enjoy the beauty of fall, I wish everyone in the Lehigh ISE community a season filled with inspiration and achievement. Thank you for being a part of our journey, and we look forward to an exciting rest of the year together.

Warm regards,

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

ISE FACULTY & STAFF NEWS

news

Lehigh ISE hires Dr. Charalambos Marangos as Associate Teaching Professor

CHARALAMBOS MARANGOS

The Department of Industrial and Systems Engineering (ISE) at Lehigh University is pleased to announce **Dr. Charalambos Marangos** has been hired as Associate Teaching Professor, as the result of a competitive national and international teaching faculty search opened in January 2024. He has started his term July 1, 2024, preparing for a busy Fall 2024 semester.

Dr. Marangos earned his PhD in Industrial Engineering from Lehigh in 2003. Dr. Marangos has worked internationally as a project engineer in continuous manufacturing for the pharmaceutical, the petrochemical, and aluminum recycling industries. Additionally, he has spent two decades as an industry consultant, specializing in projects related to manufacturing, information systems, and operations research. He brings valuable insights from these experiences into the classroom.

As a senior fellow in Lehigh's Enterprise Systems Center, he has served as a project mentor for students in the ISE department's capstone course, bridging the gap between industry and academia to ensure that the experiences the students are having are both professionally rewarding and intellectually enriching. In the past, he has served as the Associate Director of the NSF funded Center for Engineering Logistics and Distribution (CELDi) at Lehigh. He also brings to Lehigh ISE a vast teaching experience as an adjunct faculty since 2007.

Dr. Marangos is fully committed to the educational mission and community spirit of Lehigh ISE and says "As a Lehigh alum, it feels great to return to both Lehigh and the ISE department as a faculty member! My passion for industrial engineering was sparked by the ISE faculty and the opportunity to solve industry problems as an undergraduate, where I could see classroom concepts applied in real-time. Now, as a professor, I hope to inspire current students in the same way—showing them how the theories we study in class translate into solving real-world industry challenges through data analytics and systems optimization."

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ISE FACULTY & STAFF NEWS

news

KARMEL S. SHEHADEH

Lehigh ISE faculty member Karmel S. Shehadeh emerges as an editor of leading international journals

Dr. Karmel S. Shehadeh is a faculty member at Lehigh University's Department of Industrial Systems and Engineering (ISE). She has recently accepted three editorial positions at distinguished international journals. Lehigh ISE is pleased to announce this remarkable accomplishment of Karmel's recognition as a researcher and reviewer at the highest level in her early career years, since having joined Lehigh ISE as an assistant professor four years ago.

In 2023, Prof. Shehadeh was first invited to join the Early Career Editorial Advisory Board of **Transportation Research Part C: Emerging Technologies**.

This year, Professor Shehadeh was invited to become **Associate Editor (AE)** of two other reputable international journals, a position typically given to leaders in their research topics. She is now an AE for the **INFORMS Journal on Computing**, in the area of Computational Modeling: Methods & Analysis, and an AE for the journal **Transportation Science**, in the area of Logistics and Routing.

Karmel's research expertise and interests include optimization under uncertainty and (mixed) integer programming. Her primary application areas and expertise are in healthcare operations and analytics, facility location, transportation systems, and fair decision-making. In recognition of her service to the community, Professor Shehadeh was elected as Vice President (2023-2024)/President Elect (2024-2025) of the INFORMS Junior Faculty Interest Group (JFIG). More recently, Professor Shehadeh was elected Executive Vice President (and hence future President) for the INFORMS Section on Location Analysis (SOLA) 2024-2025.

Dr. Shehadeh is shaping the future of research publication and making it happen at Lehigh ISE!

research grants

FRANK E. CURTIS

DANIEL P. ROBINSON

LUIS NUNES VICENTE

Office of Naval Research awards more than $1M to Lehigh ISE

The Mathematical and Resource Optimization program of the Office of Naval Research (ONR) recently awarded two grants to Lehigh Industrial and Systems Engineering (ISE) faculty for a total over $1M.

