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The Global Semiconductor Industry Analysts

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CSIR-KPIT Demonstrates Hydrogen Fuel Cell Fitted Car

Council of Scientific and Industrial Research (CSIR) and KPIT successfully ran trials of India's first Hydrogen Fuel Cell (HFC) prototype car running on an indigenously developed fuel cell stack at CSIR-National Chemical Laboratory, Pune.

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NXP Launches AI Ethics Initiative

NXP has launched an AI ethics initiative intended to encourage the ethical development of AI systems in edge devices. The initiative, a framework of five key principles, is intended for NXP to use when developing AI applications or AI enabling technologies, but the company hopes to also set a good example for its customers.

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CMOS image sensor targets machine vision and mixed reality

ON Semiconductor has introduced the AR0234CS 2.3 megapixel (MP) global shutter CMOS image sensor with a high dynamic range (HDR) and new pixel design. The high-performance sensor targets a range of applications including machine-vision cameras, AR/VR/MR headsets, autonomous mobile robots (AMRs), and barcode readers.

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TALK TO US



Marvell Secures Automotive Ethernet with MACsec

Marvell is relying on automotive Ethernet technology to create a beachhead in the emerging market of vehicles driven by rich, big data. The company claimed this week the industry's first automotive Gigabit Ethernet PHY solution integrated with media access control security (MACsec) technology, thus providing Layer 2 security.

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EVENTS

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RF MEMS Switch Specialist Menlo Micro Raises \$44M

Menlo Micro, a pioneer in miniature RF MEMS switches, has raised \$44 million in a Series B round of funding.

Most of the money will be used to significantly increase production capacity of what the company refers to as the "ideal switch."

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CSIR-KPIT Demonstrates Hydrogen Fuel Cell Fitted Car

Council of Scientific and Industrial Research (CSIR) and KPIT successfully ran trials of India's first Hydrogen Fuel Cell (HFC) prototype car running on an indigenously developed fuel cell stack at CSIR-National Chemical Laboratory, Pune. The fuel cell is a low temperature PEM (Proton Exchange Membrane) type Fuel Cell that operates at 65-75 degree centigrade, which is suitable for vehicular applications.

CSIR and KPIT have successfully developed a 10 kWe automotive grade LT-PEMFC fuel cell stack based on CSIR's know-how. The heart of the PEM fuel cell technology includes the membrane electrode assembly, which is wholly a CSIR knowhow. KPIT brought in their expertise in stack engineering which included light-weight metal bipolar plate and gasket design, development of the balance of plant (BoP), system integration, control software and electric powertrain that enabled running the fuel cell vehicle. The fuel cell stack uses extremely thin metal bipolar plates, thus reducing the stack weight by about two-thirds

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Edge AI systems today include all manner of devices that sense their environment and analyze the data in real time, on-device. This might be a smartphone using facial recognition to unlock itself, or home appliances that respond to the user's voice commands. Many use NXP's microcontrollers and application processors that are optimized for machine learning tasks.

CMOS Image Sensor Targets Machine Vision And Mixed Reality

ON Semiconductor has introduced the AR0234CS 2.3 megapixel (MP) global shutter CMOS image sensor with a high dynamic range (HDR) and new pixel design. The high-performance sensor targets a range of applications including machine-vision cameras, AR/VR/MR headsets, autonomous mobile robots (AMRs), and barcode readers.

The AR0234CS sensor's 'innovative' pixel architecture delivers HDR needed to support all lighting conditions. The low noise and improved low-light response makes the image sensor suitable for applications across consumer, commercial & industrial IoT. It produces crisp and clear images by minimizing frame-to-frame distortion in high-speed scenes and reducing motion artifacts.

Marvell Secures Automotive Ethernet with MACsec

Marvell is relying on automotive Ethernet technology to create a beachhead in the emerging market of vehicles driven by rich, big data.

The company claimed this week the industry's first automotive Gigabit Ethernet PHY solution integrated with media access control security (MACsec) technology, thus providing Layer 2 security.

MACsec secures data exchange on a hop-by-hop basis in in-vehicle networks. The new PHY chip prevents Layer 2 security threats such as intrusion, man-in-the-middle, and replay attacks, the company explained.

Marvell boasts it has "the most complete data infrastructure" product portfolio tailored for data centers. Portfolio ingredients range from base-band and data plane processors and HDD, SSD storage controllers to PHYs and switches for networking and security processors.

RF MEMS Switch Specialist Menlo Micro Raises \$44M

Menlo Micro, a pioneer in miniature RF MEMS switches, has raised \$44 million in a Series B round of funding.

Most of the money will be used to significantly increase production capacity of what the company refers to as the "ideal switch." A spin-off from GE Ventures four years ago, the company has been refining the process that GE had been working on for some 12 years.

Menlo Micro has already sampled devices to companies in the wireless communications, aerospace and defence sectors for deployment in, for instance, base stations, phased array radars, antennas, radio heads and military radios. The devices will be targeted at wireless infrastructure makers focusing on 5G