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work for you

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STARBOOKS finds 1000th home in Calauan, Laguna

By **Rodolfo P. De Guzman**
S&T Media Service, *DOST-STII*



DOST Secretary Fortunato T. De La Peña (3rd from right) together with Calauan Mayor Buenafrido T. Berris (2nd) and DepEd Supervisor Florentina C. Rancap (1st) led the unveiling of the marker for the 1000th site of STARBOOKS. Also in photo are (L-R) DOST Assistant Secretary for Countryside Development Urduja A. Tejada, DOST Region IV-A Director Alexander R. Madrigal, DOST-STII Director Richard P. Burgos, and Provincial S&T Center-Laguna Director Samuel L. Caperina.

Library experience will never be the same again for the students of Dayap National High School in Barangay Dayap, Calauan, Laguna with the installation of the Super STARBOOKS in their campus. What makes their enhanced library experience more meaningful is their school being named the 1000th site of STARBOOKS.

STARBOOKS is the first digital science library-in-a-box in the country. It stands for Science and Technology Academic and Research-Based Openly Operated Kiosk Station developed by the Science and Technology Information Institute (STII), an agency of the Department of Science and Technology.

Because it can be used offline and contains rich materials in science and technology and even livelihood, STARBOOKS has been widely requested and installed all over the country since its launch in 2011.

Now going on its 1000th site which happens to be in said rural area in Laguna province, the stand-alone library shall have its enhanced version called Super STARBOOKS mark the historic site.

DOST Secretary Fortunato T. De La Peña led local officials of Calauan town, the Department of Education and DOST in unveiling the marker for the 1000th site of STARBOOKS.

The unveiling shall be participated in by Calauan Mayor Buenafrido T. Berris, DOST Assistant Secretary for Countryside Development Urduja A. Tejada, DOST Region IV-A Director Alexander R. Madrigal, DOST-STII Director Richard P. Burgos, DepEd Superintendent Joselyn S. Solana, Dayap National High School OIC and DepEd Supervisor Florentina C. Rancap, and Provincial S&T Center-Laguna Director Samuel L. Caperina.

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Biz people keen on adopting DOST technologies

By **Framelia V. Anonas**
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Business people from the Visayas are now looking into technologies from the Department of Science and Technology (DOST) for possible investment and business opportunities.

"We asked DOST to be our partner," said Jude P. Abenoja, president of the Ormoc City Chamber of Commerce and Industry (OrCham), as he told about the biggest business conference in the Visayas held Sept. 15-16 at the Ormoc City Superdome in Leyte.

As a pre-event to the bustling 25th Visayas area business conference, DOST held a Technology Transfer Day featuring 74 technologies available for adoption. This is the first DOST Technology Transfer Day held in the regions.

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Interested business people check out new products made through DOST-developed technologies at the Technology Transfer Day held recently in Ormoc City Superdome in Leyte.

The first generation STARBOOKS that started in 2011 was a user-friendly information portal that can be accessed without Internet connection. It contained local and foreign S&T resource materials in text, video, and audio formats, journals, technology materials, and livelihood videos. The materials covered a diverse range of topics, from food and nutrition, health and medicine and energy to environment and climate change, livelihood projects, and many others.

Now, the upgraded version called the Super STARBOOKS to be housed inside the Dayap National High School will have four terminal to serve more students. Along with the original content, it also has about 20,000 or more materials of the Tamang DOSTKarte Livelihood series ideal for students, professionals, and housewives with entrepreneurial spirit. There are also 120 full-length livelihood "how-to" videos on income-generating projects like longganisa and chicharon making, and candle making, among others.

Super STARBOOKS is now being deployed nationwide in different schools (public and private), municipal libraries, government offices and other institutions for free. Partner-proponents just have to provide the computers and kiosks while STII takes care of the content, upgrading of the units, and training of librarians.

In its initial salvo after it was launched, STARBOOKS units were installed at the STII, DOST Region XI, and DOST Region IX offices, and Zamboanga City High School. By 2014, the number rose to 363 kiosks. By the end of 2015 a phenomenal leap was recorded with more than 600 kiosks installed in different regions across the country, benefitting hundreds of thousands of students in far-flung areas where internet access is limited if not totally nil.

