

NEW Engineering Educators Newsletter

A message from the Division Chair

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Dear NEE members

I hope you've wrapped up your academic year on a high note and are enjoying a summer that balances productivity with well-deserved rest.

As we prepare for the **2025 ASEE Annual Conference in Montreal** (June 22–26), I'm thrilled to share the vibrant program we've curated to support your growth as educators, researchers, and leaders.

New Engineering Educators Division champions the exchange of ideas across career stages and backgrounds, fostering a community where early-career faculty and seasoned educators alike can thrive. Our mission is to equip you with evidence-based strategies, innovative research, and actionable resources to elevate your teaching, scholarship, and professional development. Whether you're contributing as an author, reviewer, session moderator, or first-time attendee, your engagement sustains our division's impact.

Every year, we celebrate the outstanding work of our **Best Paper and Best DEI Paper award winners—congratulations to this year's winners**! Please, join us at the Division Social to connect with peers and honor these achievements. A heartfelt thank you to our dedicated officers, especially our Program Chair, James Giancaspro, for crafting a program that addresses pressing challenges in engineering education.

Highlights to explore:

- Workshops/Panels: Dive into topics like technology in education, inclusive pedagogy, and career advancement.
- **Division Business Meeting:** Learn how our division operates and explore ways to get involved.
- New Attendee Orientation: First-timers, don't miss Greet the Stars! (Mon. June 23, 11:00 AM to 12:30 PM, 517A, Palais des congrès de Montréal) to navigate ASEE with confidence.

Montreal's rich culture and vibrant energy provide the perfect backdrop for collaboration and inspiration. Let's make this year's conference a milestone for our community.

I look forward to seeing you in Montreal! Warm regards, Ahmed Dallal Chair, ASEE New Engineering Educators Division Editor: Jutshi Agarwal, University at Buffalo, SUNY

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Join us at the NEE Division Social When? Tuesday, June

24, 7:00 PM onwards

Where? <u>La Cantina</u> <u>restaurant</u>located at 2022 Stanley Street

Highlights of the program in Montreal

Greetings! I hope your summer is off to a wonderful start. The New Engineering Educators (NEE) Division has an exciting program planned for the 2025 ASEE Annual Conference in Montreal, Quebec. I truly hope you will be able to join us. NEE includes members from a variety of backgrounds. Although many NEE members are new faculty having recently graduated from Ph.D. programs, there are many others who have worked in industry or government for several years before transitioning to academia. Similarly, there are some seasoned faculty members who have great advice to share with new faculty and have maintained ties with NEE even though they are no longer bona fide "new" engineering educators. As mentioned in the Call for Papers, we seek papers that share meaningful advice on writing technical papers, securing grant funding, mentoring new faculty members, introducing novel classroom techniques, and preparing for tenure and promotion, among many other topics.

This year, we have a lineup of intriguing special sessions, panels of invited speakers, and traditional technical sessions. NEE kicks off the events on **Sunday, June 22**, with its participation in the **ASEE Community Mixer • U561** (formerly the "Division Mixer") from 3:30 PM to 5:00 PM. We invite you to visit us at our table and engage in conversations with fellow NEE colleagues and officers. It's a great opportunity to connect and network within the NEE division. Continuing in the spirit of networking and casual interactions, please mingle among all ASEE attendees at the **Taste of the Town & Welcome Reception • U661** in Exhibit Hall 220 C of Palais des congres de Montreal beginning at 5:00 PM.

