

T.I.M.E. Workshops

(Title, Abstract, and Speakers)

Title overview of workshops

1. Joint and Double Degree Programmes in Engineering Education: Embracing Diversity through Curriculum Innovation and Global Collaboration
2. Next Generation of European Global Degrees
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4. Globalized Micro-credentials for Cross-Cultural Excellence in STEAM Doctoral Education (GLOBE-DR)
5. Organizing Collaborative Educational Activities with Industry Partners – Building on the Case of L'Oréal and the ISIE Program
6. Engineering Without Borders: How International Mobility Shapes the Engineers of the Future. Case Study
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Workshop 1

Joint and Double Degree Programmes in Engineering Education: Embracing Diversity through Curriculum Innovation and Global Collaboration

Speakers

Name	Role & Institution
Teresa Zielińska	Full Professor, Institute of Aeronautics and Applied Mechanics <i>Warsaw University of Technology</i>
Vincent Frémont	Full Professor, Director of International Relations <i>École Centrale de Nantes</i>
Norihisa Miki	Full Professor, Department of Mechanical Engineering <i>Keio University</i>

Abstract

In an increasingly interconnected world, joint and double degree programmes play a key role in embracing diversity within engineering education—by bringing together students, faculty, and institutions across cultures, pedagogical traditions, and academic systems. These programmes foster multicultural learning environments, diverse approaches to problem-solving, and globally competent engineers.

This workshop focuses on the value of international education for students, using the JEMARO programme as a case study. It brings together academic leaders and practitioners from École Centrale (France), Warsaw University of Technology (Poland), and Keio University (Japan), who jointly coordinate the programme. They will share evidence-based insights into how international joint programmes influence student learning, identity, and career trajectories. Through presentations of student survey results, alumni outcomes, and reflective panel discussions, participants will explore what international programmes provide to students beyond academic credits and how these experiences shape future careers.

The workshop will highlight how cross-cultural mobility and multicultural cohorts create transferable skills such as intercultural competence, teamwork in global settings, and adaptability—skills that are essential for engineering careers in a globalised world.

Key Topics

- Embracing diversity through intercultural competence, global mindset, resilience, and career readiness
- The impact of international joint programmes on student mobility, employability, intercultural competence, and global teamwork skills
- Curriculum development strategies that integrate diverse educational traditions, including alignment of learning outcomes, assessment methods, and credit systems
- Emerging models of engineering education—such as hybrid, project-based, and challenge-driven learning—in multicultural and multi-institutional contexts
- Challenges and best practices in supporting student success in international joint programmes

Expected Outcomes

Participants will leave the workshop with:

- A framework for measuring and communicating the value of international joint programmes to students and stakeholders
- A set of survey-based indicators for student outcomes and career impact
- A checklist of practices to strengthen student support, mobility experience, and employability in joint programmes

By focusing on real-world experience and actionable guidance, this workshop aims to support T.I.M.E. member institutions in strengthening diverse, inclusive, and innovative international engineering education pathways.

Speaker Biographies

Vincent Frémont

Vincent Frémont received the M.S. degree in Automatic Control and Computer Science from École Centrale de Nantes (France) in 2000, and the Ph.D. degree in the same field from École Centrale de Nantes in 2003. From 2005 to 2018, he was an Associate Professor at the Université de Technologie de Compiègne (UTC), within the Heudiasyc Laboratory (UMR CNRS 7253). Since 2018, he has been a Full Professor at École Centrale de Nantes, where he is a member of the ARMEN team at the LS2N Laboratory (UMR CNRS 6004). His research interests focus on perception systems for autonomous mobile robotics, with particular emphasis on computer vision, machine learning, and multi-sensor data fusion. In addition to his academic activities, Prof. Frémont serves as Director of International Relations at École Centrale de Nantes. He is the main coordinator of the Japan–Europe Master on Advanced Robotics (JEMARO) and has led the programme since its inception in 2019. He is actively involved in European and international higher-education projects of excellence.

