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PH-TH to work together in 8 S&T areas

By **DENVI E. GABALES**, DOST-ITCU

As a way of moving forward, the Department of Science and Technology (DOST) and the Ministry of Science and Technology (MOST) of Thailand agreed to work together in eight areas. Said areas include medical science, food processing, innovative agriculture, electronics and computer, nanotechnology, space technology, innovative start-up, and metrology.

The collaboration was fleshed out when DOST Secretary Fortunato T. de la Peña, along with the Philippine delegation met with MOST Minister Atchaka Sibunruang and her heads of agencies during a ministerial meeting in Bangkok, Thailand on 23-26 August 2017.

The partnership was cemented last March 31 this year when the Philippines, through Sec. de la Peña, signed a Memorandum of Agreement (MOA) with the Kingdom of Thailand. Following the MOA signing was a Senior Officials Meeting (SOM) that identified areas of collaboration between the two countries. Heading the Philippine delegation for the SOM was Assistant Secretary for International Cooperation Dr. Leah J. Buendia, while the MOST delegation was led by Deputy Permanent Secretary Dr. Pathom Sawanpanyalert.

Details on the implementation of the partnership are currently being forged by working committees. Minister Sibunruang and Sec. de la Peña said they were happy with the progress of the meeting and expressed their respective desires to realize the agreed collaboration.

The Philippines and Thailand have continuously maintained a cordial and stable relationship, recognizing each other's strength in terms of economic and industrial growth.



DOST Secretary Fortunato T. de la Peña and MOST-Thailand Minister Atchaka Sibunruang discuss the way forward after identifying the areas of collaboration between the Philippines and Thailand in Bangkok, Thailand on 24 August 2017. (Photos provided by DOST-ITCU)

Dr. Jessada Karnjada of Embedded System Technology Lab discusses with DOST Secretary Fortunato T. de la Peña the Landslide Prediction Model at the Thailand Science Park.



DOST's research centers to boost R&D, business in the regions

Text & photos by **RODOLFO P. DE GUZMAN**, DOST-STII



DOST PUSHES FOR MORE RESOURCES FOR S&T INNOVATION

| Innovation is at the heart of the many development programs of the DOST from agriculture to industry to health. DOST Secretary Fortunato T. de la Peña said that the DOST is now putting more resources into research and development by partnering with different stakeholders like state colleges and universities to serve as innovation hubs in the regions. At the recent Manila Tech Convention 2017, Secretary de la Peña pitched for the creation of R&D centers in the regions as support to research and innovation.



The Department of Science and Technology (DOST) is strengthening further its research and development (R&D) programs to encourage more young innovators, particularly in the provinces, to come up with new products and services.

"The DOST, in line with the Duterte Administration's thrust of regional development, focuses on creating new R&D centers in the regions or niche centers for innovation," DOST Secretary Fortunato T. de la Peña said, "by providing grants, facilities, and leadership programs that are linked to industries."

Sec. de la Peña told this in his address before a crowd of young and tech savvy innovators during the recent Manila Tech Convention 2017.

The science chief revealed that DOST fosters strong partnerships with state colleges and universities that act as R&D centers and innovation hubs in the provinces where DOST matches the needs of the industries with the research institutions.

Secretary de la Peña further said that the DOST continuously works for convergence among stakeholders by supporting start-up businesses and linking them with business incubators and cooperators. He said that the DOST forges institutional collaboration with other government agencies like the Department of Trade and Industry (DTI) where DOST gives

support in promoting innovation of start up businesses.

"The Philippine Council for Industry, Energy and Emerging Technology Research and Development of the DOST has the Young Innovators Program that provides financial assistance to promising researchers. An example of this was the recent award given to a high school student who, I think, developed new software," de la Peña added.

On the other hand, Senator Bam Aquino, in his keynote address, said that the Senate fully supports the initiatives of the private sector and other government agencies in promoting innovation by crafting laws that will provide a more conducive landscape for growth and development of start-up companies.

"As a social entrepreneur myself, I have always supported start-up companies like the GoNegosyo program, and now we filed the Start-Up Bill that will provide financial grants and tax breaks to create an ecosystem that will make our start-ups competitive in the global market, like what happened in Silicon Valley and Israel," said Sen. Aquino.

The Senator also lauded the DOST for its trailblazing programs that address the need of emerging technologies that will enable the Philippines to be at par with other advanced countries.

"I commend the DOST for its programs like the Balik Scientist program, by advocating for the creation of the National Space Agency, and implementing programs to develop nuclear energy," Senator Aquino added.

