SEFI
Annual Conference
15-18 September 2025
Tampere, Finland

SEFI 2025 IN BRIEF

Engineers and Society

Summary of key insights and takeaways from the SEFI 2025 Annual Conference

DASSAULT SYSTEMES

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A WORD FROM THE SEFI PRESIDENT

Dear Colleagues,

Reflecting on our gathering in Tampere this September, I am filled with gratitude and admiration for what our community achieved together. The 2025 SEFI Annual Conference was a vivid reminder of the strength and creativity that emerges when educators, researchers, practitioners, students, and partners from across Europe and beyond come together with a shared purpose.

The theme resonated deeply throughout the week: how engineering education can remain rigorous and humane, globally connected yet locally grounded. In Tampere, we saw this explored in many forms, through research and practice-based posters and presentations, workshops, doctoral contributions, keynote and panel discussions, and student voices. Each reminded us that engineering education is not only about preparing graduates for the future, but about shaping that future responsibly and inclusively.

The keynote speakers challenged us to think more boldly about our role as engineers and educators. They reminded us that engineers must not only respond to policy but actively influence and shape it, bringing technical expertise, ethical awareness, and societal responsibility into the heart of decision-making. Equally, they emphasised that reflection is no longer optional in our classrooms: it is critical to how we design education that equips students to navigate complexity, question assumptions, and act with integrity. These messages will stay with us as we continue to evolve our curricula and practices.

What struck me most was the spirit of collaboration. The doctoral symposium, the Special Interest Groups, industry and community partner stands, and the informal conversations in corridors and cafés all reflected SEFI's values of openness and

partnership. These exchanges are the lifeblood of our society, and they remind us that transformation in engineering education is never the work of individuals alone, but of communities acting together.

Building on the momentum of Lausanne and Dublin, Tampere offered us a new lens: how our curricula, institutions, and networks can adapt to rapid technological and societal change while keeping sustainability, equity, and responsibility for humanity and our planet at the heart. The discussions on digitalisation, curriculum development, skills integration, ethics, and inclusion were not abstract. Each were grounded in practice, and they pointed to tangible ways we can make impact in our classrooms, research, and policies.

I extend my heartfelt thanks to our hosts, Tampere University, for their vision, care, and generosity in hosting us. Their commitment to innovation and inclusivity set the tone for a conference that was both intellectually stimulating and personally enriching.

As we carry forward the insights and connections forged in Tampere, I encourage each of us to think about translation: how the ideas we encountered can ripple outward into our institutions and communities. SEFI thrives when dialogue becomes action, and when we support one another in making change possible.

The Tampere conference reaffirmed my belief that our society is uniquely positioned to educate engineers who are not only technically excellent, but also ethically aware, socially responsible, and globally engaged. I am proud of what we accomplished together, and excited for the journey ahead.

With gratitude,

EMANUELA TILLEY
PRESIDENT, SEFI

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SEFI 2025

BY KLARA FERDOVA
SEFI SECRETARY GENERAL

The SEFI Annual Conference in Tampere brought together global movers of science-backed engineering education innovation. This year's programme focused on the critical role of engineers in tackling societal challenges and shaping the future of education and technology.

The first keynote speaker, **Karl-Erik Michelsen**, Professor of Science, Technology and Modern Society at LUT University, offered provocative food for thought as he reflected on the role of engineers in society and their actual political power and influence.

"Knowledge is power, but today perhaps it is also appropriate to say that intellect is superpower."

We were very proud that the Wednesday keynote was delivered by our very own **Tom Børsen** from Aalborg University and **Shannon Chance** from TU Dublin. Their talk, *"Towards socially responsible, post-normal and reflexive engineering ethics education"*, challenged us to rethink our priorities when educating the engineers of tomorrow. They also presented the major international project, The Routledge International Handbook of Engineering Ethics Education, a globally sourced resource on engineering ethics education that is now available to the public.

Finally, **Pleun Hermsen** from TU Delft gave an interactive keynote, *"Reflection re-engineered: Don't ask students to refl-*

ect. Create the conditions for reflection to emerge." Pleun's exceptional ability to bridge disciplines and to bring clarity, depth and vision to embedding reflective practice within engineering curricula was truly inspiring.