Recently, the 998th and 999th STARBOOKS units were deployed at the San Jose West Central School and Bagong Sikat Elementary School, both in San Jose City, Nueva Ecija.

With its unprecedented success, STARBOOKS continues to make waves in different places in the country as it tries to reach more schools in far-flung areas across rivers and mountains thus empowering students in the countryside using science and technology. The Super STARBOOKS version is available online and a mobile application is already being developed to make it more accessible.

Because of the novelty of STARBOOKS it was awarded the American Library Association Presidential Citation for Innovative International Library Projects last June 29, 2015 at the International Librarians Reception at the San Francisco Library in San Francisco, California.

For more information about STARBOOKS, email all inquiries to dost.starbooks@gmail.com or orstarbooks@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.

Biz people...

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"We are selling technologies, not products," Usec. Rowena Cristina L. Guevara clarified to the audience who were wowed by new products that were still new, or maybe still out of the market in some areas.

The audience flocked to the sample area that featured crispy and nutritious vacuum fried fruits and vegetables, among others. These products were produced using food processing equipment for DOST's Food Innovation Centers. DOST "sells"

the technology behind said equipment to entrepreneurs who will get a license to fabricate same machine to be used in producing products.

Abenoja said he arranged with DOST-VIII Regional Director Edgar M. Esperancilla to hold the DOST Technology Transfer Day a day before the business conference in order "to bring technologies and the DOST closer to the business sector as we share a common goal which is to bring economic opportunities to the countryside."

Around 300 out of the 500 business conference delegates attended the Technology Transfer Day.

Abenoja and DOST-VIII identified technologies that can thrive in the region and highlighted these during the Technology Transfer Day. These were the: carrageenan plant growth promoter, semen extender for goat, nipa sap sugar production, stabilized brown rice, complementary foods, DOST tablea, Food Innovation Center processing equipment, STARBOOKS, Eco-friendly septic system (Eco-Sep), and abaca fiber for packaging and currency base papers.

"The 11 technologies are handpicked as these as seen to work in our area," Abenoja told.

The organizers, composed of the OrCham, DOST-VIII, DOST-Technology Application and Promotion Institute, and the Eastern Visayas State University, received a number of term sheets during the Technology Transfer Day, indicating inquiries for possible technology adoption.

"The partnership doesn't end here," Abenoja said. The OrCham previously partnered with the

regional office for the holding of the Visayas Cluster Regional Science and Technology Week last July.

"We would like to confirm our commitment that this partnership doesn't end here. With the help of DOST, OrCham will help the pineapple and jackfruit sector. We already discussed this with Mayor Richard Gomez," he added.



A sample of healthy snacks for all ages: vacuum fried pineapple, jackfruit, carrot, mango, banana, corn, and others washed down by a thick and sweet serving of tablea.

ABOUT US

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Feminized male carps indicate Laguna Bay pollution

By **Geraldine Bulaon-Ducusin**
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The common carp, known as karpa in the local market, can possibly help in detecting the magnitude of wastes in water ways.

In a study conducted by Dr. Michelle Grace V. Paraso of the College of Veterinary Medicine, University of the Philippines, Los Baños, carp was found to have a potential use as a biomarker in detecting the level of pollutants in the country's water resources.

The study evaluated carp as fish biomarker in determining the contamination of Laguna de Bay in four sites: Sta. Cruz and Paete, Laguna (East Bay) and Taguig City and Muntinlupa City (West Bay).

A biomarker is an organism with a particular substance which may serve as indicator of some natural phenomenon like pollution and various biological pressures like infection and disease.

Dr. Paraso found that majority of the male carps in study site have shrunk testes compared with that of the normal male carp. Shrunk testes of a male carp indicate that the fish has been feminized. Such feminization shows that the carp was exposed to certain type of pollutant known as estrogen, among others.

According to the study, changes in the reproductive conditions of carp are influenced by several factors, such as food availability, water quality, and temperature.



Left photo: A scientist collects blood sample from a carp found in one of the study sites. Right photo: Smaller testes of the carp makes it "feminized", indicating pollution in sample site.

