Expanding the Boundaries of Engineering Education, Calling for More Youth and Women Participation

Irina Bokova Gives an Address to the 2022 Academic Forum on Engineering Education and Engineering Culture

[Editor’s Note] In order to actively promote the realization of the UN SDGs and vigorously promote engineering education to support sustainable development, Tsinghua University hosted the 2022 Academic Forum on Engineering Education and Engineering Culture on March 1-2, on the occasion of the third “World Engineering Day”. Irina Bokova, former Director-General of UNESCO, attended the Forum and delivered a speech. Irina Bokova spoke highly of ICEE’s remarkable achievements since its establishment. In her speech, she mentioned that UNESCO ICEE is a fruitful organization that has made great progress in capacity building, education and training, and actively shares China’s experience in engineering to jointly promote the development of global engineering education. ICEE follows an innovation-driven strategy, and through mutual cooperation among universities, it has not only successfully promoted international exchange and cooperation in engineering education and the development of global engineering education, but also provided a good advisory and educational role for other parties. In addition, ICEE also exerts a good influence on other UNESCO organizations and shows its potential in the process of cooperating with other international organizations. The following is compiled from the speech.
Irina Bokova delivered a speech.

Engineering education reform and sustainable development, as well as the call for youth and women to participate in engineering education, are essential to achieving the UN 2030 Sustainable Development Goals. I am very happy that the Forum is being held at Tsinghua University. Today, I can think of no university better than Tsinghua University to call on the young people and women to participate in engineering education. We can see that China is in a constant process of change, and engineering is one of the key engines that can constantly drive and facilitate the process of change. Now the COVID-19 pandemic is having a major impact on education around the world, including engineering education. We also see that equality in engineering education is an important topic, especially in the developing countries.

There are two things I’d like to emphasize at today’s forum. One is that we need to expand the boundaries of engineering education. This is a principle highlighted in the Global Engineering Report, which links engineering with other disciplines, including the arts. Meanwhile, science and technology should benefit our society in an ethical way. In my opinion, an effective education strategy must think deeply about people and about the methods that we need to use to influence the economic production mode with the application of new technologies. In such a context, we need to focus on the challenges that arise from the interconnectedness of the world, and we need to deepen our understanding of each other.

At the same time, I think what is relevant to today’s topic is engineering education reform and sustainable development, which are equally important for young people and women, and we need to call on them to get more involved. Based on my personal experience, I believe that engineering needs women, their special talents and abilities,
and more participation of young people in engineering education. This is a slogan advocated in the 2021 UNESCO Engineering Report. We need to do more to promote gender equality on this issue, because in the past and in different regions, there has been and there still is a large gender gap. Therefore, I think we need to explore a lot of topics in more depth in this process, and we need to bridge this gap, so that more women and female students can participate in this process. From the past until now, we have always hoped to identify the bottlenecks for women and youth participation in engineering education and try to remove the bottlenecks. Meanwhile, in order to engage more women and youth, the country needs to open the door, because that is what the next step of our scientific revolution must achieve, and that is also what our engineering education must achieve.

(Edited by: CHEN Huimin, Reviewed by: XU Lihui)