This year's SEFI participants experienced Tampere in all its richness: a beautiful welcome reception at the Tampere City Hall, a diverse social programme that included a culturally appropriate sauna experience, rooftop night drinks at the Skybar, karaoke alongside Finns, and discovering the world of the Moomins in their dedicated museum.

It was also the second year that we actively worked to make the conference more inclusive. Initiatives included personalised visa assistance, scholarships for participants from low-income countries, and on-site childcare. The conference also featured Persons of Trust offering confidential support, a quiet workspace for those needing calm and focus, and clear fragrance-free and Safer Spaces guidelines. In addition, the campus provided gender-neutral and accessible toilets, hearing-aid induction loops, accessible routes, water refill stations, and daily vegan and vegetarian options in the restaurants to support a wide variety of needs.

We would like to thank the Tampere team, especially the conference chair **Hannu-Matti Jarvinen** and the scientific chair **Riikka Kangaslampi**, for their expert organisation of this remarkable edition of our conference.

If you missed this year's conference, we warmly invite you to join us for the **SEFI Annual Conference in Prague on 7–10 September 2026.**

INDUSTRY INSIGHTS

BY ALEX TARCHINI
MATHWORKS

The SEFI Annual Conference is *the* European event dedicated to engineering education. The 2025 edition, held at the Tampere University in Finland from 15 to 18 September, centred around the theme "Engineering and Society," reflecting the evolving priorities of the engineering community.

For SEFI corporate partners Ansys, Dassault Systemes, Bentley, MathWorks and Siemens, participation in the SEFI conference offers a unique working framework that goes beyond traditional sponsorship. The conference acts as a strategic observatory where new trends, pedagogical innovations, and institutional priorities converge. This environment provides critical input for tailoring products and solutions to the ever-changing needs of academia.

DIRECT ENGAGEMENT WITH ACADEMIC LEADERS

SEFI corporate partners benefit from direct engagement with a diverse community of engineering educators, deans, and institutional decision-makers. This access enables companies to gain valuable insights into the evolving landscape of engineering education, ensuring their products and services remain relevant and impactful within academic settings.

FOSTERING GENUINE COLLABORATION

The SEFI Annual Conference fosters genuine collaboration between software companies, educators, and industry stakeholders. This collaborative environment encourages fruitful discussions, the exchange of strategic visions, and confrontations on future directions. It also opens doors for establishing meaningful partnerships aimed at driving shared growth and innovation.

Participation in SEFI 2025 allowed corporate partners to pave the way for future collaborations, such as involvement in the European Convention of Engineering Deans (ECED).

ENHANCING CORPORATE VISIBILITY AND THOUGHT LEADERSHIP

By sponsoring and actively participating in SEFI, companies increase their visibility among key stakeholders in engineering education. Their involvement not only demonstrates a commitment to supporting the next generation of engineering leaders but also positions them as thought leaders in the sector.

SPOTLIGHT ON THE PANEL DISCUSSION: "ENGINEERING SUSTAINABILITY: SKILLS, RESPONSIBILITY, AND INNOVATION"

A highlight of SEFI 2025 was the plenary panel discussion titled "Engineering Sustainability: Skills, Responsibility, and Innovation."

Moderated by Marta Correia (ESTIEM) and Ana Beatriz Costa (BEST), with the participation of Prof. John Mitchell (UCL) in the role of the academic challenger, the session brought together panelists from leading industry partners: Zeljko Djuretic (Bentley Education), Xavier Fouger (Dassault Systems), Martin Koczmann (Siemens DI Software), Tanya Morton (MathWorks), and Tatiana Vakhitova (Ansys).

The session began with a welcome and interactive live poll, engaging the audience on key questions about sustainability's drivers and the role of universities versus industry in leading sustainability education.

Then, Prof. Mitchell set the stage by challenging traditional assumptions and raising critical questions about the role of industry in shaping sustainability curricula.

In the seven minutes that were given to each panelist, they addressed the role of higher education in building a better society, educating engineers for sustainability, and social responsibility in sustainable product development.

Tanya Morton's presentation stood out for its impactful delivery, combining compelling storytelling, data-driven insights, and a focus on how MathWorks supports sustainability, innovation, and skills development through academic programs and the integration of Gen-AI in engineering tools.

