

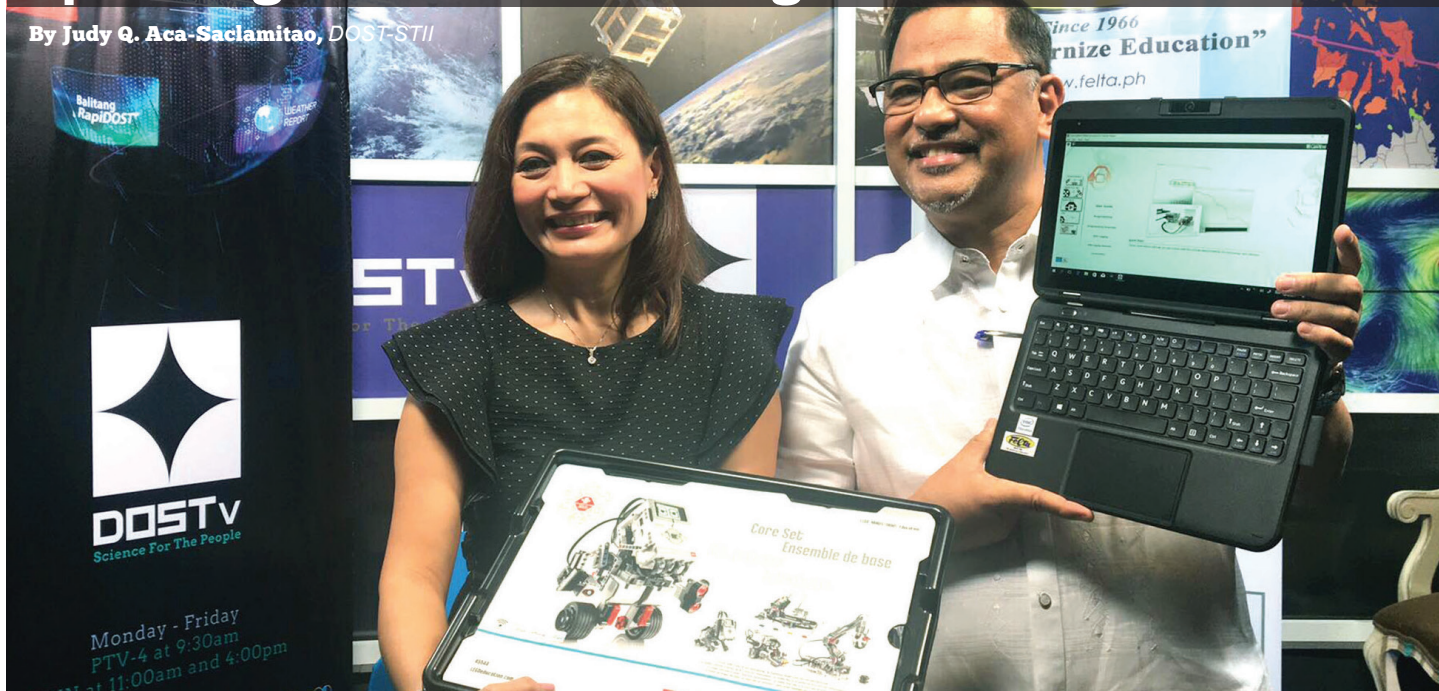
11 years of bringing
S&T good news

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DOST partners with Felta to beef up upcoming interactive learning center

By Judy Q. Aca-Saclamitao, DOST-STII



The Department of Science and Technology-Science and Technology Information Institute (DOST-STII) and FELTA Multi-Media, Inc. ink a three-year partnership in building the Center for the Arts in Science and Technology at DOST. DOST-STII Director Richard P. Burgos and FELTA President and Chief Executive Officer Mylene R. Abiva show a set of LEGO EV3 and yoga laptop as part of Felta's donation turned over last 05 February 2018 at the DOSTv Studio in PAGASA Weather and Flood Forecasting Center, Quezon City.

In another step to expand its library services, the Department of Science and Technology-Science and Technology Information Institute (DOST-STII) recently partnered with Felta Multimedia, Inc. in establishing the Center for the Arts in Science and Technology (CAST) in DOST.

"The realization of the CAST project will not be possible without engaging ourselves with various partners like Felta who can provide us with educational materials and training sessions that can help modernize our library," quipped DOST-STII Director Richard P. Burgos.

Felta, a private company with many years of experience in the audio-visual field, is a major educational manufacturer and distributor that has partnered both with public and private schools in the country. It is also known for its partnership with

prestigious multimedia publishers and manufacturers worldwide.

The three-year partnership agreement includes Felta's provision of Lego EV3 and Yoga laptops as well as training sessions at CAST or webinars using the DOSTv studio. On the other hand, DOST extends its exclusivity of partnership on Lego Robotics and study tablet with the said private company.