Lehigh ISE Professor **Frank E. Curtis** and Associate Professor **Daniel P. Robinson** were awarded a three-year $621K grant from ONR for their project entitled "Stochastic Algorithms for Data-Driven Constrained Continuous Optimization." The project will contribute to cutting-edge research in the field of optimization methods for machine learning and data science applications. In particular, the project focuses on optimization algorithms for informed learning, where prior information about a system or process can be incorporated in the learning process rather than rely on purely data-driven techniques. Curtis and Robinson will leverage their renowned expertise on constrained optimization algorithms.

Curtis says: "We are extremely grateful to ONR for the support through this grant, which will enable us to significantly advance the role of state-of-the-art mathematical optimization techniques in modern data science applications." Robinson affirms: "Machine learning and artificial intelligence will continue to play an increasing role in defense operations, such as for motion tracking systems and the operation of autonomous vehicles. We're thankful for this support from ONR for our work, which will provide foundational advances for long-term impact."

Lehigh ISE Timothy J. Wilmott Endowed Chair Professor and Department Chair **Luis Nunes Vicente** was awarded a three-year ONR $542K grant as PI, titled "New Sampling and Descent Paradigms for Stochastic Black-Box Optimization". This project aims to develop state-of-the-art stochastic methodologies and rigorous theoretical analyses to expand the knowledge of derivative-free optimization in several innovative directions. A new tail bound condition for function estimation is introduced which allows for a substantial improvement in the required sample sizes. Another key contribution is the combination of sequential and adaptive sampling in each iteration of an algorithm, which allows the algorithm to make significant progress before the adaptive budgets are exhausted.

Nunes Vicente says: I am grateful to ONR to support research in such an exciting topic. Derivative-free optimization finds practical application in many defense problems involving control and learning. Practical settings involve expensive function simulations where efficiently adapting the sample sizes becomes crucial.

Lehigh ISE PhD Student, Adrienne Harkness and team wins First Place at Yale Y Quantum 2024 Hackathon

In order, from left: *Dmitrii Khitrin, Duke University, Caden Kacmarynski, Case Western University, David Nizovsky, Vanderbilt University, Xavier Moskala, Case Western University,* ***Adrienne Harkness, Lehigh University***

Congratulations to Lehigh ISE Quantum Optimization PhD student, Adrian Harkness and his team Caden Kacmarynski, Xavier Moskala, Dmitrii Khitrin, and David Nizovsky for winning 1st place at the Yale Quantum Institute Y Quantum 24, held April 13-14, 2024! The first edition of this event attracted 300 registrants from 10 countries, representing 32 universities around the world. 36 teams worked on real world challenges set by industry sponsors. The hackathon offered workshops, lab tours, and networking opportunities among the Quantum Science community.

CERTIFICATE OF ACHIEVEMENT

This certificates that

Man Yiu Tsang

has been awarded

SECOND PLACE

in the 2024 YinzOR Student Conference
Flash Talk Competition
August 23rd, 2024

Fatma Kılınç-Karzan
Associate Professor of Operations Research
Frank A. and Helen E. Rich Faculty Development Chair
CMU INFORMS Faculty Advisor

Lehigh ISE PhD student, Man Yiu (Tim) Tsang won second place in the YinzOR Flash Talk Competition

Congratulations to Lehigh ISE PhD student, Man Yiu (Tim) Tsang for winning second place in the YinzOR Flash Talk Competition at Carnegie Mellon University for his talk: On the Trade-Off Between Distributional Belief and Ambiguity: Conservatism, Finite-Sample Guarantees, and Asymptotic Properties. Tim's advisor is ISE Professor, Karmel S. Shehadeh.

