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Message from the President



Dear members, associates, supporters, friends and partners of WFEO,

This month's newsletter highlights some of the work delivered by WFEO's Standing Technical Committees (STCs) or Policy Implementation Committees (PICs).

It is important that people interested in our activities and in engineering at large get to know this work better, because it is core to WFEO's existence and relevance.

This information is also important for our members as it is a means of keeping them in permanent connection with the valuable work that is being carried out within our organization.

WFEO's STCs and PICs are hosted by our national members for a renewable term of four years, and bring together designated experts from all categories of our members, in each relevant field of engineering. As of today, the Federation has eleven committees. Their work allows WFEO to address all of the United Nations (UN) 17 Sustainable Development Goals through engineering, as well as to implement some key recommendations from the UNESCO second Engineering Report (2021), especially in the education, capacity building, energy and water sectors.

As WFEO is an NGO with official status before the UN and UNESCO, the STCs and PICs activities are often presented in the UN framework of dialogue between specialized agencies, civil society and Member States. In this newsletter, you will thus find reports on the events organized by our **Committee on Disaster Risk Management** and our **Committee on Young Engineers and Future Leaders** at the United Nations Science, Technology and Innovation (STI) Forum.

Similarly, our **Committee on Environment** will hold a side-event at the annual meeting of the UN Framework Convention on Climate Change in Bonn (Germany). As an example of cooperation with the government sector, our **Committee on Anti-corruption** held a webinar co-held with the Global Infrastructure Anti-corruption Centre on corruption indicators.

WFEO's partnership with UNESCO is more essential than ever for achieving our strategic vision. Two important recommendations by UNESCO's 2021 General Conference are now in their implementation phase: the one on *Open Science*, and the one on the *Ethics of Artificial Intelligence*. WFEO has taken part in the elaboration and promotion of those crucial documents which provide the relevant frameworks for making science and technology more open, transparent, and designed for the common good.

Other highlights showing the diversity of WFEO's work are shown here, such as our participation in the World Summit on Information Society, the International Students Conference on Artificial Intelligence, and reflections by our members on the future of civil engineering and on the importance of an inclusive vision in engineering to achieve sustainable development.

José Vieira President of WFEO

Past events

☐ Implementation of the UNESCO Recommendation on Open Science

UNESCO Recommendation on Open Science



In November 2021, at the 41th session of the General Conference of UNESCO, 193 Member States unanimously adopted the **first global standard-setting instrument on open science**, the UNESCO Recommendation on Open Science.

The Recommendation affirms the importance of open science as a vital tool to improve the quality and accessibility of both scientific outputs and scientific process, to bridge the science, technology and innovation gaps between and within countries and to fulfill the human right of access to science.

The Implementation Strategy was shared with UNESCO Member States and the Open Science Partnership during an Online information meeting on Implementation of the UNESCO Recommendation on Open Science on 28 April 2022, which recording is available below.

For more information:

The full page Implementation of the UNESCO Recommendation on Open Science UNESCO Recommendation on Open Science Open Science website



Online information meeting on the Implementation of the UNESCO Recommendation on Open Science

☐ WFEO CEIT Webinar on "Build Back Wiser: Engineering a Sustainable, Inclusive and Green Future with Ethical Al"



The WFEO Committee on Engineering for Innovative Technologies (CEIT) organized a webinar on "Build Back Wiser: Engineering a Sustainable, Inclusive and Green Future with Ethical Al" on Thursday, 17 March 2022.

This webinar convened engineers, policymakers, researchers, educators to discuss the roles and responsibilities of engineers while conducting AI innovations and applications.

