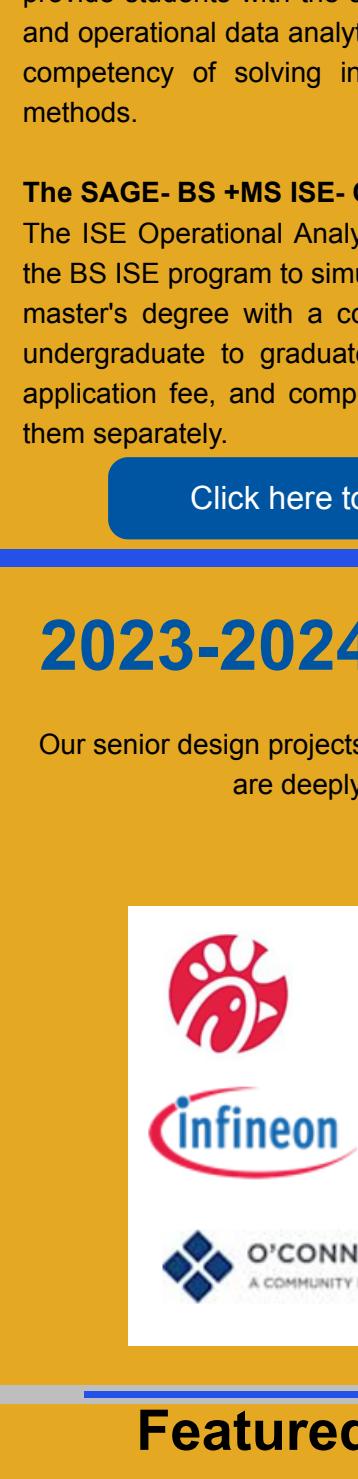


Industrial & Systems Engineering Department



Spring 2024 ISE Newsletter

A Message from the Chair



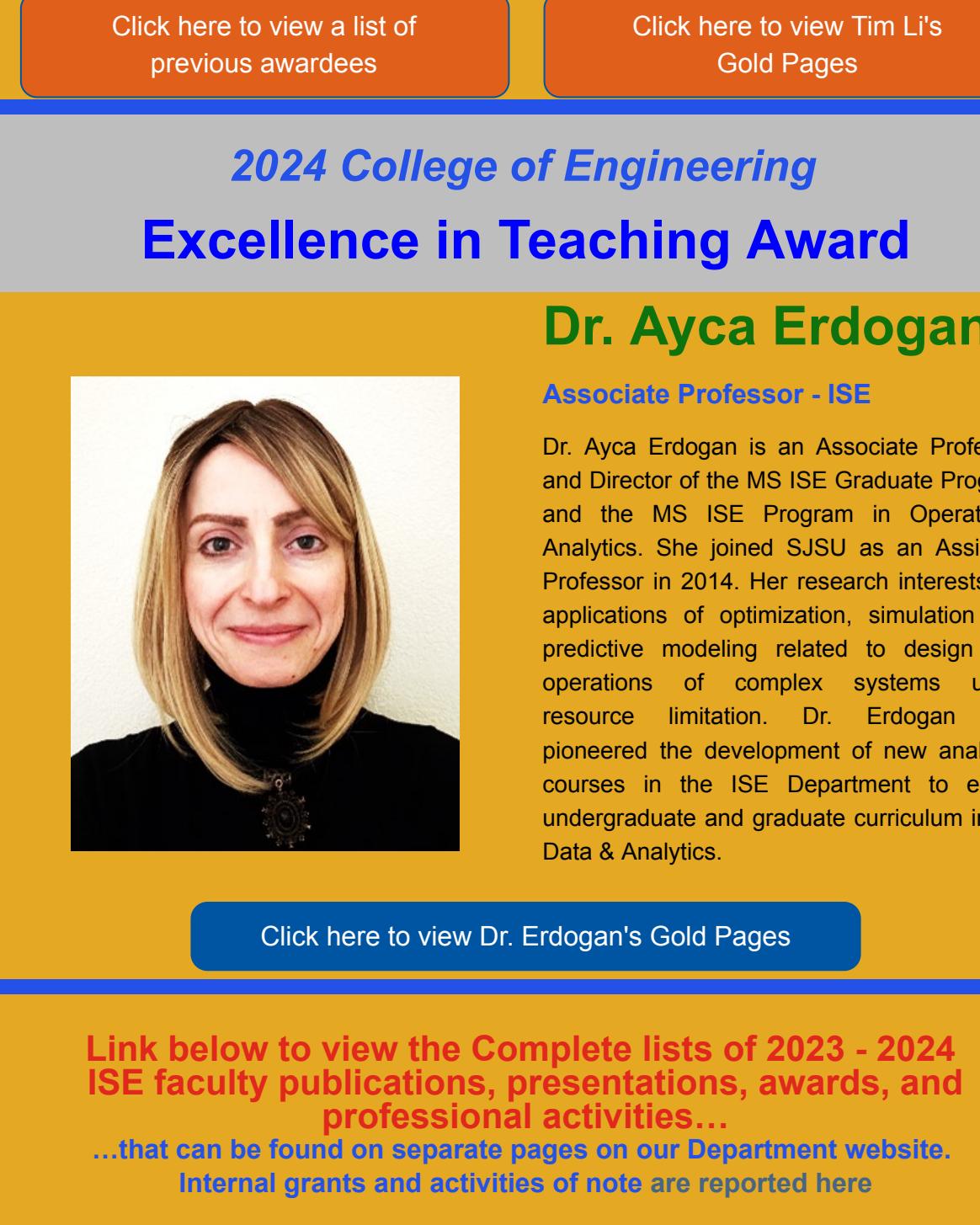
The mission of the Davidson College of Engineering at San José State University is to enable our students to become socially responsible engineers and leaders in Silicon Valley and beyond through an accessible, world-class education. In fact, local technology firms employ more engineering graduates from the Charles W. Davidson School of Engineering than any other university, and the College ranks 3rd nationally among public engineering programs offering bachelor's and master's degrees, excluding service academies. I invite you to explore how our Industrial and Systems Engineering Department at SJSU is serving this mission from reading our newsletter.

