FutureHorizons

FH MONDAY

3 October 2016



Tel: +44 1732 740440 • Fax: +44 1732 740442 e-mail: <u>mail@futurehorizons.com</u>• <u>http://www.futurehorizons.com/</u> Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

Massive Sensor Fusion for Cars Is HERE

Digital mapmaker HERE — owned by three leading German automakers BMW, Audi and Daimler — is planning the 2017 launch of new crowd-sourced data services based on sensory data collected from luxury cars.

HERE will provide both the driver and the car's assisted-driving system with services that range from "HERE Hazard Warnings" and "HERE On-Street Parking" to "HERE Road Signs" and "HERE Real-Time Traffic."

Angelos Lakrintis, industry analyst, automotive practice at Strategy Analytics, told us, "The car industry is undergoing massive digital disruptions. Real-time analytics, ecosystems are becoming more powerful, with autonomous vehicles on the horizon."

Wide-Bandgap Boosts EVs

In 2010, the U.S. Department of Energy (DoE) set a goal for electric vehicle inverters to be boosted from 4.1 kW/L to 13.4 kW/L by 2020. Now, a 12.1-kW/L inverter has cleared the way to meeting or beating that goal. By using widebandgap materials — namely silicon carbide (SiC) — North Carolina State University (NC State) achieved the morethan-tripled performance and has a prototype to prove it (see photo) at the IEEE Energy Conversion Congress and Exposition (Sept. 18–22, 2016, Milwaukee).

"Wide-bandgap power switches offer higher temperature, higher frequency and higher voltage operation capability with lower losses compared to the currently used silicon-based power switches," professor lqbal Husain at NC State told EE Times.

Telco Revamp is a Soft Opportunity

Massive changes are taking place in telecom networks which will power growth in smartphone use and the next big things.

After Apple announced another iPhone to a flat reaction from Wall Street, it appears the smartphone revolution is fading into the past. The maturing sector has seen replacement cycles for consumers lengthened, and annual releases of new phones with incremental improvements and less wow factor.

After almost ten years of incredible improvements, things have slowed. Telecom carriers were focused on the landgrab of bringing customers to their network with the latest phones and data plans. As smartphone sales plateau, they need to look inwards at their core assets, the network itself.

Cross-Industry Alliance Targets 5G Development

Carmakers Audi, BMW and Daimler have teamed up with telecommunications equipment providers Ericsson, Huawei and Nokia as well as semiconductor vendors Intel and Qualcomm to evolve, test and promote communications solutions for connected mobility. The efforts will focus on the development of 5G mobile technologies.

The "5G Automotive Association" announced to develop, test and promote communications solutions, support standardisation and accelerate the commercial availability of such solutions. Users will benefit in that the solutions will improve connected mobility and safety, ubiquitous access to services and integration of services with smart cities and intelligent transportation solutions. And of course, the technology to be developed will also address autonomous driving.

DDR4 Chipset Speeds Up NVDIMM Performance

Integrated Device Technology's DDR4 LRDIMM chipset has been selected as the interface solution for Diablo Technologies' Memory1 128GB system memory module. IDT's chipset enables flash memory to operate at the speed of DRAM in NVDIMM applications, which is a critical element for solutions like Memory1, according to the companies.

Memory1 provides 1TB or 2TB of system memory in a single two-socket server using economical, conventional flash memory. Diablo's flash-based DIMMs support a wide range of enterprise workloads, including big data analytics, database and caching servers.