

# IACEE Pulse

A Newsfeed for Members

1/22/2019

www.iacee.org

## Message from the IACEE President

My Dear IACEE Colleagues:

Welcome to the January 2019 edition of Pulse, IACEE's newsfeed for the members. As the new year ushered in, the IACEE Headquarters and the Council got busy in preparing for a special IACEE presentation for the **Conference for Industry and Education Collaboration (CIEC)** organized by four divisions of American Society for Engineering Education (ASEE).

Under the facilitative leadership of IACEE past president Kim Scalzo, four IACEE Council members will present on the **Global Trends in Continuing Engineering Education (CEE)** at the CIEC on 31 January 2019 from 4:00 to 5:30 p.m. in the Hotel Monteleone. I will join Errol la Grange, Vice President for Global Sustainability Initiatives; Ragna Ann Berge, General Conference Chair – World Conference 2020; and Wang Cheng, Council member representing industry. We will focus the trends that we are observing in North America, Australia and New Zealand, Northern Europe and especially in Norway, and in Asia with particular focus on China.

Regarding the global trends of CEE, I would like to draw your attention on an article, *Fourth Industrial Revolution Requires Soft Skills Training* on page 2 of this Pulse. Dr. Patricia Caratozzolo Martelliti of Tec de Monterrey, Mexico wrote the article and pointed to the World Economic Forum (WEF) reports on the Future of Jobs (2016 and 2018). This is very timely and fitting as the WEF Annual Meeting takes place in Davos, Switzerland just at this time. As CEE educators and administrators, it will be worthwhile to know what the global leaders predict on the economy

which, of course, will drive the job market and hence the skillsets required for those future jobs.

At the CIEC, IACEE is also co-hosting a hospitality event, *Dinner and Jazz on Mississippi*, with the Continuing Professional Development Division of ASEE on **30 January 2019 evening**. It is free for all IACEE members! So, join us there before seats are gone!

This conference will be followed by the Winter Executive Committee meeting on 1 February 2019 at Hotel Monteleone in New Orleans. We will revisit the implementation of IACEE's 2018-20 strategic goals with special focus on *how may we address your needs and how may we serve you, the members, better?* What do you think? Let us know by dropping us a line at [info@iacee.org](mailto:info@iacee.org). We will also focus on strategic partnerships for the Quality Program for Continuing Education, IACEE 2020 World Conference in Trondheim and the 30<sup>th</sup> Anniversary of IACEE!

**YES, IACEE TURNS 30!!** Dr. Alfredo Soeiro of Universidad do Porto remembers the formation of IACEE at the Fourth World Conference on Continuing Engineering Education on page 4 of this Pulse.

Finally, on page 6, there is an opportunity for winning a free registration for the next World Conference!

Warmest Regards,

**Soma Chakrabarti, PhD**  
President, IACEE

# Fourth Industrial Revolution Requires Soft Skills Training

Dr. Patricia Caratozzolo Martelliti

Tec de Monterrey, Mexico



The [Future of Jobs 2016](#) report released by the [World Economic Forum](#) includes [a table of the skills](#) required by future professionals in order to face the challenge of the [Fourth Industrial Revolution](#). The report repeatedly uses the concept of skills stability to illustrate the degree to which, by the year 2020, particular occupations and job types are expected to require competence in new skills that have not before been part of that occupation's skill core set. Other skills have proven to be more relevant now than a few years ago with critical thinking, which was in fourth place in a 2015 assessment, occupying second place in the year 2020.

Although a majority of the engineering professional associations and employers explicitly emphasize the importance of this soft skill for

successful accomplishments of the tasks in future, teaching objectives dedicated to the development of critical thinking have barely been the center of attention in engineering curricula. That is why it has become so important to incorporate specific soft skill training plans in continuing education programs, also considering the particular characteristics of the new generations of engineers, which include *Millennials* and *Generation Z*.

Two fundamental factors must be considered in addition to the design of the new cognitive and metacognitive tools in order to achieve the full development of critical thinking in younger generations:

- the strong consolidation of social networks that meant an unexpected difference in the way recent graduates see the world, think of private and public matters and become aware of themselves, and
- The exponential development of technological platforms that became accessible to them and creates a great difference between how they develop their cognitive abilities in contrast to other generations.

Bearing in mind the above considerations, the need to develop those teaching-learning methods and strategies that prepare engineers as *critical thinkers* in the world is evident. The strength, responsibility and influence of engineers is now more important than ever, so their continuing training is crucial not only in professional skills but in all the skills and competencies for personal and social development.

