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Intel Capital Invests \$132M In Tech Startups

Intel Capital announced another round of investment in technology startups, this time distributing \$132 million among 11 technology startups. The company said that this round it "focused on artificial intelligence (AI), autonomous computing, and IC design," but the word "focus" seems to be over-selling it. If there's a theme to be found in the company's picks this year, it's automated and autonomous analytics tools for business applications.

Intel Capital's marketeers can perhaps be forgiven for thinking that "automated and autonomous analytics tools for business applications" is just not sexy enough as a topic — or perhaps it's simply too much of a mouthful. To be fair, we gave up trying to cram it into our headline.

Added Arm Core Yields a More Flexible iMOTION Controller

Manufacturers increasingly tend to consider the actual motor control unit as a basic functional block rather than a diversifying feature of the final product; this is particularly apparent for auxiliary systems such as water drainage pumps or fans normally found in domestic appliances. Infineon Technologies' new IMC300 combines the iMOTION Motion Control Engine (MCE) motor with an additional microcontroller based on the Arm Cortex-M0 core. The IMC300 portfolio targets variable-speed drives that require high application flexibility.

Controlling a motor's speed and direction presupposes the mode of operation of the motor in use and requires different techniques and circuits depending on the type of motor and the different application requirements. The purpose of a motor controller is to be able to act manually or automatically on the electric motor (start-stop, advance-inversion, speed, torsion, and protection against voltage overloads).

5G Makes Wireless Time Sensitive Networking a Reality

Recent advances in 5G and IEEE 802.11 wireless connectivity technologies to provide low-latency and high reliability communications continue to generate significant industry interest in extending time sensitive networking (TSN) capabilities over wireless. As TSN-enabled devices and networks continue to extend across verticals opening the door to similar capabilities over wireless is a natural next step.

"For manufacturers of end-devices and systems across IIoT and other market verticals, there are numerous benefits of implementing Ethernet-based time sensitive networking (TSN) as a technology – a few being TSN's low bounded latency and high reliability," Dave Cavalcanti, principal engineer at Intel and chair of the Avnu Alliance Wireless TSN. The Avnu Alliance is an industry consortium driving open, standards-based deterministic networking.

It's Time to Take Advantage of 3D Printing

Over the last decade, awareness of the value of AM has grown significantly within the manufacturing community, explains Rajeev Kulkarni, VP, Strategy, 3D Systems. "The AM industry has made a dramatic transition – moving from being used primarily for prototyping to production solutions. AM is now considered a step within the manufacturing process and is part of multiple manufacturing workflows," says Kulkarni. "We have seen evidence of this in the most recent E&Y study that confirms the adoption of additive is ramping – moving from the researching and prototyping phase to production – with nearly 75% of companies embracing the technology."

This adoption has been facilitated by a combination of innovations – not only in printing technologies, but also in materials science. As the technology has continued to mature, the focus has moved from feeds and speeds to applications and materials, indicating a level of comfort across the growing customer base.

Smartphone Production to Drop by 16.5% YoY in 2Q20

According to the latest investigations by TrendForce, the global spread of COVID-19 in 2020 has brought about the greatest magnitude of declines in the smartphone market in recent years. Global smartphone production for 1Q20 fell by 10% YoY to around 280 million units, the lowest in five years, due to pandemic-induced disruptions across the supply chain, such as delayed work resumption and labor/material shortages, which caused low factory capacity utilization rates. Turning to 2Q20, there are now improvements to both the supply chain and the work resumption statuses of manufacturing and assembly lines, but the pandemic is now making its effects felt on the demand side of the smartphone market by tanking major economies worldwide. Global production for 2Q20 is now estimated to register another YoY drop of 16.5% to 287 million units, the largest decline on record for a given quarter. TrendForce forecasts total yearly production volume of 1.24 billion units, an 11.3% decrease YoY.