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Siemens Builds 4 Centres Across Karnataka

Siemens Industry Software India Pvt. Ltd is partnering with the Government of Karnataka's Government Tool Room Training Centre (GTTC) and DesignTech Systems Ltd in building four "Centres of Excellence" across Karnataka.

The Memorandum of Understanding (MoU) signed by the parties is said to pave the way for an integrated skills development infrastructure and benchmarked technical education curriculum with core focus on Industry 4.0, automation, mechatronics and IoT infrastructure. According to Siemens India, the four Centres of Excellence will address diverse industry segments such as automotive, industrial machinery, industrial automation, renewable energy, aerospace, and defence.

Hybrid Memory Cube Powers Galaxy Quest

TORONTO – Radio astronomy is getting more data intensive, and Hybrid Memory Cube (HMC) is helping to process the large amounts of information being pulled from the sky.

Astronomy is one of the oldest observational sciences, said Simon Ratcliffe, technical lead for scientific computing for the Square Kilometre Array (SKA) in South Africa. It's possible to see only 20,000 stars with the naked eye through an optical telescope. "It's not a lot of data if you're a scientist," he said in a recent webinar. Radio astronomy, however, is turning into a data science.

Radio telescopes such as MeerKAT, under construction on the Northern Cape of South Africa, and the biggest and most sensitive in the southern hemisphere until SKA is completed in 2024, are quite data intensive. Ratcliffe said that even though only 16 out of 64 MeerKAT antennae are operational so far, it's been able to detect 1,500 new galaxies in a relatively quiet corner of the universe that astronomers have never been able to see before.

MediaTek Chooses TSMC For 7nm

TAIPEI — MediaTek, the second-largest designer of mobile phone chips after Qualcomm, says it has chosen Taiwan Semiconductor Manufacturing Co. (TSMC) to make 7nm products.

While it did not disclose a timeframe for the products, MediaTek said it is cooperating closely with its long-term fab partner at the new node.

"Low-power computing is the focus of TSMC and MediaTek," said Rick Tsai, the new co-CEO of MediaTek, during an investor event at the company headquarters in the Hsinchu Science Park. "We hope TSMC's leading-edge technology will help us create new business."

G'foundries Updates 7nm, EUV Plan

SAN JOSE, Calif. – Globalfoundries released more details of its 7nm process, claiming it exceeds targets although it is about six months behind its chief rival, TSMC. It also gave an update on its 7nm ASIC flow and plans to use extreme ultraviolet lithography for limited functions, probably in 2019.

GF's 7LP process will initially use immersion steppers to pack more than 17 million gates/mm2. It reduces die cost by more than 30 percent based on more than a 50 percent shrink from its 14nm node based on fully laid-out chips. The large shrink is needed to compensate for the need to use triple patterning on some levels.

The node, first announced in September 2016, is now expected to offer more than a 40 percent boost in performance and support up to 17 metal layers. Design kits are available with first customer chips expected to launch in the first half of 2018 and hit volumes late next year.

B'com Overhauls Network Switches

SAN JOSE, Calif. – Broadcom announced a new generation of its mainstream Ethernet switches, adding packet processing features and lowering costs at a time of rising competition. When the Trident 3 ships next year it will power systems with as many as 32 100 Gbit/second Ethernet ports that cost as little as \$3,000 and consume less than 400W.

The news comes amid a barrage of announcements from competitors entering the networking market where Broadcom has held more than a 90 percent market share. An analyst for the Linley Group said the news supports his forecast that prices of Ethernet switch chips could drop from more than \$60 per 100G port last year to about \$36/port in 2020.

Trident 3 is a family of five 16nm chips with ports supporting 1-100 Gbit/s Ethernet. They range from a 200 Gbit/s aggregate chip for campus Wi-Fi access points to 3.2 Tbit/s components for data center top-of-rack switches and aggregation networks