On **Monday** morning after the plenary, three events (all beginning at 11:00 AM) will certainly help combat those Monday morning blues. The first is the Greet the Stars! ASEE New Members & First **Timers Orientation** • **M361**, which is a welcoming session designed to help newcomers feel comfortable and informed as they navigate their first ASEE conference. Simultaneously, we will commence two panels of invited speakers, both co-sponsored with other divisions. The first is **Developing Constructive Peer Reviewing Skills in Engineering Education • M342**. This session is co-sponsored with the Student Division and will be led by members of the editorial board of the Journal of Engineering *Education* and will focus on developing constructive peer reviewing skills. The second panel is Neurodiversity and the University's Role: Perspectives on Education and Career Preparedness • **M3195**. With primary sponsorship from the Data Science and Artificial Intelligence (DSAI) Constituent Committee Division, this panel discussion will delve into the vital role that universities play in creating inclusive environments for neurodiverse students. Following a delectable Montreal lunch, attendees must decide whether to attend our first technical session focused on Maximizing Student Interaction and Engagement • M442A, or the NEE Business Meeting • M442B, both events beginning at 1:30 PM. The former will address recent findings related to undergraduate students' interaction and engagement. The NEE Business Meeting is suited towards existing and prospective NEE members who have an inclination towards leadership to become an NEE officer. Monday wraps up with a mid-afternoon (3:15 PM) special session, Intentional Integration of Reflection in Engineering Courses • M542. This interactive session will delve into the fascinating topic of intentional integration of reflection, and how it has the potential to facilitate students' development as self-directed learners.

Following the **Tuesday** morning plenary, the NEE events begin at 9:15 AM with a special session, **Enacting the Inclusive Mindset Report: A Conversation with the New Engineering Educators Division • T242**. This session should pique the interest of educators who seek to participate in the movement to advance a more inclusive mindset in engineering. Late morning (11:00 AM) offers a panel of invited speakers primarily sponsored by the DSAI Constituent Committee Division, namely, **Next-Gen Learning: AI and Data Science in Academia • T3195**. The panel will offer expert insight regarding the sweeping impact of artificial intelligence (AI) and data science on academia. The technology motif continues into the afternoon when NEE hosts its second technical session, **Technology Tools • T442** at 1:30 PM. Four presenters will share their expertise about virtual reality (VR), web-based tools, as well as technology socialization and education. The third technical session commences at 3:15 PM and represents the epitome of NEE's charge, namely, **Professional and Faculty Development • T542**. Five presenters will share their experiences related to a broad gamut of faculty development initiatives that focus on the growth and success of academics. Tuesday will culminate with the **NEE Division Social** • **T742** beginning at 7:00 PM at *La Cantina* restaurant (https://www.lacantinamtl.com/en-ca/) located at 2022 Stanley Street. All are welcome to join this informal event to network with other new engineering educators, identify potential collaborators, and enjoy (*responsibly*) a variety of Mexican tequilas. In addition, NEE best paper awardees will be recognized. Food I and drinks I will be available for purchase to suit a broad palate of tastes.

Start your **Wednesday** at 8:00 AM with a full plate of management techniques offered in the special session, **Apply Project Management Tools and Techniques to Track Budget and Tasks in your Research • W142**. The session will share invaluable resources, software tools, and insight regarding project management in the context of academic projects. At 11:30 AM, choose among our fourth technical session (**Undergraduate Student Learning • W342**) or a panel of invited speakers (**Preparing for ABET Accreditation in Your Data Science Program • W3195B**). The technical session shares the newest findings related to strategies to improve the undergraduate student learning experience, while the insightful ABET readiness panel can help prepare you for the rigors of accreditation. NEE concludes its 2025 program with a mid-afternoon (2:00 PM) panel dedicated to **Mindfulness and Meditation in the Engineering Classroom • W442**. What better way to end our fast-paced and packed program than discovering how the practice of mindfulness and meditation can benefit you and foster a more holistic learning experience for your students?

As usual, we have a very exciting lineup of sessions and panels. Please consider attending the conference even if you don't have a paper to present. Being a member of NEE offers you a great opportunity to network with other new engineering educators who may be experiencing many of the same challenges that you face on a regular basis.

I look forward to meeting you in Montreal! Travel safely! James Giancaspro

Call for Officers – Join our Leadership and Partnerships Teams!

New Engineering Educators Division (NEE) is seeking nominations for the positions of **Division Chair**, **Secretary**, and **Treasurer**, who will be elected at our Annual Business Meeting at ASEE 2025 in June. The Division Chair, upon completion of their term shall become Past Division Chair. Please consider nominating someone –or yourself– for these leadership positions. . In addition, our Leadership Team is looking to partner creative and inspired individuals with our existing positions of **Newsletter Editor(s)**, **Membership Chair**, **Social Presence Director**, **Diversity Liaison** and **K12 Liaison**, which will also be reviewed at our meeting! This year the NEE Executive team is also appointing, for the first time, a **Students Division Liaison**, to help us coordinate activities with the ASEE Students Division. If you have questions, feel free to contact anyone currently on the NEE Leadership Team. See page 4 for descriptions of the roles for each position.