Speakers on the webinar were:

- **Dr. Peng Jing**, Chair of WFEO-CEIT
- Prof. Gong Ke, Immediate Past President, World Federation of Engineering Organizations
- Mr Maksim Karliuk, Program Specialist, Social and Human Sciences, UNESCO
- Mr Frits Bussemaker, Chairman, Institute for Accountability in the Digital Age; member of Big Data and Al Working Group, WFEO-CEIT
- Prof. Ali Hessami, Chair & Technical Editor, IEEE 7000 Technology Ethics Standard Vice Chair and Process Architect, IEEE Ethics Certification Program for Autonomous and Intelligent Systems
- Dr Claire Vishik, Intel Fellow, CTO of Intel Global Government Affairs
- Ms Toyosi Akerele-Ogunsiji, Founder/CEO, Rise Networks and Expert in Data Science & Al Education

For more information:

The full page



CEIT Webinar "Build Back Wiser: Engineering a Sustainable, Inclusive & Green Future with Ethical AI"

□ WFEO Past President Chaired High Level Policy Session at WSIS 2022



The World Summit on the Information Society Forum (WSIS Forum) 2022 High-Level Track took place from 30 May to 3 June 2022, at ITU Headquarters in Geneva with

enhanced remote participation, featuring an Opening Segment, High-Level Policy Sessions, a Ministerial Round Table, and High-Level Dialogues.

Under the theme "ICTs for Well-Being, Inclusion and Resilience: WSIS Cooperation for Accelerating Progress on the SDGs", the WSIS Forum 2022 highlighted the implementation of the WSIS Action Lines in accelerating the achievement of the Sustainable Development Goals.

Prof GONG Ke, Immediate Past President of WFEO, was invited as one of the 11 High-Level Track Facilitator, representing scientific and technological community to moderate the High-Level Policy Session 9 "Inclusiveness, Access to Information and Knowledge for All / WSIS Action Lines and 2030 / Bridging Digital Divide".

At the concluding session of the High-Level Track, WSIS Forum 2022 after the session, Prof. GONG was invited to make the HLPS 9 summary speech and introduce the vision, emerging trends identified, opportunities and challenges shared by the leaders of the session.

For more information:

The full page Summary of WSIS Forum High-Level Track session 9 WSIS Forum 2022 Highlights, Announcements, and Key Outcomes High-Level Policy Session 9



Prof. GONG making summary speech about HLPS 9 at the concluding session

☐ WFEO-CDRM Side event at the UN STI Forum "Engineering Resilience in Disaster Risk Management for Sustainable Development"



The seventh annual Multi-Stakeholder Forum on Science, Technology and Innovation for the SDGs (STI Forum) was held from 5 to 6 May 2022, at the UN-HQ in New York, during the 2022 session of the UN Economic and Social Council (ECOSOC).

The theme of the STI Forum is closely aligned with the 2022 High-Level Political Forum on Sustainable Development and is "Science, technology and innovation for building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development".

WFEO, the American Society of Civil Engineers (ASCE), UNESCO and the International Science Council (ISC), as major international organizations in science, technology and engineering came together for the side event "Engineering Resilience in Disaster Risk Management for Sustainable Development", on 5 May 2022, providing valuable expert advice and capacity building in the area of disaster risk management and resilience.

The important publication "Engineering Resilience in Disaster Risk Management for Sustainable Development" (available in this link) was developed by the international experts who are members of the WFEO Committee on Disaster Risk Management (CDRM) and was released at the event by the UNESCO Assistant Director General, Natural Science Sector, Dr Shamila Nair-Bedouelle, who has also provided a Foreword.

The book provides guidance on planning and policies to reduce the impact of natural disasters in high risk areas, the design and development of resilient infrastructure systems, data systems on natural disasters and advice on best practices for institutional frameworks.

The speakers of the webinar:

- Jose Vieira (Portugal), President WFEO
- Shamila Nair-Bedouelle (France), ADG/SC UNESCO Paris Release of Book on DRM
- José Macharé (Peru), Chair WFEO Committee on Disaster Risk Management (CDRM) – Scope and objectives of the publication
- Karel Vancura (Czech Republic) Book Chapter: Land use planning
- Fang Chen (China) Book Chapter: Data management
- Dave Brunsdon (New Zealand) Book Chapter: Infrastructure systems
- Ashok Basa (India) Book Chapter: Capacity building
- Myles Lind (New Zealand) Book Chapter: Institutional frameworks
- Han Qunli (China), ISC Report in Integrated Research on Disaster Risk (IRDR) program
- Gong Ke (China), Immediate Past President WFEO
- Marlene Kanga (Australia), Past President WFEO (2017 2019)
- K.N. Gunalan (USA), Chair WFEO UN Relations Committee

