

**ANNUAL  
CONFERENCE**  
11-14 September 2023  
TU Dublin

**ENGINEERING EDUCATION FOR SUSTAINABILITY**

# SEFI 2023 IN BRIEF

The summary of key insights and takeaways  
from SEFI 2023 Annual Conference in Dublin



IF...”

- You **Reverse** the Design /Evaluate sequence: Set constraints then design,
- You **Broaden** problem contextualisation: not just “prompt engineering”
- But You **Understand what you ask for**: Garbage In Garbage Out (GIGO),
- You **Train your discernment** to navigate in the multiple designs generated by AI or to Question the alleged “best” one
- You **Accept to Reconsider preconceived biases** from previous projects: AI can generate highly creative designs

“Yours is the Earth and everything that’s in it,  
And—which is more—you’ll be an Engineer, my son - daughter!”

Freely adapted from Rudyard Kipling

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# A WORD FROM THE PRESIDENT

Dear Reader,

Hereby we present you the outcomes of the SEFI 2023 annual conference, the flagship event of our society. This year we had the highest number of participants in a SEFI event lately, which resulted in 135 research papers, 133 practice papers, 33 posters and 37 workshops.

While we invite you to dive deep into the details of all these works accessible in the proceedings, in this summary we outlined the key takeaways in a digestible format summoning stakeholders to provide you with their views and indications of the key takeaways from the Dublin conference.

You will find insights from long-time SEFI people, corporate partners, students among others and we show you SEFI's principal initiatives such as the Special Interest Groups, scientific journals and the selection of best conference contributions. The intention is that the SEFI conference news reaches all who are interested within our membership and well beyond, in line with the SEFI mission to spread the importance of engineering education advances and maintain the European platform for its purposes.

I hope to see you in Lausanne at the SEFI 2024!

**BALÁZS VINCE NAGY**  
SEFI PRESIDENT





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## SEFI 2023

BY CINDY POORTMAN AND ADINA IMANBAYEVA

*Adina Imanbayeva:*  
*“As a newcomer to SEFI, I was impressed and inspired by how the strong sense of community within SEFI creates a close-knit network for collective growth and fosters an honest critical discussion on bettering engineering education.”*

The [2023 SEFI Annual Conference](#) was reflecting on the topic of Engineering Education for Sustainability. Over 575 participants from 40 countries (also outside Europe) enjoyed being part of this “very welcoming community” (participant quote). This is a unique opportunity for teachers, (teacher-)researchers, but also students, and industry to exchange knowledge and perspectives on the complex societal challenges that engineering students need to prepare for.

The opening session addressed Recent trends in engineering education research - how to support change and inclusive futures in engineering education? Publication of the new (open access) [International Handbook of Engineering Education Research](#) was highlighted. A new SEFI Journal of Engineering Education Advancement was also launched.



In another plenary session, the question Which engineering is needed for AI was central. The (Industry) panel addressed the employers' dilemma that generative AI applications in the workplace substantially increase efficiency and innovation, and enhance creativity – at the same time, 75% of organizations are implementing or considering bans on generative AI. According to the panel, however, AI is present in every engineering field and there is “no industry out there that can't benefit”. The panelists presented how AI is transforming customers, which skills are needed to embed AI in engineering design and how students can be prepared. AI engineers need to be specialists in their sub-field; and “To be able to learn easily” is a crucial skill according to a panelist, in addition to 'hard' skills such as data science and statistics.

An inspiring keynote about Interdisciplinary Projects – Moving from transfer to transformation in Learning was held by Anette Kolmos, presenting in-depth research and examples of what interdisciplinarity in engineering education truly means, concluding with recommendations for curriculum development. The EJEE call for a special issue about Interdisciplinary learning and the transformation of engineering education was also highlighted. Ed Byrne's keynote Contemporary Landscape, Drivers and Developments in Engineering Education for Sustainability warns us intensively about what we probably already know but are still not doing enough about. “There is a crisis, and we can't deny it”. The society holds us a task, and we need to step up as educators.



