APEC Mentoring Center for the Gifted in Science (AMGS)

Workshop on Innovation and Cooperation of APEC Centers and Long-term Mechanisms Session 2_Nov 4, 2019









To build and operate Mentor-Mentee network bet ween scientist, science education professionals and student researchers of APEC Economies



by providing continuous opportunities for joint research activities

1. 18-19 APEC Cross Mentoring Research Activity

Duration

September 2018 ~ May 2019 (for 7 months)

Application

1st stage – 142 mentees 6 economies 2nd stage – 86 mentees 6 economies

Research Mentor 1st stage

- 10 mentors 6 economies
- Biology, Physics, Chemistry, Engineering

2nd stage

- 10 mentors 5 economies
- Aeronautical Engineering, Biochemistry, Chemical Engineering, Electronic Engineering, Material Engineering, Environmental Engineering

Accepting application (AMGS webpage & Email)	Sep 7 ~ Oct 14 2018
↓	
1 st stage (6 weeks) – Basic course	Oct 21 ~ Dec 28 2018
↓	
Selecting mentees for 2 nd stage mentoring & Arranging Mentor-Mentee team	Dec 29 2018 ~ Jan 17 2019
↓	
2 nd stage (12-15 weeks) (12~15 weeks)	Jan 18 ~ Apr 17 2019
↓	
Submitting the research result to APEC Youth Scientist Journal	Jul 2019

2nd stage mentor and the Research topic

	Name	Economy	Research Topic	Mentee	
	Dr. Jimmy K.Y. Wong	Hongkong, China	Invention of machines or tools in assisting the daily lives of physically disabled or elderly people	5	
	Prof. Yeong Rae HA	Korea	Vitamin D and Health Influence	5	
	Prof. Ashwani K. Gupta	USA	Renewable Green Energy	5	
*	Prof. Geun-hie, RIM	Korea	Environmental Friendly Vehicles	5	
*	Dr. Michelle M. Barbon	The Philippines	Application of Bioinformatics with Morphological and Molecular Area	4	
	Prof. Yun Hin Taufiq-Yap	Malaysia	Biofuels, Biomass & Wastes	3	
	Prof. Somrat Kerdsuwan	Thailand	Waste to Energy in Asia Mega City	4	
	Prof. Hoang Anh	Vietnam	Solar PV systems: design and assessment	5	
	Prof. Dae-Hwan PARK	Korea	Nanochemistry and Nanomaterials for Biomedical Science	7	
	Dr. Hakjin LEE	Korea	Fundamental Aerodynamics and Wind Turbine System	6	

Overall Schedule of APEC CMRA 19-20

Announcement
Oct 21 – Nov 17 2019

1st stage of CMRA Nov 18 – Dec 22 2019 Mentee Selection
Dec 23 2019 –
Jan 17 2020

2nd stage of CMRA Jan 20 – Apr 26 2020

Submitting the Result
Jul 2020

- Domestic: Official letter from MSIT to all High schools
- Member economy: Announcement by Program Director
- Other Organization: Letter from AMGS

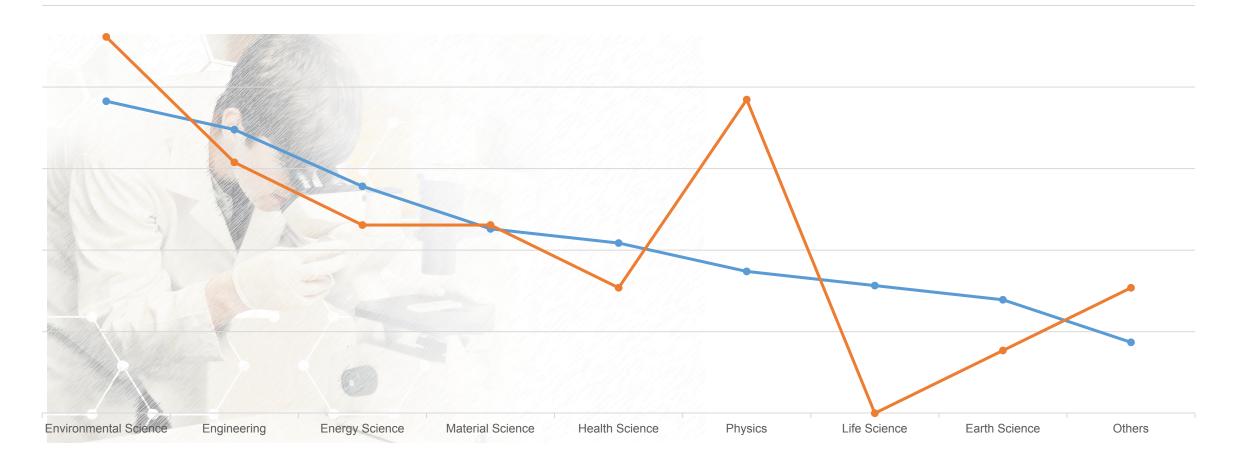
- Duration: 4 weeks
- Mentee: High school students
 - 1st stage:
 Online Education
 contents on the web
 (8 lectures)

- Selection process: Top 40% of performance score
- Passed mentees choose the mentor based on Mentor's syllabus and submit the self-introduction and essay.
- 2nd stage mentors choose the mentees working together

- Duration: 12-15 weeks
- Mentee: <u>8-10</u> mentors in the region
- Online communication, research guide, assignment, research paper

- Due date: In 1 Month
- Final result:
 Submission to AYSJ
 By June 2020

Expanding Research Fields



2. 7th APEC Conference for Future Scientist



Date/ Venue: April or May 2020 (4 nights 5 days)/ Semarang, Indonesia

Participants: Mentors and Mentees in 17-18, 18-19 programs and recommended student researcher teams and the mentors

	Mentee	Mentor	
Day 1	- Special Lecture/ Opening - Mentee Conference (Poster presentation)		
Day 2	- Mentor symposium - Team project	-Mentor Conference	
Day 3	-Lecture & Lab (Maker's room) - Team project	-Workshop on the gift ed	
Day 4	-Presentation Best-Poster -Communication with Alumni -Team project		
Day 5	- Team Project Presentation -Closing		





3 Steps of Research Process

1st Step -CMRA (Online)

Check-out

2nd Step APEC Conference
For Future Scientist
(Offline)

Check-out

3rd Step -Journal Publication

Target participants

Mentors and Mentees
Of CMRA

Teen researchers in APEC with recommendation

Scientists, researchers, and educators

Previous Event





Poster Presentation



Team Project Presentation



Team Project



Mentor Workshop



Team Project



For more mentors in various research topics

Broaden the pool of Expert collaboration

Federation of Science &

Technology Societies

Scientists and Engineers Without Borders APEC PPSTI Centers

APEC PPSTI Long-term mechanisms





Professionals

From APEC Centers & projects

7th APEC Conference for Future Scientist

Topic Idea

With APEC related-issue

Network

For Future Scientists

Collaboration

With other experts

Professionals
From
APEC-PPSTI
Centers &
projects



Joint Research with Issues in APEC

Theme of the Year Related to APEC/ Global Issue

Teacher-Student team 1~2 team of each economies

Mentees involved more to the global issue

1mproving the outcome & more collaboration

Thank you 감사합니다



