



ANNUAL
CONFERENCE
2-5 SEPTEMBER 2024
LAUSANNE

Educating Responsible Engineers

SEFI 2024 IN BRIEF

The summary of key insights and takeaways
from SEFI 2024 Annual Conference



A WORD FROM SEFI PRESIDENT

Dear Reader,

It was a great pleasure to meet the SEFI Community in Lausanne at EPFL, the prestigious host institution of the 2024 SEFI Annual Conference. We are immensely grateful for the warm and professional hospitality extended by the local organising team.

This year's conference centred on a critical theme: our responsibilities as educators, engineers, and engineering educators. Through inspiring keynotes, thought-provoking lectures, and engaging workshops and sessions, we had a remarkable opportunity to grow both professionally and personally in various aspects of engineering education. Speaking for myself, I certainly did.

In this brief document, we've highlighted some of the key events and outcomes of the conference to provide a general overview and spark your interest in exploring specific areas of engineering education. Whether your focus is on teaching practices, skill sets, research design, industry-related solutions, AI, curriculum development, lifelong learning, or other topics, you will find a wealth of scientific and practical knowledge. The details are available on the conference website and will soon be published in the proceedings; they can serve as valuable resources for your research or be directly applied in your teaching and professional practices. We encourage you to share these resources with your colleagues for the collective benefit of the engineering education community.

Based on the experiences of the 2024 SEFI Annual Conference, we look forward to welcoming you to future SEFI events and activities throughout the academic year.

BALÁZS VINCE NAGY
SEFI PRESIDENT



CONTENTS



04

SEFI 2024 OVERVIEW

07

INDUSTRY INSIGHTS

09

STUDENT PERSPECTIVE

10

SPECIAL INTEREST GROUPS

12

2024 SEFI AWARDS

19

DOCTORAL SYMPOSIUM

20

ASIAN FORUM

22

SPONSORS



SEFI 2024

BY KLARA FERDOVA
SEFI SECRETARY GENERAL

The SEFI Annual Conference 2024 attracted over 550 participants, half of them newcomers, demonstrating growing interest in advancing the field of engineering education. With a theme centered around *Educating Responsible Engineers*, the conference featured groundbreaking research, discussions, workshops, and sustainability initiatives that will set a new benchmark for future SEFI conferences.

The first conference keynote was given by **Johanna Lönngren** (Umeå University), whose presentation explored a new field of research in engineering education, focused on the role of emotions in engineering education. Johanna challenged conventional views,

arguing that emotions, often seen as a threat to technological work, should be understood as integral to responsible engineering. Her keynote set the stage for a conference that continually returned to the theme of integrating ethical considerations into technical education.

The second day began with a round-table discussion chaired by Roman Bruegger, featuring industry leaders from MathWorks – **Tanya Morton**, Ansys – **Tatiana Vakhitova**, Dassault Systèmes – **Xavier Fouger**, Bentley Systems – **Chris Bradshaw**, and Siemens – **Martin Koczman**. The panel addressed essential skills for future engineers, highlighting the importance of embracing



the diversity engineering teams. Discussions on the Archimedean Oath, an ethical framework for engineers developed at EPFL in the 1990s, provided a rich dialogue on the future of professional ethics in the field.

Another keynote of great impact came on Wednesday from **Margarita Boenig-Liptsin** (ETH Zurich), who explored the evolving relationship between humans and computers. She advocated for an approach to digital literacy that extends beyond technical competence, urging educators to train students in critical thinking about the societal and ethical implications of technology. It was followed a panel discussion, led by three EPFL students, that included Pierre Dillenbourg (EPFL), Gerhard Müller (TU Munich), and Emanuela Tilley (UCL London), who further discussed the Archimedean Oath and challenged traditional ways of teaching engineers. Margot concluded with a powerful call for engineers to engage in reflective thinking and the limits of their own expertise.



On the final day, the renowned scholar **Donna Riley** (The University of New Mexico) delivered an engaging keynote titled Engaging Moral Imagination in Engineering Ethics Education. She advocated for rethinking the structure of ethics education in engineering, proposing a shift away from traditional models focused on single-course interventions and case studies. At the end of Q&R, Donna called for the whole society to impose ethical expectations on engineers.