Siemens highlighted its DEGREE initiative and educational programs to enhance students' digital mindsets; Ansys shared its public funding initiatives for curiculum development; Dassault Systemes articulated its core purpose of providing business and people with 3DEXPERIENCE "to imagine sustainable innovations capable of harmonising product, nature and life"; Bentley Systems discussed the skills shortage and the mismatch between university curriculum and industry needs.

This panel exemplified how SEFI provides a platform for meaningful dialogue among all stakeholders, reinforcing the importance of collaborative efforts in advancing sustainability in engineering education.

SPECIAL INTEREST GROUPS

SEFI Special Interest Groups (SIGs) connect educators, students, and industrial stakeholders with interests in similar aspects of engineering education. Year-round, the groups plan meetings, workshops, and seminars, write position papers, organise EU projects, and more. This was no different at the SEFI 2025 Annual Conference, where the groups collaborated through meetups and workshops. View the full programme here.

MATHEMATICS

The Math SIG primarily focuses on addressing the challenges that arise regarding the effective teaching of mathematics courses for all engineering students, with the aim of developing their applied mathematical competencies and skills. The SIG is currently involved in the following Erasmus+ projects: GIRLS, MathDigger, Pythagoras, and ADAMATS.

PHYSICS

The Physics SIG is a network of physics teachers, and others, interested in the processes of teaching and learning physics in engineering education. The group discusses related challenges and shares solutions. Every two years, they organise the Physics Teaching in Engineering Education conference, which will take place in Warsaw in 2026.

CURRICULUM DEVELOPMENT

The SIG focuses on curriculum innovation in engineering education in varied educational environments, as well as learning about the interests of students from different countries and becoming aware of interests of a dynamic society, and university-business interaction. While an active community is developing, the SIG is keen to attract new members and to develop an engaged steering group.

DIGITAL LEARNING

Focuses on sharing best practices, supporting educators, developing practical guides, building digital material repositories, and offering expertise on current trends such as AI, MOOCs, and remote learning. The group is preparing two webinars in the upcoming academic year.

CONTINUING EDUCATION AND LIFELONG LEARNING

Focuses on researching, evaluating, and advancing frameworks, policies, and practices around Continuing Engineering Education and Lifelong Learning that respond to the needs of society and industry. They celebrated their 45th anniversary at the conference.

SUSTAINABILITY

The Sustainability SIG investigates the field of sustainability with respect to the impact on engineering education, as sustainability principles become an important aspect of the engineering curriculum.

DIVERSITY, EQUITY AND INCLUSION (DEI)

This year, the SIG continued its project of improving the accessibility and inclusivity of SEFI conferences through collaborating with the SEFI 2025 conference organisers, providing input for training sessions for session chairs, and creating guidelines for reviewers in knowing what to look for in a good DEI paper. The group also works on research projects about DEI in Engineering Education.

ATTRACTIVENESS

This SIG aims to provide a forum open to students, practitioners, researchers, industry, and other interested parties to understand how prospective students perceive the attractiveness of engineering (education) and to recommend ways of improving it and bringing the gap between the number of graduates and the engineers necessary on the job market by attracting young talent to engineering.

CAPACITY BUILDING

Aims to empower the pedagogical development of educators in engineering higher education through building a community of practitioners and researchers in education development. The new initiative launched this academic year is the Early Career Researchers' Club.

ETHICS

Aims to build a global community of friends in engineering ethics education. The projects address policy, research, and education themes related to the ethical and socio-economic dimensions of engineering. Aims to put forward examples of best practices in the teaching of engineering ethics and support research collaborations on societal themes. The next annual Ethics Spring Symposium will take place in 2026 in Sofia.

ENGINEERING EDUCATION RESEARCH

The EER SIG is a European community of engineering education researchers with the aim of contributing (with research evidence) to the advancement of engineering education in Europe and the world. The group organised the 9th Doctoral Symposium during the SEFI conference. This SIG also organises a PhD Summer School.

ENGINEERING SKILLS

Reviews the current state of engineering skills and to identify future trends, to inform the engineering education community to ensure the currency of engineering programmes. This SIG is working on the SEFI Handbook of Transferable Skills and also regularly prepares the SEFI Podcast.

QUALITY ASSURANCE AND ACCREDITATION

This SIG aims to support and enhance the international accreditation of engineering programmes and the development of engineering educators to register through specific new tools and programmes, to raise the profile of engineering educators at their home institutions.

