

#### **Industrial Engineering Division**

#### **Spring 2025 Newsletter**

The Industrial Engineering Division (IED) cordially invites you to attend the 132<sup>nd</sup> Annual Conference and Exposition that will take place in Montreal, Quebec, Canada from June 22-25, 2025. To register for the conference, visit the ASEE website <a href="here">here</a>. You can find the full conference schedule at-a-glance <a href="here">here</a>. For the specific IED events and announcements, please refer to the session locator <a href="here">here</a> or to the following.

#### **Note for All Presenters**

All presenters will need to bring their own laptop to be used during the presentation. There will be Wi-Fi provided at the convention center (but strength and reliability is not guaranteed), so you will need to have all material needed to present on your computer and any adaptors necessary for connecting to HDMI.

#### **M229 – Industrial Engineering Division Poster Session**

Mon. June 23, 2025 9:15 AM to 10:45 AM

Room: Palais des congres de Montreal Exhibit Hall 220 C

#### **Papers Presented:**

1. Preparing Engineering Students for Designing and Managing the Future of Work and Work Systems

Dr. Priyadarshini Pennathur (University of Texas at El Paso), Dr. Arunkumar Pennathur (University of Texas at El Paso), Dr. Amirmasoud Momenipour (Rose-Hulman Institute of Technology)

## M429A - Industrial Engineering Division Technical Session 1 Generative AI and Its Role in Industrial Engineering

Mon. June 23, 2025 1:30 PM to 3:00 PM

**Room: Palais des congres de Montreal 523A** (Moderated by Ms. Sanaz Motamedi) **Papers Presented:** 

1. Assessing the Impact of the Use of Generative AI in Developing and Using Assessment Grading Rubrics for Engineering Courses

Dr. Thomas Aming'a Omwando (Simpson University), Dr. Adel Alhalawani (Rose-Hulman Institute of Technology), Dr. Ashutosh Khandha (University of Notre Dame), and Dr. Bhavana Kotla (The Ohio State University)

Generative Artificial Intelligence in Industrial Engineering: Industry Applications and Educational Prospects

Dr. Nadiye O. Erdil (University of New Haven)

Leveraging Student-Al Interaction to Evaluate Competence in Generative Al and Technical Domains in Industrial Engineering

Dr. Nadiye O. Erdil (University of New Haven)

2. The Use of Generative AI for the Rapid Development of Qualitative Interview Transcripts for a Human-Centered Design Problem

Edward James Isoghie (University of Louisville), Dr. Jason J Saleem (University of Louisville), Dr. Thomas Tretter (University of Louisville), and Dr. Jeffery Lloyd Hieb (University of Louisville)

#### M561 – Interdivisional Town Hall

From Challenges to Change: Engineering Education with Inclusive Mindsets

Mon. June 23, 2025 3:15 PM to 4:45 PM Room: Palais des congres de Montreal 517A

The annual Interdivisional Town Hall (ITH) provides a forum for members from various divisions and attendees to discuss topics relevant to the entire ASEE membership. ASEE values diverse perspectives from its multiple divisions, and the ITH provides the opportunity to foster cross-divisional partnerships and create resources to address challenges at national and international levels. This year's ITH discussion will center on enhancing the student experience using the ASEE Engineering Mindset Report: Inclusive Mindset for the Future. In this session small group, facilitated discussion will start with cross-divisional conversations around one of these three current challenges in engineering education: Artificial Intelligence, Rigor of Math and Science, & Social Justice and Responsibility.

## T229 - Industrial Engineering Division Technical Session 2 Advancing Educational Technologies: VR, AR & Simulation

Tue. June 24, 2025 9:15 AM to 10:45 AM

Room: Palais des congres de Montreal 523A (Moderated by Ms. Sanaz Motamedi)
Papers Presented:

1. Study Design and Assessment Framework for Testing Augmented Reality Tools in Engineering Education

Dr. Gimantha N Perera (University of Arizona), Karen B Chen (North Carolina State University at Raleigh), Dr. Laura Bottomley (North Carolina State University at Raleigh), Robert Kulasingam, Emily H Fang (North Carolina State University at Raleigh), and Julie Ivy (University of Michigan)

- 3. Exploring the Impact of Inclusive Digital Elements in the Design of 3D Simulationbased Educational Games