The organisers' commitment to sustainability and inclusivity made this conference truly stand out with a series brand new initiatives. The delicious fully vegetarian and vegan catering was sourced from local, sustainable suppliers. Scholarships were offered to students and early-career researchers from underrepresented countries, reducing financial barriers and enabling a diverse group to participate. Additionally, sponsored childcare services were provided, allowing parents and caregivers to attend the full conference programme. The introduction of inclusivity ribbons, with tags such as "First time at SEFI" and "SEFI Ally," – for those who joined the SEFI Ally training before the start of the

conference, helped foster a welcoming and supportive atmosphere amongst all attendees, while morning wellness activities, including yoga, tai chi, mindfulness, and running, supported participants' physical and mental well-being.

SEFI Annual Conference 2024 was a resounding success, bringing together cutting-edge research, forward-thinking discussions, and commitment to some of the SEFI's basic values such as sustainability and inclusivity. The insights, connections, and innovative ideas generated during this event will undoubtedly have a lasting impact on the future of engineering education [not only] in Europe.



KEY INDUSTRY INSIGHTS

BY ALESSANDRO TARCHINI
MATHWORKS

The SEFI 2024 Conference provided invaluable perspectives on fostering a stronger partnership between industry and academia. Key industry takeaways centered on improving engagement, inclusion, and the quality of collaboration.

Boosted Engagement and Atmosphere

A notable highlight was the heightened engagement and positive atmosphere among delegates and sponsors. Johanna Lönngrén's keynote on "Emotions in Engineering Education" set a relaxed, open tone, encouraging more dynamic interactions that fostered meaningful connections throughout the conference.

Focus on Inclusion and Structured Networking

The conference demonstrated a forward-thinking approach to inclusion, with structured networking activities that encouraged diverse collaboration among attendees. The networking events were carefully crafted to ensure meaningful engagement, helping build relationships between professionals from varied backgrounds.

Impressive Organization by EPFL

EPFL's exceptional event organization provided a seamless experience. With a perfectly sized venue, accessible and comfortable spaces, and clear session



navigation, the conference's setup allowed attendees to make the most of their participation.

Improving Industry Representation in Sessions

Industry sessions had strong attendance, but alignment between representatives' expertise and panel topics could be strengthened. Ensuring relevant profiles would maintain interest and engagement, and SEFI may benefit from guiding partners on selecting representatives with expertise closely aligned to the discussions.



Enhancing Corporate-Academic Collaboration

There is immense potential to deepen collaboration between industry and academia through joint R&D projects. Explicitly communicating corporate partners' expectations in the opening remarks would set a strong foundation for productive partnerships.

Elevating Session Content

While sessions were well-received, feedback suggested some lacked depth or introduced repetitive content. Elevating the sessions' depth would ensure they remain engaging, informative, and valuable for attendees.



Increasing Student Participation

Student organizations played a vital role at the conference, and increasing student attendance could further enhance this dynamic. Expanding student participation would not only enrich the conference experience but also broaden the influence of the next generation of engineers.

STUDENT PERSPECTIVE

KATRIJN VANDENBORNE
PRESIDENT OF BEST

The vibrant energy of the EPFL atrium during the SEFI Conference 2024 was memorable. The space buzzed with passionate discussions and it was inspiring to witness so many individuals—from students to professors—gathered for a shared purpose: to improve engineering education. The atmosphere was not only welcoming but also empowering for me, a student, as I actively contributed to conversations about our future.

The packed conference schedule offered a rich array of keynotes, paper presentations and workshops. The diversity of formats allowed for deep dives into specific topics such as the Archimedean Oath and the role of emotions in engineering education. One of the most thought-provoking sessions for me personally involved critical thinking and the question of whether it needs to be explicitly taught. After all, children as young as eight constantly ask, “Why?”. Perhaps, then, the challenge is not in teaching critical thinking but in nurturing and maintaining this natural curiosity throughout our education.

Breaks between sessions provided a unique opportunity to network with a broad spectrum of stakeholders: deans, professors, fellow students and company representatives. These conversations allowed us to gain insight into how different groups perceive the role of engineers in society, especially when faced with ethical dilemmas.

