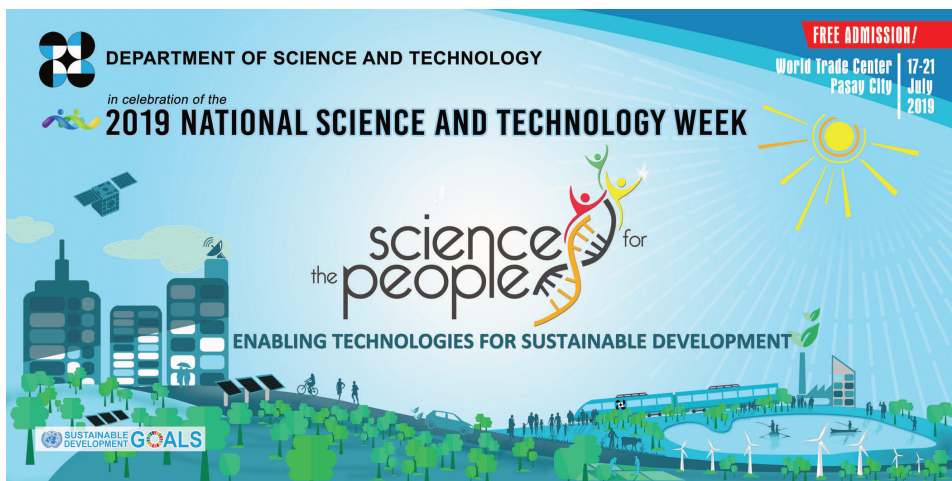




12 years of bringing
S&T good news

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2019 NSTW focuses on S&T's role in attaining sustainable dev't goals

By **RAYMOND O. TORRES**, DOST-TAPI

To celebrate the breakthroughs in science and technology (S&T) in the Philippines, the Department of Science and Technology (DOST) will hold the 2019 National Science and Technology Week (NSTW) on 17-21 July 2019 at the World Trade Center, Pasay City.

Through Proclamation No. 169 of 1993, the NSTW is celebrated every third week of July to highlight the significant contributions of S&T to national development.

Moreover, the celebration has become a platform for heralding S&T advocacy in the country.

DOST Secretary Fortunato T. de la Peña said that the NSTW celebration “has the noble intention of harnessing the power of innovative technological ideas and concepts to power the Philippines toward new, boundless opportunities to solve longstanding societal problems.”

This year's theme, “Science for the People: Enabling Technologies for Sustainable Development,” underpins the event's showcase on the latest innovations in technologies, products, and research that can help achieve the 17 Sustainable Development Goals (SDGs).

Dotting the venue will be interactive exhibits that are free for public viewing. DOST agencies and partners, including the local S&T

community, put on showcase current innovative knowledge products and services addressing the 17 SDGs.

Said products and services are in the areas of food security, energy and environment, aging society, health and medical care, S&T human resource development, equity and growth in the countryside, biodiversity and sustainable use of biological resources, sustainable cities and communities, resilience and innovation, and international linkages.

Moreover, the NSTW is the perfect venue for the science community and science enthusiasts, particularly the technology developers and investors, including the S&T service providers and clients, to interact, exchange ideas, and pursue potential opportunities in technology commercialization and linkages.

Included in the NSTW celebration are the recognition of individuals in the science community who have shown great endeavors in basic and applied research, and technology transfer, promotion, and commercialization.

Also, scientific meetings, technical and investment forums, technology demonstrations, and technical tours are lined up as part of this year's NSTW.

Admission is free and exhibits are open to the public from 8:00 AM to 5:00 PM.

Talk & Techs Roadshow joins 2019 RICE in Cebu

By **Mikaela Amihan S. Arrosa**, DOST-TAPI

Technology Innovation for Commercialization (TECHNICOM) program held an orientation during the Central Visayas Regional Invention Contest and Exhibits (RICE) and Innovation Forums on 14 June 2019 at the Waterfront Hotel and Casino, Cebu City.

The orientation is part of the program's nationwide promotional activity dubbed as Talk & Techs: A TECHNICOM Program Roadshow.

TECHNICOM is one of the premier programs of the Technology Application and Promotion Institute of the Department of Science and Technology (DOST-TAPI). It fast-tracks the commercialization of technologies through financial grants and technical consultancy.

During the orientation, DOST Provincial Science and Technology Center (PSTC)-Cebu Director Engr. Tristan L. Abando emphasized the importance of the triple helix of academe-industry-government relationships in innovation.

“Commercialization is a really difficult path to pursue for researchers, that is why we are [receiving] an orientation for the TECHNICOM [group] to help us assure [a] market for our research,” said Abando.

The event discussed the details in the guidelines and processes for approval of grants including useful insights proposal preparation and evaluation.