INTERESTED IN JOINING?

Learn more about joining a SEFI SIG here.

2025 SEFI AWARDS

BEST STUDENT PAPER

★ **WINNER: ANUP SHRESTHA, JULIA SUNDMAN, SUDEEP LAMSAL, JOSIAS LÁNG-RITTER, MAIJA TAKA, OLLI VARIS**
ARE DISASTER-PRONE COUNTRIES' UNDERGRADUATE STUDENTS PREPARED? INSIGHTS FROM A CIVIL ENGINEERING PROGRAM IN NEPAL **(link)**

The paper *"Are Disaster-Prone Countries' Undergraduate Students Prepared? Insights from a Civil Engineering Program in Nepal"* investigates how well civil engineering students in Nepal are equipped with Disaster Risk Reduction (DRR) knowledge and resilience competencies. Using a survey of 127 undergraduates, the study found that while students show awareness of disasters and basic resilience concepts, their main sources of knowledge are informal (social media, friends, family), with limited academic exposure to DRR courses or training. Although competences grow with academic progression, gaps remain in applying resilience thinking to engineering design.

EMILY BUTEN, AARON W. JOHNSON
LITERATURE REVIEW OF ENGINEERING STUDENT PERCEPTIONS OF PROFESSIONAL SKILLS **(link)**

CAROLINE VONK, JULIA SUNDMAN, HANNA AARNIO, MAIJA TAKA, ESTHER VENTURA-MEDINA
SPHERES OF AGENCY: HOW ENGINEERING EDUCATORS APPROACH PROFESSIONAL DEVELOPMENT IN EDUCATING FOR SUSTAINABILITY **(link)**

EVA MURPHY, MARY NOLAN, MARY CARDEN, COLIN KEOGH, LIZBETH GOODMAN
INCLUSIVE BY DESIGN: EMBEDDING EDI IN ENGINEERING THROUGH DESIGN THINKING HACKATHONS **(link)**

SANDRA IRERI CRUZ MORENO, SHANNON CHANCE
EVOLVING GENDER DYNAMICS IN TEAMWORK EXPERIENCES AMONG FEMALE ENGINEERING STUDENTS IN PBL SETTINGS **(link)**

BEST RESEARCH PAPER

★ **WINNER: SANDRA IRERI CRUZ MORENO, SHANNON CHANCE**
EVOLVING GENDER DYNAMICS IN TEAMWORK EXPERIENCES AMONG FEMALE ENGINEERING STUDENTS IN PBL SETTINGS **(link)**

CAROLINE VONK, JULIA SUNDMAN, HANNA AARNIO, MAIJA TAKA, ESTHER VENTURA-MEDINA
SPHERES OF AGENCY: HOW ENGINEERING EDUCATORS APPROACH PROFESSIONAL DEVELOPMENT IN EDUCATING FOR SUSTAINABILITY **(link)**

NATALIE WINT, ANJA KRANJC HORVAT, SOFIE CRAPS, KLARA KÖVESI, YOUN AFFEJEE, GILLIAN GUERNE, IRENE JOSA, HANNE DEPREZ
UNDERSTANDING ATTRACTIVENESS OF ENGINEERING: INFLUENCING FACTORS AND POTENTIAL IMPACTS (WORK IN PROGRESS) **(link)**

BEST PRACTICE PAPER

★ WINNER: RUTH FISHER, DIVYA JAYAKUMAR NAIR, JAVIER VIDELO MARIO, SHAMIM ARYAMPA
REVIEWING REVIEWS: USING MULTISTAGE PEER REVIEWS TO PROVIDE FEEDBACK AND IMPROVE STUDENT LEARNING **(link)**

The paper presents a solid and thorough analysis of peer review among students, employing a systematic approach to assess its impact. It takes a practical, evidence-backed approach to developing an under-taught engineering skill: the ability to give and receive high-quality feedback. By integrating a structured, multi-stage "meta-review" process across engineering courses, the authors demonstrate how students can enhance both their technical work and their reviewing abilities, while also learning to deliver constructive criticism in a professional and supportive tone.

The paper is well-structured and includes data from four different courses, along with instructor reflections and recommendations, which contribute to its credibility and usefulness. The clear description of the staged peer review process makes the intervention easily adoptable in engineering education practice. Furthermore, the intervention is broadly applicable across different engineering disciplines, grounded in sound educational theory, and supported by strong, evidence-based analysis.