The audience agrees according to his poll, responding that society/societal attributes of sustainability have the greatest shortfall compared to where they should be. There are steep challenges ahead because sustainability does not only concern technological and social aspects, but also economic, environmental, political, legal, and other ones. Earth has been past its safe limits (referring to a [Nature article](#)) and at this moment “we're making very feeble attempts to address this”, Byrne concludes with big questions and implications for engineering education, such as making sustainability the purpose of all we teach and do.

A large part of the programme was dedicated to a range of interactive formats such as hands-on workshops, presentations, special interest group meetings, and poster presentations where indeed the unique opportunity for participants with different roles and backgrounds to exchange was used intensively and constructively. The conference was concluded with the EPFL - Swiss Federal Institute of Technology – Lausanne, presenting its welcome to join the [SEFI 2024 Annual Conference](#), with the theme of Educating Responsible Engineers. We are looking forward to receiving even more participants next year!



# BEST STUDENT PAPER

BY RAFFAELLA MANZINI, CHAIR OF BEST STUDENT PAPER COMMITTEE

Analyzing and evaluating the student papers allows us to better understand the community of engineering students and their potential role in the SEFI community.

The set of received papers embraces a wide variety of topics, suggesting that engineering students are more open and curious than the common opinion would suggest. Engineering education, i.e., teaching and learning methodologies and their evolution in the digital era, is something they are reflecting on. Another topic of interest for engineering students is that of social issues, such as sustainable development, students' well-being, gender equality. What clearly emerges from this is a profound reflection on the purpose of the engineers' course of study, its ultimate rationale, in view of their

future professional role and career and the skills that will be required of them.

## Selection Rationale

A first important consideration is about the topics of interest for engineering students. Students are interested not only in discussing the WHAT and the HOW, but also the WHY of their education process.

A second important consideration is about the quality of the students' papers, which is surprisingly high, in consideration of their very limited experience in writing research papers, especially in the case of master students.

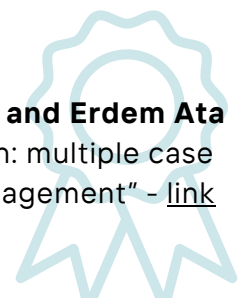
Lastly, the enthusiasm and engagement showed by students during the conference presentations were really impressive.

## RECOMMENDED PAPERS

**Francisca Trigueiros, Jenni Kaipainen, Frederico Silva, Niklas Geising and Erdem Ata Tosum** – “Student perspectives on sustainability in Engineering Education: multiple case study of European bachelor's programs in Industrial Engineering and Management” - [link](#)  
WINNER

**Xiaoqi Feng, Julia Sundman, Hanna Aarnio, Maija Taka, Marko Keskinen and Olli Varis** – “To withdraw, investigate, negotiate or integrate? Students' coping strategies with disorienting dilemmas in interdisciplinary project courses” - [link](#)

**John William Lynch, Sheryl Sorby, TJ Murphy, Manjeera Vinnakota and Kelsey Shannon** – “Exploring the link between spatial and communication skills in engineering students” - [link](#)





# BEST PRACTICE PAPER

BY JOHANNA NAUKKARINEN, CHAIR OF BEST PRACTICE PAPER COMMITTEE

Practice papers hold considerable value for the SEFI community in their potential to have rather quick and direct effects on engineering education. Hence, the practical impact, applicability, and recommendations could be discussed in the papers even more.

## Selection Rationale

The best practice paper committee read through all candidates appointed for the best practice paper and shortlisted three

papers, whose presentations at the conference were viewed by the committee members before the final decision. The committee chose the shortlisted papers in terms of quality – taking note that although all were of good quality, some papers appeared to them more as research than practice papers. The length of the paper varied to some extent and in the future, the authors are advised to pay more attention to the guidelines in this respect.

