



# NEW Engineering Educators Newsletter

Editor: Jutshi Agarwal, University at Buffalo, SUNY

## A message from the Division Chair

Rossana Villa-Rojas

Department of Food Science and Technology  
University of Nebraska-Lincoln

Dear NEE members

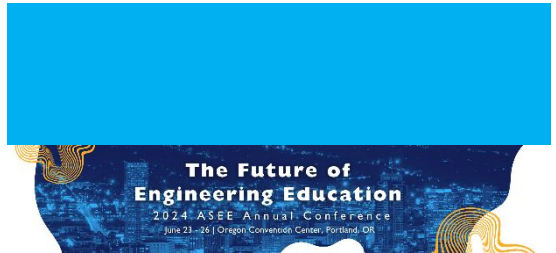
I hope you closed your academic year strong and are on your way to a productive and relaxing summer. We have an exciting program planned for the 2024 ASEE Annual Conference in Portland that we hope you will find interesting



The New Engineering Educators division fosters the exchange of ideas from members of diverse backgrounds and at different stages of their careers. Our mission is to provide resources and research that can serve our members in their teaching, research and professional development endeavors. We also strive to provide a forum for the exchange of ideas from all our members from recent graduates to experienced faculty. We appreciate your participation in this year's conference as an author, reviewer, or moderator. Your contributions keep our division active and in service to our members. I would like to extend my congratulations to all of our Best Paper and Best DEI Paper winners; I look forward to congratulating you in person during our Division Social. I also want to recognize the contributions of all our officers who have worked hard to keep the division running. A special thank you to our Program Chair, Ahmed Dallal, for all his hard work in putting the program together. We hope to see you in one of our workshops, sessions or panels. We also invite you to join us during our Division Social. If you want to know how our division works or are considering getting involved, come to our business meeting and become part of our team. Finally, if you are new to the ASEE conference, I encourage you to attend the orientation organized by ASEE HQ, session M469B Greet the Stars! ASEE New Members & First Timers Orientation on Monday at 1:30 PM Portland Ballroom B – SGS.

I look forward to seeing you in Portland!  
Best regards,

Rossana Villa-Rojas  
2024 NEE Division Chair



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### Join us AT the NEE Business Meeting

**When?** 9:15 am – 10:45 am on  
Tuesday, June 25<sup>th</sup>

**Where?** Willamette 1A, Hyatt  
Regency Portland

## Highlights of the program in Portland

Greetings! I hope your summer is off to a wonderful start. We have an exciting program planned for the 2024 ASEE Annual Conference in Portland, OR. I hope you will be able to join us.

The New Engineering Educators (NEE) division includes members from a variety of backgrounds. Although many NEE members are new faculty members having recently graduated from PhD programs, there are many others who have worked in industry or government for several years before entering academia. Similarly, there are some seasoned faculty members who have great advice to give to new engineering faculty and have maintained ties with the division even though they can no longer claim to be “new” engineering educators. As mentioned in the call for papers, we actively seek papers that give advice on writing technical papers, obtaining grant funding, mentoring new faculty members, introducing novel classroom techniques and integrating technology in the classroom, and preparing for tenure and promotion, among many other topics.

This year, we have a lineup of intriguing workshops and technical sessions. The NEE division will kick off the events on **Sunday, June 24**, with two highly anticipated workshops. The first workshop focuses on funding opportunities for new engineering researchers through the NSF RIEF program. The second workshop delves into the topic of universal design for learning. Both workshops will take place from 1:00 to 3:30 pm, with the NSF RIEF workshop in Oregon Convention Center room D139 and the universal design workshop in room E141. Following the workshops, we invite you to stop by our table at the **ASEE division mixer** in Ballroom 201-204, where you can engage in conversations with fellow NEE colleagues and officers. It's a great opportunity to connect and network within the division.

On **Monday**, after the morning plenary and poster session, we will commence our first technical session at 11:00 AM. This session will feature papers that focus on tools and techniques instructors can adopt for an impactful learning experience. It will be held in room B166 of the Oregon Convention Center. In the afternoon, we encourage new members and first-time attendees to join us for the **Greet the Stars!** luncheon, starting at 1:30 PM in the Portland Ballroom B - SGS. Later in the day, we will host a special session on **Assessment Design in the Age of Generative AI**. During this session, facilitators will address the use of AI in assessment design, adjustments required in assessments to accommodate students' use of AI, and the associated ethical dilemmas. The session is scheduled for 3:15 PM and will take place in the Regency Ballroom C: Banquet.