Dr. Yasser Dessouky

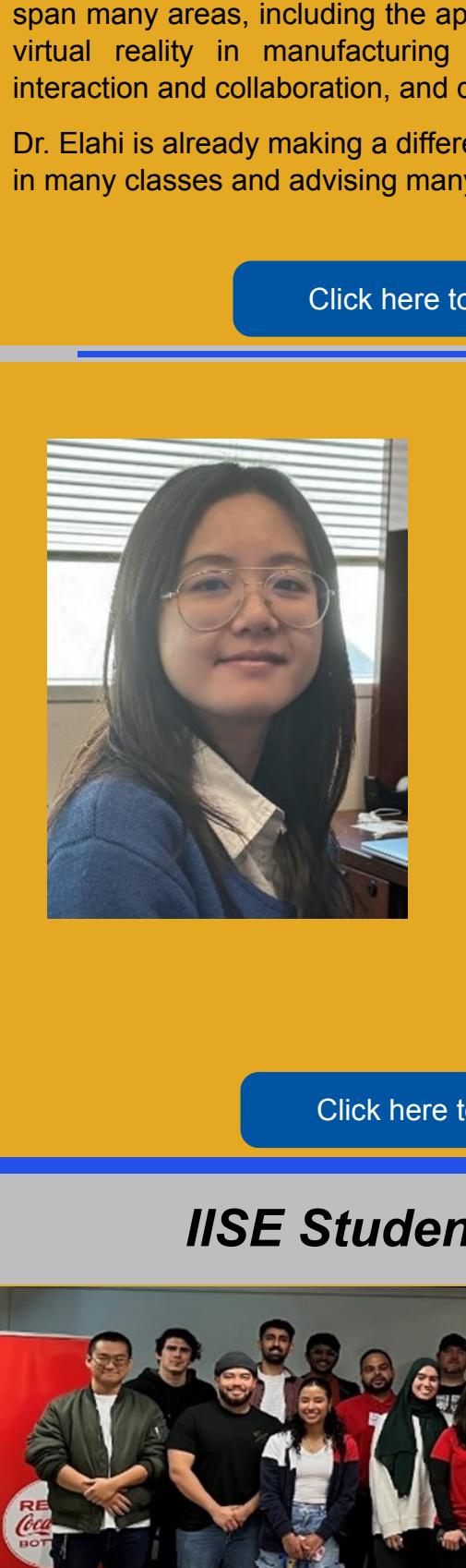
Some highlights: Our faculty and students continue to receive recognition for their efforts as for example Dr. Ayca Erdogan receiving the College of Engineering faculty award for excellence in teaching and Zhi Zhang winning the Donald Beall Student award for engineering accomplishment, and Tim Li receiving the Distinguished Alumni award. Two new faculty members have joined the department: br. Behin Elahi and dr. Yue Luo. The new curriculum enhancements to meet today's pressing issues as the department added a new concentration in Operational Analytics for the MS Industrial and Systems Engineering degree. The excellent research the faculty has been conducting. Our senior design projects continue to be sponsored by a variety of industries that reflect our students' employers such as Google, Sammria, Albertson's, etc. These are few of the many stories in the newsletter with other exciting activities the department is actively supporting and engaging in.