## RECOMMENDED PAPERS

**Marius Mailänder, Edward Rullmann, Felix Di Lenarda, Christian Forbrig and Juri Rappsilber** – “Keep it simple: Optimized Student Evaluations with Moodle” - [link](#)  
WINNER

This paper is useful work in an important aspect of quality assurance. It introduces a tool with a lot of potential to be easily taken into use by many. It takes the student experience to the center of the development process.



**Vincent Engbers, Rowel Gündlach, Marta Regis and Maria Vlasiou** – “Measuring effects of mini-lectures on improving student engagement and outcomes” - [link](#)

This is an interesting and well-written paper with sound and rigorous methodology. It also has well-presented results, which go beyond mere student satisfaction and/or perceptions to identify real impact. It contains good example of evidence-based educational development. The paper is bold enough to report results that were not anticipated and perhaps even not hoped for.

**Cécile Hardebolle, Vladimir Macko, Vivek Ramachandran, Adrian Holzer and Patrick Jermann** – “Digital Ethics Canvas: A Guide for Ethical Risk Assessment and Mitigation in the Digital Domain” - [link](#)

An Interesting and well-written paper with good methodology. It is well-grounded in literature and the evaluation by novices and experts strengthens the conclusions. It also has good use potential in many fields/disciplines.



# BEST RESEARCH PAPER

BY JOHN MITCHELL, CHAIR OF BEST RESEARCH PAPER COMMITTEE

The best research paper reflects the research conducted in the field of engineering education. The general level of quality (not only) of papers shortlisted was high with over half of the shortlisted papers standing out as being of a very high quality.

## Selection Rationale

The committee based their assessment on three criteria:

1) Is this truly rigorous Engineering Education Research rather than case studies of class room interventions - while these can be EER they tend to use survey as their main form of evidence?

2) Is the methodology rigorous and well described?

3) Is the result generalizable and/or likely to have impact?

These criteria follow the EJEE (European Journal of Engineering Education) requirement of being scholarly and useful. The field was narrowed, using the criteria above to 7 papers. In the end, a clear winner emerged - having scored most highly in the paper-based review and having received excellent comments from the presentation. Two other papers were felt to be deserving of recommendation for recognition as runners up

## RECOMMENDED PAPERS

**Xiaoqi Feng, Julia Sundman, Hanna Aarnio, Maija Taka, Marko Keskinen and Olli Varis** – “To withdraw, investigate, negotiate or integrate? Students' coping strategies with disorienting dilemmas” – [link](#)

WINNER

**Mieke Cannaerts, Sofie Craps, Veerle Draulans and Greet Langie** – “A look inside the engineering students' backpack: Differences in engineering capital according to gender or migration background” - [link](#)

**Kurt Coppens, Lynn Van den Broeck, Naomi Winstone and Greet Langie** – “An embedded intervention to support the development of student feedback literacy” - [link](#)



# SUSANNE IHSEN AWARD

BY INÊS DIREITO, CHAIR OF SUSANNE  
ISEN AWARD COMMITTEE

It is with great enthusiasm that we observe the growing interest in discussing diversity, equity and inclusion (DEI) in SEFI spaces. This year, the number of submissions on these topics to the SEFI annual conference was higher than in previous editions and covered a greater variety of topics.

## Selection Rationale

The three nominated papers were selected for having a clear focus on diversity and inclusion topics, a strong understanding of theories and existing literature, whilst making use of inclusive language, and setting the way forward in DEI research and practice.

## RECOMMENDED PAPERS

**Samara Omar, Kate Youmans, Aubrey Wigner, Henry Archer and Carrie McClelland** – “Fostering a Sustainable Future through Inclusive Design” – [link](#) - WINNER

This is both a practice paper and a student paper, and this sends two very important messages to the SEFI community: we should be doing more to promote inclusion in engineering education, and we must support early career researchers who are changing the field. The paper has a major focus on inclusive design. It provides a detailed description of module structure as well as complimentary resources which will support readers when embedding inclusive design into lectures and projects in a meaningful way.

