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

ice Institution of Civil Engineers

Activities of the Working Group on Engineering and Climate Change 2023-2024

Summary: The Working Group on Engineering and Climate Change (ECC) was launched in October 2023 and holds regular meetings with the group's members every 3 months. This WG helps to coordinate and harmonise the work being done by various WFEO STCs and WGs with relation to climate change and engineering.

The purpose of this WG is to advance engineering solutions and partnerships that contribute to climate change mitigation, adaptation and resilience. The activities align with the Sustainable Development Goal No. 13 (Climate action), which is undertaken primarily through its participation in UNFCCC events alongside other WFEO Standing Technical Committee representatives.

The objectives of the Working Group are as follows:

- To coordinate efforts of all WFEO committees on climate change and find platforms to showcase these efforts.
- To advance awareness of best practice in climate mitigation, adaptation and resilience, which could be through showcasing decarbonisation and/or climate resilience efforts of engineering projects and in the engineering profession.
- To assist in the advancement of guidance tools and standards for decarbonisation, climate adaptation and resilience, through global expert advice to existing projects.
- Raise awareness of WFEO's work on and commitment to address climate change.

Members of the ECC attend and present at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) meetings, and at the intersessional Bonn Climate Change Conferences to promote the role of engineers in combating climatic change causes and effects.

Bonn Intersessional Climate Change Conference (SB60)

The June 2024 Bonn events were attended by Davide Stronati and Darrel Danyluk as WFEO representatives. This year there was a 50% reduction in side event slots, with an increase in demand which unfortunately meant the WFEO side event submission was unsuccessful. However, the learnings taken from this process was the need to merge applications with an increased number of partners and to align the language and topics more closely with the current COP themes.

The delegates at SB60 spent their time understanding the opportunity to have engineering and WFEO more on the forefront of UNFCCC and found that there was a lack of focus on engineering topics within the scheduled side events.

Delegates Davide Stronati and Darrel Danyluk outside the UNFCCC building.

Conference of Parties (COP29)

The WG is currently preparing for participation in COP29 which is taking place in Baku, Azerbaijan between 11th-22nd November 2024. The learnings from SB60 were taken on board and the side event submission was successful. This year's side event is in partnership with the WFEO Standing Technical Committee on Energy, the Engineering Institute of Canada (EIC), the Institute of Electrical and Electronics Engineers (IEEE) and the Institute of Civil Engineers (ICE).

The joint side event title is *Accelerating Clean Tech for Energy and Agriculture in SIDS: Enabling action for a Just Transition* and will be taking place on Monday 11th Nov, at 16:45 – 18:15 (local time). The session will be lived streamed onto the UNFCCC YouTube channel.

WFEO will be represented by Davide Stronati, as moderator, and Marie-Line Viani, as a speaker on energy.

Climate Change Adaptation Task Group

This group is led by Darrel Danyluk, an independent advisor to the CEE, and firstly aims to promote The Code of Practice on Principles of Climate Change Adaptation for Engineers by engaging with National Members. Each year, Engineers Canada and Polytechnique Montreal have continue their Massive Open On-Line Course "Sustainability in Practice". This course presents the principles explained in the WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship. The principles have recently been updated, and the document has been renamed the *Code of Practice for Climate Adaptation and Resilience for Engineers.* The updated version is in consultation phase. Work is progressing on an accompanying Interpretive Guide.

Climate Adaptation for Engineers, Code of Practice

The Principles of Climate Adaptation for Engineers was published in December 2015 and was developed by the WFEO Committee on Engineering and the Environment. David Lapp is leading on the update to the CoP to reflect our increased awareness, the evolution of advanced technologies and processes and the experience applying them to improve the climate resilience of infrastructure - both new and existing. David and the WG have shared the request for comments from the wider engineering community. Despite numerous attempts and invites, there have been responses from

ICE and the ASCE only to date, which have provided their feedback and recommendations on the update.

Climate Change Mitigation Task Group

The WFEO Climate Change Mitigation Best Practice Project is led by Prof. Wu of CAST. This project is aimed at mitigating climate change on our planet. The Climate Change Mitigation Best Practice Project will build a database/collaborative platform to collect, organize and store successful engineering projects, plans and ideas from WFEO national members and partners. The project mainly focuses on civil and construction engineering.
Again - despite numerous attempts and invites to participate, there have been only a handful of member organisations which have provided their cases to prof. Wu.

On both projects, a wider participation is needed to leverage the knowledge and reach of WFEO organisations.