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The Global Semiconductor Industry Analysts

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Cadence Expand into System Analysis Market

SAN FRANCISCO — Cadence Design Systems is moving beyond semiconductor EDA and expanding into the system analysis market, initially with an electromagnetic field solver but with plans to add other tools with the capability to analyze complete systems.

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Japanese Carmakers Hesitantly Enter AV Market

Japan's automotive industry is freaking out... sort of.

Japanese carmakers know they've been late to the autonomous driving party, while waiting for a low-risk, high-return option in this fledgling market. Trouble is, that strategy isn't working.

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Intel Backed Startup to Optimize and Monitor

Startup ProteanTecs snagged \$38 million from investors including Intel to take chip reliability to a new level using machine learning. The company claims its products optimize and monitor chips from design through to their operation in the field, reducing design time and defects while increasing yields.

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TALK TO US



Renesas To Introduce IEC 62433-4-2 Compliant Secure MPU

Renesas Electronics Corporation is planning to release its first IEC 62433-4-2 compliant secure MPU solution by the end of 2019, as part of its efforts to enable developers to reduce the amount of time needed to obtain security certification of connected industrial control systems based on its RZ/G Linux platform.

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Level 5 AVs Not Expected Until After 2035

Given the recent lane recognition flaw uncovered by Tencent Keen Security Lab in Tesla's autopilot feature, it may come as no surprise that we are still a little way away from full level 5 autonomous vehicles.

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Cadence Expand Into System Analysis Market

SAN FRANCISCO — Cadence Design Systems is moving beyond semiconductor EDA and expanding into the system analysis market, initially with an electromagnetic field solver but with plans to add other tools with the capability to analyze complete systems.

Cadence's new 3D Solver is the first product in its Clarity line of system analysis tools. The tool boasts electromagnetic simulation capability that delivers up to 10 times the performance of Cadence's previous-generation field solver. The Clarity 3D Solver also offers a distributed multiprocessing architecture that gives it "virtually unlimited capacity" along with "gold-standard accuracy," according to Cadence.

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Japanese carmakers know they've been late to the autonomous driving party, while waiting for a low-risk, high-return option in this fledgling market. Trouble is, that strategy isn't working.

I've been surprised at the hesitancy of many Japanese carmakers to pursue autonomous vehicle (AV) development. Along with this, they've done little to prepare for the onset of new transportation services using self-driving cars.

I suppose you could argue that the Japanese have been wiser than Western counterparts by intentionally avoiding the AV hype. Maybe so. But my reading is that's mistaking complacency for caution. Japanese car OEMs have been sitting on the fence in AV development, despite knowing that their vehicle sales could stall in the future, as more users worldwide opt for pay-per-use services over car ownership.

Intel Backed Startup To Optimize and Monitor Chip

SAN JOSE, Calif. — Startup ProteanTecs snagged \$38 million from investors including Intel to take chip reliability to a new level using machine learning. The company claims its products optimize and monitor chips from design through to their operation in the field, reducing design time and defects while increasing yields.

"We are creating visibility that didn't exist in this industry before. We want to paint a high-resolution picture of what's going on in the chip from many perspectives like a self-driving car that uses cameras, radar and lidar," said Shai Cohen, a co-founder of Mellanox who left the company two years ago and founded the startup with two longtime colleagues.

Renesas To Introduce IEC 62433-4-2 Compliant Secure MPU

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The IEC 62433 set of standards, developed by the International Society of Automation (ISA) as American National Standards and adopted globally by the International Electrotechnical Commission (IEC), is designed to provide a flexible framework to address and mitigate current and future security vulnerabilities in industrial automation and control systems (IACS). With the proliferation of internet of things (IoT), the risk of cyberattacks on industrial control systems for infrastructure facilities, such as manufacturing plants and power stations, also grows. Hence, IEC 62433 covers all layers (operators, system integrators, and equipment suppliers engaged in the manufacturing of industrial control systems) and all players (enterprises and organizations involved in industry and public infrastructure).

Level 5 AVs Not Expected Until After 2035

Given the recent lane recognition flaw uncovered by Tencent Keen Security Lab in Tesla's autopilot feature, it may come as no surprise that we are still a little way away from full level 5 autonomous vehicles. In their research, the lab proved that by placing interference stickers on the road, the Tesla autopilot system would capture that information and make an abnormal judgement, which causes the vehicle to enter into the reverse lane.

It's timely then that a report released this week in the UK said that based on current technology roadmaps and real-world applications, full and unconditional automation for level 5 autonomous vehicles is unlikely to be introduced before 2035. One of the primary reasons it states for this is the technology challenge involved in equipping AVs to tackle 'all possible unusual driving situations under all driving situations under all driving conditions and in all environments'.