**Joel Alejandro Mejia** – “Exploring racialized ideologies about Latino/a/x Engineering Students in the United States Southwest Region” - [link](#)

This research paper explores how and in what ways Latino/a/x students continue to experience racialization in engineering education. It is an excellent piece of research that addresses topics not commonly discussed in SEFI spaces: racialized ideologies, deficit approaches in education, and their impact on engineering students’ experiences and opportunities. Moreover, the paper provides a great example of ‘insider research’ and an exemplary positionality statement.

**Mieke Cannaerts, Sofie Craps, Veerle Draulans and Greet Langie** – “A look inside the engineering students’ backpack: Differences in engineering capital according to gender or migration background” - [link](#)

This research paper focuses on different student characteristics, such as gender and migration background, that influence the decision to study engineering. The research is grounded within theory and its positioning within existing literature is clearly articulated. This research can help to create interventions across the life span of a student - from early education to higher education - that promote and support diversity in engineering in the future.



# EUROPEAN JOURNAL OF ENGINEERING EDUCATION BEST PAPER VOL. 47

BY KRISTINA EDSTRÖM, EDITOR IN CHIEF OF EJEE

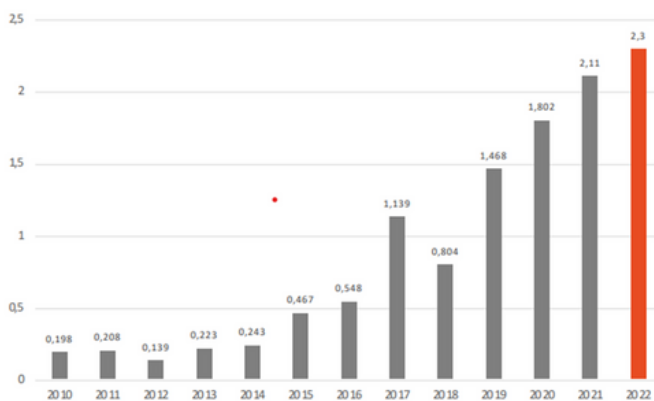
For the very first time, the EJEE is going to give a Best Paper award. Eligible papers are those published in Volume 47 - that is in the 6 issues that we published during 2022. Looking back on all the work in Volume 47, there is an abundance of really great papers. After reading and reflection, and some agony, the editors have finally chosen one.

Since engineering education is a professional education, it is important to understand the experiences of our graduates as they establish themselves in working life. Research focusing on early career engineers can provide significant insights to enhance engineering education. In volume 47, EJEE published a special issue addressing this theme and the winning paper was part of that special issue.

The Best Paper in EJEE volume 47 is "*Gender as structure in the organisational socialisation of newcomer civil engineers*" by **Dr Kacey Beddoes** - [link](#). In the paper, Kacey Beddoes takes a gender perspective on the socialisation of new engineers in the workplace, and addresses issues of power and privilege. The study is superbly conceptualised, and contextualised in literature. Kacey Beddoes demonstrates a skillful application of a qualitative approach and methodology, vividly conveying the experiences of new engineers. It is a joy to read.

To celebrate this fine work with as many readers as possible, the paper has now been made open access until the end of 2024. Please enjoy it, and let your colleagues know!

## Impact factor



Mock impact factor for EJEE 2010-2022, compared with JIF in 2023.

As part of the Emerging Sources Citation Index (ESCI), the European Journal of Engineering Education received a Journal Impact Factor (JIF). For 2022, the JIF was 2.3. The Journal Impact Factor (JIF) is calculated as the number of citations during 2022 to papers published in 2020 and 2021 (which was 337), divided by the total number of papers published in the same years (which was 146). Citations are only counted if they are from sources that themselves have a JIF.

# 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.

**MATHEMATICS:** The Maths Group is primarily focused on finding answers to many questions arising in connection to the challenges of teaching effective courses in mathematics for all engineering students developing their mathematical competencies and skills.