Daniell DiFrancesca (Pennsylvania State University, Behrend College), Christian Enmanuel Lopez (Lafayette College), and Dr. Omar Ashour (Pennsylvania State University, Behrend College)

# T329 - Industrial Engineering Division Technical Session 3 Bridging Education and Real-World Impact: Training, Career Development, and Urban Systems

Tue. June 24, 2025 11:00 AM to 12:30 PM Room: Palais des congres de Montreal 523A

**Papers Presented:** 

1. Examining How Required Courses Shape Industrial Engineering Students' Career Thinking

Hayley N. Nielsen (University of Michigan), Vibhavari Vempala (University of Michigan), Berenice Alejandra Cabrera (University of Michigan), Dr. Lisa R. Lattuca (University of Michigan), Dr. Erika Mosyjowski (University of Michigan), Dr. Joi-Lynn Mondisa (University of Michigan), and Dr. Shanna R. Daly (University of Michigan)

Urban Walkability and Pedestrian Stress: A Sensor-Based Study Across Three Sites
 Mrs. Rumena Begum (University of Louisville), Dr. Faisal Aqlan (University of Louisville),
 Dr. Jay B. Brockman (University of Notre Dame), and Dr. Hazel Marie (Youngstown State
 University – Rayen School of Engineering)

#### **T429-Industrial Engineering Division Business Meeting**

Tue. June 24, 2025 1:30 PM to 3:00 PM

Room: Westin Montreal, Ste Helene Room

This year's Business Meeting will be an in-person event only. Meeting minutes will be distributed afterwards. If you are interested in running for an officer position and are not able to attend, see the Call for Officer Position section below for more information.

#### **T748 - Joint Divisions Social Event**

Engineering Management, Engineering Economy, Industrial Engineering, Systems Engineering Tue. June 24, 2025 7:00 PM to 9:00 PM

Hotel William Gray https://hotelwilliamgray.com, Bibliothèque Room

Networking event for the above ASEE divisions. The Joint Division Social will take place at the Bibliothèque Room at the Hotel William Gray. This is a ticketed event, \$90. Dinner is provided, buffet style, and a cash bar.

#### **Call for Officers**

The IED is seeking nominations for the following positions for 2025-26:

Secretary/Treasurer

**Diversity Commission Delegate** 

Board of Directors – Two positions

The IED Board comprised of the Secretary/Treasurer, Program Chair-Elect, Program Chair, Division Chair, and Awards/Past Division Chair positions operates on a five-year rotation, in the order provided. The time commitment is minimal except in the Program Chair year.

The Diversity Commission Delegate is elected annually.

Please consider nominating someone for any of these positions; self-nominations are welcome. If you have questions, feel free to contact anyone currently on the IED Board. Nominations can be made at the Town Hall Business Meeting on Tuesday, June 24<sup>th</sup> and in advance by contacting any of the current members of the Board.

If you are unable to attend the Business Meeting and would still like to run for a position, please create a single Google Slide introduction of yourself that will serve as your nomination. These need to be sent to Thomas Omwando (<a href="mailto:tomwando@simpsonu.edu">tomwando@simpsonu.edu</a>) by Sunday, June 22<sup>nd</sup> at 5:00 PM.

#### **IED Board Members Contact Information**

The following are the IED officers until the end of the 2025 ASEE Conference. After the conference, the Division Chair, Program Chair, Assistant Program Chair, and Secretary/Treasurer will move up one position.

