



Declaration

Global Engineering Education Standards and Capacity Building for Sustainable Development

UNESCO, as the United Nations agency for education, science and culture, supports engineering through its Natural Science Division, and acknowledges engineering as a great means to achieve sustainable development, to progress capacity building education level and gender equality in developing countries, and safeguard world heritage.

The International Engineering Alliance (IEA) is the governing body for the multilateral engineering accords and agreements relating to engineering education and professional development.

The World Federation of Engineering Organizations (WFEO) is the peak body for engineering globally, representing nearly 100 nations and more than 30 million engineers. The members of WFEO are the main national and regional professional engineering institutions of the world. WFEO is a member of the United Nations Scientific and Technological Community Major Group and has an official Associate status with UNESCO. Many of the national members of WFEO are signatories to the IEA Accords and Agreements.

WFEO has a Memorandum of Understanding (MoU) with IEA and other international engineering organisations involved in engineering education including the International Federation of Engineering Education Societies (IFEES), the International Centre for Engineering Education, a UNESCO Category II Centre, based at Tsinghua University (ICEE).

Considering that:

1. The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), adopted by the United Nations General Assembly 70/1 in September 2015 takes an integrated approach to future development, combining progress in economic prosperity, social inclusion and environmental sustainability;
2. Engineers and engineering are critical for achieving the UN Sustainable Development Goals. Engineers are needed in both developed and developing countries to develop and implement technologies and systems that will progress every one of the sustainable Development Goals.
3. The engineering institutions of the world recognise that there is shortage of engineers with the requisite skills to address the challenges of sustainable development.

Accordingly, we declare:

As a recognised member of the UN major science and technology group, WFEO and UNESCO through its Natural Science Division and IEA as the governing body of the international engineering education Agreements and Accords, commit to working together and to the following principles for action:

1. Recognise the Current IEA Graduate Attribute Framework as the basis for international engineering education standards;
2. Review and develop the international engineering education standards to ensure that they meet the requirements for new technologies and engineering disciplines, new pedagogies and include contemporary values such as sustainable development, diversity and inclusion and ethics;
3. Extend the global reach of the IEA Agreements and Accords through capacity building efforts, such as mentoring and training, that support the development of a range of engineering education systems, appropriate to each country;
4. Support the development strong institutions for accreditation of engineering education and the development of accreditation bodies;
5. Support the development of professional engineering institutions through capacity building efforts to support engineers' education and recognition of professional credentials;
6. Support the development of national, regional and international registers and liaise with governments for the regulation of engineers to ensure the performance of engineers throughout their careers, and
7. Facilitate the international mobility of engineers.

These actions will be achieved by bringing together the leaders and experts in engineering education and professional development for a shared and unified purpose in a partnership that will progress the demand for engineers of an appropriate standard around the world.

Signed on this day 11 June 2019:

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