**PHYSICS:** The Physics Group is a network of physics teachers and people who are interested in how to teach and learn physics in engineering education. The group discusses challenges and shares solutions, and every two years, the Physics Teaching in Engineering Education (PTEE) conference is organized.

**ENGINEERING EDUCATION RESEARCH:** This group forms a European community of engineering education researchers to contribute with research evidence to the advancement of engineering education in Europe and in the world..

**OPEN AND ONLINE EDUCATION:** How can we help educators navigate the spectrum of what Open & Online Education is? This year, the Open & Online education working group will work towards building a community dialogue on defining this spectrum.

**CONTINUING EDUCATION AND LIFELONG LEARNING:** The Group 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.

**SUSTAINABILITY:** Sustainability principles become an important aspect of the engineering curriculum. The group investigates the field of sustainability with respect to impact on engineering education.

**DIVERSITY, EQUITY AND INCLUSION:** The group aims to: make SEFI accessible and welcoming; bring the issues associated with the lack of diversity within engineering to the attention of the wider community; amplify practices that foster diversity, equity, and inclusion across engineering education contexts; promote research on diversity, equity and inclusion in engineering education; and create opportunities to share insights and build community

**ATTRACTIVENESS:** The group 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.

**ETHICS:** This group aims to build a global community of friends in engineering ethics education. Our projects address policy, research, and education themes related to the ethical and socio-economic dimensions of engineering. We aim to put forward examples of best practices in the teaching of engineering ethics and support research collaborations on societal themes.

**CURRICULUM DEVELOPMENT:** This group focuses on learning about curriculum innovation in EE in different educational environments, as well as becoming aware of the interests of students from different countries and those of a dynamic society, university/business interaction.

**ENGINEERING SKILLS:** This group works to review the current state of engineering skills and to identify future trends with a view to inform the engineering education community of these to ensure currency of engineering programmes.

**CAPACITY BUILDING:** This SIG aims to empower the pedagogical development of educators in engineering Higher Education through building a community of practitioners and researchers in education development.





## LEONARDO DA VINCI MEDAL

It is a good tradition of SEFI conferences to give awards to individuals and teams for their extraordinary contributions to the field of engineering education. 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 Anette Kolmos**, one of our Engineering Education Research community.

Professor Anette Kolmos is a distinguished Danish educator who has devoted her career to advancing engineering education and problem-based learning (PBL). Her remarkable career began in 1984 when she earned her Master of Arts degree in social science and psychology at Aalborg University. She continued by getting a Ph.D. in technology and gender studies.

Since 2003, Anette Kolmos has held the esteemed position of Professor of Engineering Education and Problem-based Learning at the Department of Planning at Aalborg University. Throughout her illustrious career, Professor Kolmos has dedicated herself to researching and disseminating knowledge about problem-based learning, a transformative educational approach.

Her contributions extend far beyond the classroom, as she has played pivotal roles in UNESCO projects, including chairing a UNESCO project on problem-based learning in 2007. Subsequently, she became the leader of the Aalborg Center for Problem-Based Learning in Engineering, Science, and Sustainability.

Anette Kolmos has been an active figure within SEFI for nearly two decades, leading our organisation as president from 2009 to 2011. Congratulations, Professor Kolmos, on this well-deserved achievement!

# FRANCESCO MAFFIOLI AWARD



This year, the SEFI Francesco Maffioli Award of Excellence in Teaching of Engineering Education was presented to **Prof. Dr. Tinne De Laet** and her Student Support Services team at KU Leuven Faculty of Engineering Science. Their exemplary commitment to providing comprehensive support for first-year Bachelor's students has been appreciated for helping ease the transition from secondary education to university, promoting student well-being, and ensuring academic success.