Moreover, Felta would be provided with booths during DOST events such as during the celebration of the National Science and Technology Week every July. Felta could also access CAST and DOSTv facilities for mutually agreed activities.

"Many students have become so interested in robotics. It would be good to provide them with demo activities, with educational materials they could use each time they visit us," Burgos said.

"If DOST is into science for the people, it is robotics for all of us in Felta," President and Chief Executive Officer Mylene R. Abiva remarked.

Felta is the national organizer of the Philippine Robotics Olympiad, an annual science educational event that primarily aims to challenge the intellectual skills and critical thinking of elementary and high school students.

DOST-STII will launch the CAST this March 2018 and has likewise partnered with the following organizations, namely: Telstra Foundation, PuzzleBox 3D (Reseller of Ultimaker), Wacom Singapore Pte. Ltd., Philippine Business for Social Progress, and Morph Animation, Inc. (Toon City). This public-private partnership endeavor hopes to bring science and technology closer to more communities, among others.

Balik Scientist bats for DOST-developed labelling machine

By David Matthew C. Gopilan, DOST-STII



Exit Presentation on the day of hearts. DOST-ASTI's Balik Scientist Dr. Jose Ildefonso U. Rubrico shares his experience and expertise in artificial intelligence and machine learning to strengthen the research agenda of his host institution. He quipped that lecturing is his way of celebrating this year's Valentine's Day. (Text by David Matthew C. Gopilan, DOST-STII and photo by DOST-ASTI)

Diliman, Quezon City - To wrap up his 90-day stint as a short-term Balik Scientist of the Department of Science and Technology (DOST), Dr. Jose Ildefonso U. Rubrico presented his engagements in an exit presentation to his host institution, the DOST-Advanced Science and Technology Institute (ASTI) held on 14 February 2018 at the ASTI Training Room.

An expert in robotics, artificial intelligence and machine learning, Dr. Rubrico is currently a post-doctoral research fellow in the University of Tokyo, Japan's top university. He also received his doctoral degree in engineering and robotics from the same university. Prior to that post, he pioneered the Mobile Robotics Laboratory of the Electrical and Electronics Engineering Institute of the University of the Philippines Diliman while holding a teaching position.

One of his major engagements with ASTI is the development of Project ALaM (ASTI Labelling Machine). Dr. Rubrico described it as a "prototype classifier" that can label and recognize significant objects from satellite images of cities and towns through its machine learning capabilities. He envisions that the data generated from such images can be used for road management and urban planning. "[Also] part of the target applications that we are really interested in are disaster management and hazard

maps," Dr. Rubrico added while discussing the potential uses of the project.

Dr. Rubrico was also involved in mentoring DOST-ASTI's artificial intelligence/machine learning core team; strengthening the high performance computing platforms, data flow processing architecture, and available datasets of DOST-ASTI as well as assisting in writing scientific papers.

Meanwhile, Dr. Joel Joseph S. Marciano, acting director of DOST-ASTI stated that Dr. Rubrico is the very first Balik Scientist to be hosted by the Institute in 31 years. He prompted his colleagues at DOST-ASTI that they should continue engaging more foreign-based Filipino scientists "because knowledge is never stagnant." "There is always a need to move forward, advancing our own activities, stock knowledge and the tools that we use," said Director Marciano while stressing the need to tap the available resources and experts who can contribute to the plans and directions of DOST-ASTI.

The Balik Scientist Program encourages foreign-based Filipino S&T experts to come to the Philippines and share their expertise to a host institution. The Balik Scientist awardee can either stay in a short or long-term basis. DOST implements the program to accelerate the scientific, agro-industrial, and economic development of the country.

ABOUT US

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DOST partners with private institutions to hold 2nd Philippine Innovation Week

By **Laurence M. San Pedro**, *DOST-STII*

With the aim of bringing awareness to the public about the various innovations in the country, the Department of Science and Technology (DOST) partnered with Benita and Catalino Yap Foundation (BCYF) and SyCip Gorres Velayo (SGV) & Co. for the Philippine Innovation Week (PIW).

The PIW is organized by BCYF to highlight the role of innovation in social development. Presidential Proclamation no. 172, s. 2017 declared the third week of February as "Philippine Innovation Week."

"Last year, during our celebration of the National Science and Technology Week, we took the opportunity to also re-announce the Philippine Innovation Strategy," said DOST Secretary Fortunato T. de la Peña.

In 2007, there were four organizations that partnered together to craft an innovation strategy for the Philippines that was presented to then President Gloria Macapagal-Arroyo. It was called the "Philippine Innovation Strategy."

The four pillars of this innovation strategy are: (1) investing in human capital development; (2) strengthening the business incubation and acceleration process; (3) re-engineering the innovation environment in the Philippines; and (4) upgrading the Filipino mindset.