Estrogenic contaminant or pollutant is estrogen produced through unnatural means. The contaminants developed from chemical components obtained in an environment and they cause reproductive impairment in water organisms such as fish.

Paraso is an expert from the Veterinary Medicine Division of the National Research Council of the Philippines of the Department

of Science and Technology (NRCP-DOST) which funded this study. The study is relevant at this time when the government is pushing for a cleaner environment, especially in the coastal areas where many people live and obtain their livelihood. To know more about the services of NRCP, visit their website:<http://www.nrcp.dost.gov.ph> (Photos by Val Zabala, DOST-NRCP)

DOST launches new publications on Enterprise

Local entrepreneurs now have more channels to help them further reach potential clients. With the launch of the Department of Science and Technology – Technology Application and Promotion Institute's two publications, entrepreneurs who availed of DOST support now have more market opportunities.

"I hope everyone here is as excited as I am to marvel at the collection of DOST-assisted innovations in 'Kalipunan: Compendium of DOST Technologies', to be inspired by stories of entrepreneurial success in the 'Compendium of Successful TAPI-Assisted Projects Under Venture Financing Program,'" said DOST Secretary Fortunato T. de la Peña in a speech delivered by Undersecretary Rowena Cristina Guevara.

According to TAPI Director Edgar I. Garcia, "The launch of the publications and website will hopefully inspire our clients and encourage to forge new collaborations with our stakeholders."

The Kalipunan: Compendium on DOST Technologies, according to Dir. Garcia, serves as reference material on DOST-assisted technologies and as well promotes said technologies to the public. The book contains technology descriptions, contact details of researchers, identified beneficiaries or adoptors, pictures, and other information from DOST research institutes and councils.

Meanwhile, the Compendium of Successful Venture-Assisted Projects gives brief stories on 37 DOST-TAPI-assisted entrepreneurs that hurdled their early challenges and struggles, particularly in securing critical working capital and equipment in running their businesses.



Currently, DOST-TAPI has seven priority areas of assistance, namely food processing; furniture; gifts, housewares and decors; marine and aquaculture; horticulture and aquaculture; metals and engineering; health products and pharmaceuticals; and ICT and electronics.

New DOST Assistant Secretary

By Joy M. Lazcano
S&T Media Service, DOST-STII



L-R: Undersecretary Carol Magsino Yorobe, Secretary Fortunato T. De La Peña, Assistant Secretary Emmanuel Galvez, Mrs. Josefina R. Galvez, Incoming Undersecretary Anthony Sales, and Assistant Secretary Urdujah A. Tejada.

President Rodrigo R. Duterte has appointed Atty. Emmanuel S. Galvez as Assistant Secretary of the Department of Science and Technology as per appointment dated 5 September 2016.

Atty. Galvez brings with him his varied experiences in the private and public sector, beginning with: as Legislative Head of the Office of Senator Butz Aquino; Executive Director of the Department of Agrarian Reform

Adjudication Board; Associate Solicitor III at the Office of the Solicitor General; Vice President and Legal Counsel of the Destileria Limtuaco Group of Companies; Vice President for Legal of the Araneta-affiliate Uniprom Inc.; General Counsel of the Splash Group of Companies; and as Vice President for Compliance and Board Secretary of the Social Housing Finance Corporation. He is also a stakeholder in the DOST as a proud parent of a

PSHS and SEI scholar, and serves as Assistant Coordinator of Lay Ministers at the San Isidro Labrador Parish, Philand Drive, Pasong Tamo, Quezon City.

He will assume position as Assistant Secretary for Finance, Administrative and Legal Affairs. He will also serve as General Counsel and Head Lawyer of the Department, its regional offices and all attached agencies and institutes.

inFOCUS

A \$10 dengue kit in the US costs \$100 here, according to Dr. Raul V. Desturawho heads a start-up company called Manila Health Tek. Destura led a team of scientists in developing Biotek-M (inset), a rapid dengue test kit that is more affordable to Filipinos. Desturasaid that technology adoption cut the "toll fees" that make dengue testing expensive in the country. Biotek-M was developed through funding from Department of Science and Technology-Philippine Council for Health Research and Development and its commercialization is supported by DOST's Technology Application and Promotion Institute.

