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Intel CEO Sees 'Green Shoots' Emerging

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6G Set to Primarily Be an Industrial IoT Network

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TALK TO US

Synopsys pushes AI deeper into EDA process for chips

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Intel CEO Sees 'Green Shoots' Emerging

Intel CEO Pat Gelsinger sees the first signs of a turnaround in the company's business during his nearly two years at the helm of the top U.S. chipmaker, he said yesterday. Analysts contacted by EE Times were less optimistic.

Gelsinger made the comment during an unscheduled conference call with analysts yesterday to explain why the company cut its annual dividend to 50 cents per share.

Intel has maintained capital expenditures necessary to achieve its "five nodes in four years" while making capacity cutbacks in 2022 and this year, according to Gelsinger, who said he is aiming for capex intensity in the low 30% range of revenue this year versus an original target of 35%. The company expects to spend about $20 billion this year to expand production capacity.

Nvidia Brings GPU Acceleration to Computational Lithography

Nvidia has built a software library for the acceleration of computational lithography workloads, enabling order-of-magnitude speedups for these workloads when combined with the latest GPU hardware. The library, CuLitho, will be used at Taiwan Semiconductor Manufacturing Co. (TSMC) beginning in June. Accelerating computational lithography has the potential to improve yield, thereby reducing cost per chip. Other benefits include reducing the carbon footprint associated with this workload, faster turnaround and enabling advanced process nodes with tiny feature sizes.

"CuLitho will accelerate not just mask making but the entire development cycle type for any foundry that uses it," said Vivek Singh, VP of accelerated computing at Nvidia. "The second benefit of CuLitho is even more profound… the current calculations of computational lithography, large as they are, may not actually be good enough to make the chips of tomorrow. Those chips will require new technologies, which could require 10 times more computation."

6G Set to Primarily Be an Industrial IoT Network

BARCELONA, Spain—While 5G is still in the early stages of deployment in many markets, and most commercially available networks are non-standalone, the industry is already experimenting with the possibilities of next-generation 6G cellular networks—and the IoT will be incremental to realizing those innovations.

5G is, for most people, the last interaction of the mobile telephone networks that arrived in the last quarter of the 20th century. Connected devices get a boost of speed, and some power users can now play low-latency online games and ultra-high–definition videos on their smartphones and tablets.

Synopsys pushes AI deeper into EDA process for chips

Chips continue to become more powerful, more efficient, and even more customized to the needs of different industries and applications, and that is making the whole process of semiconductor design more complex.

Synopsys co-founder, Chairman and co-CEO Aart de Geus, speaking at this week's Synopsys User Group event in Santa Clara, California, described the challenge as one of increasing "systemic complexity," driven by the ongoing increase of transistors on chips, but also the notion that "every different vertical will actually look at creating its own architecture for its own problems, because by narrowing the field, you can go much faster."

This raises the bar for the electronic design automation (EDA) tools and systems used in the design process. "EDA is essentially getting all the data on a computer," de Geus said. "If you can capture it, you can model it. If you can model it, you can simulate it. If you can simulate it, you can analyze it. If you can analyze it, you can optimize it, and if you can optimize you can be more productive."

NXP is urging TSMC, Globalfoundries to set up in India

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The newspaper conducted an interview with CEO Kurt Sievers on the occasion of Sievers meeting with Indian Prime Minister Narendra Modi.

"We believe in the geopolitical context, currently India should be a very neutral and democratic place to have global manufacturing," the Economic Times quoted Sievers saying. He added: "We have (already started) discussions (with partners) as we speak. (They are) very open. It has as much to do with the attractiveness of India as much as with the geopolitical situation. I will be very vocal and supportive to our manufacturing partners to strongly consider India."

NXP, which operates mostly as a fabless chip company, is expanding its R&D and chip design in India with facilities in Noida, Bengaluru, Hyderabad and Pune with around 4,000 engineers in all