Norihisa Miki

Norihisa Miki received his Ph.D. in Mechano-Informatics from the University of Tokyo in 2001. During his doctoral studies, he developed a MEMS-based micro-drone, recognized at the time as the world's smallest of its kind. From 2001 to 2003, he conducted postdoctoral research at the MIT Microengine Project, where he later worked as a Research Engineer (2003–2004). In 2004, he joined the Department of Mechanical Engineering at Keio University as an Assistant Professor and was promoted to Full Professor in 2017. His research activities initially focused on MEMS-based biomedical and human–machine interface devices and have since expanded to interdisciplinary areas including medical engineering, neuroscience, and media arts. Prof. Miki has been playing major academic leadership roles at Keio University, serving as Department Head (2021–2025) and holding responsibilities for international affairs at the Faculty of Science and Technology (2019–2025). He is responsible for the local leadership and implementation of the JEMARO programme at Keio University and is also involved in entrepreneurship education.

Teresa Zielińska

Teresa Zielińska is a Full Professor in Technical Sciences at the Warsaw University of Technology (WUT) and serves as Deputy Director of the Institute of Aeronautics and Applied Mechanics. She has held long-term leadership roles in international education and academic governance at WUT, including serving as Rector's Proxy for Studies in English and Rector's Proxy for the Internationalization of Studies and Doctoral Education. She is a member and Vice-Chair of the Committee of Automatic Control and Robotics of the Polish Academy of Sciences, former Secretary General of IFToMM (2011–2019), and President of the Indo-European Universities Network HERITAGE. Prof. Zielińska has played a leading role in international joint-degree and mobility programmes, acting as long-term coordinator of the European Master on Advanced Robotics (EMARO) since 2008 and currently leading the Japan–Europe Master on Advanced Robotics (JEMARO). Her research focuses on robotics and bio-robotics, and she is the author or co-author of over 350 publications.

Workshop 2

Next Generation of European Global Degrees

Speakers

Name	Role & Institution
Rui Mendes	Director of International Affairs <i>Técnico, Universidade de Lisboa (IST)</i>
Mirko Varano	Vice Rector <i>TEC Monterrey</i>

Abstract

This session presents the strategic vision and operational framework of the project R3DEEM+ – NextGen European Global Degrees, an Erasmus+ KA220-HED initiative focused on modernising and internationalising Joint Programmes (JPs) at Master's and Doctoral levels and the work made by the Joint Programmes Expert Group of the Unite! European University Alliance. Building on a data-driven analysis of global JP practices, the project develops governance models, accreditation guidelines aligned with the European Degree Label, and scalable international cooperation frameworks (including partnerships around the globe).

The session will explore how universities can reform Joint Degrees to become more flexible, digitally enabled, inclusive, and employability-driven, while strengthening collaboration with non-European partners. It will present evidence from institutional and alumni surveys, practical tools for accreditation and governance reform, and the design of an Online Academy supporting sustainable capacity building in JP management.

Key topics

- European Degree Label implementation
- Governance and accreditation of Joint Programmes
- Internationalisation beyond Europe
- Digitalisation and blended mobility formats
- Employability-driven curriculum design
- Data-driven reform of higher education
- Policy recommendations for sustainable global Joint Degrees

Expected Outcomes

The session aims to:

- Present a data-driven framework for reforming Joint Programmes (MSc and PhD levels)
- Clarify how institutions can align JPs with the European Degree Label and QA standards
- Demonstrate scalable models for European–non-European collaboration
- Provide practical guidance on governance, financial sustainability, and accreditation processes
- Share evidence on the impact of Joint Degrees on employability and global mobility
- Engage participants in reflecting on how to future-proof their international academic offer

Participants will leave with concrete tools and guidelines for JP reform, a clearer understanding of European policy developments, and strategic insights for global degree positioning.