Lehigh ISE redesigns its master's programs, creating a novel programing optimization

The Department of Industrial and Systems Engineering (ISE) of Lehigh University is now offering a new redesigned master's program portfolio. We will continue to offer a core master's program, renamed Industrial Engineering and Operations Research (IEOR), for which new courses on organizational excellence, project management, and uncertainty systems are offered. The IEOR Program equips graduates with the skills to excel in their chosen fields while meeting the demands of industry, business, and government. With a strong foundation in essential tools and practices, graduates are prepared to make meaningful contributions to society and pursue lifelong learning.

A new (and unique in the country) Master's Program in Optimization is tailored for aspiring professionals aiming to make an impact in research across educational, governmental, or industrial sectors. Our graduates emerge with deep expertise in designing, analyzing, and implementing cutting-edge optimization algorithms—skills that are in high demand across engineering and data science fields. They unlock their potential and solve real-world problems with advanced tools and techniques that drive innovation.

The reshaped Master's Program in Health Systems Engineering (HSE) is designed to produce leaders equipped with cutting-edge industrial and systems engineering expertise, paired with a deep understanding of health systems and processes. Our graduates will be uniquely positioned for high-impact management roles, driving quality improvements, streamlining operations, and boosting efficiency in healthcare environments. This degree also empowers graduates with the tools to shape the future of health analytics in health organizations and healthcare firms.

All three programs offer a Master of Science degree and require the completion of 30-credit hours of coursework. Most full-time students can complete the program in 12 months (Summer-Fall-Spring), or in 18 months (Fall-Spring-Fall) to allow for a summer internship. The programs can be taken both in-person and remote/online. Students can engage in industry projects in our **Enterprise Systems Center**.

Professor Daniel P. Robinson, our MS Program Director says "I am very excited about the redesign of our master's programs! The changes to the programs will ensure that our students continue to get a first-rate education in the modern world, while also providing the flexibility necessary for each student to design an individualized program to meet their needs".

More information is available from our website

MOPTA 2024 welcomed over 140 researchers in optimization: Another successful edition of Lehigh ISE's flagship conference

The Industrial and System Engineering (ISE) Department at Lehigh University hosted the 24th edition of **Modeling and Optimization: Theory and Applications** (MOPTA) Conference from August 14 through August 16, 2024. **MOPTA 2024** gathered over 140 participants on Lehigh campus. The conference program included 7 plenary talks from leaders in the field (including a Spencer C. Schantz lecture), 28 parallel sessions with 86 talks, a tutorial session on quantum computing, a poster session, the **16th AIMMS-MOPTA Optimization Modeling Competition**, and the f**irst edition of the iMOPTA workshop**. Alongside the scientific sessions, attendees had the chance to network and build new connections at the student social and conference banquet.

José Blanchet (Stanford University) inaugurated the conference with the Spencer C. Schantz Lecture. Additional distinguished plenary talks were delivered by Miguel F. Anjos (University of Edinburgh), Harbir Antil (George Mason University), Carleton Coffrin (Los Alamos National Laboratory), Dorit S. Hochbaum (University of California, Berkeley), Pinar Keskinocak (Georgia Tech), and Madeleine Udell (Stanford University). The talks spanned a diverse range of topics, from data science and machine learning to quantum computing and applied operations research.

Among the various sponsors, MOPTA conferences receive the majority of the financial and administrative support from Lehigh ISE. Founded by Lehigh ISE faculty member Tamás Terlaky, MOPTA has been organized and hosted by Lehigh ISE since 2009. MOPTA 2024 was chaired by Tommaso Giovannelli, former postdoctoral researcher at Lehigh ISE. The AIMMS-MOPTA Competition was chaired by Xiu Yang, Lehigh ISE faculty member. This year's problem was: "Would a Fully Renewable Energy Grid benefit from adding Green Hydrogen as a Supplemental Power Source?" and it saw participation from 16 teams worldwide. The inaugural edition of iMOPTA, focused on energy and sustainability, was chaired by Alberto J. Lamadrid, Lehigh COB and ISE faculty member.