ABOUT US

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PH team bags 6 medals, stays 17th rank worldwide in Int'l Math Olympiad

By **MARCO D. MELGAR**, DOST-SEI

A medal for each of the six members of the Philippine team nailed the country to a steady number 17 out of 111 country-participants to the 58th International Mathematical Olympiad (IMO) held recently in Rio de Janeiro, Brazil. Overall, the Philippine team won three silvers and three bonzes in this international competition regarded as the grandest stage of mathematics.

Leading the bemedalled pack were Kyle Patrick Dulay of Philippine Science High School (PSHS) main campus, Albert John Patupat of De la Salle University Integrated School, and Farrel Eldrian Wu of MGC New Life Christian Academy, who all garnered silver medals.

Meanwhile, Shaquille Wyan Que of Grace Christian College, Sean Anderson Ty of Zamboanga Chong Hua High School, and Clyde Wesley Ang of Chiang Kai Shek College secured bronze medals to complete the medal haul.

Guiding the team were Dr. Richard Eden of Ateneo de Manila University, and Dr. Louie John Vallejo of University of the Philippines Diliman, both from the Mathematical Society of the Philippines (MSP).

From number 36 in 2015, the country climbed to its all-time highest rank of 17 when the Philippine team bagged two golds in last year's IMO. Farrell Eldrian Wu of Makati Gospel Church-New Life Christian Academy and Kyle Patrick Dulay of PSHS got a gold each at the 57th IMO, and topped the other 600 participants from more than 100 countries.

Meanwhile, Department of Science and Technology-Science Education Institute (DOST-SEI) Director, Dr. Josette Biyo, congratulated the 2017 team for maintaining "an equally best performance" from the previous year.

DOST-SEI, along with MSP, jointly organized the country's participation to the IMO, as well as the Math Olympiad Summer Camp held in February that served as the training ground for



The Philippine team at the 58th International Mathematical Olympiad. (Photo by DOST-SEI)

the team. There, 22 national finalists from the 2017 Philippine Mathematical Olympiad were screened for the six slots in the Philippine Team. Other sponsors of the team include Hyundai Asia Resources, Inc. Foundation, and Manulife.

Meanwhile, in the recent International Chemistry Olympiad (ICHO) held in Nakhom Pathom, Thailand, the Philippine team composed of students from the PSHS System bagged two bronze medals.

Arthur de Belen from the main campus, and Charles Bartolo from Central Luzon campus nabbed a bronze each in their debut participation at the ICHO.

Others in the team were Israel Aguba (main campus) and Keren Duque (Cagayan Valley campus), along with delegation head Dr. Jose Andaya (Calabarzon campus) and coach Xandra Junio (Cagayan Valley campus).

Dr. Nestor Valera, associate professor of Chemistry at Ateneo de Manila University and former president of the Kapisanang Kimikang Pilipinas, Inc., said the Philippines joined the competition to develop future Chemistry experts in the country. He said the participation was a victory in itself and the medals were an added treat. Valera, along with De la Salle University's Dr. Eric Punzalan, led the assembly of the Philippine team.

DOST's starbooks...

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"As STARBOOKS contains numerous information materials on science, mathematics, enterprise technology and it can be accessible even without internet (connection), it upgrades the services offered by our library. It makes more appealing for students to visit often their respective library because of STARBOOKS," said del Rosario.

Seeing the students' enjoyment and great level of curiosity as they explore the content of

STARBOOKS, Mayor del Rosario is confident that their students could develop deep appreciation and understanding on the practical uses of science and mathematics in their lives.

"With the help of STARBOOKS, I am hoping that many of our students will be motivated to become engineers, doctors, and chemists in the future and lead us in finding solutions to some of the problems and limitations we experience here in Bagac," said del Rosario.

Currently, STARBOOKS is installed in 1,543 sites all over the country. The Super STARBOOKS version is available online and a mobile application is already being developed to make it more accessible.

For more information about STARBOOKS, email all inquiries to dost.starbooks@gmail.com or starbooks@stii.dost.gov.ph or call telephone numbers (632) 837-2071 local 2135, (632) 837-2191 to 95 local 105/106, (632) 837-2071 local 2130.

DOST's STARBOOKS could help raise leaders, Bagac mayor says

Text & Photo by ALLAN MAURO V. MARFAL, DOST-STII

"STARBOOKS can nurture young people in Bagac to become future leaders and innovators," Mayor Louise Gabriel del Rosario of Bagac, Bataan said in recent installation of the science and technology (S&T) library in his town. "As such, it would help them someday to create many jobs and livelihood opportunities for their constituents."