MIKE ZHANG, EUAN LINDSAY, MAJ-BRITT QUITZAU, JOHANNES BJERVA
SCALING COURSE EVALUATIONS WITH LARGE LANGUAGE MODELS: SEMESTER-LEVEL DIGESTIBLE STUDENT FEEDBACK FOR PROGRAM LEADERS **(link)**

EVA MURPHY, MARY NOLAN, MARY CARDEN, COLIN KEOGH, LIZBETH GOODMAN
INCLUSIVE BY DESIGN: EMBEDDING EDI IN ENGINEERING THROUGH DESIGN THINKING HACKATHONS **(link)**

SUSANNE IHSEN AWARD

★ **WINNER: EVA MURPHY, MARY NOLAN, MARY CARDEN, COLIN KEOGH, LIZBETH GOODMAN**
INCLUSIVE BY DESIGN: EMBEDDING EDI IN ENGINEERING THROUGH DESIGN THINKING HACKATHONS **(link)**

SANDRA IRERI CRUZ MORENO, SHANNON CHANCE
EVOLVING GENDER DYNAMICS IN TEAMWORK EXPERIENCES AMONG FEMALE ENGINEERING STUDENTS IN PBL SETTINGS **(link)**

NATALIE WINT, ANJA KRANJC HORVAT, SOFIE CRAPS, KLARA KÖVESI, YOUN AFFEJEE, GILLIAN GUERNE, IRENE JOSA, HANNE DEPREZ
UNDERSTANDING ATTRACTIVENESS OF ENGINEERING: INFLUENCING FACTORS AND POTENTIAL IMPACTS (WORK IN PROGRESS) **(link)**

LEONARDO DA VINCI MEDAL

The Leonardo Da Vinci Medal is the highest honour awarded by SEFI, recognising individuals whose work has had a profound and lasting global impact on engineering education. This year, SEFI was proud to present the medal to **Professor Arnold Pears**, Head of the Department of Learning in Engineering Sciences at KTH Royal Institute of Technology, Sweden. Professor Pears exemplifies this mission through his lifelong commitment to improving how engineering is taught and learned.

Professor Pears' research focuses on the learner's perspective — examining how students grasp technical concepts and develop broader engineering skills and competencies. His work addresses pressing issues such as engaging more young people with technology and making STEM education meaningful and relevant. These efforts are vital to ensuring that engineering education equips graduates not only with technical expertise but also with the capacity to create societal impact.

A leading figure in engineering education research, Arnold Pears has authored numerous scientific publications and played an active role in international organisations, including IFIP (International Federation for Information Processing), IEEE Education Society, and SEFI. His leadership and scholarship have significantly advanced global understanding of engineering education.

Reflecting on the award, Pears said: "I feel very honoured and humbled by such a prestigious recognition. It is, without doubt, the most significant European award for those of us dedicated to engineering education research."

MAFFIOLI AWARD

The Francesco Maffioli Award, one of SEFI's highest honours, celebrates open-minded innovation in teaching, curriculum design, and student learning — continuing the legacy of the late Professor Francesco Maffioli, former SEFI President and a pioneer in engineering education.

This year, the award was presented to **Tom Børsen** of Aalborg University in the individual category, and to a team from University College London (UCL), led by **Fiona Truscott**, in the group category. Both recipients exemplify creativity and commitment to advancing engineering education through approaches that make learning more engaging, inclusive, and relevant.

Established to commemorate Professor Maffioli's contributions, the award recognises teachers or teams from SEFI member institutions who have demonstrated exceptional openness in developing curricula, learning environments, tools, and novel pedagogical methods for engineering studies. Nominations are exclusively submitted by SEFI institutional members.

Tom Børsen has been instrumental in advancing Technological Anthropology, a field that explores the relationship between technology and society. His work ensures that engineering education addresses ethical and cultural dimensions alongside technical skills, preparing engineers for the complex challenges of modern society.

The UCL team, under Dr Truscott's leadership, was recognised for the Engineering Challenges Year 1 IEP Module, a cross-faculty initiative that has transformed the first-year learning experience. The module's success and influence extend beyond UCL, shaping national and international discourse on engineering education. Its scalable, transferable model has been cited in global benchmarking studies, demonstrating its impact and inspiring innovation worldwide.