This exchange of ideas was particularly meaningful for international student organisations which work daily hand to hand in diverse environments while attending university.

The SEFI community feels like home, where we discuss the future of engineering education with inclusive perspectives in constructive ways, much like a family dinner table.

A personal highlight was moderating a panel featuring various engineering companies. The discussion explored how these companies promote diversity and address ethical considerations in their day-to-day operations. Towards the end of the panel, we delved into the companies' perspectives on the Archimedean Oath and how they reflect on its principles. As future professionals, understanding how companies address ethics, helps us guide the next generation of engineers toward more socially responsible careers.

The SEFI Conference succeeded in creating an inclusive space for students to participate fully in these critical discussions. The atmosphere was one of openness and respect, allowing us to feel like we truly belonged in these conversations about the future of our field. As students, we are grateful for the chance to contribute our voices to such an important dialogue. Participating in SEFI 2024 has provided invaluable insights that will help shape our ideal vision, particularly in how we continue to support engineering education and its focus on ethics, critical thinking, and societal impact. We hope our input was as valuable to others as their perspectives were to us.

SPECIAL INTEREST GROUPS

SEFI Special Interest Groups connect the educators, students and industrial stakeholders with interests in similar aspects of the engineering education. These year-round active groups organise meetings, workshops, seminars, write position papers and organise EU projects.

The **Attractiveness SIG** is open to students, educators, researchers and industry professionals to share good practices and insights into the enhancement of engineering (education) attractiveness and has focused on pre-university factors of attractiveness over the last year. We looked at the role of national education systems and organize two workshops on engineering outreach.

The **SIG Diversity, Equity, and Inclusion** is engaged in several key projects, such as following up on the SEFI 2023 DEI Workshop, conducting research on a comparative scientometric analysis of diversity, equity, and inclusion publications in EJEE and JEE (with initial findings to be presented at SEFI 2024), and working with the Attractiveness SIG on outreach and inclusion-focused research within engineering.

The **Quality Assurance and Accreditation SIG**, reestablished in 2024, aims to enhance the international accreditation of engineering programs and develop a registry for engineering educators. The SIG focuses on creating innovative resources to support quality assurance and accreditation, collaborating with ENAEE to improve processes in line with educational and technological trends.

The SEFI **SIG on Physics** brings together engineering physics teachers, addressing common challenges faced across different countries and educational levels. The group regularly shares developments in physics education research, along with solutions and experiences related to lecturing and lab work. The 2026 SEFI Physics Teaching in Engineering Education conference will be held in Warsaw.

SEFI **Mathematics SIG** (MSIG) focuses on organizing such as the 22nd SEFI Mathematics Interest Group Seminar to be held at Ostfalia University of Applied Sciences in Germany in June 2025. They consolidate a shared folder for materials from mathematics educators. The group currently works on four difference projects about mathematics teaching in engineering education.

The **Digital Learning SIG** was launched at the SEFI 2023 conference during the Open and Online Education SIG meeting. With new leadership and membership, the SIG has been rebranded and refocused to align with the interests of its members, covering topics such as Remote Learning, MOOCs, Open Educational Resources, Learner Analytics, and Artificial Intelligence.

The **SIG on Engineering Skills** began work on a SEFI handbook. In parallel, the group updated the SEFI position paper on skills from 2016, to align it with current trends in engineering education. Other initiatives include developing a case study database in collaboration with the SEFI journal's new editor-in-chief and producing monthly episodes of the SEFI podcast European Engineering Educators.

The **Sustainability SIG** plans to continue organizing online meetings that engage students, educators, engineers, and other stakeholders. The SIG also focuses on developing resources and projects to embed sustainability principles into engineering education and practice, aiming to create lasting change in the engineering education and profession.

The steering committee of **Capacity Building SIG** launched a collaborative research project to explore capacity-building practices, benefits, and barriers across European universities starting in September. The SIG is also involved in a cross-SIG research project with Skills and Lifelong Learning, examining lifelong learning perspectives among students, staff, and professionals.

SPECIAL INTEREST GROUPS

SEFI Special Interest Groups connect the educators, students and industrial stakeholders with interests in similar aspects of the engineering education. These year-round active groups organise meetings, workshops, seminars, write position papers and organise EU projects.