“We want to widen our reach and extend better assistance in Visayas and Mindanao,” said Matthew Bryan P. Villanueva, Science Research Specialist II of DOST-TAPI.

The Talk & Techs Roadshow was attended by representatives from at least 15 state universities and colleges, higher education institutions, and technology business incubators in the region.

The next roadshow is scheduled in August in Mindanao.

For more information, contact TECHNICOM at 837-2071 local 2157, email tapitechnicom@gmail.com or visit the TECHNICOM Facebook page @TeKnowLohiya.

Pisay boot camp trains educators on teaching and learning innovations

By Sheila Marie Anne J. de Luna, DOST-STII

Selectd secondary school teachers from the National Capital Region (NCR) and Southern Luzon, including participants from the Bicol Region, participated in a four-day boot camp that trained them on innovations in teaching STEM or science, technology, engineering, and mathematics.

The boot camp, dubbed as #TALINO, which stands for Teaching and Learning Innovations, was hosted by the Philippine Science High School System (PSHSS) or Pisay, and was held 20-24 June 2019 at the Pisay main campus in Quezon City.

The boot camp was a product of a 2018 training of 144 educators from the Philippines at the Nanyang Polytechnic International in Singapore. The training program at Nanyang was called Innovations in Teaching and Learning STEM. The said training was done in partnership with Temasek Foundation, and in cooperation with the Department of Education (DepEd) and the Department of Science and Technology (DOST).

As part of the Filipino teachers' commitment, they were expected to pass on what they learned in the training in Nanyang to other educators and find ways to improve teaching and learning in their own institutions.

Pisay Executive Director Lilia T. Habacon called on those who attended the training program in Nanyang to consolidate their efforts and design the TALINO program.

"The objective of TALINO boot camp is to reach out to more public school teachers in the country and cascade to them the latest breakthroughs and innovations in science, technology, engineering, and mathematics or STEM education," said Dir. Habacon.

The Pisay director added that it is their aim at Pisay, not only to increase the number of STEM professionals in the country, but also to enhance their capabilities and be at par with global standards.

At the boot camp, Pisay administrators and teachers transferred their knowledge to the teacher participants. Through the TALINO boot camp, the trained educators from Nanyang and the organizers hope that the participants will also be able to share their learning to other teachers in their areas and in their own classrooms.

Dir. Habacon also encouraged the teacher participants to craft ways on how to implement strategic policies and sustainable methods in teaching STEM to their students.

"Let us offer not only our time and expertise but also our experience in improving STEM education in the country," she said.



Left photo: Philippine Science High School System Executive Director Lilia T. Habacon calls on the teacher participants to share their learnings to other teachers in their areas. *Right photo:* Henry Heng, CEO of Nanyang Polytechnic International encourages Filipino teachers to explore academe-industry partnerships. (Photos by Gerardo G. Palad, DOST-STII)

"The Filipino youth, the future leaders of this country deserve a premier education that will harness them to their full potentials and soar at the same pace with the rest of the world," ended Dir. Habacon.

At the opening program of the boot camp, Henry Heng, the CEO of the Nanyang Polytechnic International, talked about academe-industry partnership and the importance of working with the industry sector in solving real-world problems.

"At Nanyang Polytechnic, STEM educators seek out industry problems, product challenges, and production issues which we bring back into the campus as projects for our young students to work on," said Heng.

He said that through such projects, their students at Nanyang are able to apply the theoretical concepts they have learned in mathematics, science, information technology, and engineering into solving problems and delivering real-world solutions back to the industry.

Heng also emphasized that such kind of collaboration with industries is something that Filipino educators should think about. He said that educators should be able to convince the industry sector that the academe can contribute to delivering real-world solutions to many industry problems.

"Educators like you and I have to be more than just educators. We should be able to work with industry and collaborate with them," stressed Heng.

Meanwhile, Gerald Yeo, programme director at Temasek Foundation expressed his happiness

with the fruits of the collaboration between the Philippines and Nanyang Polytechnic in what he called as a "sharing of innovations in teaching and learning."

Also invited during the opening program of the boot camp were Pisay's industry partners, Unilab and Maynilad, and representatives from government partners, the DOST and DepEd.

The boot camps run will run from 21 June to 8 July in four clusters, namely: Southern Luzon and NCR, Northern Luzon, Visayas, and Mindanao.