Lehigh ISE is proud to host such a successful annual event, which has become a renowned conference where attendees can learn about the latest advancements in optimization and its applications.

Lehigh ISE launched iMOPTA to promote collaboration with leading industry innovators on energy and sustainability

The Industrial and System Engineering (ISE) Department at Lehigh University hosted the inaugural edition of the **Industrial Modeling and Optimization: Theory and Applications** (iMOPTA) workshop on August 16, 2024. This new half-day workshop was a satellite event of the annual Lehigh ISE flagship conference, Modeling and Optimization: Theory and Applications (MOPTA 2024).

iMOPTA took place in the new Lehigh's BIB building on August 16, 2024, focusing on energy and sustainability. Organized by Lehigh COB and ISE faculty member, Professor Alberto J. Lamadrid, iMOPTA saw participation from a number of leading companies in the sector, including Air Products, DERNetSoft, Exxon Mobil, EPRI, and PPL. The event provided a forum to present needs from industry partners, with representatives discussing industrial innovation and its connections to academic research. As part of the iMOPTA workshop and before the MOPTA 2024 conference banquet, three high-school students from California presented industry-oriented research projects during the poster session.

Energy and sustainability are among the most pressing global challenges today, as the world faces the urgent need to transition toward cleaner, more efficient, and resilient energy systems. Reflecting the importance of this issue, energy and sustainability was the theme of the 16th AIMMS-MOPTA Competition, chaired by Lehigh ISE faculty member Xiu Yang, which featured 16 teams from around the world. This year's problem was: "Would a Fully Renewable Energy Grid benefit from adding Green Hydrogen as a Supplemental Power Source?"

Lehigh ISE is proud to have hosted the inaugural edition of the iMOPTA workshop, which successfully provided a platform for attendees to engage with and learn from leading industry innovators.

Lehigh ISE Career Fair 2024: A successful networking event

Lehigh University's Industrial and Systems Engineering (ISE) Department hosted its annual Career Fair on Wednesday, September 18, 2024, from 4:30 to 6:30 p.m. in Mohler Lab, MO 355. The event was a resounding success, attracting around 110 registered students, along with a notable number of walk-ins who eagerly joined to connect with industry leaders and explore the value of a Lehigh ISE degree.

This year's career fair featured prominent companies such as B. Braun, BD, Air Products, Lutron, EY, Axtria, Optamo, and Gore. These companies, representing a diverse range of industries, provided students with excellent opportunities for direct conversations, enabling them to explore job and internship openings while showcasing their skills in a supportive and engaging setting.

The welcoming environment of Mohler Lab fostered meaningful interactions, allowing students to network comfortably with potential employers. Many of the company representatives were Lehigh alumni, enhancing the experience by sharing their career paths and insights with current students.

Lehigh ISE faculty members were actively involved in the event, including Professor **Ana I. Alexandrescu**, Director of the Lehigh ISE Outreach Program, and Professor **Daniel P. Robinson**, MS Program Director at Lehigh ISE. Their presence provided valuable insights and guidance to students exploring graduate study options.

The career fair was brilliantly organized by **Harshitha Bhagaje**, a committed Lehigh ISE Master's student, under the guidance of Professor **Luis Nunes Vicente**, Department Chair. Their combined efforts, along with the support of ISE staff members Sheila Dorney and Mark Motsko, ensured the event's success. Special thanks go to our student helpers, who played a crucial role in facilitating the smooth running of the event.

We look forward to welcoming even more companies and students to next year's ISE Career Fair as we continue to build and strengthen our industry connections, providing our students with exceptional opportunities to launch their careers.

Thank you to everyone who contributed to the success of this year's event!

LEHIGH ISE IS CELEBRATING 100 YEARS

Please join us in celebrating Lehigh ISE 100!

In the academic year 2024/2025 we will accomplish 100 years of Industrial Engineering at Lehigh. Yes, we started offering our first undergraduate program in Industrial Engineering a century ago!