These achievements embody the spirit of the Francesco Maffioli Award — driving progress in engineering education through creativity, inclusivity, and a vision for the future.

SEFI FELLOWSHIP

HANNU-MATTI JÄRVINEN
PROFESSOR, TAMPERE UNIVERSITY

SEFI proudly recognises Professor Hannu-Matti Järvinen as a 2025 Fellow for his exceptional contributions to engineering education in Europe and his remarkable leadership within the SEFI community.

During six years as a Board member and four years as Vice President and President, Professor Järvinen helped shape SEFI's strategic direction. He guided the organisation through pivotal transitions, including leadership changes and the rapid move to online formats during the COVID-19 pandemic, ensuring continuity, engagement, and pedagogical quality.

Nearly a decade ago, he chaired the first SEFI conference in Tampere, introducing the International Organising Committee and strengthening the review process — innovations that remain central to SEFI events today. He also launched the Doctoral Symposium, creating a vital platform for emerging scholars. His ongoing leadership as co-chair of multiple conferences guaranteed that the 2025 Tampere event upheld SEFI's standards of academic rigour and inclusivity.

Beyond SEFI, Professor Järvinen has advanced software engineering education and computer science pedagogy, supervising over 300 master's theses and mentoring numerous doctoral candidates. His widely cited research spans programming education, visual learning tools, and assessment methods. He has also held influential roles in Finnish engineering associations, education councils, and technology policy bodies, amplifying his impact nationally and across Europe.

Professor Järvinen exemplifies the values of collegiality, mentorship, and service that define a SEFI Fellow. His leadership and scholarship make him a truly deserving recipient of this distinction.

BENTE NØRGAARD
ASSOCIATE PROFESSOR,
AALBORG UNIVERSITY

The Fellowship awarded to Bente Nørgaard celebrates her outstanding contributions to engineering education over two decades, particularly in Continuing Engineering Education (CEE), Problem-Based Learning (PBL), and Work-Integrated Learning.

It also honours her 25 years of dedicated involvement in SEFI. Since her first conference in Florence in 2000, Bente has been an active and inspiring member of the community. She chaired the Special Interest Group on CEE and Lifelong Learning (2015–2022), represented SEFI on the International Association for Continuing Engineering Education Council, and continues to serve on behalf of Aalborg University.

Bente has led numerous national and international projects on PBL and CEE, advancing institutional capacity and shaping the future of engineering education. Her research bridges PBL and CEE, delivering insights that benefit stake-holders across the lifelong learning landscape.

Her enthusiasm, collegiality, and expertise have strengthened SEFI's CEE community. Receiving the Fellowship in the 45th year of the Special Interest Group on CEE and Lifelong Learning makes this recognition especially timely and well deserved.

CHRISTIAN HANS GERHARD KAUTZ
PROFESSOR, HAMBURG UNIVERSITY OF TECHNOLOGY

Christian Kautz was nominated for the 2025 Fellowship but was unfortunately unable to attend the ceremony.

EUROPEAN JOURNAL OF ENGINEERING EDUCATION BEST PAPER VOL. 49

★ **WINNER:** DESIGN OF A SIMPLE RUBRIC TO PEER-EVALUATE THE TEAMWORK SKILLS OF ENGINEERING STUDENTS (**link**)

SWAPNEEL THITE, JAYASHRI RAVISHANKAR, INMACULADA TOMEO-REYES, ARACELI MARTINEZ ORTIZ

The European Journal of Engineering Education (EJEE) Best Paper Award recognises scholarly quality and practical value in engineering education research. It highlights EJEE's ongoing commitment to honouring outstanding accomplishments that advance both theory and practice in the field.

This year's winning paper introduces the DRIVE teamwork rubric, a simple yet robust tool designed to support peer assessment of teamwork among engineering students. Developed through a comprehensive literature review and grounded in experiential learning theory, the rubric covers five key dimensions of effective collaboration.

What makes this contribution stand out is its ease of use, scientific validation, and practical impact. Educators and students alike can benefit from a reliable instrument that not only streamlines peer evaluation but also enhances awareness of essential teamwork skills.

