

NEWSLETTER 1/2023

In this issue

FROM THE EUCEET ASSOCIATION

| 2 nd Joint conference EUCEET Association and AECEF | 2 |
|--|---|
| 2023 EUCEET Association call for international research and educational projects | |
| funds | 6 |
| EUCEET Association LinkedIn | 7 |

FROM MEMBERS

| École des Ponts ParisTech, France | 8 |
|---|----|
| Budapest University of Technology and Economics (BUTE), Hungary | 11 |
| Ural Federal University (UrFU), Russia | 13 |
| University of Granada, Spain | 15 |
| | |

| FROM PARTNERS | 16 |
|-------------------------|----|
| FROM THE EUROPEAN UNION | 23 |
| NEWS FROM THE WORLD | 37 |
| CALENDAR | 48 |

FROM THE EUCEET ASSOCIATION

2nd Joint conference EUCEET Association and AECEF

2ND JOINT INTERNATIONAL CONFERENCE OF EUCEET AND AECEF

The role of interactive teaching/learning approaches in the development of soft skills for Civil Engineering Education

> Pisa, 19-20 October 2023 University of Pisa Congress Centre "Le Benedettine"

Organized by: University of Pisa Dept. of Energy Engineering, Systems, Territory and Constructions www.unipi.it

Under the auspices of: EUCEET - European Civil Engineering Education and Training Association <u>www.euceet.eu</u> AECEF - The Association of European Civil Engineering Faculties <u>www.aecef.net</u>

CONFERENCE WEBSITE https://euceetaecef2023.unipi.it/

<u>Place:</u> PISA – Le Benedettine – University of Pisa Congress Centre



About the Conference

The International Conference on "The role of interactive teaching/learning approaches in the development of soft skills for Civil Engineering Education" is organized under the joint auspices of the European Civil Engineering Education and Training Association (EUCEET) and the Association of European Civil Engineering Faculties (AECEF).

Since the Bologna Declaration the Student-Centred Approach has involved the development of Interactive Teaching/Learning methodologies. Actually, the need for a Green and Digital transition during COVID-years requires the development of appropriate soft skills and sensibility of future Civil Engineers with respect to so-called SDGs such as: Clean water and sanitation, Affordable and clean energy, Industry, Innovation, and infrastructures, Sustainable cities and communities, Climate change.

The Conference would offer a scientific base for discussing and comparing traditional and innovative Teaching/Learning approaches with special concern on soft skill development in the field of Civil Engineering.

The 1st Joint Conference of EUCEET and AECEF, <u>The role of education for Civil Engineers in the</u> <u>implementation</u> <u>of the SDGs</u>, took place in Thessaloniki, Greece, November 12th 2021 (<u>https://websites.auth.gr/euceetaecef2021/</u>).

Conference topics

The following list of topics is not intended to be exhaustive, but rather to indicate topics that fall within

the aim of the Conference:

- Topic 1- Future-oriented educational concepts in engineering
- **Topic 2- Non-traditional laboratories for engineering education**
- Topic 3- Impact of climate change in engineering education
- **Topic 4- Student-centred learning environments**
- Topic 5- The role of education for woman leadership in engineering
- **Topic 6- Diversity and inclusion in engineering education**



Conference details

The Conference will take place in Pisa (Italy) at "Le Benedettine"-University of Pisa Congress Centre (near historical centre of Pisa, Arno riverside, ten minutes' walk far from Leaning Tower), from Thursday 19 to Friday 20, October 2023.

The Conference Proceedings will be published in electronic format, provided with ISBN, and indexed in leading databases.

Updates will be available in the next days. <u>Subscription procedure</u>, and papers' submission will start in the early Autumn 2022.

Official language: English

Conference Program

(Italian time/Pisa)

Thursday 19 October 2023 (morning)

| marsuay 15 C | |
|--------------|--|
| 8.30-9.00 | Participants Registration |
| 9.00-9.30 | Opening and welcome notes |
| 9.30-10.15 | Keynote lecture |
| 10.15-10.30 | Q/A |
| 10.30-11.00 | Coffee break |
| 11.00-11.45 | Keynote lecture |
| 11.45-12.00 | Q/A |
| 12.00-13.30 | Paper presentations (oral) |
| | Poster presentations (parallel sessions) |
| 13.30-14.30 | Lunch |

Thursday 19 October 2023 (afternoon)

14.30-15.15 Keynote lecture
15.15-15.30 Q/A
15.30-16.15 Keynote lecture
16.15-16.30 Q/A
16.30-17.00 Tea break
17.00-18.30 Paper presentations (oral)
Poster presentations (parallel sessions)
20.00 Conference Gala Dinner

Friday 20 October 2023 (morning)

| 8.30-9.00 | Participants Registration | |
|-------------|--|------------------------------|
| 9.00-9.45 | Keynote lecture | |
| 9.45-10.00 | Q/A | |
| 10.00-10.30 | Coffee break | |
| 10.30-11.15 | Keynote lecture | |
| 11.15-11.30 | Q/A | |
| 11.30-13.00 | Paper presentations (oral) | |
| | Poster presentations (parallel sessions) 13.00-13.30 | Closing and conclusion notes |
| 13.30-14.30 | Lunch | |
| | | |

Friday 20 October 2023 (afternoon)

14.30-15.00EUCEET Educational Award 202315.30-17.00EUCEET General Assembly15:30-17:30AECEF General Assembly

Organizing Committee

Francesco Leccese - Conference Chair School of Engineering, University of Pisa, Italy Jose Turmo - EUCEET Association President

UPC Barcelona Tech, Barcelona, Spain

Nicolaos Theodossiou - AECEF President

Aristotle University, Thessaloniki, Greece

Diego Carlo Lo Presti - EUCEET Association Secretary-General

University of Pisa, Italy

Alfredo Soeiro - AECEF Secretary-General University of Porto, Portugal

Key dates

| Call for abstract: | 11 December 2022 |
|---|-------------------|
| Deadline abstract submission: | 11 February 2023 |
| Extended deadline abstract submission | 22 May 2023 |
| Deadline full paper submission: | 5 July 2023 |
| Full paper review notification: | 19 July 2023 |
| Full paper final submission: | 31 July 2023 |
| Notification of full paper acceptance: | 15 September 2023 |
| | |
| Opening of registration: | 11 December 2022 |
| Deadline for early registration: | 12 July 2023 |
| Final date for payment (late registration): | 4 October 2023 |

Conference registration fees

| | Early | Late |
|---|-------|------|
| EUCEET and AECEF members* | 230€ | 280€ |
| Other participants | 280€ | 330€ |
| Students, auditors, accompanying person | 80€ | 80€ |
| Virtual participants | 50€ | 50€ |
| Gala dinner (optional) | 70€ | |

Students, auditors, accompanying person, who intend to attend the Conference without submitting any paper.

At least one of the authors needs to be registered for the conference in order to their paper to be included in the proceedings. The payment of one registration fee is required for each accepted paper.

Conference fees includes

Attendance to Conference sessions (keynotes, paper presentations, poster sessions). Official certificate of Conference attendance/presentation.

Conference Welcome Pack (bag, conference badge, electronic book of abstracts, etc.). Coffee breaks and lunches.

*The Gala dinner is included for EUCEET and for AECEF members.



2023 EUCEET Association call for international research and educational projects funds

Any member of the EUCEET Association (university/institution) can be an applicant for the 2nd EUCEET Educational award for research/educational projects 2023



EUCEET Association on LinkedIn

Starting with December 2022 EUCEET Association has the LinkedIn page where are posted useful information about association and partners:

https://www.linkedin.com/company/european-civil-engineering-education-and-training/



FROM MEMBERS

École des Ponts ParisTech, France

Professor Thibaut Skrzypek, member of Administrative Council of EUCEET Association sent the following news of interest for members of EUCEET Association:

THE 1ST TEDXECOLEDESPONTS WILL BE ABOUT SCAFFOLDING

The first edition of <u>TEDxEcoleDesPonts</u> will be held on Thursday, May 25, 2023! The event, organized at the École des Ponts ParisTech, will consist of an evening where a dozen speakers will take turns on stage for conferences on the theme Scaffolding. This will invite the audience to reflect on the ways in which we build our world, our society, our relationships and ourselves. Science, architecture, philosophy, economics, engineering, sports, entertainment or even comedy, this theme will be approached from different angles in order to give the most complete vision possible. More than a seminar, it will be a moment of conviviality and meetings.

The objective is both to disseminate the ideas born at the Ecole des Ponts and carried by its teachers, students, alumni or researchers on a global scale, but also to enrich them with ideas from speakers from different fields, who can help us build the worlds of tomorrow.

► Registration will open in late April-early May.

A TEDx (x=independently organized event) is a local event, organized under the TED (international non-profit organization) label, by the TEDxEcoledesPonts Student Club.

D.EVENT 2023 CONFERENCE

SAVE THE DATE

The D.EVENT conference is back on June 22, 2023!

The theme of this 6th edition: "Which design to build the world of tomorrow? Come and discover our fifteen speakers in the form of keynotes, round tables or workshops. Let yourself be inspired at the École des Ponts ParisTech!