Please join us celebrating Lehigh ISE 100!

We are making available a number of great sponsoring We are making available a number of great sponsoring opportunities for the many events offered on the occasion of Lehigh ISE 100. These opportunities are open to all, from members of the Lehigh ISE community (including alumni and parents of students) to industry companies interested in promoting Lehigh ISE.

You can build your name and brand awareness in our community and partnering companies, explore great networking opportunities, and associate your name with Lehigh ISE 100 in perpetuity.

Lehigh's Industrial and Systems Engineering (ISE) Department has a world-renowned reputation of research excellence and is continually innovating in all educational, outreach, and industrial programs. We thrive as a diverse and inclusive community and provide an inspiring environment to study and discover. Our extremely successful alumni form a supportive ecosystem for extensive professional networking opportunities. Our highly ranked programs include data analytics, healthcare systems, financial engineering, and management science.

.Lehigh ISE 100 Program Events:

- Lehigh ISE Alumni Lectures, 2024
- Lehigh ISE Alumni Lectures, 2025
- Lehigh ISE Annual Banquet, 2024
- Lehigh ISE Annual Banquet, 2025
- Lehigh ISE Awards Ceremony, 2024
- Lehigh ISE Awards Ceremony, 2025
- Lehigh ISE Career Fair, 2024
- Lehigh ISE Career Fair, 2025
- Lehigh ISE First Year Student, 2024
- Lehigh ISE First Year Student, 2025
- Lehigh ISE Graduation Party, 2024
- Lehigh ISE Graduation Party, 2025
- Lehigh ISE Seminar Series, 2024
- Lehigh ISE Seminar Series, 2025
- Lehigh ISE Student Alumni Mixer, 2024
- Lehigh ISE Student Alumni Mixer, 2025
- Lehigh ISE UG and Master's Student Research Symposium, 2024
- Lehigh ISE UG and Master's Student Research Symposium, 2025
- Women at ISE, 2024
- Women at ISE, 2025
- Modeling and Optimization: Theory and Applications *(MOPTA)* Conference (the Lehigh ISE flagship conference), Summer 2024
- Modeling and Optimization: Theory and Applications *(MOPTA)* Conference (the Lehigh ISE flagship conference), Summer 2025

DIAMOND LEVEL
$50,000.00 (single opportunity)

- **Naming of the whole Lehigh ISE 100 Program**
- **Verbal/slide recognition at the opening session of all Events**
- **One-time email use to address the entire Lehigh ISE alumni community**
- 125-word listing online
- Recognition on website, signage, and print of all events
- Recognition on website of the Lehigh ISE 100 Program (size proportional to sponsorship level)
- Name engraved on a plaque "Lehigh ISE 100" to be posted at Mohler 1st Floor Lounge (font size proportional to sponsorship level)

PLATINUM LEVEL
$25,000.00 (single opportunity)

- **Naming of the Mobile App Lehigh ISE 100 Program**
- **Naming of 3 Events and verbal/slide recognition at the opening session of the 3 Events**
- 100-word listing online
- Recognition on website, signage, and print of 3 Events
- Recognition on website of the Lehigh ISE 100 Program (size proportional to sponsorship level)
- Name engraved on a plaque "Lehigh ISE 100" to be posted at Mohler 1st Floor Lounge (font size proportional to sponsorship level)

GOLD LEVEL
$10,000.00

- **Naming of one Event and verbal/slide recognition at the opening session of the Event**
- **Co-sponsorship of the Lehigh ISE social media platforms for 2 years (Facebook, LinkedIn, twitter, Instagram)**
- 75-word listing online
- Recognition on website, signage, and print of the Event
- Recognition on website of the Lehigh ISE 100 Program (size proportional to sponsorship level)
- Name engraved on a plaque "Lehigh ISE 100" to be posted at Mohler 1st Floor Lounge (font size proportional to sponsorship level)

