

CAETS Board Action 2020-01: Authorization to establish COVID-19 Special Committee

Reference: NAEK Proposal dated 10 July 2020

Member	Position	Concur	Date	Source	Comments
Oh-Kyong Kwon	President	Yes	7/10/20	shk@naek.or.kr	Proposal Sponsor
Manuel Solanet	President-Elect	Yes	7/16/20	msolanet@infupa.com	"...our Academy will be able to collaborate in its activity"
Tuula Teeri	Past-President	Yes	7/20/20	Elin.elliott@iva.se	"IVA supports...and look forward to contributing."
Ruth David	Secretary/Treasurer	Yes	7/16/20	Ruth David	
Hugh Bradlow	Director (2019-2020)	Yes	7/17/20	Hugh.Bradlow@atse.org.au	"...agrees with the proposal..."
Xiaohong LI	Director (2019-2020)	Yes	7/20/20	rht@cae.cn	"...agrees with the proposal..."
Panu Nykanen	Director (2019-2020)	Yes	7/17/20	Panu.nykanen@taf.fi	"...willing to participate in the work of the committee if needed."
Sanak Mishra	Director (2019-2020)	Yes	7/17/20	Mishra.sanak@gmail.com	INAE Participant nomination: Dr. Amit Agrawal – Fellow, INAE Professor, Department of Mechanical Engr. Indian Institute of Technology Bombay Email: aagraval.iitb@gmail.com
Hideaki Koizumi	Director (2020-2021)	Yes	7/19/20	Hkoizumi1005@gmail.com	"EAJ would like to collaborate with this CAETS special committee."
David Thomlinson	Director (2020-2021)	Yes	7/17/20	davidcthomlinson@gmail.com	"We would also very much like to actively participate in the committee...I believe the key focus should be on the future rather than issues of immediacy (e.g. PPE). How can the contribution across the CAETS network differentiate and really add value? In particular focus on the contribution of engineering to ensure preparedness and resilience against future pandemics."
Jose Albarran	Director (2020-2021)				
Peter Mascher	Director (2020-2021)	Yes	7/19/20	mascher@mcmaster.ca	"Please let me know if you would like to have CAE (Canadian Academy of Engineering) representation on the Committee."

Proposal Draft

July 10, 2020

COVID-19 Special Committee

Project Proposal

Project Title: Lessons Learned from COVID-19 and Future Direction on Engineering Innovation

Estimated start date: July 20, 2020

Period: Approx. 2 years

OVERVIEW

The global COVID-19 epidemic has created a major crisis in the health and economy of the world. Due to its prevention of national epidemic at the early stage and excellent technology and manufacturing infrastructure, Korea has been recognized as a role model of crisis response in the world.

In order to realize 'a better world' by engineering, which is also the slogan of CAETS, it is essential to have strong and concrete health technology, biotechnology, and ICT technology. Therefore, NAEK, as a host of CAETS 2020, would like to prepare a cornerstone for future.

To do so, NAEK would like to collaborate with prominent members from national academy of medicine of Korea (NAMOK) and International Council of Academies of Engineering and Technological Sciences (CAETS).

Internally, we'd like to figure out the alternative solutions to settle back into a safe and healthy society from an engineering point of view and propose a governmental policy. Globally, both internal and external committee members are expected to have conferences together via email or online platforms and announce the statement or interim result at the CAETS 2020 council meeting in October 15 this year, leading a consensus with experts around the world.

MEMBERS (NAEK Internal Committee)

- Yunhee Choi(Chairman)
Senior Research Fellow, Korea Institute for Industrial Economics & Trade
- Byung-Gun Lee
CEO, SCM Lifescience
- Gyu-Seong Lee
Vice President, Samsung Biologics
- Sung-Hoon Kwon
Professor, Seoul National University
- Sang-Yup Lee
Professor, Korea Advanced Institute of Science and Technology (KAIST)
- Dong-Soo Kwon
Professor, Korea Advanced Institute of Science and Technology (KAIST)
- Byungjoo Park
Vice President, National Academy of Medicine of Korea (NAMOK)
- Kyung Sun
Professor, Korea University College of Medicine
- Myungdon Oh
Chairman, Central Committee for Infectious Diseases
- Dongsoo Han
Professor, Korea Advanced Institute of Science and Technology (KAIST)

MEMBERS (Other CAETS Members)

- Any voluntary members who'd like to share their insights on the given topics are welcome to be a member of the *COVID-19 Special Committee*.

OBJECTIVES

1. Prepare the statement or the interim result to be presented at CAETS 2020 council meeting
2. Determine future direction through collaborative research with experts around the world
3. Discover the core agenda and suggest technical and policy alternatives

TIMELINE

1. Analyze what new/promising engineering technologies have emerged since COVID-19 (August)
2. Identify technologies that have had an impact on the general public (economy, society, politics, industry, life, education, etc.) (September)
 - Analysis of the positive and negative aspects caused by the identified technologies

- Analysis of current medical devices, hospital/medical systems, and diagnostic treatment systems
3. Suggest engineering solutions to new challenges (October)
 - Proposal for improvement from an engineering point of view on the problems of current medical devices, hospital/medical systems, and diagnostic treatment systems
 4. Identify future prospects of coronavirus's second wave or post-corona from the engineering point of view (November)
 5. Make a presentation of the engineering skills necessary to cope with the second wave of coronavirus (December)
 6. Submit a proposal of institutional improvement in the industrialization and commercialization of engineering technology in the medical field (January)
 7. Further agendas will be decided later