► Registration from March 16



ParisTech

Page 8

VISIT OF THE VICE MINISTER OF EDUCATION OF CHINA TO THE SCHOOL

On February 21, 2023, Ecole des Ponts had the pleasure to welcome the Vice-Minister of Education of China, Mr. CHEN Jie, with representatives of the Chinese Embassy in France.

Anthony Briant, Director of Ecole des Ponts, was accompanied by Gilles Robin, Deputy Director, Marie-Christine Bert, Director of International Relations and Corporate Partnerships, Marie Mathieu-Pruvost, Director of Teaching, Emmanuel Girard, Deputy Director of Research, Yu Jun Cui, Director of Research and Professor, Navier Laboratory, coordinator of academic exchanges with Chinese universities, and Olivier Cormier, Deputy Director of Change Management and Transformation, General Secretariat of the Ministry of Ecological Transition.

The program for this visit to Ecole des Ponts included a tour of the Tongji office, a discovery of the Sino-French historical heritage, a visit to the Halle Freyssinet and exchanges with Chinese students in the d.school studio.

This visit confirmed their interest in our model of engineering education and allowed them to discuss central themes, such as sustainable development or artificial intelligence, both in teaching and research.

Mr. CHEN Jie, as President of Tongji University until last January, was a signatory of the framework agreement of April 2022, framing all the cooperation built since the 1990s with Tongji University, particularly within the framework of the Franco-Chinese Institute of Engineering and Management, and aiming at

maintain and develop cooperation in favor of student exchanges and double degree programs,
to promote the co-supervision of theses,

- Cooperate in the organization of student study trips (within the framework of the Engineers of Excellence program),

- develop innovation services that meet the needs of French and Chinese companies in the fields of transportation and sustainable cities

- to develop Franco-Chinese continuing education for executives and engineers, business leaders and private and public organizations.

In addition to Tongji University, Ecole des Ponts also has double-degree agreements with Tsinghua University, Southeast University and Xi'an Jiaotong University, which have enabled it to welcome a total of 68 engineering students since 2011 and 51 students from 8 other Chinese universities since 2007. In addition, there are 21 post-doctoral students, doctoral students and master's students currently enrolled at Ecole des Ponts.



ALAIN PECKER WILL GIVE THE 18TH MALLET-MILNE READING AT THE INSTITUTION OF CIVIL ENGINEERS IN LONDON

Alain Pecker, Professor at Ecole des Ponts and Member of the Académie des Technologies, has been selected by the committee of the Society for Earthquake and Civil Engineering Dynamics (An associated society of the Institution of Civil Engineers) to give the 18th Mallet-Milne Lecture in London on May 31, 2023.

The Mallet-Milne Lecture is a prestigious biennial conference on earthquake engineering. Alain Pecker, who has long taught the "Structural and Structural Dynamics" course at Ecole des Ponts, was nominated to give this lecture "in recognition of his long and distinguished career and his significant contributions to the theory and practice of geotechnical earthquake engineering."



▶ Read more

Alain Pecker

DEATH OF MAURIZIO BROCATO, PROFESSOR OF CIVIL ENGINEERING AT ECOLE DES PONTS

Ecole des Ponts is mourning the death of one of its great civil engineering professors, Maurizio BROCATO, who left us suddenly on January 16, 2023.

This great scientist, with a particularly inventive mind and great erudition, left his mark on Ecole des Ponts by participating in numerous courses for more than twenty years: the Design Workshops, Building an Arch (in the Ecole des Ponts' lobby), and above all his major contribution to the pedagogy of structure, which he reinvented and strongly developed at the Ecole des Ponts. He has trained several generations of students who are now inspired by his teaching to design and build.

On the basis of his courses, he has recently published recognized textbooks on structural calculation and design at Presses des Ponts. In addition, Maurizio Brocato founded and directed the GSA (Geometry Structure Architecture) laboratory at the Paris-Malaquais School of Architecture, a unique and prolific place of experimentation, at the forefront of lightweight structures and stone structures. Within the framework of this laboratory, he participated in particular in the studies in progress for the reconstruction of the vaults of Notre-Dame.



Our thoughts go out to his family and friends, as well as to those who had the chance and pleasure to work with him and who were nourished by his innovations and experiments in France and abroad.

Budapest University of Technology and Economics (BUTE), Hungary



BME'S ENGINEERS HELP ASSESS THE DAMAGE OF THE EARTHQUAKE IN TURKEY 13 February, 2023

Four experts from BME are working in Turkey to assess the damage caused by the earthquake and create safe conditions for underground rescue operations.

Experts from the Faculty of Civil Engineering and the Faculty of Architecture of Budapest University of Technology and Economics are participating in a joint project with Istanbul Technical University to assess the stability of damaged residential buildings.



Attila László Joó, Associate Professor of the Department of Structural Engineering at BME, said about the aim of the mission, "We have a close cooperation with Istanbul Technical University and it was evident that we would join the rescue efforts to help prevent further tragedies. Our job is to assess the damage to the buildings, provide expert opinion on the condition of the remaining infrastructural objects and participate in securing the site of the deeper excavation and rescue works and the immediate surroundings of the ruins. During our work, we also assess the damage to the supporting structures of the buildings that are still standing to determine whether they are safe and habitable."

The other members of the expert group are István Völgyi from the Faculty of Civil Engineering, as well as Tamás Ther and Pál Ther from the Faculty of Architecture. BME's professors arrived in the earthquake-hit Hatay province on Saturday afternoon, where they joined the HUNOR rescue team of the National

Page 12

Directorate General for Disaster Management in Antakya. They joined the rescue efforts, hampered by another magnitude 4 aftershock, on Saturday evening.

BME and Istanbul Technical University are both members of *EELISA* (European Engineering Learning Innovation and Science Alliance), which provides a framework for close cooperation. The Ministry of Foreign Affairs and Trade, the Embassy of the Republic of Turkey in Hungary and the National Directorate General for Disaster Management assisted in the organisation of the trip.

Information from:

https://www.bme.hu/news/20230213/BMEs_engineers_help_assess_the_damage_of_the_earthquake _in_Turkey?language=en



Ural Federal University (UrFU), Russia

Professor Vladimir Alekhin (Head of Department of UrFU Institute of Civil Engineering and Architecture(ICEA), member of Administrative Council of EUCEET Association from 2014 to 2022) sent the following news of interest for members of EUCEET Association:

XXV Sverdlovsk Region competition "Scientific Olympus":

The competition of research works of students of institutions of higher and specialized secondary education of the Sverdlovsk region "*Scientific Olympus*" aims to develop and support talented young scientists and increase the demand for the research results in the technical, economic and social spheres of the region.

On December 1, 2022 the Ekaterinburg Cultural Centre "Ural" hosted the 25th ceremony of awarding the winners of the scientific competition for students of higher and specialized secondary education institutions of the Sverdlovsk region "Scientific Olympus". This competition is held annually, with the support of the Government of the Sverdlovsk Region and the Ministry of Education of the Sverdlovsk Region. Its main goal is the development and support of talented and scientific youth of educational institutions.

The competition was held in three nominations: "Technical Sciences" and "Natural Sciences" (Organized by the Ural Federal University), and "Humanities" (Organized by the Ural State Pedagogical University).

Among the winners of the nomination "Technical Sciences" were Hussein Abdullah (Structural engineer of TECHCON Ltd, PhD student of UrFU) and Professor Vladimir Alekhin (Head of the Department UrFU, as supervisor), who have submitted the work "Design of steel canopy structures, and numerical analysis of wind impact on the canopy of UrFU stadium stands".

Diplomas of laureates were presented by the Vice Governor of Sverdlovsk region Dmitry Ionin.









Photos from awarding ceremony "Scientific Olympus"

University of Granada, Spain

ETS INGENIERÍA DE CAMINOS, CANALES Y PUERTOS

Presentation of the Guide for the drafting of Civil engineering construction projects 03/09/2023

 Image: Sector Sector

On March 8, 2023 the Guide for the drafting of Civil Engineering construction projects, prepared by about twenty teachers from the Superior Technical School of Civil Engineering (Escuela Técnica superior de Ingeniería de Caminos, Canales y Puertos- E.T.S.I.C.C.P) was presented to both students and teachers as one of the milestones of the Proyecto de Innovación Docente (PID) IMPLEMENTATION OF A SYSTEM FOR THE MONITORING AND TUTORING OF TFG/TFM at the E.T.S.I.C.C.P.

The director of the School and the coordinator of the Degree in Civil Engineering presented as the first result of the PID the Guide for the drafting of Civil Engineering construction projects prepared by 18 teachers from the School with extensive experience in tutoring end-of-degree projects and end of master. The purpose of this PID is to improve the rate of performance of the Final Degree Project (Degree in Civil Engineering) and the Final Master's Project Máster Universitario en Ingeniería de Caminos, Canales y Puertos) at the E.T.S.I.C.C.P.