The **Engineering Education Research SIG** is actively addressing our community through a webinar series focused on the International Handbook of Engineering Education Research. The SIG is also dedicated to fostering the next generation of researchers by organizing annual PhD summer schools and pre-conference Doctoral Symposia, connecting renowned scholars with emerging researchers.

The SEFI **Ethics SIG** has set an ambitious agenda for 2024-28. Highlights include the upcoming Routledge Handbook of Engineering Ethics Education, and an editorial series on AI in education. Key initiatives also involve strengthening ethics capacity in Eastern Europe, and exploring engineering education topics such as epistemic uncertainty and discomfort. Collaborations include partnership with BEST on responsible engineering events in the Symposia on Education series.

This academic year, the **Curriculum Development SIG** of SEFI has been actively working with its members to refine its scope and outline a plan of activities. The SIG aims to strengthen the community of curriculum developers across Europe and globally. Additionally, the SIG is developing a communications strategy to effectively promote its initiatives and engage a wider audience.

SIG Continuing Engineering Education and Lifelong Learning:

From a Continuing Engineering Education (CEE) and Lifelong Learning (LLL) perspective, there were a range of diverse activities, including a workshop refining a taxonomy for CEE, developing a framework to support the development of educators working in CEE, insights into the skills of experienced CEE facilitators, discussions on how LLL competencies are developed in our students (EngPDP project), and topics around microcredentials. It was great to see existing SIG members, returning members, and new members contributing to the vibrant discussions.

There are still many interesting areas to work on, as exemplified by the SIG workshop. These include determining the needs of learners and identifying opportunities of sufficient scale to make CEE offerings viable and valuable for learners; the need for greater guidance for universities on how to approach the development of CEE offerings, which is linked to the need for educator training and support to deliver CEE offerings effectively, including contextualization and personalization of learning. It was discussed that AI and other technologies have the potential to benefit educators and students alike by personalizing learning, which can help better align with learners' motivations. It is important for those offering CEE courses to understand these technologies appropriately.

The discussions in the sessions and among colleagues have laid the foundation for an exciting year ahead, as we work to further develop the CEE taxonomy, the framework for CEE educators, facilitate exchanges around microcredentials, enhance lifelong learning guidance for the Accreditation of Engineering Education, explore business models for CEE, finalize a position paper, consider what the history of CEE can tell us about the future, and work more closely with our international colleagues, e.g., in the International Association for Continuing Engineering Education.

Christopher Smith (*Glasgow Caledonian University*)
SIG CEE&LLL Co-chair



LEONARDO DA VINCI MEDAL

The highest distinction SEFI can bestow is the Leonardo DaVinci Medal which recognizes remarkable contributions with a lasting global impact. This year, we were delighted to award the medal to **Professor John Mitchell** for his exceptional contributions to engineering education, which have had a profound and far-reaching impact on the global academic landscape.

A Leader in Engineering Education Professor Mitchell is a distinguished academic and leader in communications systems engineering. His impressive credentials include being a Chartered Engineer, a Fellow of the Institution of Engineering and Technology (IET), a Senior

Member of the Institute of Electrical and Electronics Engineers (IEEE), and a Principal Fellow of the Higher Education Academy. His leadership roles have included serving as President of the Engineering Professors' Council in the UK and Vice-President of Publications for the IEEE Education Society.

His most impactful work has been at University College London (UCL), where he founded the Integrated Engineering Programme. This pioneering initiative has reshaped how engineering is taught by integrating interdisciplinary learning and real-world problem-solving. As Vice Dean of Education for UCL's Faculty of Engineering Sciences, Professor Mitchell further championed innovative educational practices and played a key role in establishing the Centre for Engineering Education. This center continues to drive forward new approaches to engineering education and research, benefiting institutions globally.



FRANCESCO MAFFIOLI AWARD

The SEFI Francesco Maffioli Award, launched by SEFI to commemorate its late President Prof. Francesco Maffioli (Politecnico di Milano), is given by SEFI, to individual teachers, or a team of teachers, of higher engineering education institutions members of SEFI, in recognition of open-minded development of curriculum, learning environments or tools, novel didactics, methods or systems in engineering studies.

