



WFEO Committee on Education in Engineering (CEIE) Report

Background

The Committee for Education in Engineering is hosted by the Myanmar Engineering Council.

The secretariat is provided by the Myanmar Engineering Council in accordance with the plan submitted for hosting the committee in 2019.

The key objective of the Committee is the development of professional engineering education benchmarks and collaboration with different education institutions around the world to upgrade the standards of engineering education accreditation for WFEO members, to achieve more qualified engineers with the appropriate skills to address the critical needs according to UN SDGs.

Main SDGs cover by CEIE

The Committee emphasizes SDG Goal 4, Quality Education, and in the process of implementation, recognizes that teachers and educators are the keys to achieve all of the SDG targets. Improving the quality of teachers and pedagogy, CEIE concentrates on mentoring of educators in developing countries, especially least developed countries and Small Island Developing States (SIDS), ensuring accreditation of programs align with the guidelines of the International Engineering Alliance (IEA), through international WFEO members cooperation. The Committee focus is on SDG 4 – Education through:

- Mentoring institutions to achieve the requirements of the international benchmarks to improve the quality of engineering education around the world - 3 mentoring projects to date. This also contributes to SDG 16, for strong institutions in engineering education,
- The Committee is working in partnership with mentoring organisations which is relevant to the SDG17.

Key Achievements

Key achievements are:

- 1. The ICEEA 2022 Conference – held on 16 ~ 17 July 2022,**
- 2. The publication of the IDEAS Journal, published on 20 October 2022, consisting of papers related to presentations at the ICEEA 2022**
- 3. Ongoing Engineering Education Mentoring projects**
- 4. Development and launch of the WFEO Academy website**
- 5. WFEO CEIE Webpage**

1. The ICEEA 2022 Conference

Myanmar Engineering Council, host of the WFEO Committee for Education in Engineering (CEIE), hosted the Annual International Conference on Engineering Education Accreditation, ICEEA 2022 , virtually from 16 ~ 17 July 2022 presided by Prof. Dr. Aung Kyaw Myat, President of MEngC, and Prof. Dr Zaw Min Maung, Chair of CEIE, with the theme of “Quality Engineering Education Towards Engineering the Future”.

The conference catalyzed academia from the international and Asia Pacific region to share experience and exchange their good practices and insights from their engineering education and accreditation practice perspectives. Over 600 delegates attended the two-day conference. The speakers from established organizations include:

- United Nations Educational, Scientific and Cultural Organization (UNESCO),
- Washington Accord of International Engineering Alliance (IEA),
- World Federation of Engineering Organizations(WFEO),
- Federation of Engineering Institutions of Asia and the Pacific(FEIAP),
- Engineers Australia (EA),
- China Association for Science and Technology (CAST),
- Institute of Engineering Education Taiwan (IEET),
- Board of Engineers Malaysia (BEM),
- National Board of Accreditation (India),
- Pakistan Engineering Council (PEC),
- Institute of Engineers Malaysia (IEM),
- Institute of Engineers Singapore (IES),
- Philippine Technological Council (PTC) and experts from higher education institutions.

2. The IDEAS Journal

As an immediate follow up of ICEEA 2022, WFEO - CEIE has published the IDEAS Journal (issue no. 20) in mid October 2022.

3. Engineering Education Mentoring projects

A WFEO-CEIE – IEA Working Group was established in November 2019. The working group is chaired by the Chair of the WFEO Committee for Education in Engineering. Members of the Working Group are representatives of IEA signatories and WFEO members. The Myanmar Engineering Council that is the host for the WFEO Committee for Education in Engineering which provides very capable secretariat support for these projects. Mentoring tracking schedules are closely monitored to meet CEIE's aim to achieve new IEA signatories in the near future. The Working Group has been supporting to the increase in the IEA' signatories.

Three mentoring projects for the accreditation bodies of Kenya, Mauritius and Ghana are organized and conducted online since March 2021. They are –

- Institution of Engineers Mauritius (IEM) mentored by India (NBA – National Board of Accreditation) and South Africa (ECSA Engineering Council of South Africa)
- Engineers Board of Kenya (EBK) mentored by Pakistan (PEC- Pakistan Engineering Council) and Malaysia (BEM - Board of Engineers Malaysia)
- Ghana Tertiary Education Commission (GTEC), mentored by China (CAST – China Association of Science and Technology) and Turkey (Association for Evaluation and Accreditation of Engineering Programs, MÜDEK)

4. WFEO Academy website

A WFEO-CEIE – IEA Working Group was established in March 2022 for on-line training for engineering education, accreditation bodies and professional engineering institutions.

The Working Group members include members from the International Engineering Alliance (IEA)'s signatories, International Federation of Engineering Education Societies (IFEES), Global Engineering Deans Council (GEDC) and WFEO members. The website address is www.wfeoacademy.com

The WFEO Academy activates UNESCO Open Science Principles to provide vital training and individuals can access the courses at no cost as long as they are a member of a WFEO member, associate or affiliate organization.

5. WFEO CEIE Webpage

The activities of the WFEO CEIE are reported to WFEO members via the WFEO Flash newsletter and are also published in the WFEO CEIE webpage at: [WFEO-CEIE-SDGs - WFEO](#)

The following articles have been published:

- WFEO participates in inaugural General Assembly of International Engineering Alliance (IEA)
- WFEO ACADEMY: Access to Training by Global Experts to WFEO Members
- Myanmar Engg Council, Chair of WFEO-CEIE, hosted ICEEA 2022
- WFEO Progresses Capacity Building in Mauritius with site visits to all universities
- WFEO Side event at UN HLPF 2022 – Utilizing Open Science Principles for Quality Engineering Education to advance the UN Sustainable Development

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- WFEO Secretariat for publication of articles on the WFEO website
- The volunteer mentors who are supporting the mentoring projects

The volunteers from WFEO members and partners who are supporting the development of the WFEO Academy website.