## IACEE New Members' Corner

IACEE offers both Individual and Institutional Memberships. Spread the word!  
Please join us in welcoming our newest member to IACEE:

Mr. Emil de Villiers, Optima Ratio, South Africa

## 30 Years with IACEE: A Narrative

*Dr. Alfredo Soeiro, Past IACEE President, Council Member and 2016 World Conference Chair  
Universidade do Porto, Portugal*

I was a fortunate person to be able to participate in the IACEE World Conference in Beijing in May 1989. During the conference, the association formed in a ceremony at the Friendship Hotel. Many coincidences contributed to my participation. I was a Fulbright doctoral student at the University of Florida (UF) in the autumn semester of 1988 and had read the announcement of the conference on the student journal, The Alligator. At the time, I was participating in a graduate course in the Education College about Higher Education Management. My term paper addressed Continuing Education in Portugal using available documents and input from several professors, especially Professor Novais Barbosa. At UF, I mentioned the conference to the professor of the course, Albert Smith III. He suggested that we co-author the paper and that I should present it in that specialized conference about 6 months later.

Bear in mind that there was no public internet at the time, but the postal mail worked well. After all, I had no funds to travel and attend the event. By chance, there was another Portuguese student at UF, who was the son of the Portuguese ambassador at the UN. He knew there was grant funding available from the Fundacao Oriente of Macau to promote Portuguese - Chinese cooperation. So, I applied for the travel grant and I obtained it. The student conference fee was low and I paid it myself. I arrived in Beijing on Monday, 15 May 1989. The host, [China Association of Continuing Engineering Education](#), treated attendees in a very hospitable manner and there was a bus waiting for the conference participants. The bus travel was very different from today with a winding trip through a two-lane road with green landscape on both sides. The hotel registration and conference formalities were simple and quick. The

big day was Wednesday with the opening of the conference. I knew almost nothing about the conference theme, the people attending or about Beijing or China.

However, it was a great experience and a life-changer for me. There were about 500 participants with about half Chinese and the other foreigners. The inaugural session was full of the attendees and the lively atmosphere was contagious. I understood better the attitude of participants after I attended the conference: CEE (Continuing Engineering Education) is a challenging and valuable theme for an engineer and a professor like me.



**Glenn Martin and Markku Markkula sign the IACEE Charter on 17 May 1989.**

The signing of the IACEE statutes was an impressive ceremony with much enthusiasm from the first president, John Klus, and the first secretary-general, Markku Markkula.

I attended all possible sessions and presented my paper. Sessions were diverse and populated with about half of the papers from Chinese authors and

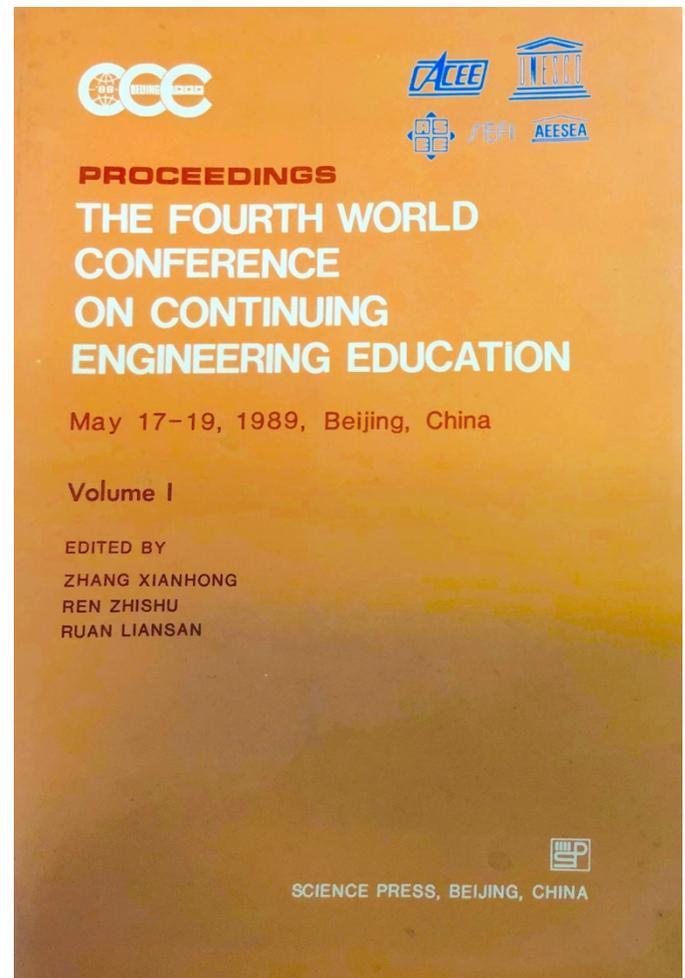
the other half from participants from the rest of the world.