"Among nine ASEAN countries' ranking in the World Economic Forum, the Philippines ranked seventh, which is why there is a great challenge for innovation in [Philippine] education. So, in this phase of our low rank in education and economy, one of the things we made impact on recently is the addition of two years to our basic education program," said Fr. Roderick C. Salazar, Jr., SVD, chair of the Board of Trustees of St. Agnes Academy-Legazpi City.

In 2015, the Department of Science and Technology-Science Education Institute (DOST-SEI) launched the Access to Resources and Innovations in Science Education (ARISE) program which aims to provide a 21st century ecosystem of learning environments, education, information and communications technology resources, and innovations in support to the K to 12 Curriculum and Science, Technology, Engineering, and Mathematics (STEM) education. Part of this program is to introduce virtual reality (VR) and augmented reality (AR) to teachers as they can incorporate this innovation in their teaching methods. DOST-SEI sees that the VR and AR, which are initially introduced in gaming softwares and applications, can also be a more fun, exciting, and interactive way of learning among students.

"When it comes to research and development, there are many innovations currently being implemented already by the DOST under the

National Harmonized Research and Development Agenda," said DOST Undersecretary for R&D Dr. Rowena Cristina L. Guevara.

Some of these initiatives include programs on health like the TuklasLunas (Drug Discovery) program; the Food Innovation Centers to help micro, small and medium enterprises; the Electronic Products Development Center for electronic product testing; space technology with the Diwata microsatellite; and the mass transport solutions like the Automated Guideway Transit, Hybrid Electric Train (HET), and the Hybrid Electric Road Train; among others.

To HET project is implemented to increase the current number of train sets being used by the Philippine National Railways. It is also intended to come up with an R&D output that will serve as a long-term solution to heavy traffic congestions in many parts of the country, particularly in Luzon. Once adopted and commercialized, the HET is expected to bring more opportunities in the local manufacturing industry and reflect a positive impact in the Philippine economy.

"Innovation came from an idea. Innovation is innately human, focused on customers and achieved through collaboration. And the hardest part is taking innovative concepts to scale," Katrina S. Macaisa, advisory partner of SGV & Co., defined innovation in business.

Indeed, a person is naturally innovative especially when he or she would be able to come up with an idea for making the impossible 'possible'. One good example are the people behind the success stories featuring the Small Enterprise Technology Upgrading Program (SETUP). They create unique and improved version of products in a wide range of industries like food, agriculture, furniture, handicrafts,

and metals. SETUP aims to support and sustain the growth of the micro small and medium enterprises (MSMEs). In fact, an e-commerce web application called "oneStore.ph" was created to help DOST-assisted MSMEs reach a larger scope of audiences and grow their target market.

Also a product of innovative minds is the DOST's OneLab project. OneLab addresses the issues that come with laboratory services in the country. Being DOST's one-stop hub for laboratory services, it has already been useful for many and has proven its efficiency through a high client satisfaction rate. In addition, OneLab was also awarded the 2017 BCYF Innovation Award under the government category.

"It is very fortunate that BCYF and SGV have shown great interest in pushing innovation as a way of life in the country, particularly in the different productive sectors," Secretary de la Peña lauded.

Meanwhile, BCYF Founder and Chair Antonio S. Yap stressed the importance of innovation among Filipinos, "Tayong mga Pilipino, dapat makatao tayo. Let us talk about personal social responsibility, personal governance, and personal innovation."

The 2nd Philippine Innovation Week was launched at the "Innovation for Learning and Development" forum held on 19 February 2018 at the PHIVOLCS Auditorium. The key event of the PIW was the announcement of the 2nd BCYF Innovation Awards which recognizes individuals and/or teams who have led initiatives and have proven to transform the status quo in various sectors such as SMEs, the government, and education. The 2nd BCYF Innovation Awards will be held on November 29, 2018.



Secretary Fortunato T. de la Peña (leftmost), BCYF Founder and Chairman (rightmost), Antonio S. Yap, and (second from right) SGV & Co. Head of Learning and Development, Clairma T. Mangange present the certificate of appreciation to Sergio R. Ortiz-Luis, Jr., president of the Philippine Exporters Confederation, as one of the panel reactors in the Innovation Forum. The said forum with the theme "Innovation for Learning and Development" serves as the kickstarter of the 2nd Philippine Innovation Week. (Text by Laurence M. San Pedro and photo by Gerardo G. Palad, *DOST-STII*)

Coming soon in Alabat, Quezon PH's first Makapuno Island

By Myrrh Caithlin L. Gutierrez, DOST-IV A

A lot can be done when people work hand-in-hand.