The aim of this guide is to help E.T.S.I.C.C.P. students to prepare and write their final degree projects. It is, therefore, a non-exhaustive guide that includes some of the most common construction projects developed by our students in recent years, in which, in addition to collecting the standard indices, the objective, contents and sources are exposed of information of the main documents that make up the construction projects. Although it is a first edition, which will be revised and improved with the good work of the members of the PID and all those members of the E.T.S.I.C.C.P. who are interested in participating,

Information from : <u>https://etsiccp.ugr.es/la-escuela/noticias/parpresentacion-la-guia-la-redaccion-proyectos-construccion-i</u>

FROM PARTNERS

European Council of Civil Engineers (ECCE)

76th ECCE General Meeting 24 - 27 May 2023, Nicosia, Cyprus

The 76th ECCE General Meeting will run between 24 and 27 May 2023, at the Hilton Hotel, in Nicosia, Cyprus, hosted by the Cyprus Association of Civil Engineers.

The 76th ECCE General Meeting will be combined with the 8th International Conference on Construction Safety and Health titled "Respect Human Rights - Everyone has a Role to Play" which will be held from 26 – 27 May 2023, at the Hilton Hotel, in Nicosia, Cyprus. More information for the Conference will be available soon on the Conference website https://cosh.cy/

Please note that both events will be in presence only.

For more information: http://www.ecceengineers.eu/news/2023/76 ecce meeting.php

"Safe - Sound - Sustainable" buildings - The 3S Approach Joint ECCE - WCCE Initiative World Engineering Day 2023

The European Council of Civil Engineers (ECCE) and the World Council of Civil Engineers (WCCE) are joining forces in a common initiative which aims to raise awareness on the need of "Safe - Sound -Sustainable" (3S) buildings which can be fulfilled by integrating structural/seismic upgrade of the existing buildings together with energy efficiency improvements.

In Civil Engineering the systematic updating the design codes to incorporate aspects from academic research or identified through shortcomings in real hazard situations is an ongoing process. Safety and comfort are indeed considered to be of prime importance in all civil engineering projects. The requirement to satisfy both of these results in buildings which are safer, more economic to operate and more







sustainable. The Three S Approach (3S), Safe – Sound - Sustainable, focuses on this requirement while greatly contributing to the UN Sustainable Development Goal 11 for Safe and Resilient Cities.

In addition, one of the most important Human rights is to possess Safe, Sound and Sustainable buildings (3S). Adequate housing was recognized as part of the right to an adequate standard of living in article 25 of the 1948 Universal Declaration of Human Rights and in article 11.1 of the 1966 International Covenant on Economic, Social and Cultural Rights.

Much of the existing building stock in most countries were built in a time where modern design and construction standards and techniques, including the requirements for resilience, seismic safety and energy efficiency were not yet enforced. Thus, depending on their date of construction, the vast majority is deficient in terms of energy, durability, and seismic resistance. It is evident that there is a big portion of the existing building stock that is under-designed, both regarding their seismic capacity and their energy performance, as well as being below the national minimum requirements set in the last fifteen years. These are the properties that should be targeted for the need of structural and energy renovation to remain operational and safe.

This creates the need for society to take immediate action to maintain the aging existing building stock in an operational, reliable, and resilient state to ensure primarily the safety of the users.

In the last decades, the increased energy consumption has led to adverse environmental impact. The term 'energy efficiency' was introduced in the building sector which is being used as a metric in Europe's aim to reduce the Greenhouse emissions by 20% and achieve 20% energy savings [EPBD recast, 2010/31/EU]. The construction sector accounts for large energy consumption in the EU with the European households using nearly 70% of the consumed energy in the form of electrical energy. To boost energy performance of buildings, the EU has established a legislative framework and has presented a number of initiatives aiming to modernise the building sector in light of technological improvements and to increase building renovations. Unfortunately, the importance of safety has not been highlighted or considered to the necessary extent.

Currently, from a sustainability perspective, emphasis has been placed on developing an integrated structural and energy design methodology for new buildings to override individual actions to ensure a Sustainable Structural Design (SSD). However, in aging existing buildings, the issue of structural, seismic and energy inefficiency becomes of primary importance and a similar overarching concept approach is required to provide upgrading on both fronts and if possible, in an integrated common holistic approach.

A common method of evaluation of the seismic and structural vulnerability of buildings is of paramount importance for governmental authorities to quantify the required resources, plan investment schemes and define prioritisation strategies for seismic and structural risk mitigation and corresponding sustainable retrofitting.

Both the European Council of Civil Engineers and the World Council of Civil Engineers aspire to continue their efforts in the future to ensure the sustainability of the existing building stock in the world and contribute to the Basic Human Right to adequate housing.

The new trend nowadays is...smart financing for smart buildings. But a building can only be called smart once it fulfills the 3S approach "Safe - Sound - Sustainable".

So, ECCE and WCCE would like to declare the urgent need to follow and implement the 3S Approach.

The joint ECCE - WCCE 3S Approach Initiative is officially presented in the celebration of the <u>World</u> <u>Engineering Day 2023</u>, during the <u>"Engineering the Cities of the Future" Conference</u> on 3rd March 2023, in Madrid.

The World Engineering Day 2023 on 4th March 2023 is the day that marks ECCE's and WCCE's commitment to continue fostering holistic approaches of renovation in support of the global policies and UN SDGs for a safe and sustainable world.

Information from : <u>http://www.ecceengineers.eu/news/2023/3s</u> initiative 2023 ecce wcce.php?id=41

Erasmus Student Network (ESN)

Erasmus Generation in Action: ESN launches flagship initiative for the European Elections 2024





The project, co-funded by the European Parliament, will seek to mobilise young Europeans through international opportunities while focusing on awareness and access to citizen's rights.

About EGiA

The Erasmus Student Network (ESN) is excited to announce its new EU-funded project, the **Erasmus Generation in Action** (EGiA), supported by the Europan Parliament and aims to **raise awareness about EU citizenship opportunities and foster active citizenship among European youth**. ESN is thrilled to be leading this ambitious project, which will include impactful actions in 18 Member States and a total of 163 activities, 80 of which will be published at together.eu. With an expected average of 50 participants per activity, EGiA is set to engage a significant number of young Europeans in discussions about their role as active citizens.

Additionally, the project aims to attract 5000 new sign-ups at together.eu, and reach 2 million people with its outreach activities. Furthermore, 170 change-makers will be trained in capacity-building activities, and these change-makers will go on to organise 163 activities, making a significant impact on active citizenship among European youth. This project is a major step forward in ESN's mission to promote active citizenship among European youth, and we are excited to see the impact it will have.

EGiA is a project composed of 4 phases with a planned duration of 19 months (until summer 2024), focused on raising awareness among European youth about the opportunities and benefits that the

European Union offers to them, as well as the mobility-related rights of citizens. Erasmus Generation in Action is led by Erasmus Student Network International, in cooperation with ESN's National Organisations from Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Poland, Portugal, Romania, Slovakia, Spain, Sweden, and The Netherlands for the EU countries and Albania, Armenia, Turkey, Switzerland, and Georgia for the non-EU countries.

More information: https://www.esn.org/news/erasmus-generation-in-action-launch

European Society for Engineering Education (SEFI)

Europäische Gesellschaft für Ingenieur-Ausbildung Société Européen Impour la Formation des Ingénieu

SEFI Annual Conference - Engineering Education for Sustainability: Reflecting on the role of engineering and technology education for a sustainable world. 11-14 September, 2023 Dublin, IRELAND



The SEFI Annual Conference is a scientific conference focused on Engineering Education and the biggest event of this type in Europe. SEFI Annual Conferences are a unique opportunity for professors, students, industry and profesional organisations to exchange their views and to meet their peers and create a European network of contacts. The topics of the conferences reflect the objectives of the society and the priorities identified by its members.

The flagship European conference for engineering education is the annual conference of the European Society for Engineering Education (SEFI). Companies and organisations with an interest in engineering education are invited to support the 2023 SEFI Annual Conference.

Conference Tracks

- 1. Addressing the challenges of Climate Change and Sustainability
- 2. Embedding Sustainability and Ethics in the Curriculum
- 3. Engineering Skills and Competences, Lifelong Learning for a more sustainable world
- 4. Equality Diversity and Inclusion in Engineering Education
- 5. Education about and education with Artificial Intelligence
- 6. Engagement with Society and Local Communities
- 7. Engagement with Industry and Innovation
- 8. Mentoring and Tutoring
- 9. Fostering Engineering Education Research
- 10. Virtual and Remote education in a post Covid world
- 11. Innovative Teaching and Learning Methods
- 12. Fundamentals of Engineering: Mathematics and the Sciences
- 13. Built Environment and Architecture Education
- 14. Recruitment and Retention of Engineering Students
- 15. Curriculum Development

Contributions on other topics in Engineering Education are also welcome.

For more information: https://www.sefi2023.eu/

Academic Cooperation Association

Fostering digital pedagogies through international cooperation

7 - 9 June, 2023 Bled, Slovenia

While there are many benefits to be gained from applying digitalisation tools and strategies to teaching and learning methods, progress is uneven and there is a need to improve practice in online methods, identify "success and quality characteristics" of pedagogical practices, and help enhance and inform delivery in the pursuit of a new educational paradigm.

The focus of *Fostering digital pedagogies through international cooperation* will be on sharing experiences and best practices in the use of digital pedagogies to enhance international teaching and learning activities concerning student mobility and new mobility formats, COIL, joint programmes, etc.



