FutureHorizons

2 January 2017 **FH MONDAY** Lattice introduces iCE40 Micron's Successful Quarter Race for AI Chips Begins UltraPlus high-performance low-Reflects 3D NAND Progress nower FPGAs Financial analysts attending Over the past few years, Lattice Deep learning has continued vesterday's quarterly update Semiconductor has been carving to drive the computing from Micron Technology were out a very nice slice of the lowindustry's agenda in 2016. But congratulating the company power FPGA market. Today's come 2017, experts say the mantra for a wide range of on its strong numbers, but the Artificial Intelligence electronic systems might well be real story might be that it's community will intensify its summarized as "Always On -mastered 3D NAND. demand for higher Always Aware -- Always performance and more power Connected," which goes some efficient "inference" engines way to explain why Lattice's for deep neural networks. FPGAs can now be found in almost anything you touch. read more read more read more **Future**Horizons TALK TO US Ford to unveil next self-SK Hvnix to Build Wafer driving car Fab in South Korea **EVENTS** Silicon Chip Industry LONDON—South Korean Ford will debut an upgraded version of its self-driving Ford memory chip company SK Seminar Fusion Hybrid sedan next Hynix Inc. has announced that - 7 March 2016 - London UK week, one equipped with it plans to spend 2.2 trillion more advanced sensors, more won (about \$1.8 billion) to Industry Forecast Briefing computing power and build NAND flash wafer fab in proprietary software that helps Cheongju, Chungcheongbuk-- 19 January 2016 - London UK the car think for itself. do

DON'T MISS OUT.-BOOK NOW BY CALLING +44 1732 740440

OR EMAIL mail@futurehorizons.com

read more

read more

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England Tel: +44 1732 740440 • Fax: +44 1732 740442 e-mail: <u>mail@futurehorizons.com</u>• <u>http://www.futurehorizons.com/</u> Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

Race for AI Chips Begins

PARIS — Deep learning has continued to drive the computing industry's agenda in 2016. But come 2017, experts say the Artificial Intelligence community will intensify its demand for higher performance and more power efficient "inference" engines for deep neural networks.

The current deep learning system leverages advances in large computation power to define network, big data sets for training, and access to the large computing system to accomplish its goal.

Unfortunately, the efficient execution of this learning is not so easy on embedded systems (i.e. cars, drones and Internet of Things devices) whose processing power, memory size and bandwidth are usually limited.

Lattice Introduces Ice40 Ultraplus High-Performance Low-Power FPGAS

Over the past few years, Lattice Semiconductor has been carving out a very nice slice of the low-power FPGA market. Today's mantra for a wide range of electronic systems might well be summarized as "Always On -- Always Aware --Always Connected," which goes some way to explain why Lattice's FPGAs can now be found in almost anything you touch.

There are a number of very interesting trends in system architecture that fall right into Lattice's bailiwick. Consider deep learning -- by which we mean cognitive (thinking, reasoning) systems -- for example. Initially, deep learning had to be performed in the cloud using massive, power-hungry servers. Today, by comparison, deep-learning applications are starting to make their presence felt on small, mobile platforms. A somewhat related trend is that, rather than use one large application processor (AP), it's becoming increasingly common to use multiple smaller processors to provide distributed heterogeneous processing (DHP) that can satisfy localized processing demands and support advanced capabilities such as embedded speech (e.g., natural language human-machine interfaces), embedded vision (e.g., people/object detection and recognition), and predictive computation.

Micron's Successful Quarter Reflects 3D NAND Progress

TORONTO — Financial analysts attending yesterday's quarterly update from Micron Technology were congratulating the company on its strong numbers, but the real story might be that it's mastered 3D NAND.

"What's encouraging is where they are with their 3D NAND," said Jim Handy, principal analyst with Objective Analysis. In a telephone interview with EE Times after Micron's Q1 2017 conference call, he noted that other vendors, particularly Samsung, have struggled with 3D NAND, whereas Micron appears to making good progress. "Micron's transition time is going to be longer than other technologies because they have to buy new equipment."

Ford To Unveil Next Self-Driving Car

DETROIT -- Ford will debut an upgraded version of its self-driving Ford Fusion Hybrid sedan next week, one equipped with more advanced sensors, more computing power and proprietary software that helps the car think for itself.

The automaker's second-generation self-driving prototype has a brain located in the trunk that processes data collected by a host of high-tech sensors that can see the road.

There, the equivalent of several high-end computers generate one terabyte of data an hour. Ford says that's more than the average person would use in mobile phone data in 45 years. Those computers process data gathered by the sensors with a software system Ford has developed in-house.

SK Hynix To Build Wafer Fab In South Korea

LONDON—South Korean memory chip company SK Hynix Inc. has announced that it plans to spend 2.2 trillion won (about \$1.8 billion) to build NAND flash wafer fab in Cheongju, Chungcheongbuk-do.

The wafer fab is expected to be completed in June 2019 and the spening is part of a 46 trillion won (about \$38 billion) budget for mid- to long-term investment set by SK Hynix. As part of the spending plan SK Hynix is also expected to set up wafer fabs in Icheon and Cheongju.