SCIENCE DIPLOMACY IN THE ASIA-PACIFIC: INTERNATIONAL ENVIRONMENTAL CHEMISTRY

Katie Purvis-Roberts
Claremont McKenna, Pitzer, & Scripps Colleges
“Given the relevance of international exposures to the current trend in globalization and the limited exposure to international peers majoring in chemistry, chemistry degree programs should be structured to facilitate the development of international competencies in their students.”

— American Chemical Society, Committee of Professional Training
2016-2017 JEFFERSON SCIENCE FELLOWS WITH DEPUTY SECRETARY OF STATE ANTHONY BLINKEN
FOREIGN AFFAIRS OFFICER
(ENERGY, SCIENCE, AND TECHNOLOGY)

Energy

Science & Technology

Science Envoys/Embassy Fellows

Women in STEM

Asia Pacific Economic Cooperation (APEC):
- Policy Partnership on Women & the Economy
- Energy Working Group
- Mining Task Force
- Policy Partnership on Science, Technology & Innovation
- Automotive Dialogue
- Chemical Dialogue
APEC’s Significance

- **Population**
  - World: 6.8 billion
  - APEC: 2.7 billion

- **Trade**
  - World: US$38 trillion
  - APEC: US$17 trillion

- **GDP**
  - World: US$58 trillion
  - APEC: US$32 trillion

Source: StatsAPEC, Key Indicators Database.
ENERGY WORKING GROUP

Expert Group on Energy Efficiency
Expert Group on Renewable Energy
Energy Working Group

Life-cycle Cost Analysis of Clean Energy in Kuala Lumpur, Malaysia (October 2017)

University Consortium to work on Energy Efficiency and Renewable Energy
COLLABORATION BETWEEN UNIVERSITI KEBANGSAAN MALAYSIA AND THE CLAREMONT COLLEGES

- Philosophy, Policy, and Issues in Energy (UKM)
- Environmental Chemistry (Claremont)
- Students work collaboratively on clean energy projects comparing Malaysia and the U.S.
  - Smart Cities
  - Renewable Energy
  - Ethanol Blending in Gasoline
  - Energy, Environment, & Economics for Industry 4.0
  - Climate Change & Development

- Communication
  - Skype, e-mail, Google docs
  - Challenging
SYMPOSIUM AT UNIVERSITI KEBANGSAAN MALAYSIA: MAY 15-18, 2018
CLAREMONT STUDENT TALKS AT SYMPOSIUM

- Environmental Impact from Renewable Energy Technologies Systems
- Environmental benefits for blending ethanol into gasoline for Kuala Lumpur and Los Angeles
- Energy, Environment, and Economic Forecast Towards Industry 4.0
STUDENTS WORK ON PAPERS TOGETHER
ENVIRONMENTAL FIELD TRIPS
CULTURAL LEARNING
FALL 2018

- Classes taught at the same time
  - Tuesday at 7 pm in Claremont
  - Wednesday at 10 am in Selangor and Quezon City
- Lecture for each other’s courses
- Students collaborate on research projects together
FUTURE PLANS

- In future hope to work on projects needed by the APEC Energy Working Group
- Develop a network of Universities in APEC economies who collaborate on courses
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Claremont Colleges
Students in CHEM139: Environmental Chemistry

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Professor Mili-Ann Tamayao
Future students in IE 298: Introduction to Life-Cycle Analysis

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