Speaker Biographies

Rui Mendes

Rui Mendes is Director of International Affairs at Instituto Superior Técnico (Universidade de Lisboa) and an experienced leader in European higher education cooperation. He has coordinated and contributed to over 30 international projects, including Erasmus+, Horizon Europe, and European University Alliance initiatives. His expertise includes Joint Programmes, European Degree Label implementation, governance and accreditation reform, digital transformation, and global academic partnerships. He serves on the Steering Committee of the Magalhães Network and actively contributes to European policy discussions on internationalisation, quality assurance, and employability-driven education.

Mirko Varano

Mirko Varano is Vice Rector at Tecnológico de Monterrey (TEC Monterrey), where he leads strategic initiatives in internationalization, academic innovation, and global partnerships. With extensive experience in higher education leadership, he has contributed to the development of international collaboration frameworks, dual and joint programmes, and industry-engaged learning models. His work focuses on strengthening global engagement, enhancing institutional competitiveness, and promoting innovation-driven education. He has played an active role in building alliances between Latin American, European, and global universities, fostering sustainable academic cooperation and employability-oriented education models.

Workshop 3

How Can We Enhance Sustainability Education in Engineering?

Speakers

Name	Role & Institution
Ivar Björnsson	Senior Lecturer and Researcher, Division of Structural Engineering <i>Lund University</i>
Emmanuelle Brun	Partnerships Development & International Projects Officer, École Polytechnique de Louvain (EPL) <i>UCLouvain</i>
Marco Toffolon	Professor of Hydraulics, Department of Civil, Environmental and Mechanical Engineering <i>University of Trento</i>
Luana Mattos de Oliveira Cruz	Professor, Civil Engineering <i>University of Campinas (UNICAMP)</i>

Abstract

This workshop aims to present ongoing work where we collaboratively gather and analyse ESD (Education for Sustainable Development) related teaching materials to identify common themes, challenges, and opportunities for integrating sustainability in engineering education.

An overview of our ongoing work, which currently involves six T.I.M.E. institutions (Lund University, École Polytechnique de Louvain, University of Trento, CentraleSupélec, Centrale Lille & Universidade Estadual de Campinas), is presented along with an overview of thereto collected results.

Through interactive activities headed by the workshop presentation group, participants shall then contribute additional ESD examples, provide feedback, and collaboration ideas, enriching the dataset collected. This input will directly inform future work within ESD, which includes the design of an envisaged genAI agent for supporting sustainability education.

Expected Outcomes

Expected outcomes include:

- Additional ESD examples collected from T.I.M.E. members beyond the core presentation group
- Feedback on collected examples and results, helping validate themes and identify gaps or opportunities
- Input to refine the design and training of a genAI agent, including functional expectations and data needs
- Integration of workshop contributions into the ongoing work on enhancing ESD in engineering education
- Strengthened network engagement, with participants indicating interest in future collaboration
- Matchmaking opportunities, connecting individuals or groups with like-minded counterparts at other institutions to foster new collaborations

Speaker Biographies

Ivar Björnsson

Ivar Björnsson is a senior lecturer and researcher at the Division of Structural Engineering, Lund University, where he teaches courses on the design, analysis, and reliability of buildings and bridges. His teaching emphasizes active learning, collaborative teaching and course development, and bridging theory with real-world application. Ivar's research focuses on safety, risk, and decision analysis in structural engineering applications. He is also engaged in educational development, serving as Engineering Faculty coordinator at the Unit for Educational Services as well as Center for Engineering Education. Currently, his work in educational

development focuses on education for sustainable development, digital tools in teaching and learning (including genAI) as well as the use of video in higher education.

Emmanuelle Brun

Emmanuelle Brun has served as Partnerships Development & International Projects Officer at UCLouvain's École Polytechnique de Louvain (EPL) since 2009, where she drives international collaborations, manages student exchange and joint degree programs, and European projects such as Erasmus Mundus joint master programs. She coordinates corporate scholarships and grant initiatives as well as internships abroad. Emmanuelle Brun has been participating in the "EPL Transition" project initiated in 2023, which aims at coordinating the integration of socio-ecological transition skills into STEM education by engaging the community, redefining learning outcomes, training staff, and collaborating across faculties.

