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Software Propels MEMS to Smarter Systems

Hardware, and particularly MEMS sensors, will remain an essential part in end devices, but moving forward, software will be equally important in bringing value to the user. Bosch Sensortec believes sensor software will become increasingly intelligent, turning MEMS sensors into more accurate and personalized systems that can help the user adapt to any situation.

"Software adds new capabilities to classical sensor components," Markus Ulm, CTO of Bosch Sensortec (a fully owned subsidiary of Robert Bosch GmbH), told EE Times. "I am deeply convinced it is making a big difference to our industry," fostering MEMS sensors adoption in current and new applications.

Sigfox Debuts 'Private Area Network,' Or PAN

Singapore — Sigfox announced an alliance with travel industry firm Amadeus for luggage tracking and beyond. Separately, it announced improved geolocation accuracy using GPS and WiFi. The big announcement was the launch of its new private area network (PAN) offer, which the company says presents customers with a choice between a private or global service, dependent on budget and business needs.

Sigfox described a PAN as a private network sitting on the Sigfox public network. While the official reason is that it gives customers the option of accounting for their network connectivity as either capex or opex, Sigfox executives also indicated that it gives some customers the extra assurance that they have their own dedicated network, with the associated assurances about data privacy and security.

Micron Claims Fastest SSD; Buys Al Startup

Micron Technology introduced what it claims is the world's fastest solid state drive (SSD), and also announced the acquisition of FWDNXT (pronounced "forward next"), a startup that specializes in neural networking with a product lineup that includes a series of inference engine modules based on Xilinx FPGAs.

The announcements were made at the Micron Insight conference held at Pier 27 in San Francisco. The conference focused on how to accelerate intelligent systems by improving data access and analysis speed in edge devices.

Micron CEO Sanjay Mehrotra said in his opening remarks at the conference that the company shipped 6 million wafers (including DRAM/3D XPoint/NAND) in fiscal year 2019, which translates into roughly 3 billion solutions for game systems, mobile phones, Internet of things applications, smart factories, and more

Panasonic To Exit Semiconductor Business

With its decision to sell its chipmaking operations to Taiwan's Nuvoton Technology, Panasonic will leave the chipmaking industry where it was once among the world's top-10 players in the 90s.

Panasonic has agreed to sell its loss-making semiconductor business to Nuvoton for US\$250 million. Operated by Panasonic Semiconductor Solutions (PSCS), the business covers semiconductor products including image sensors, laser diodes, MOSFETs, motor driver ICs, power devices, radio-frequency devices, and audio and visual solutions.

Panasonic scaled down its semiconductor operations in 2014, when the electronics giant transferred its ASEAN-based assembly factories to UTAC Manufacturing Services. Earlier in 2019, Panasonic also sold its discrete semiconductor business to Rohm.

Boosting the Quantum Computing

Researchers Samuele Ferracin, Theodoros Kapourniotis, and Dr. Animesh Datta of the University of Warwick have developed a protocol that allows a quantum computer to control its responses to difficult problems. In other words, it permits to quantify the effects of noise on the outputs of quantum computers. Noise is a variable that influences the hardware state of a quantum machine but is outside the user's control, such as temperature fluctuations. This can affect the accuracy of the results of any system.

The test produces two percentages of analysis that allow determining if their machines are working properly to improve their performance: a crucial first step in establishing the usefulness of quantum computing in the future.