SILVER LEVEL
$2,500.00

- 50-word listing online
- ISE Newsletter front cover co-sponsoring (3 numbers)
- Recognition on website of the Lehigh ISE 100 Program (size proportional to sponsorship level)
- Name engraved on a plaque "Lehigh ISE 100" to be posted at Mohler 1st Floor Lounge (font size proportional to sponsorship level)

BRONZE LEVEL
$1,000.00

- ISE Newsletter back cover co-sponsoring (3 numbers)
- Recognition on website of the Lehigh ISE 100 Program (size proportional to sponsorship level)
- Name engraved on a plaque "Lehigh ISE 100" to be posted at Mohler 1st Floor Lounge (font size proportional to sponsorship level)

Please contact directly Lehigh ISE Department Chair, Professor Luis Nunes Vicente (ise@lehigh.edu).

Luis will first address questions about the sponsorship opportunities, and then:

(1) Call Lehigh's Office of Development and Alumni Relations (DAR) to acknowledge your sponsorship;

(2) Together with DAR, provide you the means to process your sponsorship;

(3) Develop at ISE your chosen sponsorship according to the chosen level.

SPENCER C. SCHANTZ *lecture series*

JOSÉ BLANCHET

Lehigh ISE is pleased to announce Professor José Blanchet, Stanford University gave a Spencer C. Schantz Distinguished Public Lecture

The Lehigh **ISE Department**, was honored to have Professor **José Blanchet**, The William M. Keck Faculty Scholar and Professor of Management Science and Engineering from Stanford University, give a Spencer C. Schantz Lecture "**On Highly Parameterized Controls and Fusion of Generative Diffusions**", on Wednesday, August 14 2024, from 9:00 a.m. to 10:00 a.m. in Rauch Business Center RB 184 (Perella Auditorium), 621 Taylor Street, Bethlehem PA 18015. Professor Blanchet's Lecture was the opening plenary talk for Lehigh ISE's MOPTA 2024 Conference.

Abstract:
We discuss two recent projects which touch on first order methods in connection with two very active research areas in operations research and artificial intelligence.

The first one involves the design of efficient gradient estimators for dynamic optimization problems based on highly parameterized controls. The motivation is the application of stochastic gradient descent for the numerical solution of stochastic control problems using neural networks. Our estimator has at least a linear speed-up in the dimension of the parameter space compared to infinitesimal perturbation analysis and it can be applied on situations in which the likelihood ratio estimator may not be applicable (e.g. If the diffusion matrix depends on the parameter of interest). We show very substantial gains in high-dimensional control problems based on experiments.

The second result involves the development of an efficient approach for merging diffusion-based generative models. We assume the existence of several auxiliary models that have been trained with abundance of data. These models are assumed to contain features that, combined, can be useful to enhance the training of a generative diffusion model for a target distribution (with limited data). We merge the models using a Kullback-Leibler (KL) Barycenter given set of weights representing the importance of the auxiliaries. In turn, we optimize the weights to improve the overall performance of the fused model in order to fit the target. While the double optimization problem (KL Barycenter and optimizing over weights) is challenging to solve, we show that diffusion based generative modeling significantly reduce the complexity of the overall optimization problem, making the approach practical. This approach also provides a mechanistic interpretation of popular fine-tuning approaches used in the literature.

The results are based on two papers, the first one (on gradient estimators) with Peter Glynn and Shengbo Wang, and the second one (on fusion) with Hao Liu, Nian Si, and Tony Ye.

