

RFID technology to complement DOST's Smarter Philippines program

Written by Allan Mauro V. Marfal, S & T Media Service, DOST-STII
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Radio Frequency Identification (RFID) technology could make the implementation of Department of Science and Technology (DOST)'s umbrella program Smarter Philippines more efficient and reliable, so said DOST's Information and Communications Technology Office (ICTO) Executive Director Louis Napoleon Casambre, in his opening remarks at the 2013 RFID Technology Awareness Workshop held at the ICTO-National Computer Center Building, Diliman, Quezon City.

To those a little late in technology information, RFID refers to any electronic device that uses radio waves to speed up the transmission of communication data for the purpose of identifying and sometimes locating and or sensing the conditions of objects, whether animate and inanimate.

The RFID is most commonly used nowadays in coffee and tea shops to tag customers as they wait for their orders to be prepared and handed to them. It is a small device, like a mini-saucer with small lights dotting its surface. Through the use of electronic codes, sensors, and other accessories, the RFID blinks when the customer's orders are ready for pick up at the counter.

The RFID is also used by motorists to indicate their location in an area.

"We believe that the RFID technology can complement the DOST's Smarter Philippines program, the essence of which is the effective generation, gathering, and analysis of data to enable timely and effective decision making and planning," Casambre said. "This leads to overall socio-economic development."

RFIDs are important gadgets in the Program NOAH or Nationwide Operation on Assessment of Hazards that uses DOST developed monitoring sensors such as Automated Rain Gauges and Automated Weather Stations. These facilities transmit real-time data on the amount of rainfall, temperature, pressure, humidity and wind speed, direction, and velocity. RFIDs are also important in NOAH's DREAM project that uses Light Detection and Ranging (LiDAR), an equipment designed to survey the entire topography of the Philippines at very high resolution.

Casambre explained that smart sensors similar to those being developed by DOST to monitor weather and geological conditions, vehicular traffic flow, soil and water quality, and others will all be RFID devices.

"RFID is one of the most ubiquitous technologies in the world today, aside from being an essential component of the global supply chain," Casambre said.

"Mobile phones and tablet devices have at least two RFIDs in them in the form of International Mobile Station Equipment Identity or IMEI numbers, Bluetooth, and Wifi addresses. Each one of these devices is unique, and the RFIDs identify said devices to other devices and networks," he added.

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RFIDs have been available for commercial use in the past decades, with significant contributions in industries such as logistics, and in manufacturing and retail, particularly in helping keep up with the demands of the information age. Using radio frequency to tag devices, people, and other objects saves time and keeps manpower costs down, and generally contributes to improving the customer experience.