For more information:

The full page
The concept note

The book "Engineering Resilience in Disaster Risk Management for Sustainable Development"



CDRM Side event @ UN STI Forum - Enineering Resilience in Disaster Risk Management for Sustainable Development

☐ WFEO participation at the 7th STI Forum for the Sustainable Development Goals



During the seventh annual UN STI Forum on 6 May, two WFEO representatives delivered a statement:

Dr. KN Gunalan, Chair of the WFEO-UN Relations Committee and ASCE Past President, on behalf of WFEO and the UN Scientific and Technological Community Major Group, addressed during thematic Session 6 "**Delivering on SDGs: Next Steps for the TFM and its partners**", and **Ms. Reine Essobmadje**, member of WFEO Committee on Women in Engineering, highlighted in her statement the **critical role of**

engineers in building an inclusive, sustainable, secure, equal and fair digital society and how this can be translate into SDGs.

For more information:

The full page
Written Statement of Dr. KN Gunalan
UN STI Forum website



Statement on behalf of WFEO and MG-STC by Dr KN Gunalan



Statement on behalf of WFEO and MG-STC by Ms. Reine Essobmadje

☐ WFEO-YEFL side event at the UN STI Forum "Preparing the Future Engineering Workforce to Achieve the SDGs Through Multi-Stakeholder Engagement"



World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs

Committee on Young Engineers / Future Leaders





At the UN STI Forum on 6 May, the WFEO Committee on Young Engineers / Future Leaders (YEFL) – Working Group on SDG#13 "Climate Action" presented a side event on "Preparing the Future Engineering Workforce to Achieve the SDGs Through Multi-Stakeholder Engagement".

The side event explored how to bridge the gaps between private sector, academia and civil society to better prepare young engineers for careers in sustainable development. The side event provided space for a range of stakeholders to showcase educational opportunities or workforce development programs that help early-career engineers align their work with the Sustainable Development Goals.

Michaela Chan and Pulkit Kanotra, two of the YEFL Members from the Working Group, presented the work that has been done since inception and how it related to the side event topic. Pulkit Kanotra and Michaela Chan, initially discussed the Working Group's role in Climate Action and how it pertains to SDG 13.

For more information:

The full page

☐ WFEO-CAC & GIACC webinar "2022
Chandler Good Government Index findings –
Why Government Capabilities Matter for Anticorruption ?"



The WFEO committee on Anti-corruption in collaboration with Global Infrastructure Anti-corruption Centre (GIACC) hosted the webinar "2022 Chandler Good Government Index findings – Why Government Capabilities Matter for Anti-corruption?" on 12 May 2022.

The **Chandler Good Governance Index (CGGI)** is a new measurement tool with sub indicators about corruption. The webinar presented CGGI and how their indicators are constructed, what they measure, and how to identify a reliable measurement instrument?

The speakers of the webinar:

- Kamel Ayadi, Chair of Global Infrastructure Anti-Corruption Centre (GIACC)
 Tunisia and WFEO Past President.
- Bill Henry, ASCE Past President, on behalf of Neill Stansbury, Construction Lawyer – Co-Founder and Director of the Global Infrastructure Anti-Corruption Centre (GIACC)
- Wu Wei Neng, Executive Director at the Chandler Institute of Governance (CIG)

- Esa Onoja, Deputy Director of the Nigerian Law School, on behalf of Bolaji Owasanoye, Chair of the Independent Corrupt Practices and other related Offences Commission (ICPC) Nigeria
- Sarah Dix, Senior Specialist at the United Nations Development Programme (UNDP)
- Barbara Yael Baredes, Policy Analyst at the Organisation for Economic Cooperation and Development (OECD)
- Papias Kazawadi, Chair of WFEO Committee on Anti-Corruption (CAC)

For more information:

The full page Chandler Good Government Index presentation by Wu Wei Neng





WFEO Committee on Anti-corruption and GIACC webinar "2022 Chandler Good Government Index findings"

Upcoming events

○ WFEO-CEE Side event at the UNFCCC Bonn Climate Change Conference "Implementing Equitable, Sustainable and Climate Resilient Infrastructure & Local Adaptive Capacity"