**Tuesday** is shaping up to be our busiest day this year, packed with significant events. It all begins at 9:15 AM with the **NEE Business Meeting**, where we will hold elections for new officers for the upcoming 2024/25 academic year. Additionally, we will discuss important matters related to planning for the 2025 Annual Conference in Montreal. Following the business meeting, we have two consecutive technical sessions lined up. The second NEE technical session will commence at 1:30 PM, focusing on the **experiences, identities, and perspectives of educators**. Then, at 3:15 PM, our third technical session will delve into **course development, logistics, and student perceptions** of classroom techniques. Both sessions will take place in room E144 of the convention center. Simultaneously, at 1:30 PM, the NEE division is co-sponsoring a community roundtable session, providing an opportunity to share concerns, experiences, and ideas to advance engineering education in grades preK to 12. This insightful roundtable session will be hosted in Portland Ballroom C: Banquet.

We wrap up Tuesday with the **NEE Division Social**. Please join us for the **NEE Social Event** Tuesday evening at 7:00 pm. This year, we will meet at the Brix – Pearl in Downtown Portland ([website](#)) to network with other new engineering educators and identify potential collaborators for future projects. Food and drinks will be available for purchase to suit a broad palate of tastes.

On **Wednesday**, at 3:45 PM, we will be hosting our final technical session for this year's annual conference. This session will showcase papers covering various aspects of **course assessments**, such as grading and relaxed deadlines. The session will take place in room C125 of the convention center.

As usual, we have a very exciting lineup of technical sessions, panels, and workshops. 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 faculty who may be experiencing many of the same issues that you face on a regular basis.

I look forward to seeing you in Portland! Safe travels!

Ahmed Dallal



### [Call for Officers – Join our Leadership and Partnerships Teams!](#)

New Engineering Educators Division (NEE) is seeking nominations for the positions of **Division Chair**, **Program Vice-Chair**, **Secretary**, and **Treasurer**, who will be elected at our Annual Business Meeting at ASEE 2024 in June as well as those interested in coming aboard the Leadership Team in a less formal capacity. The Division Chair, upon completion of their term shall become Past Division Chair. The Program Vice-Chair, upon completion of their term, shall become the Program Chair. Please consider nominating someone –or yourself– for these leadership positions. If you have questions, feel free to contact anyone currently on the NEE Leadership Team. Nominations can also be made at the NEE Business Meeting on Tuesday from 9:15 AM to 10:45 AM at the Williamette 1A, Hyatt Regency Portland. At that time, a vote will be taken to elect our new board members. 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!

For nominations, please link to the following to indicate the position of interest and the nominee's name, contact information and affiliation(s). 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:

<https://forms.gle/6DgJXDxIqsqR9igc6>

**NEE Business Meeting on Tuesday, June 25, 2024 from 9:15 AM to 10:45 AM**  
**Williamette 1A, Hyatt Regency Portland**

# Get to know your NEE officers



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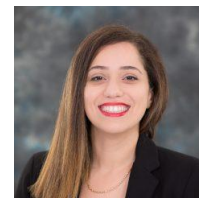
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The immediate **Past Division Chair** (1) assumes the responsibilities of vacated offices that exist, (2) chairs the awards committee, and (3) provides counsel to the Division Chair.

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 **P12 Engineering Education Liaison** attends the meetings by the Commission and coordinates with the Newsletter Editor to circulate information.