Different government agencies converged and collaborated to establish the first Makapuno Island in the Philippines. On 16 February 2018, the Makapuno Island project was launched in Alabat Island, Quezon. "This project is not just a government project, but a project of the people," says Dir. Alexander Madrigal, regional director of the Department of Science and Technology (DOST-CALABARZON).

Makapuno is a mutant coconut which is packed with gelatinous meat with little or no liquid. It is usually eaten as dessert or included as an ingredient in desserts.

Since 2009, DOST-CALABARZON and the Southern Tagalog Consortium for Industry and Energy Research and Development has been collaborating for the revitalization of makapuno industry in CALABARZON. After a number of planning and workshop sessions, the idea of a "Makapuno Island" was formed. Through the efforts of the DOST-CALABARZON, Philippine Coconut Authority (PCA) IV-A, Department of Agriculture (DA) IV-A, Southern Luzon State University (SLSU), and the local government units of Alabat, Perez, and Quezon with support from the Department of Trade and Industry (DTI) IV-A, Department of Labor and Employment IV-A, National Irrigation Association IV-A, Office of the Provincial Agriculturist-Quezon, and the Office of Congresswoman Angelina Tan, the Makapuno Island project was kick-started. The launching ceremony was made more exceptional by the presence of the Philippine Chamber of Commerce (PCC-Toronto), and the trade mission delegates from Canada who assessed the investment opportunities in Alabat Island.



Representatives of different agencies and organizations feel proud after planting their adopted Makapuno trees. (Text and photo by DOST-IV A)

The Makapuno Island Project aims to establish a Makapuno Island in Alabat Island, Quezon by initially putting up 110 hectares of makapuno plantation that would address poverty in the island by giving the farmers additional earnings and significantly contributing to the island economy. The different government agencies will continuously join hands to support the island with Embryo Cultured Makapuno (ECM) seedlings and processing technologies. Also included in their plans is working on the island's branding to be known not only as a main source of makapuno but also coco sugar. To optimize the resources of the island, they are also looking into the potentials of integrated farming.

The efforts of the government agencies and the potential of Alabat Island was seen by the trade mission delegates. Asec. Maria Roseni M. Alvero, senior trade commissioner and Philippine consulate general of DTI-Foreign Trade Service Corps (DTI-FTSC) in Toronto, Canada presented her intentions of making Makapuno Island a model investment project wherein overseas Filipinos can invest in their homeland's businesses. Her proposed project entitled "Transforming overseas Filipinos (OFs) to overseas Filipino Investors (OFIs): The Philippine Makapuno Industry and Agribusiness Investment Promotion Program in Alabat Island, Quezon" will be launched by August 2018.

Vermelyn O. Evangelista, technical supervisor of Philippine Coconut Research and Development Foundation (PCRDF), assured the beneficiaries that the PCRDF will continuously extend its research and development of ECM. She also discussed about the processing technologies that the island can later use for their makapuno products. Meanwhile, Erlene Manojar, regional manager of PCA IV-A declared PCA's support by assuring the beneficiaries that "from production, processing, up to marketing, PCA will provide the help Alabat Island will be needing."

Mayor Fernando L. Mesa of the municipality of Alabat delivered the island's positive response by thanking all the agencies that made the Makapuno Island possible. He assured everyone that they will work hand-in-hand for the progress of the Island.

The program concluded with a MOA signing of the partner government agencies, a commitment board signing of the Adopt-a-Makapuno Tree project, and declaration of support from the different participating agencies.

After the program proper, a ceremonial planting of Makapuno seedlings was held at Brgy. Villa Jesus Weste. Rolando Mesa and Rene Mesa, coconut farmers, gave their respective testimonies about makapuno farming and how ECM can be of great help to the island economy.

inFOCUS

Department of Science and Technology (DOST) Secretary Fortunato T. de la Peña (middle) led the unveiling of the *Bantog* Trophy during the launch of *Bantog: The Science for the People Media Awards* on 26 February 2018 at the Sequoia Hotel, Diliman, Quezon City. The concept of the trophy was inspired by the "Infinity", a sculpture designed by the late National Artist Abdulmari Asia Imao for DOST. Others in photo are (from left to right): DOST-STII Communications Research and Production Division Chief Dr. Aristotle P. Carandang, DOST-Technology Application and Promotion Institute (TAPI) Director Edgar I. Garcia, DOST-Science and Technology Information Institute (STII) Director Richard P. Burgos, and DOST Assistant Secretary for Finance and Legal Affairs Atty. Emmanuel S. Galvez. The most-awaited DOST media awards will be held on 28 September 2018. Institutional awardees shall receive the *Bantog* trophy, while individual category winners shall receive additional cash prizes of up to P100,000. (Text by Mark Francis S. España and photo by Gerardo G. Palad, DOST-STII)