Bio:
José Blanchet is a Professor of Management Science and Engineering (MS&E) at Stanford University. Before joining MS&E, he was a professor at Columbia University in the Departments of Industrial Engineering and Operations Research, and Statistics (2008-2017). Prior to that, he was a professor in the Statistics Department at Harvard University (2004-2008). In 2010, he received the Presidential Early Career Award for Scientists and Engineers. José is the co-winner of the 2010 Erlang Prize, awarded every two years by the INFORMS Applied Probability Society. Several of his papers have been recognized by the biennial Best Publication Award given by the INFORMS Applied Probability Society (2007, 2023). His work has also received the Outstanding Simulation Publication Award from the INFORMS Simulation Society (2021) and other best publication awards from the Operations Management (2019) and Revenue Management Societies (2021) at INFORMS. Previously, he worked as an analyst at Protego Financial Advisors, a leading investment bank in Mexico. His research interests include Applied Probability, Stochastic Optimization, and Monte Carlo methods. He is the Area Editor of Stochastic Models in Mathematics of Operations Research and has served on the editorial boards of Advances in Applied Probability, Bernoulli, Extremes, Insurance: Mathematics and Economics, Journal of Applied Probability, Queueing Systems: Theory and Applications, and Stochastic Systems, among others.

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 a valuable educational experience for faculty, students, and friends of Lehigh's Industrial and Systems Engineering department.

DEGREES AWARDED SUMMER 2024

PH.D. ENGINEERING INDUSTRIAL AND SYSTEMS ENGINEERING

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- Mohammad Mohammadisiahroudi
- Oumaima Sohab
- Secil Sozeur

M.ENG. INDUSTRIAL AND SYSTEMS ENGINEERING

- Sam Konop

M.ENG. MANAGEMENT SCIENCE AND ENGINEERING

- Zach Sommer

M.S. MANAGEMENT SCIENCE AND ENGINEERING

- Josie Charles


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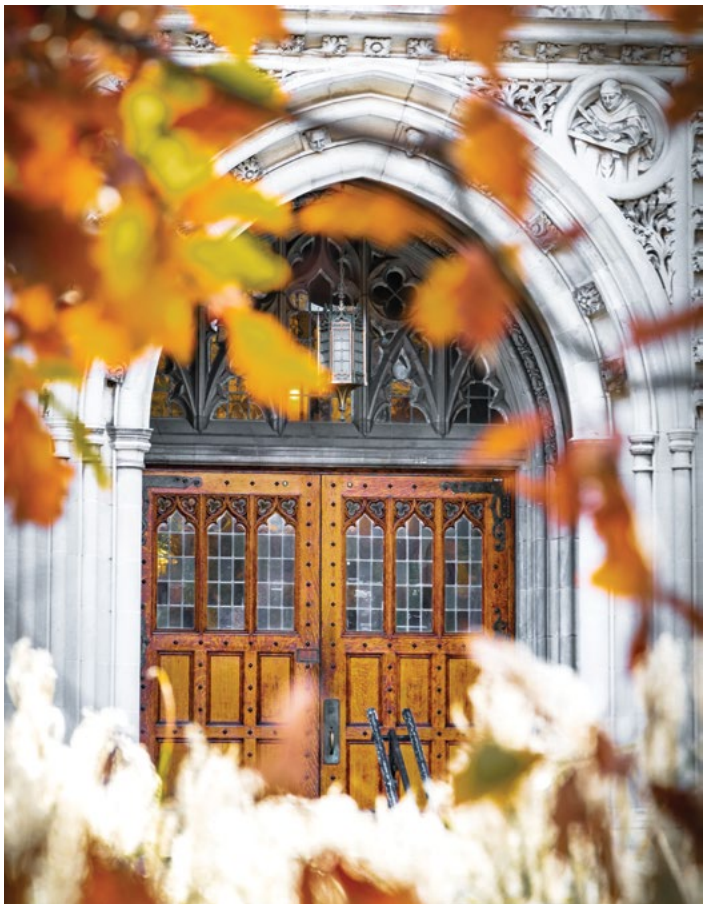

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David Meadows '98G, '96 and Tricia Wandrie ’97

LEHIGH ISE IS CELEBRATING 100 YEARS

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In the academic year 2024/2025 we will accomplish 100 years of Industrial Engineering at Lehigh.

Yes, we started offering our first undergraduate program in Industrial Engineering a century ago!

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