ACA

ACADEMIC COOPERATION ASSOCIATION

The event will be divided in two days, including **expert panels** with discussions guided by the relevant European and national policies and funding opportunities and **best practices presentations, exploring methods used, discussing added value and relevant challenges.** The conference will also provide dedicated space for **lab sessions**, giving participants the opportunity to exchange, start thinking and possibly co-develop new project ideas with facilitation offered by experts.

This event is co-organised by the Academic Cooperation Association (ACA) and the Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes (CMEPIUS). The conference will be funded through the **Training and Cooperation Activities (TCA) initiative** and will bring together relevant stakeholders from higher education, with a focus on academics. Drawing on discussions, panels and best practice presentations, participants will explore the challenges but also the potential of recent innovations, in terms of advancing education and international cooperation.

More information: <u>https://aca-secretariat.be/post_event/fostering-digital-pedagogies-through-international-cooperation/?yearEvent=2023</u>

ACA's members discuss in-depth most pressing HE topics

In February, ACA continued with a series of thematic peer group meetings organised for the association members on several topics of common interest.

The European policies and programmes thematic peer group convened its ninth meeting on 15 February. The main topic for discussion was the **revision of the European learning mobility framework** (for more details, see <u>ACA Newsletter – Education Europe</u>) based on the informative presentation delivered by Giedrius Sudikas, Policy Officer, EAC.B.4. Erasmus+ Coordination. The group members discussed the possibility of providing a joint input to the call for evidence as well as its links to the evaluation of mobility funding schemes in the framework of the upcoming Erasmus+ mid-term review. They also addressed the overall need for broader showcasing of the multiple benefits that European transnational cooperation and internationalisation of higher education entail for the society and economies in Europe.

The Thematic Peer Group on Inclusion has welcomed the new co-chairs Sofia Lahdeniemi and Sami Niemela from the Finnish National Agency for Education (EDUFI). The members have shared the latest updates on their efforts related to inclusion, mostly on how to support the beneficiaries in designing barrier-free communication. The cooperation with the SALTO Resource Centre for Inclusion and Diversity (Education and Training) was also discussed, as well as the topics for other meetings in 2023, which will discuss **strategies, sharing good practice and strengthening cooperation** with different stakeholders.

The Thematic Peer Group on New Mobility Formats held its first meeting for 2023, on 22 Wednesday. Welcoming a new co-chair, Milos Milutinovic from Austria's Agency for Education and Internationalisation (OeAD), the members of the group discussed updates regarding the **Blended Intensive Porgrammes** as well as the **implementation of Erasmus Without Paper**, in their respective countries. Focusing on the future activities, the group decided to tackle this year the topic of **micro-credentials** in the framework of blended mobilities and BIPs in particular, while there was discussion on how to best showcase the lessons learnt from last year's webinar series on BIPs within this TPG. Prior to closing the meeting, the members

discussed as well possible synergies and how they can best support ACA in its newest project_HIBLend: Fostering high-quality blended student mobility in higher education.

The next round of formal meetings is planned for May 2023.

Information from: <u>https://aca-secretariat.be/newsletter/acas-members-discuss-in-depth-most-pressing-he-topics/?titleId=1&articleId=2&edition=2023¤t=1</u>

FROM THE EUROPEAN UNION

News from Education, Audiovisual and Culture Executive Agency (EACEA)

INFO DAYS

Online info session: Erasmus+ programme - Capacity Building in Higher Education

9 December 2022

Author European Education and Culture Executive Agency

The European, Education and Culture Executive Agency (EACEA) organized Friday 9 December 2022 an info day on Erasmus+ Capacity Building in Higher Education, focusing on what is new and how to prepare a competitive proposal.



The Capacity Building in Higher Education (CBHE) action supports international cooperation projects based on multilateral partnerships between organisations active in the field of higher education. It supports the relevance, quality, modernisation and responsiveness of higher education in third countries not associated to the Erasmus + programme for socio-economic recovery, growth and prosperity and reacting to recent trends, in particular economic globalisation, but also the recent decline in human development, fragility, and rising social, economic and environmental inequalities exacerbated by the COVID-19 pandemic.



If you wish to prepare a CBHE project proposal under the Erasmus+ programme and you have questions, or if you just want to make sure that you are aware of all the news, then this event is for you!

The participants found out information and news, and learn tips, asked questions and get answers online.

Please click <u>here</u> to find the recording of the event.

You can ask questions via: EACEA-EPLUS-CBHE@ec.europa.eu

Questions will either be answered during the session or later, depending on the number of questions received.

More information on the Erasmus+ programme and on how to apply can be found <u>here</u>.

Information from : <u>https://www.eacea.ec.europa.eu/news-events/events/online-info-session-erasmus-programme-capacity-building-higher-education-2022-12-09 en</u>

Submissions open for Virtual exchanges in higher education and youth (EVE) 2023 call for proposals

Publication date: 6 February 2023

Author European Education and Culture Executive Agency

The <u>Virtual exchanges 2023 Call for Proposals</u> was opened for submission on 1 December 2022 on the <u>Funding & Tender</u> <u>Opportunities Portal (FTOP)</u> – Deadline on 26 April 2023 at 17:00 (Brussels time).



Virtual Exchanges are online people-to-people activities that promote intercultural dialogue and soft skills development. They make it possible for every young person to access high-quality international and cross-cultural education (both formal and non-formal) without physical mobility. While virtual discussions or training do not fully replace the benefits of physical mobility, participants in virtual exchanges can still reap a number of the benefits of international educational experiences.

Virtual exchanges take place in small groups and are always moderated by a trained facilitator. They should be easily integrated into youth (non-formal education) projects or higher education courses. Virtual exchanges can draw participants from both sectors, even if, depending on specific projects, they could involve participants from either only one of them or from both. All projects under this call will involve organisations and participants coming from both EU Member States and third countries associated to the Programme, and third countries not associated to the Programme in eligible regions (i.e. Western Balkans, Neighbourhood East, South-Mediterranean countries, Sub-Saharan Africa). You can find a list of eligible countries in the Erasmus+ Programme Guide.

The overall budget and the budgetary envelopes were published on <u>Funding & Tender Opportunities</u> <u>Portal (FTOP)</u>.

For all the details of this action (including the type of participating organisations), please consult the dedicated EVE section in the <u>Erasmus+ Programme Guide</u>, our <u>leaflet (EN and FR)</u> and our <u>Erasmus+ website</u>. In addition, Frequently Asked Questions (FAQ) will be available on <u>Funding & Tender</u> <u>Opportunities Portal (FTOP)</u>.

More information: <u>https://www.eacea.ec.europa.eu/news-events/news/submissions-open-virtual-</u> exchanges-higher-education-and-youth-eve-2023-call-proposals-2023-02-16 en

ARTICLES from journals, newspaper, magazines

Artificial intelligence and academic integrity, post-plagiarism Author: <u>Sarah Elaine Eaton</u>

04 March 2023

Welcome to the post-plagiarism era. The emergence of ChatGPT in November 2022 created an almost instantaneous technological panic about the impact of artificial intelligence (AI) on education. This is not the first time new technology has generated mass panic. The introduction of the calculator in schools in the 1980s and the commercialisation of the internet in the 1990s had similar effects.

It is important to remember that ChatGPT did not simply appear out of nowhere. The company behind it, OpenAI, was founded in 2015. Precursors to ChatGPT included <u>GPT-3 in 2020</u>, and earlier versions, <u>GPT-2</u> in 2019 and the original Generative Pre-trained Transformer (GPT) in 2018.

So, the technology in its current form has been around for about half a decade. However, adaptive and predictive text tools were first **<u>developed</u>** in the 1980s</u> to assist people with disabilities. Predictive text eventually became integrated into text messaging apps on mobile phones and are used by millions of people every day.

The use of artificial intelligence tools does not automatically constitute academic dishonesty. It depends how the tools are used. For example, apps such as ChatGPT can be used to help reluctant writers generate a rough draft that they can then revise and update.

Used in this way, the technology can help students learn. The text can also be used to help students learn the skills of fact-checking and critical thinking, since the outputs from ChatGPT often contain factual

errors.

When students use tools or other people to complete homework on their behalf, that is considered a form of academic dishonesty because the students are no longer learning the material themselves. The key point is that it is the students, and not the technology, that is to blame when students choose to have someone – or something – do their homework for them.

There is a difference between using technology to help students learn or to help them cheat. The same technology can be used for both purposes.

The issue of plagiarism

The question of whether artificial intelligence apps plagiarise is also tricky. Historically, plagiarism has been defined as copying text or ideas from others without proper attribution. There has long been an assumption that humans plagiarise from other humans.

In the case of artificial intelligence, tools linked to large language models do not plagiarise in any traditional sense. The text generated by AI apps should not be presumed to be plagiarised, even though the content has been harvested and then aggregated from a variety of online sources.

In many cases, the text itself is completely original – sometimes to a fault. ChatGPT, for example, can fabricate details and the resulting text is not only original, it can be completely untrue.

