

# PAASE SETS EYES ON BROADLY RESILIENT PHILIPPINES

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**4**0th APAMS Webinars were held from July 20 to August 14, 2020, everyday, from Monday to Friday, at 8:00-10:30 am PH time.

The Philippine-American Academy of Science & Engineering (PAASE) concluded on August 14, 2020 its month-long 40th anniversary virtual conference. The scientific sessions featured the country's top experts and scientists of Filipino descent from many parts of the globe.

PAASE, founded in 1980 in the United States, is a non-profit organization composed of scientists and engineers who have distinguished themselves in scholarship and research. Many members have been elected in the most prestigious and exclusive scientific and engineering academies in the United States and the Philippines.

PAASE aims to promote the advancement of science, engineering & technology in the country, and encourage collaborative work among scientists & engineers in research and development through scholarly and scientific endeavors. It also supports efforts that advance science & technology, and recognize and honor the achievements of scientists and

engineers of Philippine descent. In the last several decades, many of its foreign-based members have engaged in collaborative work with their Philippine-based counterparts as Balik-Scientists as visiting professors or researchers.

At the onset of COVID-19, PAASE members vigorously engaged in efforts to help the government and communities by assessing scientific developments, sharing critical knowledge through webinars, expressing opinions and positions, offering advice, and taking actions based on data. Seventeen (17) bulletins were prepared on a variety of concerns such as containment & mitigation (immediate to long term), triage & treatment, mass testing & fast-tracking, and education which PAASE member and former NEDA Secretary Ernesto M. Pernia shared with the Philippine government's COVID-19 Inter Agency Task Force (IATF).

## 40th APAMS

PAASE celebrated its 40th Anniversary with a record-setting month-long conference called APAMS (Annual PAASE Meeting and Symposium), aptly themed "PAASE: Agham at Kaalaman Para Sa Bayan." The COVID-19 pandemic did not deter the officers and members under the leadership of its President Dr. Gisela P. Concepcion from successfully pushing through with daily parallel sessions and intermittent plenary sessions. A total of 30 parallel and 6 plenary sessions plus 8 group discussions featured talks on various aspects of science and engineering, many of the topics focusing on the current COVID-19 pandemic and public health, the need for

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communicating science to the wider community, collaboration among scientists, and the relevance and relationship of PAASE, science and scientists to industry and national development. In addition, a rapid fire competition of research poster presentations was conducted to engage young and emerging scientists from universities and research institutes. The poster presentations featured contributions of young scientists in the fields of Ecology and Marine Science, Plant Science and Agriculture, Material Science and Technology, and in Disease, Medicine and Pharmaceutical Science.

### **PAASE's moves towards a FIRE(4IR)-ready and resilient Philippines**

Another significant offshoot of PAASE's month-long conference are the resolutions and recommendations aimed at helping the Philippines become ready for the Fourth Industrial Revolution (Industry 4.0) nicknamed FIRE or 4IR. The resolutions were formulated based on discussions via zoom among the members and were just submitted to the Department of Science and Technology (DOST) and the National Academy of Science & Technology (NAST).

Industry 4.0 features a fusion of technologies that blur the boundaries among the world's physical, digital, and biological spheres. It is expected to run on cyber-physical systems, best exemplified by the now ever-increasing focus on artificial intelligence, robotics, big data and data science, nanotechnology, 3D-printing, and synthetic biology.

Among the resolutions, the most notable recommendations include coordination and harmonization of Regional Innovative Industrial Centers with the country's numerous economic zones, including the personnel in those zones; the grant of incentives in the conduct of industrial R&D by both global and domestic corporations in cooperation with DOST, CHED and PAASE; the inclusion of clinical research especially on the aspect of clinical trials and vaccine manufacturing; linking the Philippines' entrepreneurs especially their startup incubators to access global investments; and legislative actions that will ensure continuity of various integrative programs initiated by DTI and DOST, especially those related to the strengthening of the Philippines' S&T innovation ecosystems.

Another set of recommendations focused on streamlining the process of review, evaluation and monitoring of scientific research proposals and the development of an enabling environment or ecosystem that links S&T incubators and R&D centers. Such an enabling environment allots a bigger share of DOST's R&D budget to basic research to ensure a steady supply of scientific discoveries. This would then support technological development and applications, thereby encouraging the participation of both young scientists and the more experienced local and expatriate scientists to raise scientific productivity.

Overall, PAASE members favor refining ongoing projects and crafting new project proposals for our country's COVID-19 response that will also increase the country's resilience to future pandemics, disasters, and other unexpected events.