Note that several story extensions can be reached by clicking the links indicated, which will take you to various web pages on the Department's website. Return to the newsletter to continue by going back to your email view, or click now at the very top of this mailing to open the newsletter in a new tab on your browser. Then return to that tab to continue reading.

Thanks to ISE Alums Vy and Timothy Li for Their Day of Giving Challenge



ISE Launches New MSISE Concentration in Operational Analytics



Within the past 15 years, the job market for industrial and systems engineering graduates has sought more sophisticated additional analytics skills. Companies across all industries incorporate analytics for their daily operations within and across various departments to utilize real-time and offline data generated by sensors, customer behavior and sales, and production. The job requirements for these positions involve forecasting, demand planning, production scheduling, logistics and finance operations — all of which require proficiency in analytics skills at a high level. The MSISE Operational Analytics concentration is designed to

provide students with the skills necessary to compete in the demanding job market of industrial and operational data analytics, through a rigorous curriculum that facilitates student learning and competency of solving industrial and systems engineering problems using data analytics methods.

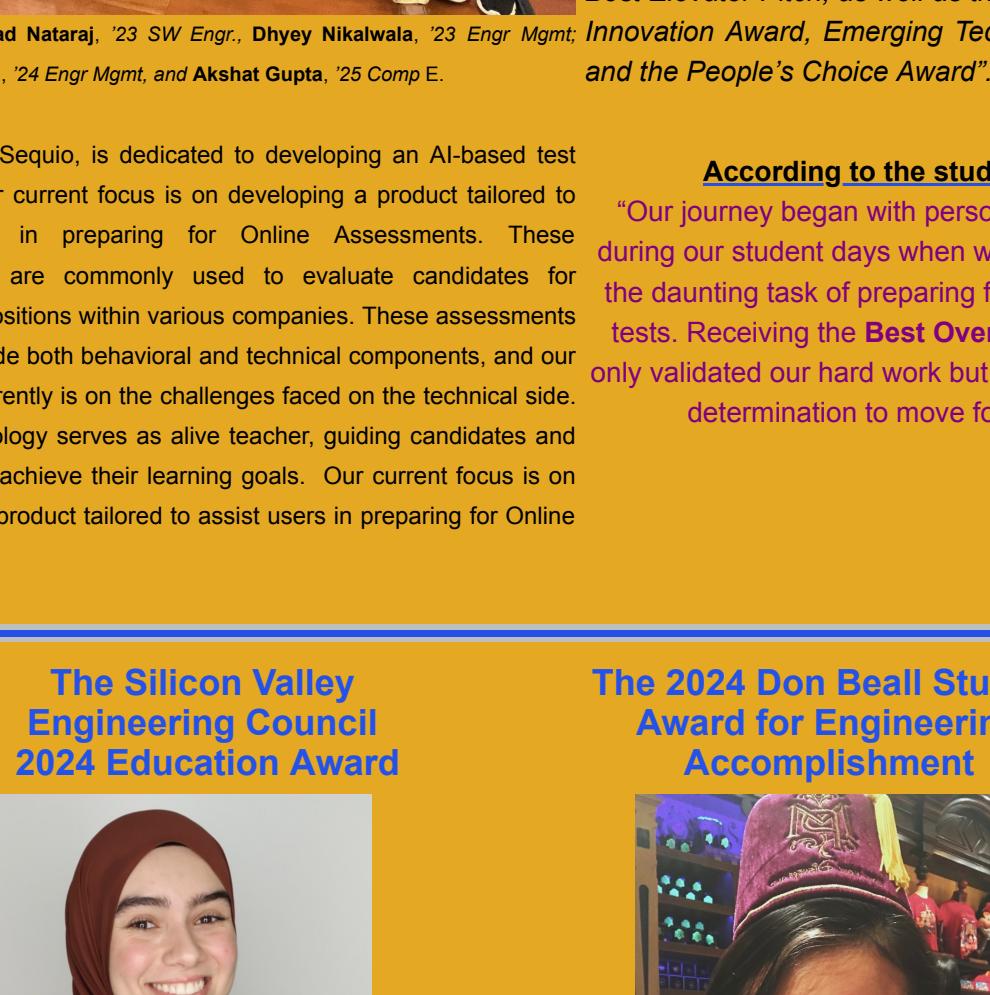
The SAGE- BS +MS ISE -Operational Analytics Program