Mainstream media outlets have been using AI type tools for a few years already. *The New York Times*, the *Washington Post* and *Forbes* have all been using **machine learning tools to create news stories**.

Human fact-checkers and editors still play a role in ensuring the stories are accurate and true. When the facts are not verified, it can have **consequences for readers and damage the reputation** of the publication.

Increasingly, artificial intelligence tools are being used in industry and if we want to ensure students who graduate from our universities have the skills they need to enter the workforce, it is essential to teach them how to use artificial intelligence tools responsibly, as they are likely to encounter them at work.

Some major scientific publishers have established rules for how artificial intelligence apps can be used in scholarly publishing, declaring that <u>AI writing apps cannot be listed as co-authors</u>, for example. One reason for this is that it is ultimately humans, not robots, who are held responsible for scientific results and their dissemination.

Instead, the use of AI should be declared in the introduction, methods section or acknowledgements of a scientific paper. This decision by major publishers signals that AI writing tools are just that – tools. They

do not replace humans (at least not yet) and scientific advances – for better or for worse – remain a human responsibility.

A hybrid human-technology output

It will not be long before artificial intelligence is built into everyday word processing programmes such as Microsoft Word or Google docs. Like the predictive text features of text messaging apps on mobile phones, the technology will become so commonplace that everyone everywhere will use it every day.

In 2021 I wrote *Plagiarism in Higher Education: Tackling tough topics in academic integrity*, a book in which I argued that technology would bring us into an age of post-plagiarism. This is an age in which humans and technology co-writing text is normal and the result is a hybrid human-technology output.

In the age of post-plagiarism, humans use artificial intelligence apps to enhance and elevate creative outputs as a normal part of everyday life. We will soon be unable to detect where the human written text ends and where the robot writing begins, as the outputs of both become intertwined and indistinguishable.

The key is that even though people can relinquish full or partial control to artificial intelligence apps, allowing the technology either to write *for* them or to write *with* them, humans remain responsible for the result. It is important to prepare young learners and university students for this reality, which is not a distant future, but already the present.

Sarah Elaine Eaton is associate professor in the Werklund School of Education at the University of Calgary in Canada.

Information from: https://www.universityworldnews.com/post.php?story=20230228133041549

EU ready to start talks on UK participation in Horizon Author: <u>Brendan O'Malley</u>

28 February 2023

President of the European Commission Ursula von der Leyen has publicly confirmed that she is ready to begin talks immediately on an association agreement to allow United Kingdom participation in Horizon Europe, the European Union's flagship research programme.

The declaration of intent was slipped in at the end of a joint press conference with UK Prime Minister Rishi

Sunak held on Monday 27 February announcing agreement on a 'Windsor Framework' for solving the impasse over the UK's desire for changes to the Northern Ireland Protocol.

The protocol was agreed in 2019 by then prime minister Boris Johnson to enable Brexit to be implemented before the 2019 general election and his attempts to tear it up were viewed as perfidy by the EU, with negative consequences for UK attempts to participate in Horizon Europe and other science programmes.

Von der Leyen had refused to start talks on association to Horizon Europe until 'transversal issues', an allusion to the bitter row over the protocol, had been settled.

But Johnson was ousted in the summer of 2022 after a string of controversies and his successor Liz Truss departed less than two months after taking office, only to be replaced by her leadership election rival, Sunak.

Sunak and Von der Leyen have been more than willing to work together to solve the protocol problem and, despite vehement opposition to aspects of the deal from hardline Brexiteers and Democratic Unionists, the mood in EU-UK relations had changed so completely by Monday that the European Commission president referred in public to Sunak as "dear Rishi".

When challenged by a reporter from *Le Soir* newspaper in Belgium on whether this would lead to movement on the UK's association with Horizon Europe, Von der Leyen declared: "This Windsor Framework is good for scientists and researchers in the EU."

She added that although it is for now only an agreement in principle, "the moment it is implemented, I am happy to start immediately, right now, the work on an association agreement, which is the precondition to join Horizon Europe".

"So [this is] good news for all those working in research and science!"

The protocol, an integral part of the EU-UK Withdrawal Agreement, was established to avoid a hard border between the Republic of Ireland and Northern Ireland post-Brexit and to allow Northern Ireland to continue to operate in the European Single Market for goods, unlike the rest of the UK.

However, it controversially led to the creation of an invisible trade border in the Irish Sea, that is, between the mainland of the UK and Northern Ireland, with goods entering Northern Ireland from the rest of the UK subjected to lengthy paperwork and delays, preventing many goods enjoyed in the UK from being available to the population in Northern Ireland.

The announcement that agreement had been reached on the protocol changes was warmly received in parliament, but the Democratic Unionists (DUP), while welcoming progress made, will examine the details

before deciding whether to back it and that verdict is crucial to restoring the power-sharing arrangement in Northern Ireland, although the Foreign Secretary, James Cleverly, when challenged in a Sky News interview on Tuesday, refused to confirm whether the DUP could block implementation of the deal on the protocol.

German MEP Christian Ehler, who is lead rapporteur to the European Parliament on the EU's Horizon Europe programme, said in a tweet: "If a solid majority in Westminster approves this deal, the UK is back on track to being a reliable partner for the EU and then we need to finalise UK association to #HorizonEU without further delay."

Relief as roadblock removed

The declaration of intent to start talks on UK association to Horizon Europe was warmly welcomed in the UK and Europe by universities and researchers.

Responding to the announcement of the agreement of the Windsor Framework, Vivienne Stern, chief executive of Universities UK, said: "We are relieved to hear that the Windsor Framework has been agreed. The removal of this political roadblock must now lead to the rapid confirmation of UK association to Horizon Europe, Copernicus and Euratom, as set out in the [EU-UK] Trade and Cooperation Agreement.

"Full association with Horizon continues to be the best outcome for both the UK, and for our research partners across Europe and beyond. We urge all sides to start the necessary talks now so that association can take effect as soon as the framework is implemented."

EUA warns against celebrating too early

Thomas Jørgensen, director of policy coordination and foresight at the European University Association (EUA), told *University World News* on Tuesday: "It was of course excellent that Ursula von der Leyen explicitly opened the road for finalising association yesterday [Monday 27 February]."

He said on the face of it there is very little to discuss in talks on association, since both parties have already agreed that association should happen and agreed on the basics of the modalities.

"What we need now is a timeline to understand when the last bits will be agreed and when the association agreement can be finalised. Ursula von der Leyen was not completely clear about this, but hopefully we will get more information from the European Commission.

"We have learned over the last years not to celebrate too early, but I think that getting the confirmation regarding Horizon Europe already at the press conference is a very positive sign indeed."

He said Europe's excellence in research is "based on the fact that we cooperate with partners in Europe

and beyond, and the Horizon programme is a very unique tool for doing this. Getting the UK back as an (almost) full member of the community is very much about strengthening this spirit of cooperation."

Switzerland 'should follow, too'

Jan Palmowski, secretary-general of the Guild of European Research-Intensive Universities, said in a tweet that policy-makers "MUST now bring UK association over the line".

He added that if agreement can be reached after so much acrimony between the EU and the UK, it should also be possible for Switzerland and the EU to come together for the sake of Europe.

Flexibility needed to update association deal

Kurt Deketelaere, secretary-general of the League of European Research Universities (LERU), told *University World News*: "This is of course excellent news, welcomed with big relief and enthusiasm within LERU. Notwithstanding the pessimism over the past years, LERU always kept on fighting and pushing for this association and we are very happy that we have reached this point now."

He hoped that both parties will practise the necessary flexibility and willingness to come to an updated – where necessary – agreement, as soon as possible.

"Looking at the first reactions on both sides of the Channel, I am quite confident that this will be the case. Already the symbolic value for politicians on both sides of the Channel is enormous if they pull this off."

He said the benefits to European universities of UK participation "have already been proven over the past decades". These included exchange of and collaboration between talented researchers on both sides of the Channel, joint development of research policies and research policy issues, and "common breakthroughs through fantastic joint research".

"All of that will hopefully be picked up again asap and continued with the same success as in the past," Deketelaere said.

High value to UK science

A **<u>briefing</u>** issued last month by the Russell Group of leading UK research universities outlined the benefits of full association for the UK, including:

- The unrivalled scale of the scheme in terms of funding and opportunities for collaboration.
- Enhancement of Britain's reputation as a global player.

- Continued involvement with the European Research Council, which funds high-quality research.
- Access to training opportunities for UK scientists.
- Funding for businesses of all sizes.
- Innovation, growth and impact through networks, grants and support.

The briefing describes Horizon Europe as "the world's largest ever programme for multi-country collaborative R&D", which "opens the door for high-quality collaboration with the best researchers, innovators and businesses worldwide".

Under the previous programme, Horizon 2020, the UK established 31,000 collaborative links with countries around the world. These links were made possible by the near frictionless collaboration provided by Horizon.

"It allows members to operate at the same scale as US or Chinese counterparts – crucial to research such as clinical trials as it gives members access to a vast network of patients to trial potentially life-changing medical treatments.

"The scale, ambition and associated financial risk assumed by the EU programmes far exceeds anything that could be achieved on a bilateral basis. More importantly, the funding streams, processes and networks are in place and can be tapped into as soon as association is secured," the briefing said.