UNFCCC SB56 SIDE EVENT: WORDS INTO ACTION 2022

Implementing Equitable, Sustainable and Climate Resilient Infrastructure and Local Adaptive Capacity







Principles used by infrastructure professionals in achieving climate resilient infrastructure, with the inclusion of women and young professionals. How climate and risk assessment training contributes to local capacity

Organized by:
WFEO Committee on Engineering
and the Environment
& Engineering Institute of Canada

Saturday June 11, 2022 15:00 - 16:30 CET Room Kaminzimmer

The WFEO Committee on Engineering and the Environment (CEE), in partnership with The Engineering Institute of Canada, will host a side event at the UNFCCC Bonn Climate Change Conference on 11 June, 15:00 – 16:30 CET.

The side event will present principles used by infrastructure professionals in achieving climate resilient infrastructure, considering inclusion of women and young professionals. It will also explore examples of implementation, and also how climate and risk assessment training contributes to local adaptive capacity. The event will be live-streamed via YouTube, through this link: www.youtube.com/c/UnfcccInt

The speakers of the side event:

- **Davide Stronati**, WFEO Committee on Engineering and the Environment Chair:
- Ignacio González-Castelao Martínez-Peñuela, WFEO Committee on Water Chair:
- Darrel Danyluk, P.Eng FCAE FEIC FCSCE FEC- Chair, Engineering Institute of Canada;
- Carol Aziz, Ph.D P.Eng, Climate Risk Institute (CRI); Erik Sparling VP, CRI. Committed to gender balance.

For more information:

The full page

Side event flyer UNFCCC Bonn Climate Change Conference website

☐ Sierra Leone Institution of Engineers Biennial Conference 2022



The Sierra Leone Institution of Engineers Biennial Conference 2022 will take place at the New Brookfields Hotel, Jomo Kenyatta Road, Freetown from 28 June to 1 July 2022.

The theme of the conference is "The impact of the covid-19 pandemic on engineering practices" and the sub-themes are:

- COVID-19 and The Built Environment and smart cities
- COVID-19 and Engineering education and technology
- COVID-19 and Innovative methods in Project collaboration
- COVID-19 and emerging technologies
- COVID-19 and the way forward

For more information:

The full page
The conference flyer
Sierra Leone Institution of Engineers website

Register here

☐ 13th Meeting of Professional Associations of Civil Engineers of Portuguese and Spanish Speaking Countries (CECPC)



The 13th Meeting of Professional Associations of Civil Engineers of Portuguese and Spanish Speaking Countries (CECPC) will be held from 15 to 16 June, 2022, in the city of Cartagena de Indias, Colombia.

This Meeting will contribute to strengthening the connections between professionals from the various communities of civil engineering, as well as between professionals from associations.

For more information:

The full page Sociedad Colombiana de Ingenieros website

☐ International Student Conference on Artificial Intelligence



The Nanyang Technological University (NTU) will be hosting its 2-days virtual conference on A.I. entitled International Student Conference on Artificial Intelligence (STCAI) on 25 and 26 June 2022.

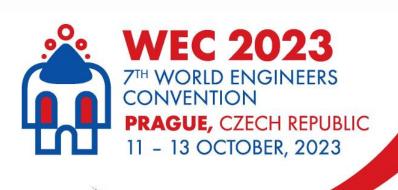
STCAI is the first International A.I. conference jointly organised by Innovation Lab and the Artificial Intelligence Research Institute (AI.R) in NTU. STCAI is designed to connect passionate young students with industry-leading innovators and research pioneers. The conference aims to inspire new ideas, encourage sharing of knowledge and build a network of connections for the advancement of A.I.

Immediate WFEO Past President Prof. Gong Ke will be a Keynote speaker at the event.

For more information:

Conference website
Conference presentation

☐ World Engineers Convention 2023



THEME:

ENGINEERING FOR LIFE - BREAKTHROUGH TECHNOLOGIES AND CAPACITY **DEVELOPMENT FOCUSED ON UN SDGS:**



















CALL FOR ABSTRACTS IS OPEN!

www.wec2023.com

In October 2023, the global engineering community will meet in Prague to discuss our contribution to the "great transformation" through UN SDGs!