# Annual conference NEE events

## Sunday, June 23

### U442 - Sunday Workshop: Learning Experiences for All: Using Universal Design for Learning to Reimagine and Craft New Learning Experiences

Sun. June 23, 2024 1:00 PM to 3:30 PM

Room E141, Oregon Convention Center

Speakers: Adam R. Carberry, Samantha Ruth Brunhaver, Rachel Figard, Marcus Melo de Lyra

### U442B - Sunday Workshop: Funding for New Engineering Education Researchers: Applying to the NSF RIEF Program

Sun. June 23, 2024 1:00 PM to 3:30 PM

D139, Oregon Convention Center

Moderators: Sagnik Nath, Sanaz Motamedi

Speakers: Julie P. Martin, Sindia M. Rivera-Jiménez, Karin Jensen

## Monday, June 24

### M342 - NEE Technical Session 1 - Educator's Tools

Mon. June 24, 2024 11:00 AM to 12:30 PM

B116, Oregon Convention Center

Papers in this session cover tools and procedures for instructors to have a more impactful learning experience.

Moderators: Christopher Green and Tai Chen

Papers Presented:

#### **Integrating Ethics into Engineering Education: A Case-Based Learning Approach**

Jennifer Mott and Steffen Peuker

#### **Development of a Procedure to Avoid Plagiarism in Scholarly Work**

Quamrul H. Mazumder and Sunzia Sultana

#### **A Tool for Gaining Insight into Students' Self-Directed Learning Skills**

Toluwalase Opanuga, Heidi A. Diefes-Dux, Logan Andrew Perry, and Grace Panther

#### **There's a Textbook for this Class? Scaffolding Reading and Note-taking in a Digital Age**

Timothy A Wood and Stephanie Laughton

#### **WIP: Using Simple Board Games to Teach Complex Concepts**

Laura Savage

## Monday, June 24

### **M542 - Special Session: Assessment Design in the Age of Generative AI**

Mon. June 24, 2024 3:15 PM to 4:45 PM

**Regency Ballroom C, Hyatt Regency Portland**

The aim of this session is to provide participants with concrete ideas on how they can incorporate generative AI into their classes and how they can support students in using these tools to help them be successful.

Moderators: Sanaz Motamedi and Lizandra C. Godwin

Speakers: Leanne Dawson, Emily Ann Marasco

## Tuesday, June 26

### **T242 - NEE Division Business Meeting**

Tue. June 25, 2024 9:15 AM to 10:45 AM

**Williamette 1A, Hyatt Regency Portland**

### **T442 - NEE Technical Session 2 - Educator's experience and perspective**

Tue. June 25, 2024 1:30 PM to 3:00 PM

**E144, Oregon Convention Center**

Moderator: Vimal Kumar Viswanathan

### **Effective Strategies for New Faculty from the Perspective of an Assistant Professor in the Early-Career Stage**

Yuzhang Zang

### **Engineering Educator Identity Development in a Socially and Culturally Embedded Discipline Specific Graduate Teaching Assistant Professional Development Program**

Gokce Akcayir, Marnie V Jamieso, Kristian Basaraba, Duncan Buchanan, Qingna Jin, Mijung Kim, Janelle McFeetors, and Kerry Rose

### **Exploring the Connection Between Positioning Theory and Educator Experiences**

Yuliana Flores, Cynthia J. Atman, Soraya Grace Barar, and Jennifer A Turns

### **Getting Started Teaching an Undergraduate Engineering Laboratory**

Rebecca Marie Reck, Jessica R TerBush, Caroline Cvetkovic, Holly M Golecki, Christopher D. Schmitz, Katie Ansell, David Mussulman, Chandrasekhar Radhakrishnan, and Ilalee Harrison James

## Tuesday, June 25

### **T4101 - Panel: ASEE's Code of Ethics and Conduct: Reflecting Community Values**

Tue. June 25, 2024 1:30 PM to 3:00 PM

**Oregon Ballroom 202, Oregon Convention Center**

Join us to discuss ASEE's Code of Ethics for Engineering Educators, the Volunteer Code of Ethics, and the Code of Conduct for Activities and Events.

Moderators: Rosalyn W. Berne and Michael C. Loui

Speaker: Rebecca A. Bates

### **T493 - Special Session: ASEE Member Community Roundtables on Engineering from Pre-K to 12 (CP12)**

Tue. June 25, 2024 1:30 PM to 3:00 PM

**Portland Ballroom C, Oregon Convention Center**

This inaugural multi-division roundtable session will provide an opportunity for ASEE members from any Division to share concerns, experiences, and ideas to advance engineering education in grades preK to 12.