This year, the SEFI Francesco Maffioli Award of Excellence in Teaching of Engineering Education was presented to **Dr. ir. Volkert van Steijn** and the Pre-University Team, Associate Professor and Programme Director Bachelor Molecular Science & Technology and the pre-university Team Lead in the Department of Chemical Engineering/Applied Science University, TU Delft, Netherlands.

We all know that successfully starting higher education studies in STEM is not easy. At TU Delft, there was a great need for a pre-university “onboarding” programme for prospective students. TU Delft’s pre-university team comprising of students and staff developed an open, online programme that is continuously available, accessible and flexible. It covers familiar high school material with special attention to the intertwining of STEM subjects and University Engineering Education. The growing demand for engineering graduates, combined with low intake and high dropout rates, make the pre-university programme highly relevant. So far, thousands of prospective students from the Netherlands have participated, including students from all TU Delft’s bachelor’s programmes as well as students from more than 170 countries. The impact of the programme on study choice and on-boarding follows overwhelmingly from reactions and feedback from students. The feedback from students say that they start their studies with more self-confidence and more realistic expectations.

SEFI FELLOWS 2024

Gerhard Müller

This prestigious recognition honors Prof. Müller's outstanding contributions to engineering education and his long-standing service to SEFI and the global academic community.

A Civil Engineering graduate of TU Munich (TUM), he later completed his doctorate in 1989 and gained valuable experience as a postdoctoral researcher at the Ecole Nationale des Ponts et Chaussées in Paris. He then transitioned to industry, becoming managing director of Müller-BBM GmbH, where he specialized in acoustics and structural dynamics. Gerhard took position of the dean of Civil Engineering Faculty of TUM between 2010–2014. Since 2014 he has been serving as Senior Vice President for Academic and Student Affairs at TU Munich, bringing innovation to the way engineers are taught at TUM while balancing a dialog with German policy makers.

SEFI and EEDC Leadership

Gerhard has been a dedicated member of SEFI's Board of Directors since 2017, each time contributing to the organization's strategic development and professionalisation. His leadership extended to co-chairing the European Engineering Deans Council (EEDC), where he used his remarkable experience in academic leadership to organise the European Convention of Engineering Deans (ECED) in Munich and every year after that, making sure, that there is continuity in topics and the right 'flight level' is maintained for the engineering deans.



Impact on Global Engineering Education

In addition to his roles within SEFI, Gerhard has been a driving force behind the EuroTeq University Initiative, fostering collaboration between top European universities. He has also been actively involved in the Association of German Engineers (VDI) and the Bavarian Chamber of Engineers, contributing to the development of engineering education standards.

The SEFI Fellowship is a well-deserved recognition of Prof. Gerhard Müller's remarkable career and his dedication to advancing engineering education globally. SEFI looks forward to his continued leadership and impact on the future of the field.

SEFI FELLOWS 2024

Luis Manuel Sánchez Ruiz

The European Society for Engineering Education (SEFI) is delighted to announce that **Prof. Luis Manuel Sánchez Ruiz**, a distinguished academic and prominent leader in engineering education, has been awarded the SEFI Fellowship at the SEFI 2024 Annual Conference in Lausanne. This prestigious recognition honors Prof. Sánchez Ruiz's exceptional contributions to the advancement of engineering education and his long-standing service to SEFI and the global engineering community. A full professor at the Universitat Politècnica de València (UPV), Luis Sanchez is a passionate promoter of Peace engineering.

Luis has been the longest serving officer in the SEFI Board of Directors (2012-2023). Over the course of a decade, he played a vital role in shaping SEFI's strategic initiatives also twice in the role of SEFI Vice President (2015-2020, 2021-2023) when he lead our global partnerships, forging alliances with leading engineering education organizations worldwide. Luis was also instrumental to setting up the SEFI European Engineering Deans Council (EEDC) as an organiser of the European Convention of Engineering Deans (ECED) and later a co-chair of this Council. This initiative have significantly advanced dialogue on leadership in engineering education.



In addition to his roles within SEFI, Luis is about to take on the role of President of the International Federation of Engineering Education Societies (IFEES), where he continues to promote international cooperation and innovation in engineering education.

