

## Industrial Engineering and Management Sciences

### FROM THE CHAIR / Spring 2024

Dear IEMS family and friends,

As spring ushers in new beginnings, our department has much to celebrate. This school year, our faculty, students, and alumni have showcased their excellence through significant achievements.

Professor **Sanjay Mehrotra** is revolutionizing healthcare decision-making, our students are uncovering the operational secrets behind the magic of Disney parks; Professor **Noshir Contractor's** efforts are enhancing global (and outer space) research collaborations; our faculty, students, and alumni are receiving notable recognition, our community's strong presence and accolades at the INFORMS meeting underscored our impact; and we eagerly anticipate the arrival of assistant professor **Minshuo Chen** this fall.

We also engaged in strategic planning efforts to reinforce our focus and excellence in data science and machine learning to enhance decision-making in intelligent systems. Each of these accomplishments reflects our commitment to advancing knowledge and innovation in industrial engineering and management sciences.

Thank you all for your hard work and dedication. Let's continue to build on our successes and embrace the opportunities that lie ahead.



**Simge Küçükyavuz**  
David A. and Karen Richards Sachs Professor and Chair  
Industrial Engineering and Management Sciences  
McCormick School of Engineering

### One Northwestern Researcher's Mission to Elevate Healthcare



After his own near-death event, Professor **Sanjay Mehrotra** has devoted the last half of his research career to improving healthcare decision-making through data science and predictive analytics.

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### Unlocking the Secrets Behind Disney's Enchantment



Through case competitions and internships, Northwestern Industrial Engineering students learn what it takes to make Disney parks run.

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### Creating Algorithms to Build International Research Teams



An initiative spearheaded by Northwestern's McCormick Global Initiatives and featuring work from Professor **Noshir Contractor** is forging new international research collaborations while prototyping new data science tools for scientific team-building.

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### Nocedal Awarded John von Neumann Prize by the Society for Industrial and Applied Mathematics



Professor **Jorge Nocedal** was recognized for his fundamental work in nonlinear optimization, both in the deterministic and stochastic settings.

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### Northwestern IEMS Plays Pivotal Role at INFORMS Meeting



The conference was co-chaired by Professor **Sanjay Mehrotra**, and faculty, students, and alumni earned awards.

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### Fernando Mercé, Julie Swann Honored with IEMS Distinguished Alumni Award



Mercé and Swann were celebrated during a ceremony where they were recognized for their accomplishments.

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### Industrial Engineering Welcomes Minshuo Chen as Assistant Professor



Chen, who earned his PhD from the Georgia Institute of Technology, will join IEMS in the fall.

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### Awards, Honors, and News

Professor Emeritus **Gordon Hazen** received the Clemen-Kleinmuntz Decision Analysis Best Paper Award for the paper "Information Density in Decision Analysis," published last year in *Decision Analysis*.

Professor **Janice Mejia** and undergraduate fourth-year student Jenna Kim received the Best Paper Award at the 2024 American Society for Engineering Education Illinois-Indiana Section Conference. Their paper describes progress on research dedicated to mapping pretest data to learning outcomes.

Professor Emeritus **Barry Nelson** and his former postdoctoral fellow **David Eckman** won the INFORMS Simulation Society Outstanding Publication Award.

**Yian Yin** (PhD '22), now an assistant professor at Cornell University, won the IEMS department's 2024 Nemhauser Best Dissertation award for his work "Essays on the Science of Science and Innovation."

PhD students **Shima Dezfulian** and **Yuchen Lou** were the co-winners of the IEMS department's Nelson Best Paper Award

PhD students **Akhil Singla** and **Xiaochun Niu** were the co-winners of the IEMS department's Nemhauser Best Paper Award.

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