For nominations, please link to the following to indicate the position of interest and the nominee's name, contact information and affiliation(s). Nominations can also be made at the **NEE Business Meeting**. At that time, **a vote will be taken to elect our new board members**. If you are not self-nominating, then please ensure that the nominee is willing to serve in the selected leadership position.

LINK for NEE Leadership Team Nominations: <u>https://tinyurl.com/NEE2025-nominate</u>

NEE Business Meeting on Monday, June 23, 2025 from 1:30 pm to 3:00 pm Ste Helene, Westin Montreal



New Engineering Educators Division

June 2025

Get to know your NEE officers



Rossana Villa-Titov Past Division Chair Bright Pet Nutrition Group rossanavillarojas@gmail.com



Ahmed Dallal Division Chair University of Pittsburgh ahd12@pitt.edu



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Christopher Green CP-12 Delegate University at Buffalo University of North Carolina christopher.green@charlotte.edu



Tai Chen **Diversity Delegate** University of Washington tcchen@uw.edu

The immediate **Past Division Chair** (1) assumes the responsibilities of vacated offices that exist, (2) chairs the awards committee, and (3) provides counsel to the Division Chair.

The **Division Chair** (1) has administrative responsibility for all function of the Division in accordance with Bylaws, (2) provides counsel to the program chair, (3) runs the annual business meeting and (3) communicates with the PIC IV Chair.

The **Program Chair** (1) plans and organizes all sessions sponsored by the Division at the Annual Conference, and (2) appoints all non-elected officers as indicated in the Bylaws, and (3) provides the nominations for paper awards to respective awards chairs.

The Program Vice-Chair (1) assists the Program Chair in planning and organizing sessions at the Annual Conference, (2) assumes the responsibilities of the Program Chair upon vacancy.

The Treasurer (1) handles all financial dealings of the Division, and (2) provides a report on all Division accounts during the Annual Business Meeting.

The Secretary (1) takes minutes of the Annual Business Meeting and provides these electronically to the Executive Board, and (2) coordinates any advertisement required.

The Membership Chair identifies strategies to improve membership in the division

The Newsletter Editor provides a monthly newsletter to the division.

The Social Presence Director: oversees management of any websites, and other forms of social media related to NEE Division members and activities, particularly within ASEE.

The Diversity Liaison attends the CDEI meeting and coordinates with the Newsletter Editor to circulate information.

The P-12 Engineering Education Liaison attends the meetings by the Commission and coordinates with the Newsletter Editor to circulate information.

New: The Students Division Liaison interacts with leaders of the ASEE Students Division and coordinates collaborative activities for NEE.

New Engineering Educators Division

June 2025

Updates from ASEE Commission on PreK-12

2025 PREK-12 ENGINEERING EDUCATION TEACHER CONFERENCE

FREE ADMISSION!! CATERED LUNCH INCLUDED!!

ASEE Commission on P-12 Engineering Education, in partnership with the Canadian Engineering Education Association (CEEA) is offering a wide variety of program to support any engineeringinterested educator.

- Attend workshops sharing real hands-on classroom materials
- Learn directly from engineers in industry and academia
- Discover innovative teaching strategies to make engineering engaging and accessible for all

Use QR code to register and email $\underline{aseecp12@gmail.com}$ for more information

Where: Montreal Polytechnique When: Saturday, June 21 8:00 am – Coffee 8:30 am – 4:30 pm Programming



ENGINEERING NAVIGATOR

The <u>United Engineering Foundation (UEF)</u> has funded CP12's partnership with DiscoverE and over 12 associations and universities to develop the Engineering Navigator, an AI-enhanced search bot to share engineering outreach events with PreK-12 students, parents, and teachers.

