

# Committee on Engineering and the Environment (CEE)



As an engineering community, we can make a fundamental contribution to achieve the SDGs, and we have a great responsibility for action. The work of the CEE is aimed at enabling WFE0 and the global engineering profession to support the achievement of these goals, addressing in particular SDG11 (Sustainable Cities and Communities) and SDG 12 (Responsible Consumption and Production).

**GENG Yong,**  
Chair of CEE,  
China Association for Science and Technology

During the two years, the CEE has continued to advance its mission of promoting environmentally responsible engineering practices in alignment with the UN SDGs. In this period, the Committee has strategically prioritized SDG 11 and SDG 12, while actively supporting broader efforts under SDG 13, SDG 14, and SDG 15. Through a combination of institutional innovation, global outreach, and technical engagement, CEE has reinforced the role of the engineering profession in driving sustainable development and environmental stewardship.

One of the CEE's core areas of focus has been advancing *carbon-neutral urban development*. In October 2024, CEE co-organized the International Conference on Urban and Community Carbon Neutrality in Shenyang, China, in partnership with Shenyang Jianzhu University. The conference convened leading experts, scholars, and also WFE0 Executive Vice President Ania Lopez to exchange views on low-carbon technologies, urban resilience, and integrated planning approaches. This event reaffirmed the CEE's commitment to fostering sustainable cities and inclusive communities in accordance with SDG 11.

Moreover, CEE has placed significant emphasis on promoting *green transformation in key industrial and manufacturing sectors*. In November 2024, during the COP29 Climate Conference in Baku, Azerbaijan, CEE co-hosted a high-level side event at the China Pavilion with Shanghai Jiao Tong University (SJTU), National Center of Technology Innovation for Green and Low-Carbon Building (NCTI-GB) and Rocky Mountain Institute (RMI), titled "Green Low-Carbon Industry and Architecture in the Vision of Carbon Neutrality: Technological Breakthroughs and Policy Dialogue on the 3060 Path."



CEE Chair Prof. Yong Geng and CEE SDG Engineers at COP29 Side Event in Baku, Azerbaijan, November 2024



CEE supports the development of low-carbon, resilient cities through engineering innovations. The committee promotes sustainable urban planning, green infrastructure, and community-scale carbon neutrality, aiming to build inclusive, safe, and climate-adaptive living environments for current and future generations.



CEE advocates for circular economy solutions and sustainable industrial practices. By fostering green technologies and waste reduction strategies, the committee contributes to more efficient resource use and promotes responsible production systems across sectors such as manufacturing, construction, and materials recycling.

The event highlighted best practices and innovations in energy-efficient infrastructure, sustainable materials, and circular economy solutions, demonstrating how engineering-led approaches can reduce industrial carbon footprints and foster responsible consumption and production systems.

CEE has also continued to advance *environmental education and knowledge dissemination*. In April 2024, Carbon Footprints was designated as the official flagship journal of CEE, offering an international forum for publishing high-impact research on environmental engineering and sustainability. In July 2024, in collaboration with Shanghai Jiao Tong University, the Committee launched the inaugural SDG International Graduate Students Summer Bootcamp, providing multidisciplinary training on climate action, sustainable technologies, and global development pathways for emerging leaders from around the world.

In April 2024, the CEE hosted a webinar analyzing the outcomes of the sixth session of the United Nations Environment Assembly (UNEA-6), inviting the guest speakers Nathaniel Matalanga, President of the World Council of Civil Engineers (WCCE) and Lylian Coelho, Chair of Water for All, AgroParis-Tech SUEZ. The webinar mainly focuses on global environmental governance and post-UNEA collaboration mechanisms. These efforts contribute to CEE's continued engagement with international processes under SDGs 13–15, particularly through promoting engineering solutions for climate resilience, biodiversity conservation, and sustainable resource management.

## Key achievements

- Event hosted in Shenyang, China, in partnership with Shenyang Architectural University, titled "Zero Carbon China" International Conference.
- Co-organize the side event at COP 29 in Azerbaijan with Shanghai Jiao Tong University (SJTU), National Center of Technology Innovation for Green and Low-Carbon Building (NCTI-GB) and Rocky Mountain Institute (RMI).
- Launch the CEE Flagship Journal "Carbon Footprints" in 2024.
- Established 5 targeted subcommittees to promote environmental sustainability.

To further strengthen its thematic engagement and deliver more targeted contributions to environmental sustainability, CEE formally established *five expert subcommittees* in May 2025. These include the:

- Subcommittee on Green Paper-Making and Resource Recycling
- Subcommittee on Green Metallurgy
- Subcommittee on Green Textile
- Subcommittee on Urban Mining and Pollution Control
- Subcommittee on Plastic Regeneration

These thematic bodies are currently in the process of finalizing their membership structures and work plans.

Starting in the second half of 2025, they are expected to serve as dedicated platforms for technical exchange, policy advocacy, and project development in their respective domains, thereby enhancing CEE's capacity to address complex sustainability challenges in a sector-specific manner.



World Federation of Engineering Organizations  
Fédération Mondiale des Organisations d'Ingénieurs  
Committee on Engineering and the Environment

ENGINEERING AND THE ENVIRONMENT

Sixth session of the United Nations Environment Assembly (UNEA-6)

UN environment assembly

SUSTAINABLE DEVELOPMENT GOALS

### Insights and Experiences from UNEA-6 | A Virtual Sharing Session |

**Time**  
April 2, 2024  
18:00-19:00 PM (GMT+8) / 10:00-11:00 AM (GMT)

**Place**  
Online

**Register**  
<https://shorturl.at/efjFL>



**Nathaniel Matalanga**  
Vice Chair, WFEO Ctee on Engineering and the Environment



**Lylian Coelho**  
Member, WFEO Ctee on Engineering and the Environment

Webinar on Insights and Experiences from The sixth session of the United Nations Environment Assembly (UNEA-6), Online, April 2024



2024 SDG International Graduate Students Summer Bootcamp Program, Shanghai, China, July 2024



Official Photo of participants including Deans, University Professors, Politicians, and local Chinese business leaders at the International "Zero Carbon China" Conference on Urban and Community Carbon Neutrality, Shenyang, China, October 2024