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Nvidia's Turing Makes Graphics Dreams Come

The history of real-time graphics used in video games and interactive media is a history of compromises. The goal of graphics vendors has been to create images as realistic as possible within a frame time (nominally 1/30th of a second).

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Infineon to Deliver Chips for Chinese Retailer's IoT

Infineon Technologies will provide IoT chips to Chinese e-commerce company JD Group under a strategic partnership announced by the firms this week. An Infineon spokesperson told EE Times that JD will include Infineon's chips in its IoT products — for example, in cloud services, smart devices (such as smart speakers, smart TVs), and server solutions

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Silicon Nanowires Used to Create Large-Area

LONDON — Researchers in the U.K. have demonstrated a dry contact-printing system that enables the transfer of multiple silicon nanowires onto flexible large-area substrates to develop high-performance ultra-thin electronic layers with good control over its electronic properties

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TALK TO US



Arm Confirms Treasure Data Buy, IoT Platform

Arm Holdings confirmed the acquisition of Treasure Data, saying it would become part of a new connectivity and data management software-as-a-service (SaaS) platform that it will offer within the next six to nine months.

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New Radar Echo Generator for Automotive

With the dramatic rise in the number of vehicles equipped with radar-based safety-related driver assistance systems, European regulatory authorities have stipulated mandatory tests in the Radio Equipment Directive (RED) to ensure safe operation and coexistence of automotive radar sensors, particularly with respect to autonomous driving.

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Nvidia's Turing Makes Graphics Dreams Come True

The history of real-time graphics used in video games and interactive media is a history of compromises.

The goal of graphics vendors has been to create images as realistic as possible within a frame time (nominally 1/30th of a second). But when it comes to truly realistic images, the gold standard has been ray tracing — where computers model the flight of light rays within a scene bouncing off surfaces where it gains surface color and texturing.

For a high-resolution, complex scene, with many rays per surface point, each frame can take hours to fully render. This is how movie studios render their computer generated images (CGI) for digital special effects.

Infineon to Deliver Chips For Chinese Retailer's IoT

LONDON — Infineon Technologies will provide IoT chips to Chinese e-commerce company JD Group under a strategic partnership announced by the firms this week.

An Infineon spokesperson told EE Times that JD will include Infineon's chips in its IoT products — for example, in cloud services, smart devices (such as smart speakers, smart TVs), and server solutions. Time-of-flight technology, radar sensors and microphones from Infineon will be used to help create a connected ecosystem. The aim of the partnership is to speed up applications in scenarios such as smart homes and assist in the continuous improvement of JD's cloud service platform. As an underlying technology provider, Infineon will provide technical support for various aspects such as the creation of IoT devices, data connectivity, storage, and analysis

Silicon Nanowires Used to Create Large-Area Bendable

LONDON — Researchers in the U.K. have demonstrated a dry contact-printing system that enables the transfer of multiple silicon nanowires onto flexible large-area substrates to develop high-performance ultra-thin electronic layers with good control over its electronic properties. This opens up the opportunity for large-scale use of flexible and bendable electronics including in internet of things (IoT) and smart city applications.

"Single-crystal silicon is a brittle material, and the moment you bend it, it cracks," said professor Ravinder Dahiya, who led the research, in an interview with EE Times. "We've developed a new custom, closed-loop contact-printing system in which we have been able to print multiple 100-nm silicon nanowire pins to form an electronic layer on a flexible substrate. The electronic material is in direct contact with the substrate, so it's dry printing rather than wet printing. We can achieve a high yield of aligned nanowires, which can have a uniform response over a large area."

Arm Confirms Treasure Data Buy, IoT Platform Offering

LONDON — Arm Holdings confirmed the acquisition of Treasure Data, saying it would become part of a new connectivity and data management software-as-a-service (SaaS) platform that it will offer within the next six to nine months.

While Arm would not confirm published reports that the deal was worth \$600 million, Joyce Kim, Arm's chief marketing officer, said, "I can confirm it's the largest cash deal we have ever done."

The IoT has become many things to many people, but one thing is clear: It's a fragmented market for devices, platforms, connectivity, and data analytics. While many readers might be focused on device development (Arm's heritage), at a business level, there's really no point of having a connected device unless you can do something with the data and act upon it. The value in all of the talk that we hear about smart cities, smart energy, and smart manufacturing (and Industrie 4.0) is not just about integrating chips and sensors at end points but more about doing something useful with the measurements and data that result.

New Radar Echo Generator For Automotive Production Testing

LONDON — With the dramatic rise in the number of vehicles equipped with radar-based safety-related driver assistance systems, European regulatory authorities have stipulated mandatory tests in the Radio Equipment Directive (RED) to ensure safe operation and coexistence of automotive radar sensors, particularly with respect to autonomous driving.

With this in mind, Rohde & Schwarz has introduced an instrument for mass-production testing of radar sensors. Its new R&S AREG100A automotive radar echo generator, which it says it developed in close cooperation with the automotive industry, is aimed specifically at final test and inspection on OEM and Tier 1 production lines to enable continuous quality control in production and ensure unrestricted functionality of radar sensors and, hence, safe autonomous driving. The instrument is a customized solution for use at the end of the production line.