Short for Science & Technology Academic and Research-Based Openly Operated Kiosks, STARBOOKS is a digital science library developed by Department of Science and Technology-Science and Technology Information Institute to equip different public schools with valuable learning resources on S&T.

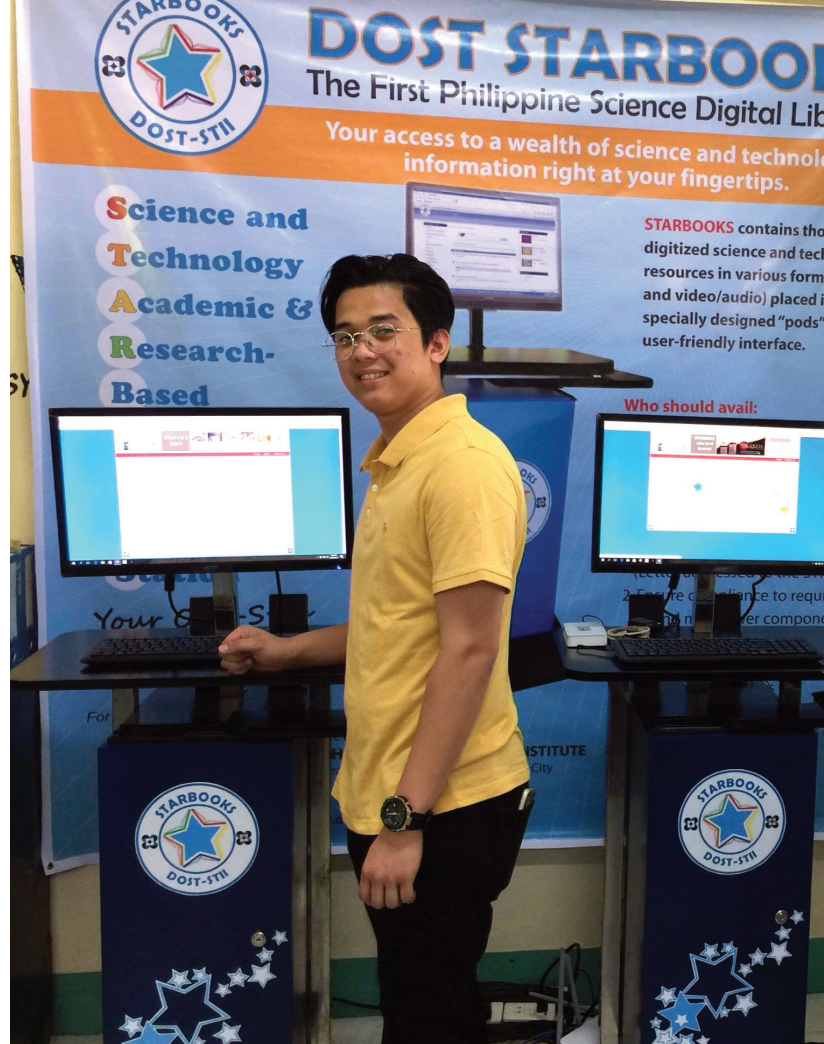
Mayor del Rosario told this after participating in separate turnover ceremonies of STARBOOKS units and orientations recently in Emillio C. Bernabe National High School, Saysain National High School, and Bagac National High School, all in Bagac town in Bataan.

Mayor del Rosario saw STARBOOKS's important role in providing quality education and how it could translate in producing highly-skilled professionals in their area.

"Creating infrastructure for conducive learning is one of our priorities. We would like to build an environment, wherein, our students here in Bagac are in comfortable situation and inspire to gain knowledge in various disciplines and with STARBOOKS, we found a perfect partner," said del Rosario.

Del Rosario said that STARBOOKS could aid them to resolve two issues prevailing in their public schools: limited learning materials and weak internet connectivity.

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Mayor Louise Gabriel del Rosario of Bagac, Bataan graces the recent turnover ceremony and orientation of STARBOOKS units in Bagac National High School in Bataan province. In his statement, Mayor del Rosario recognized the potential contributions of STARBOOKS in their area, particularly in nurturing their students to become future engineers, doctors, and scientists.

inFOCUS



HYDROPONICS PARK | Dr. Reynaldo Ebor (left), executive director of the DOST-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) checks out the Hydroponics Park at the Central Luzon State University in Muñoz, Nueva Ecija. With him is Dr. Chito F. Sace (right) who is conducting PCAARRD-funded research on hydroponics, a technology that does not use soil as medium to grow plants like vegetables but uses a mixture of nutrients dissolved in water under controlled conditions. (Photo by CLSU Hydroponics Aquaponics/Text by Rodolfo P. de Guzman/S&T Media Service).