

CAETS Engineering Education ---

# Global Engineering Education Conference,... Post Pandemics....

Proposal for a Global Engineering Education Conference

(report to CAETS Council Meeting, Oct. 15, 2020), and

Minutes for the Engineering Education Working Group, Oct. 7, 2020

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# A Tentative Action Plan, drawn at Stockholm

- Establish an effective communication channel for further discussion
- Forming a small working group to re-iterate and then converge ideas
- To prepare a document for discussion within the group
- Possibly, to bring such a good working document into the Seoul Meeting next year, when we shall seek broader consultation, and hopefully to form a CAETS statement for Engineering Education

**Not much progress was made given the Covid-19 Pandemic,  
but now we see an opportunity to achieve all listed about**

**More importantly, address the emerging needs and new challenges  
with engineering education, post pandemic**

# Challenges and Opportunities (2020)

- Covid-19 Pandemic “fast-tracked” on-line education, which may be long overdue
- Opportunity to “release” the huge potential of virtual learning
- How to address hand-on experience for engineering education
- How to educate the younger generation of soon-to-be-engineers growing up with i-pad
- What is the essence of engineering education, what are the “must”, calling for re-thinking and re-shaping
- Challenges lead to opportunities, CAETS in an excellent position to take a world lead

# Plan and Action Steps (3~4 months)

- Education Group / CAE is proposing to host such a conference around Feb-March 2021 (Canadian Academy of Engineering)
- CAETS is invited to co-sponsor the conference
- Western University co-host the event, to provide logistics (Canada)
  
- Open invitation to sister academies to co-organize (initial response at the Oct. 7 meeting was very positive.
- Form a scientific committee, define/refine and develop the program, right after CAETS 2020

# Considerations – Suggested topics

- Dynamic changes in Engineering education will happen / is happening
- Engineering Education may be more broadly defined and becoming more diversified, not just narrowly focused on the university-level programs
- The demand side (employer perspective) will be driving more for changes
- The diversified needs for new generation of engineers
- The impact of technology (virtual experimentation, etc.)
- Customized / personalized learning
- Life-long learning – how does it fit into engineering education?

**There is an excellent opportunity**

# Considerations – Organization

- Unconventional way to organize the conference, more along with and taking advantage of the on-line format
- Spreading conference over 2-3 weeks,
- Individual sessions of unique topics proposed and organized by member Academics, coordinated by CAE/CAETS
- Innovative method of delivering speeches, plus panel discussion
- Main plenaries organized by CAE/CAETS

**All sister academies are invited to participate**

**Next meeting, Oct. 21, 2020**