FutureHorizons

The Global Semiconductor Industry Analysts

FH MONDAY

8 June 2020

Digital Twins: Bridging the Data Gap for Deep Learning

In today's world, data is king. The most highly valued companies in the world, whether Amazon, Apple, Facebook, Google, Walmart, or Netflix, have one thing in common: data is their most valuable asset. All of these companies have put that data to work using deep learning (DL).

read more

DARPA Marries IC Security with System-Level Synthesis

System-level synthesis has long been a goal of chip designers, allowing them to focus on full-blown IC designs rather than taking a block-by-block approach.

read more

'Cloud Computing Is Changing Everything About Electronic Design

Cloud computing is changing everything about electronic design, according to Jeff Bier, founder of the Edge AI and Vision Alliance. That's because more and more problems confronting designers are getting solved in the cloud.

read more

FutureHorizons

TALK TO US

Bizen Transistor Holds Promise for Replacing CMOS

Search For The Next, the British startup with the new transistor design that it says will "consign CMOS to the history books," has received an award of £1.7m (about €1.9m) from the UK government. The grant, from the UKRI's Industrial Strategy Challenge Fund, will allow further development of the transistor's enabling process technology.

read more

EVENTS

Silicon Chip Industry Seminar

-15 June 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

Opening up 5G Networks

The GSMA and O-RAN ALLIANCE have joined forces to accelerate the adoption of Open Radio Access Network (RAN) products and solutions that take advantage of new open virtualised architectures, software and hardware.

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

Digital Twins: Bridging The Data Gap For Deep Learning Success

In today's world, data is king. The most highly valued companies in the world, whether Amazon, Apple, Facebook, Google, Walmart, or Netflix, have one thing in common: data is their most valuable asset. All of these companies have put that data to work using deep learning (DL). No matter what business you're in, your data is your most valuable asset. You need to protect that asset by doing your own DL. The most important ingredient for DL success is having enough of the right kinds of data. That's where digital twins come in.

A digital twin is a digital replica of an actual physical process, system, or device. Most importantly, digital twins can be the key to success for DL projects — especially DL projects that involve processes that are dangerous, expensive, or time-consuming.

DARPA Marries IC Security with System-Level Synthesis

System-level synthesis has long been a goal of chip designers, allowing them to focus on full-blown IC designs rather than taking a block-by-block approach. A new U.S. design automation initiative would help silicon architects achieve that goal while also incorporating security into the design process without exacting penalties for constraints like power or performance.

The Defense Advanced Research Projects Agency (DARPA) announced a pair of teams last week to ramp up its secure chip design initiative. The year-old Automatic Implementation of Secure Silicon (AISS) program also would help silicon architectures specify performance constraints while automating the design-in of defenses that would secure an entire device lifecycle.

Cloud Computing Is Changing Everything About Electronic Design

Cloud computing is changing everything about electronic design, according to Jeff Bier, founder of the Edge AI and Vision Alliance. That's because more and more problems confronting designers are getting solved in the cloud.

As part of our regularly scheduled calls with EDN's Editorial Advisory Board, we asked Bier what topics today's electronics design engineers need more information on. Bier highlighted the cloud as the number one force driving change in engineering departments around the world. However, you could be forgiven for asking whether cloud computing has anything to do with electronic design at all.

"[The cloud] has everything to do with almost every aspect of electronic design," Bier said, adamant that it is drastically changing the way engineers work.

Bizen Transistor Holds Promise For Replacing CMOS

Search For The Next, the British startup with the new transistor design that it says will "consign CMOS to the history books," has received an award of £1.7m (about €1.9m) from the UK government. The grant, from the UKRI's Industrial Strategy Challenge Fund, will allow further development of the transistor's enabling process technology.

"We are extremely pleased that the UK government has recognized the key role that Bizen will play in enabling the UK to meet its ambitious net zero targets," said David Summerland, CEO of Search For The Next (SFN). "Bizen [enables] the UK to develop a leadership position in semiconductor manufacturing. My challenge to the industry is this: have a look at Bizen and we are sure you'll see that it's impossible to produce a wide variety of ICs at a lower cost or on a shorter [time to market]. Truly, CMOS is history."

Opening up 5G Networks

The GSMA and O-RAN ALLIANCE have joined forces to accelerate the adoption of Open Radio Access Network (RAN) products and solutions that take advantage of new open virtualised architectures, software and hardware. The organisations will work together to harmonise the open networking ecosystem and agree on an industry roadmap for network solutions, thereby making access networks as open and flexible as possible for new market entrants.

5G will facilitate the opportunity to create even more agile, purpose-built networks tailored to the different needs of citizens, enterprises and society. For example, 5G is an essential ingredient of the European Commission's recently launched Industrial Strategy and will help shape its future.

In its latest Mobile Economy Report, the GSMA predicts that operators will invest more than a trillion dollars over the next five years globally to serve both consumer and enterprise customers, 80 per cent of which will be on 5G networks.