ABOUT US

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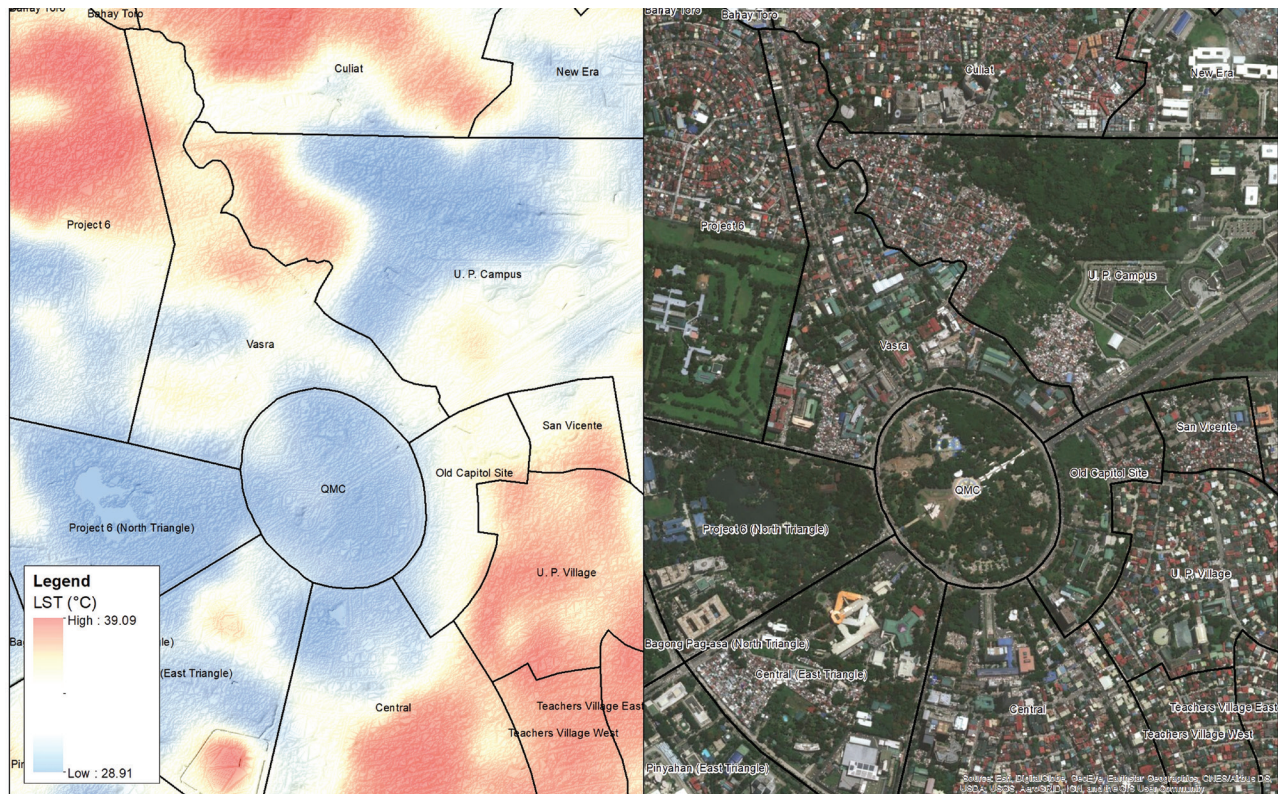
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DOST-PCIEERD, UP Diliman assess urban heat islands in the Philippines

By Raissa Jean C. Ancheta, DOST-PCIEERD



Land surface temperature map from the GUHeat Project showing that establishment-filled areas are hotter. (Photo from DOST-PCIEERD)

To find ways to mitigate the harmful effects of the rising temperatures in urban areas, the Department of Science and Technology (DOST), through the Philippine Council for Industry, Energy, and Emerging Technology Research and Development (PCIEERD), and the University of the Philippines-Training Center for Applied Geodesy and Photogrammetry are assessing the development of urban heat islands in rapidly urbanizing and highly urbanized cities in the Philippines using satellites and modeling-simulation techniques.

Dr. Ariel Blanco, project leader of Project GUHeat or “Geospatial Assessment and Modelling of Urban Heat Islands in Philippine Cities,” said they will harness the power of thermal images from satellites to help the government “minimize the warming of urban areas or urban heat islands (UHIs), and even reverse it to decrease electricity consumption and air pollution, reduce health risks and diseases that will result to greater livability of our cities.”

Project GUHeat will develop geographic information system-based methods and tools

to map, model, and characterize UHIs that are easy-to-use by local government units which can be accessed through a web-based GIS.

To date, they are studying and evaluating the land surface temperature of Quezon City, Baguio City, Cebu and Mandaue City, Iloilo City, Zamboanga City, and Davao City using satellite imageries in order to assess the effect of urban heat islands.

The project also aims to build and enhance the capacity of LGUs in incorporating thermal environment conditions in planning and development towards the attainment of UN Sustainable Development Goal (particularly Goal 11: Make cities inclusive, safe, resilient and sustainable).

“I’m happy to share that these local government units (LGUs) are very enthusiastic and supportive, and shall utilize the project outputs in revising plans and implement measures to reduce urban heat islands,” Blanco shared.

