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NXP and Jio Platforms Partner to Expand 5G Use Cases in India

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Dallas-based Texas Instruments Inc. will acquire Micron Technology Inc.'s semiconductor factory in a $900 million cash transaction, the company announced Wednesday.

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VVDN and Ambarella Partner on Next-gen Vision-based Solutions

VVDN Technologies is expanding its capabilities on Ambarella's edge AI vision SoC platform to design and manufacture next-gen vision-based solutions. The expansion also allows VVDN to address multiple-tier, including high as well as mid-range, requirements, for smart camera solutions.

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TALK TO US

Solid-State LiDAR Empowers ADAS, Autonomous Driving

Challenging automotive applications, such as ADAS and autonomous driving, require advanced solutions for range and objects detection. Among these, a relevant role is played by the LiDAR (light detection and ranging) system. Also known as time-of-flight (ToF), laser scanner or laser radar, LiDAR is a sensing technology whose main task is to detect objects and map their distances.

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Classiq Provides a New Way to Building Quantum Algorithms

A quantum computer does not only represent a hardware issue. It also represents a software issue. Many startups building quantum software are entering the market and are drawing the attention of investors. Classiq, a Tel Aviv-based startup that provides a model for building quantum algorithms, is one of them.

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NXP and Jio Platforms Partner to Expand 5G Use Cases in India

NXP Semiconductors N.V. and Jio Platforms Ltd (JPL) a subsidiary of RIL, are collaborating to implement a 5G NR O-RAN small cell solution that incorporates NXP's Layerscape family of multicore processors. The combined solution will power new RAN networks that will deliver high performance, enabling a wide range of 5G use cases for broadband access as well as Industry 4.0 and IoT applications, including tele-medicine, tele-education, augmented/virtual reality, drone-based agricultural monitoring and more.

JPL is a leading technology company that delivers innovative 4G and 5G solutions and is the holding company of Jio, the largest mobile network operator in India and the third largest mobile network operator in the world. The company consistently leverages innovative technology solutions to serve its vast customer base and is moving rapidly to address 5G opportunities in India.

Texas Instruments To Buy Semiconductor Factory In $900 Million Deal

Dallas-based Texas Instruments Inc. will acquire Micron Technology Inc.'s semiconductor factory in a $900 million cash transaction, the company announced Wednesday.

The factory, in Lehi, Utah, will be the fourth 300-millimeter wafer facility for the semiconductor company. It will also be used for 65-nanometer and 45-nm production for analog and embedded processing products.

"This investment continues to strengthen our competitive advantage in manufacturing and technology and is part of our long-term capacity planning," said Rich Templeton, TI chairman, president and chief executive.

VVDN and Ambarella Partner on Next-gen Vision-based Solutions

VVDN Technologies is expanding its capabilities on Ambarella's edge AI vision SoC platform to design and manufacture next-gen vision-based solutions. The expansion also allows VVDN to address multiple-tier, including high as well as mid-range, requirements, for smart camera solutions. VVDN has gained expertise on several AI vision processors and platforms to deliver best-in-class edge-based applications to tier-1 and tier-2 OEMs, globally, across various industry verticals.

Ambarella's AI vision SoCs and related platforms are designed specifically for devices at the edge and offer a unique combination of computer vision performance, industry-leading image processing, low-bitrate streaming at high resolutions, and low power consumption, all on a single embedded architecture. This broadens the opportunities to develop vision-based solutions, by enabling a wide range of applications in security and surveillance, automotive, smart cities, industrial vision, consumer, healthcare, and retail.

Solid-State LiDAR Empowers ADAS, Autonomous Driving

Challenging automotive applications, such as ADAS and autonomous driving, require advanced solutions for range and objects detection. Among these, a relevant role is played by the LiDAR (light detection and ranging) system. Also known as time-of-flight (ToF), laser scanner or laser radar, LiDAR is a sensing technology whose main task is to detect objects and map their distances. This is achieved by illuminating a target with an optical pulse (whose width ranges from a few nanoseconds to several microseconds) and measuring the characteristics of the reflected return signal. Key factors for extracting useful information from returned light signals are pulse power, round-trip time, phase shift, and pulse width. Even though several different types of LiDAR systems are available, they can be grouped into two categories with respect to the beam steering type: mechanical and optical LiDARs. A mechanical LiDAR relies on high-grade optics and a rotating assembly to create a wide field-of-view (FOV), up to 360°. The associated signal-to-noise ratio (SNR) is quite excellent over the FOV, but the solution is bulky and heavy. Solid-state LiDARs, on the contrary, feature no spinning mechanical parts, providing a high degree of reliability. Even though their FOV is reduced, there is a way to overcome this limitation.

Classiq Provides a New Way to Building Quantum Algorithms

A quantum computer does not only represent a hardware issue. It also represents a software issue. Many startups building quantum software are entering the market and are drawing the attention of investors. Classiq, a Tel Aviv-based startup that provides a model for building quantum algorithms, is one of them.

In an interview with EE Times Europe, Yuval Boger, chief marketing officer at Classiq, said that while algorithms for quantum computers have so far been built using low-level tools with high development times, Classiq's platform aims to model these algorithms at a much higher level of abstraction. "It basically provides the quantum equivalent of chip design tools for conventional systems provided by companies like Cadence. This capability will improve the design and implementation techniques," said Boger.