

FutureHorizons



The Global Semiconductor Industry Analysts

FH MONDAY

9 March 2020

Processing Bends Toward AI

SAN FRANCISCO –Google is experimenting with machine learning (ML) to perform place-and-route in IC design and is getting great results. The revelation, announced last week at the ISSCC conference held here, is as important for artificial intelligence (AI) as it is for circuit design.

[read more](#)

EV Charging Infrastructure in India

With the push to move to electric mobility at a national scale, and with the government being very enthusiastic about deployment of electric vehicles, the electronic industry can expect to see a lot of activity around indigenous development and manufacturing.

[read more](#)

Beating Facial Recognition Cheats

A 3D imaging and infrared detection sensor company, TrinamiX, has revealed a technology that helps overcome facial recognition cheats. The company is working with Qualcomm Technologies to implement it on to both high-end and low-end smartphones.

[read more](#)

FutureHorizons



TALK TO US



HBM Flourishes, But HMC Lives

TORONTO — At first glance, the rivalry between hybrid memory cube (HMC) and high bandwidth memory (HBM) mirrors the battle between Beta and VHS. But there's one clear difference: HMC isn't dead.

[read more](#)

EVENTS

[Silicon Chip Industry Seminar](#)

-16 March 2020– London UK

[Industry Forecast Briefing](#)

– 15 Sept 2020 – London UK

DON'T MISS OUT.-
BOOK NOW BY
CALLING

+44 1732 740440

OR EMAIL

mail@futurehorizons.com

Marvell Upgrades Octeon Processor Family

Marvell, which has grown its 5G business via design wins in Samsung Networks' 5G network gear, hopes to perpetuate its success and expand the company's presence further into the telecom infrastructure processor market. The vehicle for that will be its fifth generation of Octeon processors, the Octeon TX2 family.

[read more](#)

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England

Tel: +44 1732 740440 • Fax: +44 1732 740442

e-mail: mail@futurehorizons.com • <http://www.futurehorizons.com/>

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

Processing Bends Toward AI

SAN FRANCISCO –Google is experimenting with machine learning (ML) to perform place-and-route in IC design and is getting great results. The revelation, announced last week at the ISSCC conference held here, is as important for artificial intelligence (AI) as it is for circuit design.

AI has been the most massive thing in the electronics sector for years, pulling an extraordinary amount of semiconductor research in its direction (along with venture capital and headlines). Acknowledging the obvious, the theme of this year's Integrated Solid-State Circuits Conference (ISSCC) was "Integrated Circuits Powering the AI Era," and the opening plenary session was constructed to map the extent to which AI has warped semiconductor space.

EV Charging Infrastructure In India

With the push to move to electric mobility at a national scale, and with the government being very enthusiastic about deployment of electric vehicles, the electronic industry can expect to see a lot of activity around indigenous development and manufacturing. While electric vehicles are being worked upon by major OEMs, an ecosystem for development of chargers, charging stations and software & cloud services is steadily being built. Established companies as well as various start-ups, have started working on these areas and results are starting to show. However, there is still a lot of opportunity to make even better, the electronics side of it.

The government, with the help of BIS, ARAI, EESL and other bodies, has already released technical specifications on charging stations and some of the original specifications like the AC-001 and the DC-001 have already been developed and charging stations have been deployed at select locations. The newer guidelines require the charging stations to be equipped with multi standard chargers, viz. AC Type 2, the CCS and the CHADEMO, in addition to the lower power AC and DC-001. However, these systems are reliant entirely on the grid, are subject to real estate availability at prime urban and semi-urban locations, and the question of the grid being ready and equipped for these added

Beating Facial Recognition Cheats

A 3D imaging and infrared detection sensor company, TrinamiX, has revealed a technology that helps overcome facial recognition cheats. The company is working with Qualcomm Technologies to implement it on to both high-end and low-end smartphones.

Trinamix was established in 2015 as a wholly-owned subsidiary of chemical company BASF, though it operates independently. The company said it can classify and identify materials based on their physical properties using its patented beam profile analysis technology, which enables the detection of live skin. That capability is intended to prevent users fooling smartphones into unlocking via a mask, a high-resolution print or even a 3D rendering of an owner's facial features.

HBM Flourishes, But HMC Lives

TORONTO — At first glance, the rivalry between hybrid memory cube (HMC) and high bandwidth memory (HBM) mirrors the battle between Beta and VHS. But there's one clear difference: HMC isn't dead.

HMC uses a vertical conduit called through-silicon via (TSV) that electrically connects a stack of individual chips to combine high-performance logic with DRAM die so that memory modules are structured like a cube instead of being placed flat on a motherboard. This architecture enables much higher performance than DDR technology with lower power consumption.

The technology development was being led by the Hybrid Memory Cube Consortium (HMCC) and included major memory makers, such as Micron, SK Hynix, and Samsung, as well as other developer members, such as Altera, Arm, IBM, Microsoft, Open-Silicon, and Xilinx.

Marvell Upgrades Octeon Processor Family

Marvell, which has grown its 5G business via design wins in Samsung Networks' 5G network gear, hopes to perpetuate its success and expand the company's presence further into the telecom infrastructure processor market. The vehicle for that will be its fifth generation of Octeon processors, the Octeon TX2 family.

The TX2 portfolio of Arm-based processors has at least one instance for pretty much every wireless and wireline data-communications system, including switches, routers, secure gateways, firewall, network monitoring, 5G base stations, and smart network interface controllers (NICs).

The company also introduced a line of processors, the Fusion family, that is based on the TX2 platform and aimed directly at 5G base stations.