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Panasonic Discusses Hydrogen Technology Roadmap

One problem to be solved for the future of humanity is related to energy, global warming, and the depletion of fossil fuels. Panasonic is deploying significant financial and technical resources to improve the hydrogen technology applied in future vehicles and in our homes. In an interview with EE Times Europe, Junichi Suzuki, chairman and CEO of Panasonic Europe B.V., and Max Fujita, head of European Fuel Cells at Panasonic, discussed the plans to help shape a hydrogen society and the company's hydrogen technology in the market.

Hydrogen produces energy through a chemical reaction involving oxygen, and the only by-product of the process is water. Renewable hydrogen is clean and highly efficient and is an energy source with zero impact on the environment. That is why Panasonic is continuing its hydrogen research and development work that began decades ago.

"Decarbonization is a global issue, and Panasonic's philosophy is to contribute to environmental protection with clean energy sources. Hydrogen is one of the elements that will contribute to the zero-emissions target," said Suzuki.

Bosch Sensortec Launches 4-in-1 Environmental MEMS Sensor with AI

The Covid-19 pandemic has stressed the importance of improving indoor air quality. Whether at home, in the office or in public transportation, it is more important than ever to ensure the air we breathe is clean and safe. Bosch Sensortec has developed an environmental MEMS sensor and an AI-based software to reduce the risk of virus infection.

MEMS sensors have made their way into our everyday lives. Nonetheless, to continue to provide value to the customers, Bosch Sensortec is convinced that a stronger focus on hardware-software co-design is required by using advanced algorithms and embedded AI.

For Bosch Sensortec, sensor software will become increasingly intelligent, turning MEMS sensors into more accurate, more secure, and personalized systems that can help the user adapt to any situation. Software adds value not only to the sensor but also to the entire system, said Ralf Schellin, vice president and head of product area MEMS at Bosch Sensortec, at the recent MWS 2021 MEMS Titans Webinar.

TSMC Boosts Capital Budget Again, to \$30B

TAIPEI — Taiwan Semiconductor Manufacturing Co. (TSMC) has again raised its 2021 capital expenditure target to \$30 billion after customer demand exceeded the company's expectations three months ago.

The world's biggest chip foundry, which is running full tilt with capacity utilization in the neighborhood of 100%, in January was aiming for capex this year to reach about \$28 billion. The new \$30 billion figure nearly doubles the \$17.2 billion the company spent in 2020.

TSMC said during a conference call with analysts that it upgraded the target in order to meet increasing demand for advanced and specialty technologies in the next several years. About 80% of the budget will go to leading process technologies, including 3nm, 5nm and 7nm, with the remaining 10% earmarked for advanced packaging and mask making, and about 10% for specialty technologies.

Synopsys Tackles SoC Design with Unified Circuit Simulation Flow

With chip design becoming increasingly complex with multiple components and technologies coming together in hyper-convergent integrated circuits (ICs), a single system approach to analyzing the system would be a logical way of simplifying the complexity. Synopsys is addressing this with a unified circuit simulation workflow, PrimeSim Continuum, to deal with both the complexity and scale of today's heterogeneous architecture chips for memory, artificial intelligence (AI), automotive and 5G applications.

Launched at the SNUG World international user conference, PrimeSim Continuum is an all-in-one solution consisting of simulation engines including PrimeSim SPICE, PrimeSim Pro, PrimeSim HSPICE and PrimeSim XA. This design environment delivers a seamless simulation experience around all PrimeSim engines with comprehensive analysis, improved productivity and ease of use. It forms the foundation of the Synopsys custom design platform.

Silicon Labs Sells Infrastructure & Auto Biz to Get on IoT Rocket Ship

Silicon Labs is not only doubling down on IoT, it is staking its future on anticipated "hypergrowth" in the market, according to CEO Tyson Tuttle. The Austin, Texas company announced Thursday the sale of the company's Infrastructure & Automotive business to Skyworks for \$2.75 billion.

Skyworks, best known for claiming the global lead in RF semiconductors for 5G, will gain a complementary product portfolio. The Irvine, Calif., company believes the deal will accelerate its expansion in fast-growing market segments that include electric and hybrid vehicles and 5G wireless infrastructure.