Marco Toffolon

Marco Toffolon is professor of hydraulics at the University of Trento. He teaches environmental fluid mechanics, is the head of the Physical Limnology Laboratory (PhyLL), and serves as deputy director for international relations at the Department of Civil, Environmental and Mechanical Engineering. His research interests cover various areas of environmental fluid mechanics, including physical limnology, sediment transport, morphodynamics, tidal hydrodynamics, eco-hydraulics, and water quality. He is also the coordinator of the Erasmus Mundus Joint Master's programme 'Engineering for Environmental Sustainability and International Cooperation' (EESIC), jointly offered by UniTrento, Universidade de Lisboa (Portugal) and Universitat Politècnica de València (Spain), and a member of the UNESCO Chair in Engineering for Human and Sustainable Development of the University of Trento.

Luana Mattos de Oliveira Cruz

Luana Mattos de Oliveira Cruz is a professor at the University of Campinas (UNICAMP), Brazil, where she teaches courses in wastewater treatment, biological processes, and sustainable sanitation within the Civil Engineering program. She previously served as Undergraduate Program Coordinator for Civil Engineering, leading curriculum development, academic management, and continuous improvement initiatives. She currently serves as Advisor to the Executive Board for International Relations at UNICAMP, contributing to institutional strategies for internationalization, academic mobility, and global partnerships. Through sustained collaboration with international partners, particularly Delft University of Technology (TU Delft), she has fostered joint academic initiatives, student exchanges, and double-degree doctoral supervision.

Workshop 4

Globalized Micro-credentials for Cross-Cultural Excellence in STEAM Doctoral Education (GLOBE-DR)

Speakers

Name	Role & Institution
Ignasi Casanova	Professor, Coordinator of the Unite! Energy MSCA Doctoral School <i>Universitat Politècnica de Catalunya (UPC)</i>

Abstract

The GLOBE-DR project proposes a transformative shift in doctoral STEAM education by implementing a system of globalized micro-credentials designed to overcome traditional barriers to international mobility.

By shifting the focus toward modular, high-impact learning units, GLOBE-DR democratizes access to international excellence, ensuring that financial constraints do not exclude talented researchers from gaining global recognition. This approach is particularly vital for students who may not yet possess full professional competencies in English; micro-credentials offer a lower-stakes entry point into the global scientific community.

Central to this vision is the strategic mapping and pilot implementation of free or university-licensed AI platforms already available at partner institutions. By leveraging existing infrastructure, we ensure a sustainable and cost-effective approach that avoids additional licensing fees while providing a scalable proof-of-concept for the network.

Ultimately, GLOBE-DR seeks to harmonize doctoral curricula across a diverse network of institutions spanning Europe and the Mediterranean, creating a scalable roadmap for flexible, inclusive, and technologically enhanced doctoral education that prepares the next generation of engineering leaders for a truly interconnected world.

Expected Outcomes

Expected outcomes include:

- Validated best practices: A refined list of AI platforms and prompt-engineering strategies specifically tailored for PhD-level STEAM education
- Expanded consortium interest: A list of at least 5–10 T.I.M.E. members interested in adopting the GLOBE-DR roadmap for their own doctoral schools
- Feedback report: A summary of policy recommendations for the T.I.M.E. Advisory Committee regarding the official recognition of AI-mediated micro-credentials
- Proof-of-concept visibility: Increased awareness of how low-cost technology can replace high-cost software solutions for internationalisation

Speaker Biographies

Ignasi Casanova

Ignasi Casanova is a Professor at the Universitat Politècnica de Catalunya (UPC), where he has contributed to the development of the UPC Doctoral School as a foundational member of its Steering Committee. After completing his PhD at the University of New Mexico, he spent several years as a researcher at the Los Alamos National Laboratory, the NASA Johnson Space Center, and the University of Chicago. This background in international research environments informs his current role as Coordinator of the Unite! Energy MSCA Doctoral School. With experience in Erasmus Mundus and Marie Skłodowska-Curie Actions, as well as a research and teaching focus on Environmental Engineering and Planetary Geosciences, his work centers on the harmonization of STEAM curricula. He is committed to exploring how AI-mediated tools can facilitate doctoral interactions and promote more inclusive access to international academic excellence.