- Train our model and get your events out there by completing this <u>Google Form</u>.
- Submitters will receive a notification when the beta-bot is ready for feedback and to embed the final bot on their websites.

CALL FOR NOMINATIONS: CHAIR OF COMMISSION

- Term: 3-year commitment starting June 2026; shadow current chair in 2025-2026 year
- Nominations must be submitted asap on this <u>Google form</u>.
- For questions, please contact CP12 Chair, Katey Shirey (<u>katey@edukatey.com</u>).

Resources for New Engineering Educators

NCFDD TEACHING TOOLKIT PROGRAM

The <u>Teaching Toolkit Program</u> is a hands-on, 4-week course that gives faculty a clear framework for designing (or redesigning) their courses—plus tools to boost efficiency, confidence, and student engagement.

You'll get practical strategies you can apply immediately—without having to read another theory-heavy book or sit through abstract seminars.

2025 Session runs Juny 7 – August 3 For questions email <u>Teaching@NCFDD.org</u>

OTHER NCFDD RESOURCES

The <u>National Center for Faculty Development and Diversity</u> (NCFDD) provides resources for faculty and administrators including the <u>Faculty Success Program</u>, <u>14-Day Writing Challenge</u>, and other <u>events and webinars</u>. Additional resources are available for members exclusively. Consider joining as a member or petitioning your administrator for an <u>institutional membership</u>.

CIRTL COURSES

An Introduction to Evidence-Based Undergraduate STEM Teaching

• Learn evidence-based teaching fundamentals in <u>this 8-module, self-paced, asynchronous</u> <u>online course</u> designed for future faculty in STEM disciplines (science, technology, engineering, and math).

Advancing Learning Through Evidence-Based STEM Teaching

• Learn effective college-level teaching strategies that engage learners through active learning, as well as the research that supports them, in <u>this 8-module, self-paced, asynchronous online</u> <u>course</u> designed for future faculty in STEM disciplines (science, technology, engineering, and math).

JOB POSTINGS THAT MAY BE OF INTEREST TO YOU OR SOMEONE YOU KNOW

Non-Tenure Teaching Trak Faculty - Electrical and Computer Engineering

University of Illinois at Chicago

The Department of Electrical and Computer Engineering (ECE) at the University of Illinois Chicago invites applications for non-tenure faculty position(s) in computer engineering. Teaching faculty have a standard teaching load of three course sections per semester. Additionally, teaching faculty participate and often lead efforts in shared governance and committees, curriculum decisions and development, and engineering education at a local and national level. This position offers a competitive salary and benefits, up to five-year contracts depending on the rank, and support for professional development, such as participation in regional and national meetings of relevant professional societies such as ASEE, IEEE Education Society, and IEEE.

Duties & Responsibilities

- Teach foundational computer engineering courses to undergraduate and/or graduate students, such as ECE 265, 266, 366, 465, 466, 467 (https://catalog.uic.edu/all-course-descriptions/ece/)

- Perform scholarship and service activities (Clinical track)

- Perform other related duties and participate in special projects as assigned

More information: <u>https://jobs.ieee.org/job/non-tenure-teaching-track-faculty/78529064/</u>

Assistant or Associate Research Professor - Career

Washington State University

Conduct research on bioproducts and bioenergy with focus on polymer-renewable fiber composite materials with emphasis on circular economy principles. Requirements include a deep knowledge about wood and natural fiber-based materials, polymer science and engineering, wood chemistry and processing, bio-based polymers, and nanomaterials. Knowledge about processing of wood and natural fiber-based composites (wood plastic composites, fiber panels, and mass timber panels), adhesive bonding mechanisms, and characterization of these materials will be expected. Furthermore, interest and an understanding of synthetic fibers, biochar, material recycling, and end-of-life options, and development of value-added products from varied applications will be essential. This position also requires working with industrial clients in troubleshooting and technology transfer through research as well as client-driven projects as the extension component is a significant aspect of the role.

More information: <u>https://wsu.wd5.myworkdayjobs.com/en-US/WSU_Jobs/job/Pullman-WA/Assistant-or-Associate-Research-Professor---Career_R-13579</u>