In the lives of many students, the transition from secondary school to university represents a significant milestone marked by shifts in teaching methodologies, increased academic intensity, and the challenge of adapting to new social environments. Recognizing the potential stress and difficulties these first-year Bachelor's students face the Faculty of Engineering Science at KU Leuven

took proactive steps long ago to establish a Tutorial Service tailored to their needs. Professor Tinne De Laet has been at the helm of this initiative, overseeing a team of seven expert tutors who fulfill various vital roles.

This Tutorial Service continually strives to optimize its offerings and remains adaptable to emerging trends in student counseling. Actively engaging in educational innovation projects at institutional and international levels, including initiatives under the Erasmus+ program, the team ensures they stay at the forefront of best practices in student support. The Tutorial Service has gained considerable renown among students, effectively facilitating the transition from secondary school to university. Its accessibility and low threshold ensure that students receive intensive support, significantly contributing to their success during the initial bachelor's phase.



# SEFI FELLOWS 2023

## *Kristina Edström*

The SEFI board of directors conferred the 2023 SEFI Fellowship upon Dr. Kristina Edström, recognizing her extensive contributions to the engineering education community. Kristina has played a pivotal role as the chief editor of the European Journal for Engineering Education for over five years, enhancing its scholarly value, fostering a diverse network of reviewers and authors, and strengthening its position within the engineering education community. Her dedication extends to nurturing the next generation of engineering education researchers through her co-organization of the SEFI doctoral symposium. Kristina's global impact is evident through her leadership in the CDIO initiative and her contributions as the chair of the Advisory Board of the Dutch 4TU Center for



Engineering Education, advancing innovation and research in engineering education. Her passion for high-quality engineering education and her commitment to collaborative efforts make her a true champion in the field, and the SEFI community is deeply grateful for her outstanding work.

## *Pieter de Vries*

Pieter de Vries has been awarded the SEFI Fellowship in recognition of his exceptional contributions to education and technology, with a remarkable impact on the field of Engineering Education. His dedication to fostering innovation and educational excellence, particularly through groundbreaking initiatives related to faculty development and research for open and online education, played a significant role in this recognition. Pieter's enduring commitment to SEFI is marked with his leadership of the SEFI SIG on Open and Online Education and his service as SEFI Treasurer, where he implemented new administrative



processes, ensuring greater accuracy and transparency in SEFI's financial operations. His dedication to the field and exemplary leadership have left an indelible mark on SEFI community, making him a deserving recipient of the SEFI Fellowship.

## *Maartje van den Bogaard*

The SEFI board of directors conferred Dr. Maartje van den Bogaard has been awarded the SEFI Fellowship in acknowledgment of her exceptional to the European Journal of Engineering Education and the SEFI community. Her academic journey, spanning both Education Science and Technology, Policy, and Management, uniquely equips her as an authoritative figure in engineering education. Her extensive involvement with SEFI, beginning in 2007, has been marked by her dynamic contributions, including co-organizing the SEFI annual conference, serving as a guest editor for a special issue, and her deputy editor role in the European Journal of Engineering Education (EJEE)



where she continues to work as an associate editor. Maartje's dedication and commitment to SEFI's values and aspirations, even from her current base in the United States, make her a deserving recipient of the SEFI Fellowship in 2023, celebrating her outstanding contributions to the field.

## *Yolande Berbers*

Yolande Berbers, an esteemed Professor of Computer Science at KU Leuven and a member of the Royal Flemish Academy for Science and the Arts, is being honored with the SEFI Fellowship for her exceptional dedication and contributions to our organization. Yolande's significance within SEFI has been unmistakable; she has served in various vital roles, including as a Special Interest Group (SIG) chair, a long-standing member of the SEFI board, Vice President, President, and past President. Even after her presidency, Yolande has remained an active past President and has generously taken on some administrative duties of the Secretary General without compensation. Her commitment extends beyond her SEFI responsibilities; she has a knack for making



things happen and her ability to navigate complex situations has been invaluable. We congratulate Yolande on becoming a SEFI Fellow, and we appreciate her continued dedication, humor, and unwavering commitment to the SEFI community.



