



ITDI
S&T MEDIASERVICE

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COME celebrate with us the 2019 NSTW!

17-21 July 2019, Wednesday-Sunday

World Trade Center, Pasay City

Theme: "Science for the People: Enabling Technologies for Sustainable Development"

See the world in digital space thru 3D CT X-Ray

Imagine viewing in three dimensions the external and internal structures of an Intel Pentium 4 microprocessor with a 0.16 micrometer line width. Can you see it? You cannot with the naked eye. A single micrometer is one-millionth of a meter; a single strand of hair can be from 18 micrometers to 80 micrometers.

However, at the Industrial Technology Development Institute (DOST-ITDI), it is now possible to see advanced, high-resolution, and three dimensional images of any product of any shape from a micrometer to a foot in size without taking it apart by hand.

Launched last April 2, 2019, the 3D Computed Tomography (CT) X-Ray allows one to take hundreds or thousands of two dimensional projections around a 360 degree view of an object. Using algorithms, the machine reconstructs 2D projections into a 3D digital image, allowing one to view and slice parts at any angle.

Acquired by the Advanced Device and Materials Testing Laboratory (ADMATEL), the machine expands its capability as a service unit of ITDI that provides failure analysis and material characterization.

Since then use of the machine has been constant. Nevertheless, where before material characterization may be open to interpretations depending on their property and current physical state, 3D CT virtually eliminates interpretation errors.

Our Business is Industry

Department of Science and Technology INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE
DOST Compound, General Santos Avenue, Bicutan, Taguig City Tel.: 837-2071 local 2184 / 2268



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As well, it opens one to exercise many technical capabilities as:

- Internal and external measurements;
- 3D computer-aided design comparisons;
- Void analysis;
- Surface reconstructions for reverse engineering; and
- Finite element analysis, among others.

With its newest acquisition, ADMATEL, is now able to enlarge its goal to provide quality and faster service turnaround time.

The 3D Computed Tomography (CT) X-Ray is one of two technologies selected to be featured on July 19 in the R&D Media Talks of the 2019 National S&T Week (NSTW) Exhibits slated on July 17-21, 2019 at the World Trade Center-Metro Manila. Admission to the exhibits is FREE. It is open to the public from 8:00 AM to 5:00 PM.

NSTW is celebrated every third week of July through Proclamation No. 169 of 1993 to highlight significant contributions of S&T to national development. (AMGuevarra\ ITDI S&T Media Service)

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