**Dr. Alfredo Soeiro, with Professor Aquino, Rector of the University of San Agustin in the Philippines at the Fourth World Conference on Continuing Engineering Education**

After consulting the proceedings of the Fourth World Conference on Continuing Engineering Education, edited by Zhang Xianhong, Ren Zhishu and Ruan Liansan of Science Press, China, ISBN 7-03-001381-6/G.115, it is incredible to notice that how some of the topics are still actual and relevant. The Chairman of the conference was Yang Jun. The proceedings, 2 volumes, have a total of 1144 pages, from 34 countries and a total of 198 papers. These papers were classified in nine categories and subdivided in 28 themes. The categories were: Opening Lectures (2), Motivation and Needs for CEE, Role of Different Organizations (universities, enterprises, professional societies) in CEE, CEE for

Specific Purpose (computer application, technology transfer, management; higher degrees and position/promotion, fostering creative thoughts, etc.), CEE Delivery (through audio and video media, satellite, computer-aided instruction, etc.), CEE Management, Policy for CEE, Survey and Findings for CEE, Approaches to CEE from Around the World and Future Developments for CEE. All published papers had the abstracts reviewed by peers and had similar format but with different font styles. Remember, Microsoft Word and similar text software programs did not exist in those days. Nevertheless, all articles had a photo (black and white) of the main author and a short CV. This allowed any participant to address authors that met their interest or curiosity. I confess I have missed these details in the last WCCEEs.



My presentation was included in Approaches to CEE around the world between pages 951 and 956. It is interesting to recognize after all these years compagnons de route like Vincenzo Pozzolo (*that organized the WCCEE in Torino, 1998*), Gilbert Frade (*my opponent when I won the IACEE presidency in 2001*), John Lorrigan and Leizer Lerner (*later members of IACEE Council*), John Klus (*1st president of IACEE*), Giuliano Augusti (*founder of EUR-ACE label and very close friend*), Alan Knox (author of the book on associations of Adult Education), Clement Imbert (*member of IACEE Council*), Gabriel Pecero (*UNAM later member of IACEE*) and Chan Bangfeng (*my friend and roommate in Ivalo, Finland during the 5th WCCEE*). This trip down memory lane only reiterates that CEE provides not only professional development but personal memories that last forever.

I skipped the conference to take advantage of the social program on Thursday, 18 May. Among the touristic benefits of this program, which included a visit to the Summer Palace and the Temple of Heaven, I had the chance of knowing personally Don Schram and Glenn Martin. Glenn offered me a

pen of CH2M HILL when we were visiting the Summer Palace that was also a pointer and that I used for many years. Don Schramm, who was already involved in Disaster Management, visited me at the University of Porto to promote the cooperation about a master's program that was mentioned in that conference. I also had the privilege of writing the preface of a book written by Chan Bangfeng about the CEE at the Three Gorges Dam construction. It was a conference with plenty of contributions from around the world, and the interaction with other professors, engineers and researchers motivated me to embrace this new subject. I cherish the memories of that innovative and transformational spirit very much, the hospitality of the Chinese and the persons I met and learned to admire later people like John Klus and Markku Markkula. This conference was a life-changer for me and, as a consequence, I have dedicated a considerable part of my personal and professional life to the CEE theme. I am proud of being present in 1989 and having witnessed the signing of the statutes. I am looking forward to the next 30 years of IACEE!

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## Conference for Industry and Education Collaboration



Join colleagues in New Orleans for the **Conference for Industry and Education Collaboration** on Jan 30 - Feb 1, 2019. Four ASEE Divisions (Cooperative and Experiential Education CEED); College Industry Partnership (CIPD); Continuing Professional Development (CPDD); and Engineering Technology (ETD) work together to create a conference that best meets the needs of their members and provides interaction and networking opportunities for conference participants.

The conference will be held at the historic Hotel Monteleone in the heart of the French Quarter. Visit <https://www.asee.org/ciec2019> for

registration and lodging information. **The IACEE Executive Committee Meeting will be held 9:30AM – 5:30 PM on Friday, February 1, 2019.**

## Save the Dates – IACEE 2020

Would you like to participate in a committee that will be planning for the conference? Please [contact Ragna Ann Berge](#) and express your interest,



**TRONDHEIM, NORWAY**  
**26 - 29 MAY 2020**



## Win a Free Registration for the World Conference

### Competition to Propose a Title Theme:

Propose a sentence or a phrase that would depict the theme of the conference around the words sustainability and innovation, and send it to the conference general chair [Ragna Ann Berge](#) within 15 February 2019. All IACEE members are invited to participate in this competition to propose the theme title. The winner will receive a free registration for the conference. The winner will be responsible for paying his/her own travel costs.

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