# 7th DOCTORAL SYMPOSIUM

Kicking off the SEFI 2023 conference in high gear, the 7th SEFI Doctoral Symposium in Engineering Education Research was held on Sunday, September 10. A record number of 37 PhD students used this opportunity to share and discuss their PhD work and build their professional networks. During an intensive full day with 27 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 organization, PhD students and seniors from Africa, Australia, and South- 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 growing 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 organizers were also delighted by the willingness - even eagerness - of the seniors to participate in this event. These well-established researchers reported feeling honored to share their experience and expertise with more junior researchers and appreciated the networking opportunities to spot new talent and strengthen their connections with other seniors.

The happy faces of the participants, and the positive feedback received, strengthen our enthusiasm and resolve to keep on organizing the Doctoral Symposium in the future.



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









# STUDENT PERSPECTIVE

MIHAI FILIMON  
PRESIDENT OF BEST


MARLENE VON STEINAECKER  
VICE-PRESIDENT OF ESTIEM

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For a student organisation, it was interesting to see people actively contributing to engineering education today. During the SIG workshops we were able to give input on different topics such as what students perceive as important skills for engineering education today or how a student organisation can contribute to the attractiveness of the engineering field. Next to that it was also relevant to talk during the breaks to professors and discuss engineering education in today's world. So, it was inspiring to see that everyone present in Dublin was passionate to play a part in the improvement of engineering education and to have fruitful discussions.

One of our highlights was the moderation of the panel discussion with 6 engineering companies, where we got to not only hear how AI is modifying the industry today, but also to talk to professionals about what they need from engineering students to be hired in their companies. Companies are crucial stakeholders for us as student organisations, since we can collaborate with them on our projects.

The most valuable time during the SEFI conference was the session we prepared called "Students perspectives on engineering education and how student organisations can contribute".