Information from: https://www.universityworldnews.com/post.php?story=20230228073318375

Our climate is changing. So should our higher education Author: <u>Eva Papanikolaki</u>



16 September 2022

Before a plane takes off, the flight attendants take some time to give instructions to the passengers on how they should behave in case of an emergency. When considering the climate, we recognise that we are living in a time of emergency and yet most of the educational systems around the globe, especially higher education systems, make no reference to climate change.

We live in a world where crises arise all the time. Fossil fuel wars, drought, floods, extreme weather, pandemics; the list goes on and on. These are crises that our current and future citizens are not prepared for and will not be able to face if we do not rethink the future of higher education in a 'green' way.

So what is defined as climate education? Climate education is any formal or non-formal learning activity designed to develop the competencies required to critically assess and address the causes of the climate crisis and build resilience around its impacts.

It aims to foster a *whole systems perspective* on the climate crisis and related social justice issues, thereby empowering individuals and communities to take action and challenge existing systems to create transformative change that will lead to a just and sustainable future for people and for the planet.

An interdisciplinary approach

Climate change is a complex and multifaceted issue. In short, it is a cross-disciplinary issue and it needs a cross-disciplinary approach. From developing innovative solutions to implementing policies, there is an interaction between the natural and social sciences. Hence, in order to successfully integrate climate education within universities, it is necessary to change our overall perception of higher education.

Right now, universities worldwide are segmented by discipline. In most cases, there are no interdisciplinary curricula, which is a highly problematic situation given that concepts such as sustainability cannot be approached through separate subject areas. Students must be equipped with the ability to draw connections between the different facets of the crisis.

The curricula of all subjects should provide examples of the current impact the climate crisis has on economies and people, especially those people and places which are most affected.

In our society, universities have a huge responsibility towards their students since they shape their career paths to a large extent. Every student interested in a career related to fighting the climate crisis should be able to acquire the knowledge they will need in their field of work.

Therefore educational institutions should ensure all graduates gain the required competencies and resilience to address the climate emergency in the context of their chosen academic and professional fields, their lifestyles and their civic engagement.

Social and ethical issues

But universities do much more than preparing future workers. They greatly influence students' awareness of humans' place on the planet. From this point of view, all students must learn not only about the scientific aspects of the climate crisis but also the social and ethical ones.

It is a basic prerequisite for the transition to sustainability that citizens develop ecological awareness and are able to distinguish the social and moral dimensions of the climate crisis. As seen with the COVID-19

pandemic, widespread disregard for others has cost thousands of lives and millions of euros. The introduction of project-based climate education is crucial to ensure the societal change that is necessary to fight the climate emergency.

Of course, we cannot talk about all of the above without considering mental health. Climate anxiety and mental health issues are often an obstacle to work or studies, while negatively impacting the quality of university life. Fostering students' and teachers' mental health is key to ensuring their well-being and ability to be contributing members of society.

Climate education can take place not only in classrooms and lecture theatres but across the university. As Plato said, "even the walls of a city are educating citizens". If educational institutions are to teach the basics in terms of knowledge about and the skills related to the ongoing climate and biodiversity crisis, it follows that they should lead by example and be a driving force of innovation in the fight against it.

By transforming educational facilities by having sustainability in mind from the offset, significant future costs can be avoided as society is increasingly forced to adapt to the crisis.

Transforming Education Summit

Since I started climate education activism with Fridays For Future, a lot has happened. Many political decisions have been made, but only a few of these have been implemented. Given that climate education has been on the agenda for more than 10 years, it seems that our education systems are very resistant to change.

I believe young people have a critical role to play in climate politics, simply because we are the bigger stakeholder group. Recently we managed to bring the issue of climate education to COP26 (the 2021 United Nations Climate Change Conference), to the UNESCO World Higher Education Conference and to Stockholm+50.

This week sees the most significant political event for education in recent years: the United Nations Transforming Education Summit. Young people have fought hard for the inclusion of climate education and, hopefully, this will be visible in the results of the summit.

Our generation will need to write a critical page in the history of Sapiens because climate change affects our ability to survive on the planet; ours and that of other species. This page must be written as a success story, and the tool which is best placed to achieve this is education.

We have hope that humanity can change, avert the worst climate disasters and build a better future. We need to recognise that the climate is changing and that our educational systems cannot remain the same.

Eva Papanikolaki is an activist, the co-coordinator of Fridays for Future Greece and an advocate for climate education. Being active with YOUNGO and Fridays For Future Climate Education International, she is

passionate about youth advocacy and she has represented these groups at international conferences. She is studying economics at the Athens University of Economics and Business (AUEB) while being, at the same time, a scholar of international relations at the American College of Greece (Deree). Academically, she is engaged with environmental economics as an assistant researcher at AUEB ReSEES Lab (Research Laboratory on Socio-Economic and Environmental Sustainability). At AUEB, she coordinates the UN Sustainable Development Solutions Network (SDSN) Hub. This year she is also one of the organisers of the Local Conference of Youth and the Youth Delegation Programme in Greece. Finally, she is the founder of a green start-up company 'EcoPolis', which promotes sustainability in municipalities.

Information from: https://www.universityworldnews.com/post.php?story=20220916064745583

Sustainable development: Are universities ready to lead? Author: <u>Rebecca Warden</u>



10 March 2020

Universities cannot be leaders in the drive for sustainable development and still expect to carry on business as usual. Disruption is coming no matter what and higher education institutions face the choice of whether to take the initiative and lead the change in areas such as climate justice, fighting poverty and ensuring gender equality or whether to risk becoming mere followers of social change begun by others.

This was the main message of Professor Daniella Tilbury, keynote speaker at the **International Conference on Sustainable Development Goals: Higher Education and Science Take Action**, organised by the Global University Network for Innovation or GUNi, in Barcelona, Spain on 5-6 March.

"I am concerned that when we talk about the <u>Sustainable Development Goals</u> [SDGs], it is all very fluffy, we talk about things which are universally accepted as good," said Tilbury, commissioner for sustainable development for the Government of Gibraltar, but the SDGs mean radical change and change is never comfortable, she added.

"If we do things properly, universities will have to fundamentally question their business models and we will have to look at how we change from being transmitters of knowledge to supporting change in our society," she said.

Earlier speakers at the conference stressed the need for building a consensus for the transition to sustainability, even if this takes time to do, but Tilbury begged to differ.

Cutting emissions, disinvesting from fossil fuels

She cited ambitious moves such as the 2016 decision by the catering services of the UK's University of Cambridge to remove lamb and beef from the menu and promote plant-based alternatives. This allowed

them to cut overall carbon emissions from catering services by 10.5%, plus a 33% reduction in emissions per kilo of food bought, a recent **report** revealed.

"They didn't just focus on switching off the lights; they aimed at the heart of student life," said Tilbury.

Another example is the University of Glasgow in Scotland which in 2014 became the first in Europe to disinvest from fossil fuels, joining 13 United States universities, including pioneer Unity College and Stanford University.

All these are signs that disruption is already underway.

Rethinking not tinkering

Tilbury warned universities against taking an incremental approach to sustainable development which fails to challenge the status quo. This might be: "We are putting on a postgraduate programme on sustainable engineering, but the rest of the faculties are still using exactly the same modules and ways of thinking."

Rather than adding on, what is needed is a total overhaul. "We need to change the classrooms, and yes, of course, we need sustainable buildings, but more than just green design, we need to stop the chalk and talk; we need to have learning opportunities which create the opportunities for critical thinking," she said.

This also means giving activism more of a place within academia and ensuring institutions listen to student voices. "In the Global North, you tend to get greater use of terms like 'engagement' of students, but it is not real participatory learning because it doesn't change the power dynamic," said Tilbury.

She urged delegates at the conference to pay attention to initiatives such as <u>Teach the Future</u>, a youthlead campaign to reorient the English education system around the climate emergency and ecological crisis.

Support for passionate academics

Campaign backers <u>Students Organising for Sustainability</u> or SOS-UK, an offshoot of the UK's National Union of Students, presented 'Responsible Futures' at the Barcelona conference. This is an accreditation framework, based on building partnerships which aims to help educators embed education for sustainable development in their institutions.

"You can't just do top-down or bottom-up in order to make change," said Meg Baker, a senior project manager at SOS-UK. "We want to see peer learning so you don't just have one passionate academic doing amazing things, but that they are supported by others."

The accreditation cycle takes between one and three years to complete. "Then SOS-UK comes in and trains the students to audit how a university is doing," said Baker. "Students learn a huge amount and

institutions find it very beneficial." The Responsible Futures team will now work with the International Association of Universities to develop a toolkit for universities for international use.

Limited progress

The contribution of universities over the four years since the SDGs were launched in January 2016 has so far been limited, GUNi Director Josep Maria Vilalta believes.

Many university managers, lecturers and researchers are now aware of the 2030 Agenda of 17 Sustainable Development Goals and institutions are moving to do "a kind of internal X-ray" by taking stock of what needs doing, although at varying speeds. "We need to be more ambitious, but if by 2030 we have managed to educate young people with this mindset, I for one would be satisfied," he said.