The Czech Association of Scientific and Technical Societies (CSVTS) in cooperation with the World Federation of Engineering Organizations (WFEO) is organizing the 7th World Engineers Convention WEC 2023 which will take place in Prague, the capital of the Czech Republic, between 9 – 15 October 2023.

The theme of WEC 2023 "Engineering for life: Breakthrough Technologies and Capacity Development Focused on UN SDGs" responds to current planetary challenges and reflects the main goal which is to explore and find how high-tech, as well as low-tech innovations, artificial intelligence and a transdisciplinary approach, can ensure environmental sustainability and ensure a safer, fairer, healthier, more efficient and peaceful future.

The organizers of WEC 2023 would like to invite engineers, academics, global thought leaders, technical specialists, professional and engineering association members, educators, students, industry influencers and professionals from other fields from all over the world to share their latest knowledge, experience, research, suggestions and visions which would present the latest achievements of the engineering art at this magnificent engineering event.

For more information:

Call for abstracts webpage WEC 2023 website WFEO webpage

Recent news

□ Current challenges of Civil Engineering - a paper by WCCE



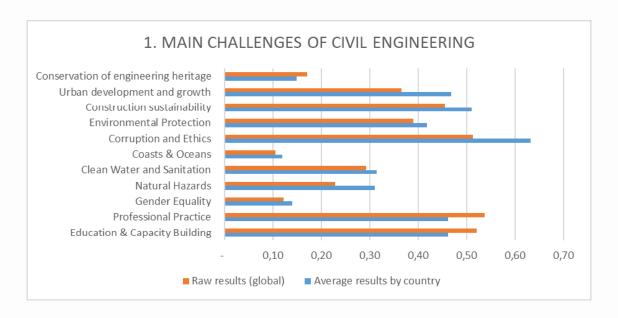
Jorge E. Abramian, President of the World Council of Civil Engineers (WCCE) and Member of the WFEO Executive Council, has written a paper that analyzes the result of a survey concerning the current challenges of Civil Engineering. The original article is available on the WCCE website.

International engineering forum discussions always turn around a certain number of topics that slowly change over time based on drivers that sometimes are external to the profession. The question is how far are the current topics of discussion from the feelings of the practitioners. WCCE prepared and conducted a survey among civil engineers of the world to learn about their perceptions about some issues that affect the profession. The 14 questions included in the survey covered education, professional practice, ethics, and the importance of global issues (SDGs). In total, 120 answers were received from 30 countries (5 continents) giving an interesting global coverage. The number of participants in each country varied widely. For this reason, the answers were grouped by country and averaged to be able to work with 30 representative answers instead of 120. This procedure proved that the global results

do not differ that much from the nationally averaged results, although it certainly flattened the extreme values.

For more information:

The full page



☐ Conversations on the future we want: UN Agenda 2030



WORLD FUTURES STUDIES FEDERATION

INDEPENDENT GLOBAL PEAK BODY FOR FUTURES STUDIES SCHOLARSHIP A UNESCO PARTNER – FOUNDED PARIS 1973

In the March 2022 edition of the magazine "Human Futures", by World Futures Studies Federation (WFSF), Dawn Bonfield, MBE, Deputy chair of the WFEO Committee on Women in Engineering, gave an interview to Claire A. Nelson, Chief Ideation Leader of WFSF.

Claire A. Nelson: it's March and we're celebrating Women's History Month and exploring the future history of women, in the year 2030 and beyond. The UN

Sustainable Development Goals (SDGs) include one goal specifically targeted towards women, SDG 5. In this conversation I speak with Dawn Bonfield, MBE, who is an Entrepreneur in Residence at King's College in the United Kingdom as well as Visiting Professor of Inclusive Engineering at Aston University. More importantly for our purposes, she represents the UK Institution of Civil Engineers at the World Federation of Engineering Organizations, where she serves on the Women in Engineering Committee. Given her role as someone embedded at various levels of the engineering ecosystem, I am looking forward to hearing her prognosis on futures for women in the field of engineering.

The full page

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