Division Chair: Thomas Omwando

tomwando@simpsonu.edu / (530) 226-4516

Program Chair: Sanaz Motamedi

<u>sjm7946@psu.edu</u> / (401) 406-1730

Program Chair-Elect: Megan Hammond

hammondm@uindy.edu / (231) 250-5549

Secretary/Treasurer: Vettrivel Gnaneswaran

gnaneswaranv@uwplatt.edu / (608) 342-1675

Awards/Past Division Chair: McKenzie Landrum

landrum@ise.ufl.edu / (352) 294-7732

**Directors:** Lisa Bosman (term ending 2026)

lbosman@purdue.edu/ (765) 496-0267

Paul C. Lynch (term ending 2025) PCL120@psu.edu / (814) 898-6387

Raymond Smith III (term ending 2025) smithraym17@ecu.edu / (252) 328-9722

**Tish Pohl** (term ending 2026) <a href="mailto:lpohl@uark.edu">lpohl@uark.edu</a> / (479)-575-3667

Webmaster: Lawrence Whitman

whitma5@kennesaw.edu / (316) 978-5907

**Diversity Commission Delegate: Janice Mejia** 

j-mejia@northwestern.edu / (847) 467-4782

P-12 Committee Delegate: Justin Kile

justin.kile@quinnipiac.edu / (203) 582-3372

PIC Chair Katy Colbry

colbryka@msu.edu / (517) 432-1064

#### **2026 ASEE Annual Conference and Expo IED Call for Papers**

#### **Proposed 2026 IED Theme**

### Empowering the Next Generation: Integrating AI, Automation, and Data Analytics in Industrial Engineering Education

Artificial intelligence, cyber-physical production systems, pervasive data analytics, and advanced automation technologies are reshaping industrial-engineering practice and the very structures of the programs that prepare tomorrow's professionals. The Industrial Engineering Division (IED) therefore invites scholarship that demonstrates:

- **How institutions are adapting:** Strategic leadership, policy changes, resource allocation, and culture-building initiatives that enable sustainable integration of intelligent-systems content across curricula, laboratories, and co-curricular experiences.
- How faculty are evolving: Up-skilling, role redefinition, interdisciplinary teaming, and change-management strategies that empower instructors to deliver technology-rich, human-centric learning; and
- How students are experiencing and shaping these changes: Learner perspectives on motivation, identity, employability, and ethical engagement with intelligent systems.

Exemplary topic areas include (but are not limited to):

- Institutional & Organizational Transformation governance models, strategic roadmaps, funding mechanisms, and infrastructure (e.g., digital-twin testbeds, cloud analytics platforms) that support AI- and data-enabled education; case studies on department-level, college-level, or university-wide adaptation.
- Faculty Upskilling, Support, & Change Leadership professional-development programs, communities of practice, workload rebalancing, and incentive structures that help faculty embrace and sustain intelligent-systems content.
- Student Perspectives & Co-Creation empirical studies capturing student voice on learning experiences, identity formation, equity, and workforce readiness in Al-infused IE programs; student-led innovations and peer-to-peer learning models.
- **Curriculum & Pedagogy Innovation** course or program redesigns that weave AI/ML, robotics, IIoT, or digital-twin technologies into traditional IE topics while maintaining systems-thinking foundations.
- Experiential & Intelligent Laboratories smart factories, warehouse automation cells, mixed-reality simulations, and data-rich capstone projects that bridge theory and practice.

- Human-Centric, Ethical, and Inclusive Automation frameworks that embed socio-technical awareness, DEI, and responsible-AI principles in design projects and decision-making exercises.
- Data-Driven Decision-Making instructional approaches for statistical learning, prescriptive analytics, and visualization that empower confident, equity-minded problem solving.
- Assessment & Accreditation of Complex Learning Outcomes instruments, analytics dashboards, and evidence linking technology-integrated competencies to ABET criteria and to demonstrated organizational learning and continuous improvement.
- Partnership Ecosystems industry consortia, community collaborations, and global networks that accelerate institutional adaptation and broaden opportunities for both students and faculty.

#### **Newsletter Submissions Welcome!**

The most valuable newsletters are the ones that contain news of interest to the members submitted by the members. If you have something that you'd like to share with the IED, please forward the details to our newsletter editor. The newsletter editor for Fall 2025 and Spring 2026 is Megan Hammond (<a href="mailto:hammondm@uindy.edu">hammondm@uindy.edu</a>). Anything that might be of interest to members is welcome, including:

- Call for papers for conferences related to engineering education, which includes ASEE regional conferences
- Reminders of deadline submission to agencies funding educational research
- Announcements of members receiving teaching awards or other related accolades
- Announcement of papers related to industrial engineering education

Please help add valuable information to promote collaboration, innovation, and impact in the field of industrial engineering!

Visit the ASEE Webpage for more information about the IED https://sites.asee.org/ied.

If you are not a member of the Industrial Engineering Division (IED), please add the IED to your ASEE membership renewal.