The SEFI Fellowship is a fitting recognition of Prof. Luis Manuel Sánchez Ruiz's remarkable contributions to engineering education and his dedication to SEFI. We look forward to his continued impact and leadership in shaping the future of engineering education.

BEST PAPERS

BEST STUDENT PAPERS

Elizabeth Sara Volpe, Denise Rutledge Simmons: Advice for Success: Insights from Early Career Women on Vital Competencies Empowering Their Transition into the Civil Engineering Workforce [link](#)

WINNER

The awarded work provides key strategies to support early-career women in civil engineering. It emphasizes the importance of maintaining work-life balance by prioritizing mental health and setting boundaries to avoid burnout.



Riikka Kangaslampi, Terhi Elina Kaarakka, Paula Immonen, Mikko Äijälä, Jani Hirvonen, Barkat Bhayo, Markku Kuosa, Johanna Naukkarinen: First-year Engineering Students' mathematical Skills and Perceptions of Studying Mathematics [link](#)

Shameela Arbi, Corrinne Shaw, Bruce Kloot: Using Narratives to Explore Social Influences on the Identities of Women Students in Engineering: Two Case Studies [link](#)

May Lim: Can a robot teach design? Large language model-based feedback tool for engineering design courses [link](#)

Leonardo Pollettini Marcos, Brent Jesiek, Stephanie Masta, Kerrie A Douglas: Engineering Education Accreditation Frameworks: History and Global Expansion of the Washington Accord and EUR-ACE Label [link](#)

BEST PRACTICE PAPERS

Aled Wyn Davies: Using 'Design Shorts' to Engage Engineering Students in Self and Peer Supported Problem Based Learning [link](#)

WINNER

The paper describes a group-based method called 'design shorts' to help the students understand the wider context and interrelationship between different technical content using formative self and peer assessment to support learning.

The approach is relevant, original, innovative, well contextualised, and systematically constructed. The assignments create a sequence of targeted feedback opportunities to enhance students' understanding of structural behaviour while introducing a self-learning ethos. Designed to deliberately link content across the module, the 'design shorts' create a "thinking" culture amongst students. As such, the paper provides a good example of a good reflective approach to PBL organised for large groups and using a method that would appear to be quite readily replicable in a similar or adapted form.



Fiona Truscott, Lelanie Smith: Do you need to be mad to work here? Reflections on leading extremely large-scale interdisciplinary team project modules [link](#)

Joanna Weng: Critical Thinking with AI: Navigating ChatGPT in Engineering Education [link](#)

BEST PAPERS

BEST RESEARCH PAPERS

Aditi Kothiyal, Avanish Chauhan, Sameer Sahasrabudhe, Madhu Vadali: Making Confident Designers: Effect of a design and prototyping course and gender differences in students' engineering design self-efficacy [link](#)

WINNER

The results showed that students does show a weighted self-efficacy but that also there were differences in self-efficacy between the genders. It concluded by providing guidance from the study to those designing first year practical experiences.

Congratulations to the winning team and we wish them well for the continuation of their research in this area.

Nihat Kotluk, Yoann Favre, Marina Fiori, Egon Werlen, Roland Tormey: The emotional Journey of Computer Science Students in Team Projects: The Turbulences and the interplay between the academic emotions [link](#)

Johannes Strobel, Emmanuel Sepulveda Guzman, Maartje Van den Bogaard, Mara N. Medina: Intellectual Humility, Empathy, and Resistance to Change among Science and Engineering Students [link](#)

Meryn McNea, Reena Cole, David Tanner, Diarmaid Lane: Career Path Influences: A thematic analysis among practicing engineers and former aspirants [link](#)

SUSANNE IHSEN AWARD

Shameela Arbi, Corrinne Shaw, Bruce Kloot: Using Narratives to Explore Social Influences on the Identities of Women Students in Engineering: Two Case Studies [link](#)

WINNER

The winning paper focused on how the experience of female engineering students is influenced by multiple factors as well as how these student have navigated these impacts within two quite different contexts, finding some interesting similarities between the two. They have then drawn on that knowledge to then recommend how we can think about supporting these students in the future.

