

## WFEO BIENNIAL REPORT 2017-2019

**Name of STC/PIC/WG :** *Committee on Engineering Capacity Building*  
**Chair :** *Yashin Brijmohan*

**Date sent by HQ:**

**Date returned:**

### WHEN WRITING THIS REPORT

- ➔ *Please take into consideration that the Biennial Report is intended to promote the work of WFEO to UNESCO and its member nations, to UN and other international organizations and to institutions wishing to join WFEO as Members or Associates.*
- ➔ *Each Committee/Working Group will have a maximum of 2 pages. We request the following:*
- *Narrative of the main focus of the last two years, achievements and outcomes, key events and publications. Please provide a PDF copy of the publication to ensure that it is also on the WFEO web site if not already uploaded.*
  - *The specific UN Sustainable Development Goals that have been addressed (Maximum two – specific to the achievements/events of the past two years)*
  - *4 to 6 High resolution photographs with captions where you or your committee/WG owns the copyright.*

#### • **TITLE OF YOUR REPORT: ENGINEERING CAPACITY BUILDING**

The Committee on Engineering Capacity Building (CECB) under the Chairmanship of Eng. Yashin Brijmohan has continued to support the Sustainable development goals in the area of Engineering Capacity Building.

#### • **Main Themes covered:**

It is important to create, develop and maintain a sustainable engineering work force in all countries that responds adequately to the current and new world of work, given the changes introduced by the Fourth Industrial Revolution. This requires a deep reflection on the themes of Engineering Education and Industry Standards, Globalisation, Mobility for engineers, Infrastructure development, Professional and Specialist development, as well as the way in which we develop Engineering Capacity for all countries to implement and maintain current and new technologies.

The Engineering Capacity Building Committee has researched, consulted, informed and supported the engineering profession, the education and training sector, governments, learners and the society at all levels of engineering capacity building to create sustainable development.

## **2. PROJECTS BY THE CAPACITY BUILDING COMMITTEE**

The Engineering Capacity Building committee has led and participated in several initiatives and projects.

### **2.1. UNESCO Africa Engineering Week**

The Committee has been active in leading this initiative throughout the continent, with successful handover and participation by the Federation of African Engineering Organisations (FAEO). The activities during the Africa Engineering Week (AEW) increases the visibility of engineering, which is particularly important in the continent where there is a great need for engineers to achieve the Sustainable Development Goals (SDGs). To date, five (5) African Engineering Weeks have been successfully held. The UNESCO AEW for 2018, in Kenya, hosted more than 800 delegates with representation from more than 16 countries with UNESCO participating in the outreach

programmes. A major event also took place in South Africa, Capetown, with over 300 delegates on the theme on preparing for the 4th Industrial revolution and addressing the Sustainable Development goals.

The international event in Kenya, Mombasa covered the following: First African Women Engineers Summit, Mentoring Programme for school children (more than 200 learners), workshops on the under the theme “Harvesting Blue Economy for Accelerated Growth”, the Africa Engineering Report, and the FAEO and SAFE0 Executive Meetings. The Chairperson of CECB, Eng. Yashin Brijmohan presented on the International Engineering Alliance Framework and International Recognition Arrangements, chaired the Capacity Building Workshop on Engineering Education, Mobility and Continuous Professional Development, and facilitated the SAFE0 Strategic Planning Workshop.



UNESCO Engineering Week, Kenya, Mombasa

## **2.2. Capacity Building Programme for Africa and the Africa Report**

It was resolved that the Africa Engineering report needs development and will be supported by the countries in Africa. The Capacity Building Committee will lead this initiative, and also support the development of the second UNESCO Engineering Report of which the Chairperson of the CECB is the lead author on Africa Chapter supported by the FAEO.

The CECB has developed the Capacity Building Programme for Africa concept and principles and presented this to both FAEO, SAFE0 and conference events, and encouraged countries to take initiatives for implementation. The projects involved included support to Mauritius, Madagascar, and Seychelles, the Infrastructure Scorecard development in Zimbabwe and Malawi, and the training of professional mentors through CPD in Botswana. There was also participation in the Africa catalyst project.

## 2.3. Thought Leadership And International Participation

### 2.3.1. Participation in the Gender Aviation Summit

The WFEO CECB participated and presented at the UNESCO Gender Aviation Summit in Capetown, South Africa 2018. The event covered the areas of gender equality and the 2030 agenda for sustainable development. The Chairperson of the WFEO CECB presented on barriers and enablers in the education system and included a focus on the sustainable development goals, and the mechanisms to transform the Education Landscape through incorporating systematic programmes to include intercultural competence, entrepreneurship, innovation and business development skills amongst others.