A city experiences an urban heat island effect when it has warmer temperatures than nearby rural areas. The materials used in the construction of buildings and establishments and the lack of trees and vegetation affect

the distribution and persistence of heat in a city. Warmer temperatures increase energy consumption, emissions of air pollutants and greenhouse gases, impair water quality, and compromise human health and comfort.

DOST-PCIEERD Deputy Executive Director and Officer-in-Charge Engr. Raul C. Sabularse expressed hope that the project will positively contribute towards climate change adaptation.

“It is imperative that local government units plan and strategize using the GIS-based maps and models that will be developed through Project GUHeat for the thermal comfort of Filipinos. We, at the DOST, will continue to support the project and eventually launch more space technology applications to lift,” Sabularse said.

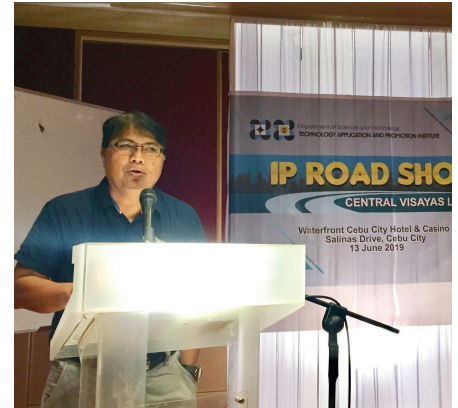
Dr. Blanco said they intend to use unmanned aerial systems that have thermal cameras to thoroughly map and determine the changes of land surface temperature over time. His team will also laser-scan the cities involved in their project to produce 3D models for simulation. Through simulation, they will be able to explore possible scenarios and be ready with urban-heat-mitigating measures.

IP before public disclosure – DOST

By Maricon R. Avila, DOST-TAPI
Photos from DOST-TAPI



Participants of the IP Roadshow in Cebu with DOST-TAPI and DOST-VII.



DOST-VII ARD Engr. Jesus Zamora, Jr. encourages IP protection during the opening ceremony.

Cebu City – The ninth Intellectual Property (IP) Roadshow organized by the Technology Application and Promotion Institute of the Department of Science and Technology (DOST-TAPI) held on 13 June 2019 at the Waterfront Hotel and Casino, Cebu City highlighted the significance of securing IP of technologies prior to dissemination.

The IP Roadshow is a series of events in support to the commercialization of 500 DOST-generated technologies which aims to strengthen the country's IP and technology portfolios nationwide.

DOST-VII Assistant Regional Director Jesus F. Zamora, Jr. urged the participants from research and development institutes and state universities and colleges to consider IP ownership as a priority.

Likewise, DOST-TAPI's Engr. Janeth C. Vidal and Engr. Richelle C. Malaay served as resource speakers and discussed the basic IP rights, DOST-TAPI's programs and services, and the revised Implementing Rules and Regulations of the Republic Act 10055 or the Philippine Technology Transfer Act of 2009.

Also discussed were the requirements for DOST-TAPI's Intellectual Property Rights

Assistance Program including the Invention Disclosure Form.

The activity coincided with the conduct of the 2019 Regional Invention Contest and Exhibits and the Regional Science and Technology Week in Central Visayas.

For the past six months, the IP Roadshow was conducted in Ilocos, Cordillera Administrative Region, Eastern Visayas, Bangsamoro Autonomous Region in Muslim Mindanao, Western Visayas, Caraga, Cagayan Valley, Zamboanga Peninsula, and Central Visayas.

The Cebu leg was in collaboration with DOST Region VII and was attended by 15 participants in Central Visayas.

inFocus

RSTW VENUE	DATES	RSTW VENUE	DATES	RSTW VENUE	DATES
REGION 3 Vista Mall, Balanga, Bataan	30 July – 01 Aug.	REGION 9 Zamboanga City	10 – 12 Sept	REGION 4B City Coliseum, Puerto Princesa City, Palawan	15 – 17 Oct
REGION 8 Robinson's Place, Tacloban City	09 – 11 Aug	REGION 1 Centennial Arena Laoag City	17 – 20 Sept	REGION 6 Iloilo Convention Center, Iloilo City	21 – 24 Oct
REGION 7 Capital Square Siquijor, Siquijor	15 – 17 Aug	REGION 4A Sta. Rosa Convention Center, Sta. Rosa, Laguna	24 – 27 Sept	REGION 11 SM Lanang, Davao City	28 - 30 Oct
REGION 12 Koronadal, South Cotabato	TBA	NCR Pasig City	02 – 04 Oct	REGION 10 Valencia City, Bukidnon	11 – 13 Nov
REGION 2 Cagayan State University, Tuguegarao City	27 – 30 Aug	REGION 5 Naga City	08 – 10 Oct	CAR Bontoc, Mt. Province	18 – 22 Nov
CARAGA Bayugan City, Agusan del Sur	03 – 05 Sept				

2019 RSTW SCHEDULES