Ann Sharon Lourens, Nicole Truter, Curwyn Mapaling: Proposing a Mentorship Life Cycle for a Developing Country's Women Engineering Students and Early Career Women Engineers [link](#)

Elizabeth Sara Volpe, Denise Rutledge Simmons: Advice for Success: Insights from Early Career Women on Vital Competencies Empowering Their Transition into the Civil Engineering Workforce [link](#)

EUROPEAN JOURNAL OF ENGINEERING EDUCATION BEST PAPER VOL. 48

BY KRISTINA EDSTRÖM, EDITOR IN CHIEF OF EJEE

Kristina Edström:

It's been exciting to see the immediate impact of this paper. But what made this the best paper for me is how useful it is. Now that many of our assessment practices are seriously challenged, the authors not only help us understand the situation, they also provide a goldmine of very valuable advice. Scholarliness and usefulness are the two quality criteria of this journal, and this paper combines them beautifully.

WINNER 2023

Sasha Nikolic, Scott Daniel, Rezwanul Haque, Marina Belkina, Ghulam M. Hassan, Sarah Grundy, Sarah Lyden, Peter Neal & Caz Sandison. (2023).

ChatGPT versus engineering education assessment: a multidisciplinary and multi-institutional benchmarking and analysis of this generative artificial intelligence tool to investigate assessment integrity.

[European Journal of Engineering Education, 48\(4\), 559–614.](#)

This paper explores the potential impact of ChatGPT on engineering education assessment methods and its role in enhancing learning. It is written by a diverse team of authors from multiple universities and a number of disciplines. The study investigates the ability of ChatGPT to succeed in different assessment tasks. The authors use the findings to offer thoughtful and useful guidance on adapting assessment strategies to uphold academic integrity, while improving the authenticity and validity of assessment. This makes the paper a timely resource addressing a pressing issue for educators.

The paper has already made significant impact, as indicated by its impressive citation and download rates. Published in late May 2023, it has already had over 30 000 downloads, and counting. It is the 4th most-read EJEE paper of all time, still with a good chance to climb to the top.



8th DOCTORAL SYMPOSIUM

BY SHANNON CHANCE

The 8th SEFI Doctoral Symposium in Engineering Education Research, held on September 1st, 2024, at EPFL, brought together 31 Ph.D. students from 13 countries across four continents. This full-day event, preceding the SEFI Annual Conference, offered a dynamic and enriching experience for early-career researchers, who had the opportunity to share their research, explore study plans, and expand their professional networks. With 22 senior scholars from diverse regions, including Africa, Australia, North America, and Europe, the symposium fostered an environment of learning, support, and collaboration. Participants highlighted the strong sense of community and belonging, praising the

feedback and personal guidance they received. The interactive nature of the event included short senior introductions, group discussions on individual Ph.D. projects, speed-dating-style networking, and final nuggets of advice to equip each attendee with valuable insights and connections. The symposium's purposeful structure enabled students and mentors alike to engage deeply, sparking discussions that went beyond research topics to include personal and professional growth. The SEFI Doctoral Symposium continues to play a pivotal role in the evolving field of engineering education research (EER). Many Ph.D. researchers in this area often work in isolation within their institutions, making the supportive network developed through SEFI critical. By connecting emerging researchers with established scholars, the symposium not only advances the field but also nurtures a sense of shared purpose and community.

This year's event demonstrated the increasing global reach and impact of the SEFI network, setting the stage for continued growth and innovation in EER. Organising this event on behalf of SEFI is a pleasure and an honour for our team (Jonte Bernhard, Kristina Edström, Tinne de Laet, and Shannon Chance), and we look forward to flourishing as a research community alongside the juniors and seniors who participated in the 2024 2024 symposium. Look for the forthcoming conference paper on the event, which will be chock-full advice from the year's participants.

The Doctoral Symposium was proudly chaired by:

- **Jonte Bernhard**, Professor Emeritus, Deputy Editor of the European Journal for Engineering Education
- **Shannon Chance**, Professor, Deputy Editor of the European Journal for Engineering Education
- **Tinne De Laet**, Associate Professor, Chair of the SEFI SIG Engineering Education Research
- **Kristina Edström**, Associate Professor, Editor-in-Chief of the European Journal for Engineering Education

ASIAN FORUM

In order to further promote the establishment of a comprehensive global academic network in engineering education by SEFI and to offer European engineering education scholars and students insights into the latest research developments and educational reform experiences in Asian engineering education, the Chinese Society of Engineering Education (CSEE) has proposed the workshop of the Asia Engineering Education.