Workshop 5

Organizing Collaborative Educational Activities with Industry Partners – Building on the Case of L'Oréal and the ISIE Program

Speakers

Name	Role & Institution
Fabiano Armellini	Professor of Entrepreneurship and Innovation, Department of Mathematics and Industrial Engineering <i>Polytechnique Montréal</i>
Julie Defretin	Strategic Advisor, Polytechnique Montréal International <i>Polytechnique Montréal</i>
Lilian Tran	Talent Acquisition Manager and Employer Branding, Global Operations <i>L'Oréal</i>

Abstract

Collaboration between universities and industrial partners is essential for preparing engineering students for complex global challenges. This workshop will present and analyse the experience of co-organising a multi-site hackathon competition within the International Specialization in Industrial Systems Engineering (ISIE) program, a joint initiative currently involving four T.I.M.E. member universities and the industrial partner L'Oréal.

The first objective of the workshop is to share insights from this large-scale collaborative educational activity, focusing on the organizational mechanisms, success factors, and lessons learned from the ISIE–L'Oréal partnership. The second objective is to engage participants in a broader discussion on how T.I.M.E. members can develop similar or complementary activities with industrial partners.

Together, we will identify key challenges and benefits of such cooperation and explore opportunities for new initiatives within L'Oréal and eventually with other global companies. This session aims to inspire and equip T.I.M.E. institutions seeking to deepen industry engagement and to strengthen the association's role as a leader in innovative engineering education.

Expected Outcomes

At the end of the workshop, participants will:

- Gain a clearer understanding of the organizational, pedagogical, and strategic dimensions of collaborative educational activities between universities and industry
- Identify concrete success factors and best practices for designing and managing joint initiatives such as international hackathons
- Obtain a structured overview of the key challenges and benefits associated with industry–university collaboration
- Brainstorm actionable ideas for future partnerships within the T.I.M.E. Association, including joint project courses, thematic summer schools, industry-led design challenges, mobility opportunities linked to industrial sites, or cross-institutional capstone projects

Speaker Biographies

Fabiano Armellini

Fabiano Armellini, eng. D.Sc., is a professor of entrepreneurship and innovation in the Department of Mathematics and Industrial Engineering at Polytechnique Montréal, director of the STR (Society, Technology and Responsibility) research group, and academic co-lead of the Invention to Innovation (i2I) program for French-speaking Canada. He holds bachelor's, master's, and doctoral degrees in mechanical engineering from the University of São Paulo in Brazil. Prior to professorship, Dr. Armellini gained 10 years of experience as a practitioner in innovation management and product engineering, primarily in the aerospace and defense sectors, and is the co-founder of two successful companies in these fields. His research focuses on techno-

entrepreneurship and technology and innovation management, with a particular interest in the strategic management of open and collaborative innovation within ecosystems.

Julie Defretin

Julie Defretin has worked in internationalisation of higher education, student services, international mobility programs and international recruitment for more than 20 years. In 2010, she moved to Canada and joined Polytechnique Montréal as Head of the International Mobility Program at the Student Services where she led on incoming and outgoing mobility programs and developed strategies for increasing the outbound mobility. Since 2015, as Strategic Advisor at Polytechnique Montréal International, she is responsible for developing strategic partnerships for education and scientific collaborations with Europe, consolidating existing partnerships, diversifying the academic and research offer and supporting Polytechnique's internationalisation and outreach strategy. She also acts as T.I.M.E. Coordinator since 2024. Julie holds a Master's degree in Business and Foreign Applied Languages from Lille Catholic University, France and Centenary College, Shreveport, Louisiana, USA, as well as a certificate in intercultural communication from the University of British Columbia (UBC), Canada.