For Tilbury, the next decade is key. "The question is – will universities continue to act as mirrors in our society, reproducing the status quo, or will they become social disruptors?" she asks.

Information from: https://www.universityworldnews.com/post.php?story=20200310143004253
NEWS FROM THE WORLD

International Conference on Electrical, Electronics, Computer, Civil and Mechanical Engineering (ICEECCME-2023)

2nd May, 2023 Perth, Australia

OVERVIEW

The upcoming (ICEECCME-23) at Perth, Australia has been organized on 2nd-May-2023 and scheduled to alleviate this exact challenge by serving as a focal point for researchers in the discipline of Electrical, Electronics, Computer, Civil and Mechanical Engineering from the world over to gather together, learn from one another, impart and propagate their expertise, and put in place policies and mechanisms that will safeguard the steadfast growth and advancement of Electrical, Electronics, Computer, Civil and Mechanical Engineering . In addition, participants of this event will be privileged with numerous opportunities to ensure their own personal advancement - be it in their studies, research work, career, or entrepreneurial endeavors.

When it comes to research in any academic discipline, the underlying values of knowledge, professionalism, ethics, mutuality and stewardship, all remain the same. Today, more than ever, owing to the saturation of research projects and experimental studies being conducted on diverse topics all across the planet, and the stringent as well as convoluted nature of research funding and grant allocations, research professionals, scholars, scientists, and others are finding it pretty hard to cultivate and hone these values

OBJECTIVE

The (ICEECCME-23) aims to be this all-so-necessary rocket fuel of progress for the field of Electrical, Electronics, Computer, Civil and Mechanical Engineering by providing everyone from students and educators to researchers, entrepreneurs, and industry professionals, the inspiration, intellectual stimulation, and radical ingenuity that they need to be able to go out there and achieve big things. From invigorating keynote speeches and research presentation sessions to path breaking workshops, debates, networking sessions, exhibits, and more, the (ICEECCME-23) will prove to be the accelerant of progress that the world will attribute all success in Electrical, Electronics, Computer, Civil and Mechanical Engineering to in the years to come.

Although there is a certain degree of progress that is in existence in the discipline of Electrical, Electronics, Computer, Civil and Mechanical Engineering at present, the pace of progress isn't something that anybody engaged in the field is proud of. Every reason for this slower-than-expected speed of development can be summed up as being a result of this one major hindrance to progress - the lack of motivation and the absence of a motivating factor.

CALL FOR PAPER

Avenues for raising awareness on one's research findings in the field of **Electrical, Electronics, Computer, Civil and Mechanical Engineering** are few and far between. Even then, the available options are highly saturated spaces or echochambers that tolerate only singular or limited points of view.

The (ICEECCME-23) provides researchers in Electrical, Electronics, Computer, Civil and Mechanical Engineering an unbiased, all-embracing outlet for them to spread the word about their groundbreaking research discoveries through its conference proceedings publications. All one has to do to be considered for publication is to respond to this Call for Papers and send in their abstract before the deadline for submission. Registering for this event is also a mandatory requirement.

IMPORTANT DATES

| Date of Conference | 2nd-May-2023 |
|-----------------------------------|---------------|
| Last Date for Abstract Submission | 17th-Apr-2023 |
| Last Date for Registration | 25th-Apr-2023 |

More information: https://researchsociety.co/event/index.php?id=1900179

2023 Civil Engineering Education Summit



3–5 April, 2023 Clemson University - South Carolina, United States

The 2023 Summit is a joint effort between the Glenn Department of Civil Engineering at Clemson, ASCE, and the NSF Revolutionizing Engineering and Computer Science Departments (RED) program.

Learn how to build upon the objectives identified during the 2019 Civil Engineering Education Summit to create change in engineering departments to best address society's current and future needs.

The 2023 ASCE Civil Engineering Education Summit will share adoption-ready transformations created by the NSF RED program, tools and training designed to equip teams with the skills necessary to accomplish their academic change goals, access to industry partners who can help create change, a robust network of change partners, and opportunities to define future academic change for our profession and our global society.

Sessions include: Rewind: 2019 Civil Engineering Education Summit NSF RED Civil Programs share their experiences in a "Lightning Round" format

Workshops on:

- Creating Shared Vision
- Creating Strategic Partnerships
- Telling Your Change Story

Breakout Sessions on:

- Inclusion Revolution
- Grooming Effective Teamwork
- Climate Assessment Workshop
- Industry: Beyond the Capstone Juror
- Advancing Artificial Intelligence/Machine Learning in Civil Engineering
- Beyond Technical Content
- Transforming Infrastructure Education
- Future World Vision in Action
- Writing (and Grading) in the Discipline
- The Power of Neurodiversity
- ExCEEd at Foundational Courses

More information: https://www.asce.org/career-growth/educators/education-summit

ICCECT 2023: International Conference on Civil Engineering and Construction Technologies

17-18 April, 2023 - Digital Boston, United States



International Civil Engineering and Construction Technologies is the premier interdisciplinary forum for the presentation of new advances and research results in the fields of Civil and Environmental Engineering and will be held online.

Today more than ever before it is extremely important to stay abreast of the changing landscapes of the Civil and Environmental Engineering world. The multidisciplinary focus of this event aims to bring together presenters and attendees from different fields with expertise in various areas of Civil and Environmental Engineering, providing an excellent opportunity to participate in the international exchange of ideas, current strategies, concepts and best practices, collaborations, and cooperation, offering a broader perspective and more enriching experience.

The program includes time allocated for networking, peer-to-peer discussions, and exploring the host city.

The participants are invited to submit original research contributions relating to all aspects of:

- Building structure and bridge engineering
- Structural engineering
- Roads and Railway Engineering
- Transportation Planning
- Civil Construction and Operation
- Modern Logistics Systems and Supply Chain
- Automotive Engineering and Other Vehicle Tools
- Intelligent Transportation Theory and Application
- Transportation Control and Information Technology
- Traffic and Pavement Engineering
- Sanitary and ground water engineering
- Harbor engineering
- Engineering management
- Heating, gas supply, ventilation and air
- Carrier operation engineering
- Concrete structures
- Disaster prevention and mitigation
- Environment-friendly construction and development

- Material quality and control
- Surveying engineering
- Safety and monitoring
- Monitoring and control of structures
- Reliability and durability of structures
- Construction technology
- Coastal engineering
- Computer simulation and cad/cae
- Computational mechanics
- Structural analysis and design
- Urban planning and design
- Sustainable development of building energy and environment
- Energy conservation
- Environmental engineering and protection
- Tunnel, subway and underground facilities
- Traffic engineering
- Construction and renewable energy source

More information: <u>https://waset.org/civil-engineering-and-construction-technologies-conference-in-april-2023-in-boston</u>

International Conference Computational Civil Engineering (CCE) 2023

24-25 May, 2023 Iasi, Romania



Background

Continuous evolving labour market influenced by the present world-wide challenges and crisis is strongly demanding for adequately qualified work force and innovative solutions competing for market success.

Research and innovation in constructions' related fields requires enhancing four dimensions of the transversal skills and competences: digital, green, resilience, and entrepreneurial skills.

Computational Civil Engineering (CCE) 2023 is dedicated to the research outputs feeding high quality education and training, fostering collaboration and cooperation among research groups with wide scientific interests, on the relevant topics recently endorsed by European Project calls within the 2021-2027 budgeted actions.

Topics in construction related fields:

- Computer-Aided Design and Engineering
- Computational Methods in Civil Engineering
- Numerical Analysis of Civil Engineering Structures
- Computational Fluid Dynamics
- Artificial Intelligence in Civil Engineering
- Digital Technologies
- Building Information Modelling
- Structural Topology Optimization and 3D Printing
- Greening Future in Civil Engineering
- Power and Energy Systems for Civil Engineering

Traditionally, CCE has been mainly organized, by the Faculty of Civil Engineering and Building Services of Iasi, Iasi and "Matei Teiu-Botez" Academic Society in the previous editions.

Recent joint research work started with the contribution of various Faculties of "Gheorghe Asachi" Technical University of Iași (TUIASI) and thus beginning with CCE 2023 will be jointly organized by TU IASI and "Gheorghe Asachi" University Foundation.

The conference is organized once every 2 years since 2015, with physical attendance in the beautiful city of lasi with the venue in the historical building designed by Gustave Eiffel in the early XXth century Grand Hotel Traian.

More information: https://www.cce.ci.tuiasi.ro/

7th International Conference Non-Traditional Cement & Concrete

25–28 June, 2023 Brno, Czech Republic



BACKGROUND

The sustainable development of the building industry as well as new applications require concretes of specific properties. These concretes prove useful in terms of laboratory testing, but difficulties arise in their practical application and in behaviour prediction as they diverge from common routines, norms and recommendations. The putting of non-traditional concretes into practice represents therefore an interdisciplinary problem. The conference will focus on the exchange of the experience of the research, preparation, testing and application of these materials.

The conference is organised by:

- Brno University of Technology Faculties of Civil Engineering and Chemistry,
- VSB–TUO: Technical University of Ostrava Faculty of Civil Engineering,
- Institute of Physics of Materials, Academy of Sciences of the Czech Republic, v. v. i., and it is supported by Czech Concrete Society (CBS).