The workshop was themed "Exploration and Practice of Asian Engineering Education: Cultivating the Next Generation of Outstanding Engineers."

Participants got the chance to gain further insights into the latest trends in cutting-edge Asian engineering education research and several case studies by participating in this forum.

CSEE invited experts from prominent science and engineering universities in major Asian countries to share their experiences in engineering education reforms and outstanding engineering education practices.

The invited Chinese universities included Zhejiang University, Tsinghua University, Huazhong University of Science and Technology, Tianjin University, Beijing University of Aeronautics and Astronautics, University of Electronic Science and Technology, Southern University of Science and Technology, University of Hong Kong, Hong Kong University of Science and Technology, and University of Macau. Furthermore, participants from Japan, Taiwan and Thailand and Singapore joined with presentations.

To encourage extensive interaction, the forum will include presentations from six experts, with each expert given space to present their university's Engineering Education activities followed by a Q&A session to facilitate exchange between the participants. Leveraging the rich resources of universities and enterprises across Asia and China, CSEE will use this workshop as an opportunity for extensive publicity, ensuring that more scholars from the Asian engineering education field are aware of the latest developments at the conference and encouraging more Chinese scholars to participate in the forum in Switzerland, thereby fully realizing the connection and interaction between scholars from Europe and Asia.

"Exploration and Practice of Asian Engineering Education: Cultivating the Next Generation of Outstanding Engineers" from major Asian countries and universities. Outstanding papers will be selected for presentation at the conference, and a complete collection of conference papers will be compiled and widely promoted in Chinese universities after the conference. The establishment of the Asian Engineering Education Forum not only brought Asian engineering education research into Europe but also enabled European engineering education research to enter Asia, signifying the significant importance of deep cooperation and positive communication between scholars from both regions.





WE THANK OUR SPONSORS

DIAMOND SPONSOR



PLATINUM SPONSOR



GOLD SPONSORS



SILVER SPONSOR



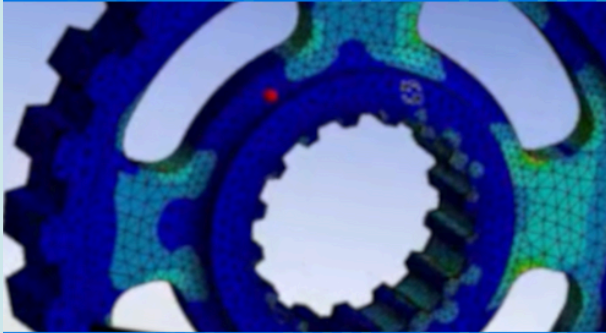
@ EPFL



AND THE REMARKABLE SUPPORT OF



SEFI Journal of Engineering Education Advancement



SEFI European Society for Engineering Education
Europäische Gesellschaft für Ingenieur-Ausbildung
Société Européenne pour la Formation des Ingénieurs

CALL FOR CONTRIBUTIONS

SEFI JOURNAL OF ENGINEERING EDUCATION ADVANCEMENT

This new SEFI journal offers a route to share ideas, emerging research, experiences and innovations in the field. This peer-reviewed, open-access, online and archived journal is an official journal of SEFI, the European Society for Engineering Education. The journal aims to support the advancement of engineering education. It welcomes exciting new innovations and ideas in a wide range of areas.

It is an official journal of the European Society for Engineering Education but with a global outlook. The journal recognises that innovation in engineering education is not constrained by borders and while some papers may have a specific European context, we welcome high quality manuscripts on exciting developments internationally.

WWW.SEFI.BE

The journal is primarily focused on learning and teaching of engineering in higher education, though in the widest sense. In addition to papers on higher education practice and approaches, high quality work of interest to the engineering education community are also of interest, such as those addressing engineering practice, lifelong learning, non-traditional entry routes and graduate outcomes.

You may also join the editorial team as a reviewer!

Gareth Thomson
SEFI JEEA Editor in Chief

For more information: www.sefi-jeea.org

PAGE 23

SEE YOU NEXT YEAR!



For more information: www.sefi2025.eu