The ISE Operational Analytics SAGE Program is also designed to enable qualified students in the BS ISE program to simultaneously complete the requirements for both the baccalaureate and master's degree with a concentration in Operational Analytics. Students can progress from undergraduate to graduate status seamlessly, with a simplified application process and no application fee, and complete both degrees in a year's less time as compared to completing them separately.

[Click here to learn more about Operational Analytics at SJSU](#)

2023-2024 Senior Design Sponsors

Our senior design projects continue to be a highlight of our students' learning experiences. We are deeply grateful to all of the recent sponsors honored below.



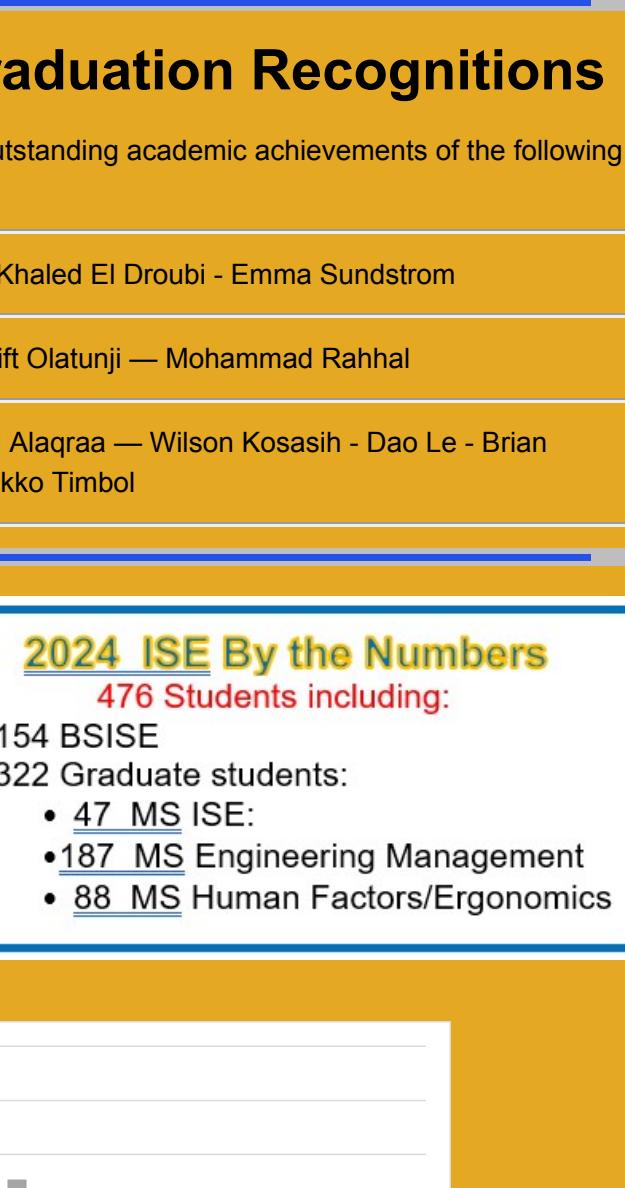
Featured Sr. Design Project Sponsor

SANMINA®

Sanmina designs, manufactures, and repairs some of the most complex and innovative optical, electronic and mechanical products in the world.