Initial data analysis confirms the rubric's validity and reliability, and comparisons between peer and teaching assistant evaluations show that students can assess their peers with a high degree of accuracy — a promising step toward more inclusive and reflective learning environments.

9TH DOCTORAL SYMPOSIUM

BY JONTE BERNHARD
PROFESSOR EMERITUS,
DEPUTY EDITOR OF EJEE

Kicking off the SEFI 2025 conference in high gear, the 9th SEFI Doctoral Symposium in Engineering Education Research was held on Sunday, 14 September. Thirty PhD students took advantage of this opportunity to share and discuss their PhD work, expanding their professional networks. During an intensive full day with 21 established scholars, the PhD students not only received valuable feedback and new ideas regarding their PhD studies but could also experience the welcoming atmosphere of the engineering education research community. Although SEFI is a European organisation, PhD students and seniors from Africa, Asia, Australia, and North America also participated.

In the Doctoral Symposium, different working formats are used to create a rich experience:

- Short pitches of the seniors, to get to know the well-established researchers,
- Small group discussions focusing on each student's PhD project,
- Speed-dating activities to grow each student's network,
- Presenting take-home-messages, to ensure valuable lessons are learnt and shared.

The steady high number of participants is not only an indicator of the success of the SEFI Doctoral Symposium, but also of the growing maturity of the engineering

education research field. The organisers were also delighted by the willingness — even eagerness — of the seniors to participate in this event. These well-established researchers reported feeling honoured to share their experience and expertise with more junior researchers and appreciated the networking opportunities to identify new talent and strengthen their connections with other senior researchers.

The happy faces of the participants, and the positive feedback received, strengthen our enthusiasm and resolve to keep on organising the Doctoral Symposium in the future. Moreover, the success of the series of Doctoral Symposia is demonstrated by the fact that previous participants as PhD students are now returning to the symposium as senior researchers, and one of the keynote speakers at the main SEFI conference had attended a previous symposium.

Photos courtesy of Shannon Chance, Jonte Bernhard

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 ENGINEERING EDUCATION FORUM

AI TECHNOLOGIES APPLICATION IN THE SHIFT OF ENGINEERING EDUCATION PARADIGM

In order to foster interdisciplinary and cross-cultural dialogue on the role of engineering in addressing global societal challenges, and to enhance the global academic network under the SEFI framework, the Chinese Society of Engineering Education (CSEE) hosted their second Asia Engineering Education Forum at the 2025 SEFI Annual Conference.

With the increased integration of artificial intelligence (AI) in higher engineering education, fostering intercontinental discourse on AI-enhanced pedagogical approaches, industry alignment, and educational equity has become imperative. The Asia Engineering Education Forum gathered Asian and European educators, policy makers, and industry pioneers to share innovative methodologies, address implementation challenges, and develop collaborative solutions to help prepare the next generation of engineers to meet evolving global demands.

The forum included speeches by forum chair **Min Ye** *(Zhejiang University)*, **Zhang Kejun** *(Zhejiang University)*, **Seong-Woo Kim** *(Seoul National University)*, **Hasyiya Karimah Binti Adli** *(University Malaysia Kelantan City Campus)*, and **Muhammad Saifullah Abu Bakar** *(University Brunei Darussalam)*, who shared their experiences in engineering education reform driven by AI. The speeches were followed by a Q&A session to facilitate communication among participants.

The forum enabled participants to examine AI's revolutionary impact through comparative case studies of AI-optimised curricula systems and teaching models, while discovering effective strategies for effectively integrating technologies such as generative AI, advanced simulations, and data analytics into teaching methodologies, with full consideration for ethical implications and inclusive principles.

Topics covered included the transformation of engineering education teaching models in the AI era, the construction of higher engineering education ecosystems driven by AI, developing AI-literate teachers and students, and ethical issues of artificial intelligence in engineering education.

The Asian Engineering Education Forum aimed not to only bring Asian engineering education research into Europe, but to also enable European engineering education research to enter Asia, signifying the significant importance of deep cooperation and positive communication between scholars from both regions.

CALL FOR CONTRIBUTIONS:

SEFI JOURNAL OF ENGINEERING EDUCATION ADVANCEMENT

The SEFI Journal of Engineering Education Advancement (JEEA) 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 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.

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

The journal is primarily focused on the learning within, and teaching of, engineering in higher education 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 visit:
www.sefi-jeea.org

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