

## **2019 Activity Report by WFEO-CEIT**

WFEO-CEIT is dedicated to be a leading international comprehensive platform for engineering professionals from multi-stakeholders to identify the next innovative technologies for sustainable development; share the innovative engineering experience in building a sustainable society; enhance the national and international collaboration among multi-stakeholders to promote the innovative technology engineering for facilitating a sustainable world.

### **1. 2017-2019 WFEO-CEIT Biennial Report**

Biennial Report is the narrative of the main focus of the committee last two years, including achievements and outcomes, key events and publications, etc. It is intended to promote the work of CEIT to WFEO and its member nations, to other international organizations and to institutions wishing to join CEIT. CEIT finished the report in June, which helped committee better summarize the past work.

### **2. 2019-2023 WFEO-CEIT Strategic Plan**

CEIT replanned the Strategic Plan for 2019-2023 and sent back to WFEO for advice in June. In the new strategic plan, CEIT will strengthen the work in its focus areas--Big Data, Artificial Intelligence, International Meridian Circle Program (IMCP) and launch series of oriented domestic and international activities to foster the implementation of the focused SDG -- SDG 9 among but not limited to CEIT national members.

### **3. National Membership Building**

CEIT did lots of efforts in building the membership this year, including:

#### **a. New Membership**

A new member from South Africa joined CEIT, and now there are 32 members from 25 countries.

#### **b. Online Video Conference**

CEIT held the Online Video Conference on June 25, 10 members and 3 Secretariat staffs joined. This first try created a good opportunity for facilitating the communication with/among members. Joined members expressed appreciation to how this kind of work effectively improved the exchange.

#### **c. Newsletter**

CEIT discussed with members and launched the Newsletter in April.

#### **d. Innovation Story**

CEIT initiated a *Call for Innovation Story*, an activity that collect engineering innovation stories among the committee members, and provide an opportunity for our members to display their innovation work, outcomes and experiences, which will further improve the engineering innovation ability.

## **4. Achievements in Focused Areas**

According to the Strategic Plan, CEIT specified 3 main focused areas: Big Data, Artificial Intelligence and International Meridian Circle Program (IMCP), and have got a lot of done in these areas.

### **a. Draft Concept Notes of Big Data and AI Principles in Engineering**

Big Data and Artificial Intelligence are rapidly growing in capability, impact and influences and expected to progress dramatically in the future. They hold great promise for empowering people, raising the quality of people's lives, fostering the economic and social development, addressing important global challenges and promoting the achievement of SDGs. The Concept Notes aims to promote responsible conduct of Big Data and AI innovation and application in Engineering and will be published next year.

### **b. Big Data and Artificial Intelligence Working Group**

In order to better facilitate the work in Big Data and AI and also improve the professionalization, CEIT established a working group, and have invited the committee members who are interested to join. The official document will be enacted soon.

### **c. International Meridian Circle Program (IMCP)**

Combining the 120°E meridian with 60°W meridian, the two meridian lines can be linked as a circle end-to-end, which is called the International Meridian Circle. The IMCP convenes to develop a ground-and-space based space weather monitoring system via the cooperation of countries and regions round this circle with an aim of acquiring unprecedented ability to investigate the space weather and monitor the earthquake. The early warning system will be established finally.

## **5. International Cooperation**

### **a. Meeting with Integrated Research on Disaster Risk (IRDR) Office, March 2019**

IRDR is a decade-long research programme co-sponsored by the International Science Council (ISC), and the United Nations Office for Disaster Risk Reduction (UNDRR). It is a global, multi-disciplinary approach to dealing with the challenges brought by natural disasters, mitigating their impacts, and improving related policy-making mechanisms. CEIT paid a visit to their office in March and had a discussion on how technologies could better be used in disaster Risk, perhaps it could be a collaboration between IRDR and IMCP, further discussion are in the schedule.

### **b. Meeting with World Data System (WDS) Delegates, May 2019**

Dr. LI Pan was invited to give a report on the opening ceremony of WRS Asia-Oceania Opening Ceremony on behalf of CEIT. CEIT tried to seek the collaboration with this professional data organization, especially the collaboration on open data, data security and education, these estimated areas have been agreed by both side.

### **c. Meeting with UNESCO&CODATA Delegates, September 2019**

CEIT met with UNESCO and CODATA delegates during CODATA annual conference in

September. We had a great talk on the work of big data and disaster risk reduction, further work is under going.

## **6. Special Activity--World Engineering Day (WED)**

CEIT Secretariat joined the Working Group of World Engineering Day, and support the preparation of the celebration event on March 4, 2020. Also, we have advocated among our members and encouraged them to join this celebration.