Lilian Tran

Lilian Tran holds a Bachelor of Commerce (B.Com) from the University of Melbourne, majoring in Management, Marketing, and Finance. Building on this business background, Lilian's career with L'Oréal spans over 8 years in Australia and France in Human Resources with a specialization in Talent Acquisition. Currently as the Talent Acquisition Manager and Employer Branding for Global Operations based in France, Lilian is responsible for senior recruitment in Engineering and Industrial roles across the value chain and oversees the Employer Branding of L'Oréal Operations to demonstrate the Groupe's inclusivity, agility and innovation to junior engineers on a global scale.

Workshop 6

Engineering Without Borders: How International Mobility Shapes the Engineers of the Future. Case Study

Speakers

Name	Role & Institution
Elżbieta Zienkiewicz	Associate Professor, Faculty of Chemistry; Director, Teaching and Learning Centre <i>Wrocław University of Science and Technology, Poland</i>
Ewa Mroczek	T.I.M.E. Double Degree Master Program Coordinator <i>Wrocław University of Science and Technology, Poland</i>

Abstract

In a world where engineering challenges are global in scope, international mobility plays a crucial role in preparing future engineers. Internships, double degree, joint programmes, and research collaborations enhance not only technical expertise but also intercultural competence, adaptability, and teamwork skills. This workshop examines how international mobility fosters innovation, strengthens problem-solving abilities, and supports the development of transversal competencies valued by industry. It also highlights institutional benefits, including knowledge transfer and curriculum modernization, while addressing challenges such as access and recognition of learning outcomes.

Expected Outcomes

- Strategic importance of international mobility in engineering education
- Identification of key competencies developed through international mobility
- Show impact of mobility programs on professional development
- Identification of institutional benefits of internationalization (knowledge transfer, curriculum modernization, and strengthened research and industry partnerships)

Speaker Biographies

Elżbieta Zienkiewicz

Elżbieta Zienkiewicz is an Associate Professor in the Faculty of Chemistry and a Director of the Teaching and Learning Centre at Wrocław University of Science and Technology. She is an expert in innovative teaching and learning methodologies, competence-based education, and the Joint Programmes specialist. Has extensive experience in international academic collaboration, including participation in joint degree development, and cross-border capacity-building projects.

Ewa Mroczek

Ewa Mroczek is a T.I.M.E. Double Degree Master Program Coordinator at Wrocław University of Science and Technology. She is an expert in Double Degree programmes, with extensive experience covering the entire process from the initiation of international cooperation and negotiation of agreements to their implementation and monitoring. She is also actively involved in the recruitment procedures for double and joint degree programmes, as well as for scholarship holders of NAWA programmes. Author of institutional frameworks and solutions for the development and implementation of double degree studies.

Workshop 7

Good Practices in T.I.M.E. (GP_T.I.M.E. project Results)

Speakers

Name	Role & Institution
Javier Sanchis Sáez	Universitat Politècnica de València (UPV)
Arantxa Querol	Universitat Politècnica de València (UPV)

Abstract

During this workshop, results from the GP_T.I.M.E. project will be presented and shared. The project's main objective was to diagnose, through exchange students, the best educational practices in the host universities, disseminate the best practices identified, and transfer them to the rest of the partners. After the presentation of quantitative and qualitative results, a debate will be promoted among the attendees to collect impressions and opinions about the ideas concluded from the project's results.

Expected Outcomes

Improvement of training in the double degrees, thanks to the implementation of the best practices identified, the transfer of best teaching practices to other partners in the T.I.M.E. network.

Speaker Biographies

To be provided.