Moderator: Katey Shirey

### **T542A - NEE Technical Session 3: Courses: development, logistics, and impact**

Tue. June 25, 2024, 3:15 PM to 4:45 PM

**E144, Oregon Convention Center**

Moderator: James Giancaspro P.E.

Papers Presented

#### **Translation of Green Infrastructure for Stormwater Mitigation and Pollution Control Research into Engineering Education**

Meghana Parameswarappa Jayalakshamma and Ashish D Borgaonkar

#### **Case Study: A Comparative Analysis of Teaching Modalities in Thermodynamics**

Jennifer Mott

#### **The Impact of In-person Instruction on Student Performance Using a STEM Technical Design Course**

Sarah Rajkumari Jayasekaran

#### **Impact of Students' Backgrounds on Online Learning Behavior: Generation Z Technology Acceptance of E-Learning Technology during COVID-19**

Sanaz Motamedi and Viktoria Medvedeva Marcus

# Tuesday, June 25

## T742·NEE Division Social

Tue. June 25, 2024 7:00 PM to 9:00 PM

Brix - Downtown Portland

1338 NW Hoyt St., Portland, OR 97209

Come join the members of the New Engineering Educators division as we unwind and formally recognize this year's conference paper awardees. Food and drinks will be available for purchase to suit a broad palate of tastes. Prospective members are especially encouraged to attend.

# Wednesday, June 26

## W542 - NEE Technical Session 4: Assessments: Grading and deadlines

Wed. June 26, 2024 3:45 PM to 5:15 PM

C125, Oregon Convention Center

Moderator: Christopher Kurtis Russell

Papers Presented:

### **What Do Grades Mean? A Scoping Literature Review on Students' Perceptions of Grades and Grading Practices**

Cassie Wallwey, Michelle Soledad, and Carol Geary

### **Grading for Equity in Engineering Education: A Case Study with Implementation Examples**

Jennifer Mott

### **Relaxed Deadlines: Do They Provide an Unfair Advantage?**

Bridget M. Smyser

### **WIP: Exploring Strategies that Allow Multiple Attempts on Formative Assessments in an Introduction Programming Course**

Bob Schaffer



Best paper winners



Best DEI paper winner



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**JOB POSTINGS THAT MAY BE OF INTEREST TO YOU OR SOMEONE YOU KNOW****Professor, Tenure Track - Electrical Engineering**

University of South Carolina

The College of Engineering and Computing at the University of South Carolina is in the process of expanding its tenured and tenure-track ranks significantly in the next several years. As part of this growth, the Department of Electrical Engineering is looking for dynamic tenured and tenure-track faculty members for Fall 2024 at the rank of Assistant or Associate Professor.

Applicants for the Assistant Professor rank must possess a PhD degree in electrical engineering or a related field by the time of appointment, plus demonstrated potential for excellence in teaching and research. Applicants for the rank of Associate Professor must also have years of relevant academic experience commensurate with academic policy, plus a strong, sustained record of excellence in teaching and research, including competitive funding and interdisciplinary collaborations.

More information: <https://uscjobs.sc.edu/postings/166104>

**Teaching Professor (all ranks) or Instructor - School of Computing and Augmented Intelligence**

Arizona State University

The School of Computing and Augmented Intelligence (SCAI) in the Ira A. Fulton Schools of Engineering at Arizona State University (ASU) seeks energetic individuals for multiple full-time positions of Teaching Professor (all ranks considered) or Instructor beginning August 2024. These teaching faculty positions support primarily the Computer Science and Industrial Engineering programs, but teaching faculty are expected to support the instructional mission of all SCAI programs. SCAI has locations on the Tempe and Polytechnic Campuses and the programs are expanding to the West Campus, and thus some travel among campuses should be expected. In addition, SCAI offers multiple online degree programs and faculty participate in the creation of curriculum and delivery of instruction in the online modality. All teaching faculty positions are non-tenure track appointments with a fixed term academic year contract. Appointments will be made at the rank of Teaching Professor, Associate Teaching Professor, Assistant Teaching Professor, or Instructor commensurate with the candidate's experience and accomplishments. Opportunities exist to augment the academic year salary by assisting with summer instruction.

More information: <https://apply.interfolio.com/146757>