WomEng and UNESCO at Global Aviation Summit: Capacity Building Programme addressing School Learners

### 2.3.2. WFEO Participation at the SABTIA Africa Tech Camp and What's Next Conference

This event was addressed by the South African Honourable Minister (Small Business Development) Lindiwe Zulu in the area on Innovation, Incubation, and Business Development. The Chairperson of the WFEO CECB presented on WFEO, the outcomes of the UNESCO Africa Engineering Week, and the skills required for the knowledge era, with a focus on capacity building to prepare for the technology revolution. The Vice Chairperson of the CECB, Eng. Martin Manuhwa chaired the 4th Industrial revolution roundtable discussion. The focus of the event was to build capacity in the areas of Incubation and acceleration which aligns to addressing several of the sustainable development goals. The programme was developed in partnership between by the Southern African Business and Technology Incubation Association and Monash South Africa.



Presentation by the Honourable Minister Lindiwe Zulu

Presentation Roundtable by WFEO, Government and Industry Representatives

### 2.3.3. Participation at International Forums and Workshops

The International Forum on Engineering Capacity Building was hosted in Beijing, China in November 2018 where Prof. Gong. Ke. presented on Engineers Capacity Building for Sustainability, and the CECB presented on Building Engineering Capacity and Capability for the Evolving Technological Era: Policy, International Standards, and Regulation. WFEO also participated and presented at the International Engineering Alliance Workshop in Hong Kong in June 2019.



**2019 IEA Workshop and Meetings: Presentation in Hong Kong**

The committee has developed, supported, and implemented several projects and programmes. The success of the work is seen in the sustainability, momentum, and International partnerships that have evolved and also taken ownership of these projects, which have an impact to the area and support the Sustainable Development Goals.

#### **KEY ACHIEVEMENTS, PUBLICATIONS, DECLARATIONS ETC.**

Several projects were undertaken, with resolutions and declarations made and accepted at the UNESCO Africa Engineering week events. This is a shared partnership between policy makers, and the Engineering profession within and between countries.

#### **PLEASE INDICATE ANY SPECIFIC ACTIONS OR PROJECTS AROUND SUSTAINABLE DEVELOPMENT GOALS TICK THE CORRESPONDING BOX AND ADD AN EXPLANATORY TEXT ON THE WORK THAT HAS BEEN DONE IN RELATION TO THE SDG. (50 WORDS MAX. AND MAX OF TWO SDGS)**

- Goal 1: No Poverty** (detailed [in this page](#))
- Goal 2: Zero Hunger** (detailed [in this page](#))
- Goal 3: Good Health and Well-being** (detailed [in this page](#))
- Goal 4: Quality Education** (detailed [in this page](#))
- Goal 5: Gender Equality** (detailed [in this page](#))
- Goal 6: Clean Water and Sanitation** (detailed [in this page](#))
- Goal 7: Affordable and Clean Energy** (detailed [in this page](#))
- Goal 8: Decent Work and Economic Growth** (detailed [in this page](#))
- Goal 9: Industry, Innovation and Infrastructure** (detailed [in this page](#))

- Goal 10: Reduced Inequalities** (detailed [in this page](#))
- Goal 11: Sustainable Cities and Communities** (detailed [in this page](#))
- Goal 12: Responsible Consumption and Production** (detailed [in this page](#))
- Goal 13: Climate Action** (detailed [in this page](#))
- Goal 14: Life Below Water** (detailed [in this page](#))
- Goal 15: Life on Land** (detailed [in this page](#))
- Goal 16: Peace, Justice and Strong Institutions** (detailed [in this page](#))
- Goal 17: Partnerships for the Goals** (detailed [in this page](#))

**PLEASE INSERT A SHORT QUOTE/STATEMENT ABOUT YOUR COMMITTEE/WORKING GROUP**

- **Statement from the Chairperson:** Our future depends on wise decisions and actions made in the present. We are committed to build a quality engineering profession that can respond to the current and future industry requirements with respect and a deep understanding of the societal, and environmental considerations for a sustainable world.

**PLEASE SEND 4 TO 6 HIGH RESOLUTION PHOTOS/LOGOS WITH CAPTIONS, AS ENCLOSED FILES IN AN EMAIL OR IN A CLOUD STORAGE SERVICE (DROPBOX, WETRANSFER..) BUT NOT INSERTED IN THE BODY OF AN EMAIL OR IN A WORD/PFD FILE.**

As a reminder, a link towards the [Biennial Report 2015-2017](#)