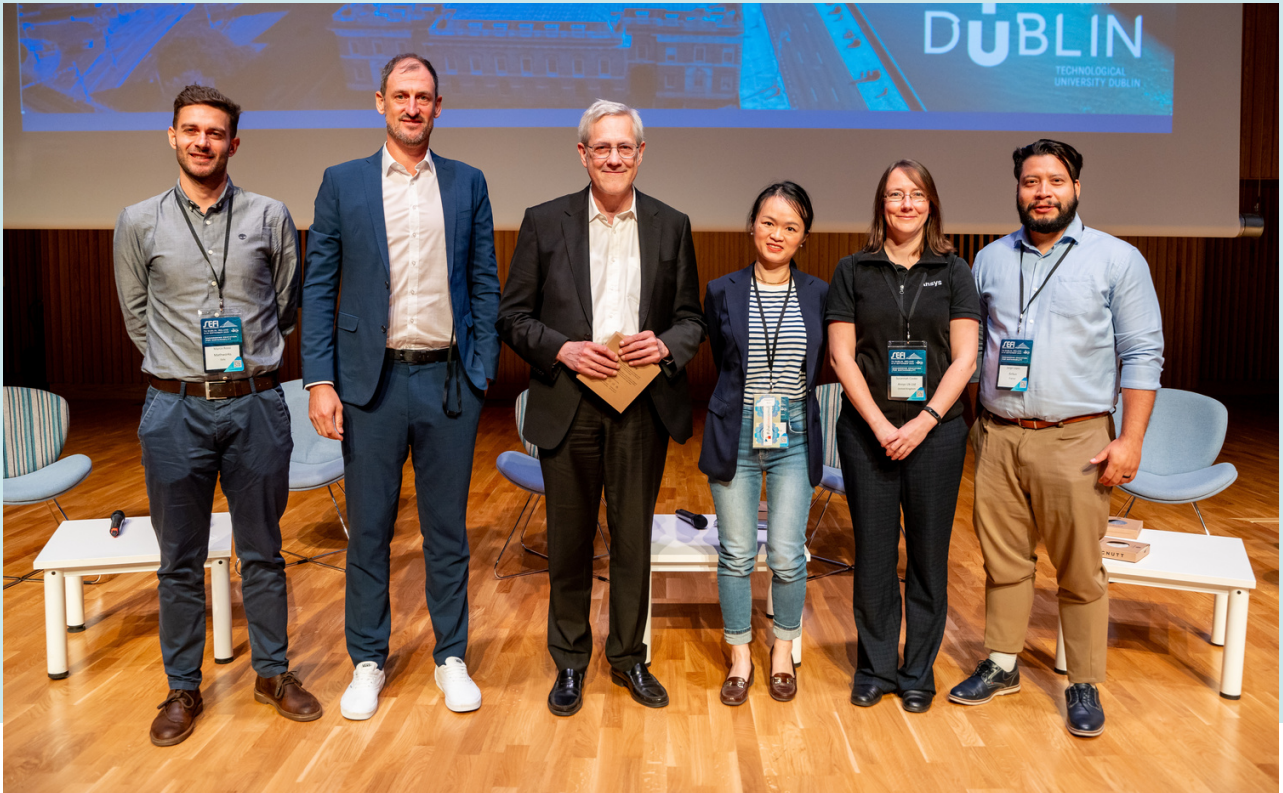


*It was very motivating to see that everyone wanted our organisations to be even more involved, to advocate and attend more events and ensure students are represented.*

Not only did we get to increase our visibility by presenting the 2 student organisations BEST and ESTIEM, but also to have a quiz, where we could ask the educators and company representatives questions and understand how students can contribute to education. In fact, it was very motivating to see that everyone wanted our organisations to be even more involved, to advocate and attend more events and ensure students are represented. Even more, we were glad to see them taking notes during our answers, and see that they were willing to listen to the students' needs and adapt their actions.

All in all, we are very happy that we got to participate in SEFI Conference 2023 since we got valuable information for our projects and hope that we could also give good input to other participants.





## INDUSTRY INSIGHTS

From the perspective of industry companies, the SEFI 2023 Annual Conference offered a unique insight into the acute awareness of the challenges that lie ahead in the near future. These challenges encompass a broad spectrum of critical global issues, including ethics, sustainability, climate change, long-term learning, upskilling, and the need for transdisciplinary solutions. Industry leaders who attended the conference found it to be an excellent platform to address these pressing concerns.

One notable aspect of the conference was the comprehensive review of existing literature provided by many of the presentations. These reviews served as valuable references, helping industry professionals to position themselves within specific topics and gain a deeper understanding of the landscape.

The Knowledge Exchange at the conference was particularly noteworthy. Corporate partners actively shared their industry expertise, best practices, and insights. This sharing of knowledge is instrumental in fostering collaboration and innovation within the engineering education community.

Despite the extensive discussions on various topics, it appeared that AI ethics was not a primary concern for many industry representatives. However, it was noted that regulatory agencies are increasingly focusing on this issue, which suggests that industry should pay more attention to ethical considerations in the field of artificial intelligence.

Networking opportunities at the SEFI 2023 conference were abundant. Corporate partners had the chance to connect with



educators, researchers, and students within the engineering education community. It's worth mentioning that the seemingly simple act of attending the gala dinner provided some of the best opportunities to establish valuable relationships, a crucial aspect of any successful industry event.

The conference also highlighted the potential for improved collaboration between corporate partners and academic institutions. To maximize the benefits of joint research and development projects, corporate partners should make their expectations clear and define their goals in attending the conference.

A notable development was the growing influence of student societies in the conference. These groups have become a vital component, augmenting the overall impact and providing fresh perspectives and energy to the event.

Lastly, the recognition of award recipients, such as fellowship recipients and those awarded the Da Vinci medal, was well-deserved. These individuals and organizations are top contributors to the field, and their recognition serves to highlight their exceptional contributions to engineering education and industry.

BY ALEX TARCHINI  
MATHWORKS





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