This spring, Sanmina is sponsoring 3 Senior Design projects for ISE students in its New Product Introduction (NPI) / Quick Turn Facility. We are very grateful to Mr. Verky Alagrisamy, Quality Manager and Mr. Huy Nguyen, Quality Manager, and their associates at Sanmina. Both have extensive backgrounds in manufacturing innovation that they enjoy sharing with students. One of these projects is described on the linked [Gold Page Project Goal!](#) The primary goal of this project is to improve the productivity of an electrical probe. The team is currently using SolidWorks to work closely with mechanical engineers from Sanmina's NPI facility to design a new die.

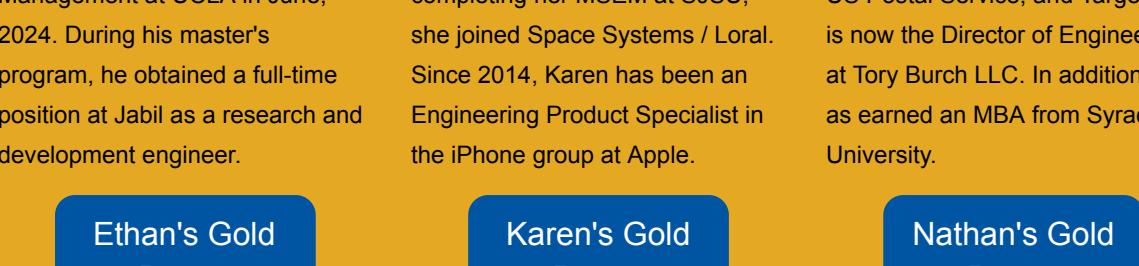
From left: Shirley Arriaga, Caroline Zana, Huy Nguyen, and Mauro Gonzalez



[Click here for more about Sanmina and this project](#)

Dr. Dessouky Chairs International Conference in Dubai

The 50th International Conference on Computers and Industrial Engineering (CIE 50) was held from Oct 30 to Nov 2, 2023 at the American University of Sharjah(AUS).



Her Excellency Sheikha Bodour bint Sultan Al Qasimi, President of AUS, inaugurated the event, which runs from October 30 to November 2 and is organized in collaboration with San Jose State University. The USA based conference explores the intersection of sustainable and technological innovations, fostering discussions on how digital transformation can enhance industry efficiency, innovation, and competitiveness while upholding sustainability principles. ISE Department Chair Yasser Dessouky, 3rd from right, was CIE50 Chair and serves as Editor in Chief of CIE.

Special Announcement from ISE

Tim joins an illustrious group.

[Click here to view a list of previous awardees](#)

[Click here to view Tim Li's Gold Pages](#)

2024 College of Engineering Excellence in Teaching Award

Dr. Ayca Erdogan

Associate Professor - ISE

Dr. Ayca Erdogan is an Associate Professor and Director of the MS ISE Graduate Program and the MS ISE Program in Operational Analytics. She joined SJSU as an Assistant Professor in 2014. Her research interests are applications of optimization, simulation and predictive modeling related to design and operations of complex systems under resource limitation. Dr. Erdogan has pioneered the development of new analytics courses in the ISE Department to enrich undergraduate and graduate curriculum in Big Data & Analytics.

[Click here to view Dr. Erdogan's Gold Pages](#)

[Click here to view the full ISE DAC](#)

A quick look at the numbers:

ISE registrations in all programs remain strong. Overall enrollment is up over the year by 20 students, with BSISE growing by 24 students from its 2021 level, and grad programs remaining relatively steady.

2024 ISE By the Numbers

476 Students including:

154 BSISE

322 Graduate students:

- 47 MS ISE:

- 187 MS Engineering Management

- 88 MS Human Factors/Ergonomics

[Click here to view the Complete lists of 2023 - 2024 ISE faculty publications, presentations, awards, and professional activities...](#)

...that can be found on separate pages on our Department website.

[Internal grants and activities of note are reported here](#)

[View a list of External Grants and Contracts](#)

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