The conference is focused on both theoretical and practical problems in the field of non-traditional cements and concretes.

TOPICS

- 1. Geopolymers
- 2. Alkali-Activated Materials
- 3. Clinker-free concrete
- 4. Concrete with mineral and chemical admixtures
- 5. High Performance Concrete
- 6. Durability of non-traditional concrete
- 7. Sustainable development
- 8. Damage and fracture of non-traditional concrete
- 9. Quality control of non-traditional concrete
- 10. Construction from non-traditional concrete

REGISTRATION FEES AND PROCEEDINGS

Selected papers will be published after review in Scopus or WoS indexed publication.

| Conference fee: | 550 EUR |
|-----------------------|---------|
| PhD students: | 300 EUR |
| Publication in Scopus | 180 EUR |

More information: https://www.fce.vutbr.cz/stm/fracture/symposium2023/

ICCGE 2023: International Conference on Civil and Geological Engineering 06-07 July, 2023 New York, United States



International Conference on Civil and Geological Engineering aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Civil and Geological Engineering. It also provides a premier interdisciplinary platform for

researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Civil and Geological Engineering.

Call for Contributions

Prospective authors are kindly encouraged to contribute to and help shape the conference through submissions of their research abstracts, papers and e-posters. Also, high quality research contributions describing original and unpublished results of conceptual, constructive, empirical, experimental, or theoretical work in all areas of Civil and Geological Engineering are cordially invited for presentation at the conference. The conference solicits contributions of abstracts, papers and e-posters that address themes and topics of the conference, including figures, tables and references of novel research materials.

Topics:

- Civil and Structural Engineering
- Bridge Engineering
- Building Structure and Bridge Engineering
- Building Technology
- Cartography and Geographic Information System
- Coastal Engineering
- Computational Mechanics
- Computer Simulation and CAD/CAE
- Concrete Structures
- Construction and Control
- Detection and Transformation
- Disaster Prevention and Mitigation
- Engineering Management
- Environment-Friendly Construction and Development
- Geological Engineering
- Geotechnical Engineering
- Harbor Engineering
- Heating, Gas Supply, Ventilation and Air Conditioning
 Works
- Hydraulic Engineering
- Material Quality and Control
- Metallic Structures
- Monitoring and Control Of Structures
- Operation and Maintenance
- Project Management
- Reliability and Durability of Structures
- Road, Bridge and Railway Engineering
- Safety and Monitoring
- Sanitary and Ground Water Engineering
- Seismic Engineering
- Structural Analysis and Design

- Structural Engineering and Disaster Reduction
- Structural Rehabilitation, Retrofitting and Strengthening
- Surveying and Geo-informatics
- Surveying and Photogrammetry
- Surveying Engineering
- Transportation Engineering
- Tunnel, Subway and Underground Facilities
- Urban Planning
- Water Supply and Drainage Engineering Architecture and Urban Planning
- Architectural Design and Theories
- Advanced Construction Materials
- Aesthetics and Landscape
- Architectural Design and Its Theory
- Architectural Environment & Equipment Engineering
- Architecture and Building Materials
- Art Design and Landscape Architecture
- Building Energy Saving Technology
- Building Technology Science
- Construction and Renewable Energy Sources
- Ecological Architecture
- Ecological Construction and Intelligent Control
- Energy Conservation and Equipment
- Green Building Materials
- Green Construction and Environmental Protection
- History and Theories of Architecture
- Landscape Planning and Design
- Traditional Construction Materials
- Urban Planning and Design

More information: <u>https://waset.org/civil-and-geological-engineering-conference-in-july-2023-in-new-york</u>

Second GeoSS-MGS _MGS Geotechnical Conference 2023

30 November - 2 December, 2023 Singapore

2nd GeoSS - MGS Geotechnical Conference 2023

<u>A geotechnical collaboration between Singapore & Malaysia</u>

30 Nov - 2 Dec 2023

The 1st Malaysian Geotechnical Society - Geotechnical Society of Singapore Geotechnical Conference was successfully held from 24 to 26 June 2019 with close to 300 participants at Hilton Petaling Jaya, Selangor, Malaysia.

The second conference was supposed to be held in Singapore but had to be postponed due to COVID-19 pandemic. With the relaxation of COVID-19 safe management measures in both countries, the Joint Singapore-Malaysia Organizing Committee is pleased to announce that the Second GeoSS-MGS will be held in Singapore from 30 November to 2 December 2023.

The Conference will have an Opening Address and Keynote Lectures to be delivered by distinguished geotechnical experts and eminent academicians. Authors from Singapore, Malaysia, and other countries will make presentations at the Conference

Sustainable urban development was the theme of the first conference and this topic will remain as the key subject matter of the second conference. New challenges have also emerged in both countries. These include tackling climate change, environmental sustainability achieving carbon-neutral, and holistic considerations of cost, time and safety among other issues.

To continue the tradition, this conference will provide the perfect opportunity for the exchange of knowhow and lessons learnt between Singaporean and Malaysian geotechnical practitioners, academicians, and authorities, and is certainly not to be missed.

Conference Theme

Geotechnical Engineering for Urban Infrastructure and Development

Sub Themes

- Soil Characterization and Properties
- Ground Improvement and Stabilization
- Shallow and Deep Foundations
- Excavations and Retaining Structures
- Field Testing and Performance Monitoring
- Engineering Geology and Rock Mechanics
- Design Analysis and Modelling
- Tunnelling and Underground Space Development

More information: https://www.geoss-mgs-conference.com/

ICCEEL 2023: International Conference on Civil Engineering Education and Learning

18-19 December, 2023 - Digital

Barcelona, Spain



Aims and Objectives

The International Research Conference is a federated organization dedicated to bringing together a significant number of diverse scholarly events for presentation within the <u>conference program</u>. Events will run over a span of time during the conference depending on the number and length of the presentations. With its high quality, it provides an exceptional value for students, academics and industry researchers.

International Conference on Civil Engineering Education and Learning aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Civil Engineering Education and Learning. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most

recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Civil Engineering Education and Learning.

Call for Contributions

Prospective authors are kindly encouraged to contribute to and help shape the conference through submissions of their research abstracts, papers and e-posters. Also, high quality research contributions describing original and unpublished results of conceptual, constructive, empirical, experimental, or theoretical work in all areas of Civil Engineering Education and Learning are cordially invited for presentation at the conference. The conference solicits contributions of abstracts, papers and e-posters that address themes and topics of the conference, including figures, tables and references of novel research materials.

Topics:

- Civil engineering education
- Advances in civil engineering education
- Innovations in civil engineering education
- Activities and programs for students with special needs
- Analysis of uses of technology in the learning of civil engineering
- Analysis of uses of technology in the teaching of civil engineering
- Assessment and testing in civil engineering education
- Gender and civil engineering education
- In-services education, professional development of civil engineering teachers
- Language and communication in civil engineering education
- Mathematical applications and modeling in the teaching and learning of civil engineering
- Civil engineering curriculum development
- Civil engineering education in a multilingual and multicultural environment
- Civil engineering education in and for work
- Motivation, beliefs and attitudes towards civil engineering and its teaching
- Problem solving in civil engineering education
- Reasoning, proof and proving in civil engineering education
- Theoretical issues in civil engineering education
- Visualization in the teaching and learning of civil engineering

More information: <u>https://waset.org/civil-engineering-education-and-learning-conference-in-december-</u> 2023-in-barcelona

CALENDAR

| Date | Event | Place |
|----------------|---|----------------------|
| 13-14.05.2023 | International Conference Architecture And Civil Engineering 2023 | London, UK |
| | ICACE 2023 | |
| | https://econf.co/icace2023/index.html | |
| 18-20.05. 2023 | 2 nd International Meet on Civil, Structural and Environmental Engineering | Brussels, BELGIUM |
| | 2ND INTERNATIONAL MEET ON CIVIL, STRUCTURAL AND ENVIRONMENTAL ENGINEERING CIVILED E CONTRACTOR STRUCTURAL AND ENVIRONMENTAL ENGINEERING MAY 18-20, 2023 | |
| | https://www.albedomeetings.com/2023/civilmeet | |
| | | |
| 08.06.2023 | ISCE 2023 | Lucaya, BAHAMAS |
| | International Conference on Structural and Civil Engineering (ICSCE-23) | |
| | 8th June 2023 Lucaya, Bahamas | |
| | https://asar.net.in/event/index.php?id=1930347 | |
| | | |

Event

Date

Place

22-23.05. 2023 International Conference on Seismology and Earthquake Engineering

Vancouver, CANADA

DIGITAL



https://waset.org/seismology-and-earthquake-engineeringconference-in-may-2023-in-vancouver

22-23.06. 2023 International Conference on Computer Applications in Civil and Structural Engineering

Oslo, NORWAY

DIGITAL



https://waset.org/computer-applications-in-civil-andstructural-engineering-conference-in-june-2023-in-oslo

BUCHARES

07-09.07.2023 17th Danube - European Conference on Geotechnical Bucharest, Engineering ROMANIA









https://panamgeochile2024.cl