



Artificial intelligence and automotive: Happy together

MAJEED AHMAD, AUTOMOTIVE CONTRIBUTOR

Advanced driver assistance systems (ADAS) and autonomous car designs are unleashing the levels of innovation unprecedented in the technology business. At the same time, however, the artificial intelligence (AI) gold rush is turning the industry upside down and, remarkably, these two technology juggernauts seem to be advancing in peaceful coexistence with each other.

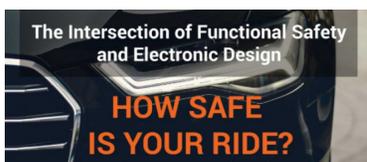
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Why Daimler selected Xilinx for AI and autonomous drive

BRANDON LEWIS, EDITOR IN CHIEF

Daimler didn't select Xilinx as a partner simply to join the bandwagon. Rather, the German automaker is focused on autonomous drive applications and artificial intelligence (AI).

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How safe is your ride?

ANUPAM BAKSHI, AGNISYS

In an industry that has gone through an incredibly rapid transformation over the past few years alone, auto manufacturers all over the world have had to re-think nearly every aspect of their own processes within the context of the 21st century. Because of this, an almost incredible emphasis has been placed on what concepts like "functional safety" even mean in 2018 (or 2019, or 2020 and beyond).

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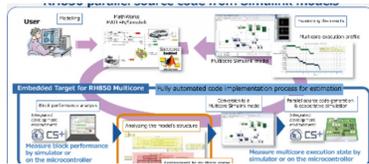
Automotive open source virtualization: The AGL path towards software-defined connected cars

MICHELE PAOLINO, AUTOMOTIVE GRADE LINUX VIRTUALIZATION EXPERT GROUP

Autonomous driving and software-defined vehicles require the execution of several hundreds functions with different functional safety requirements. In this context, there is a need to extend

the Automotive Grade Linux (AGL) platform to support an additional technology allowing the safe and efficient combination of mixed critical functions: virtualization.

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Automotive multicore gets a model-based development boost

BRANDON LEWIS, EDITOR IN CHIEF

The performance and capabilities of multicore automotive control MCUs enable automakers and Tier 1s to add new features and differentiation. However, these devices also require that automotive software developers move from fairly straightforward control programming in C to more advanced parallel programming techniques. The time, skill, and cost associated with this development is not insignificant, especially when developing multi-rate control systems (or systems with multiple control periods).

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Automotive functional safety and cybersecurity validation framework

EMBEDDED COMPUTING DESIGN STAFF

LHP Engineering Solutions has created a framework for a National Instruments-based functional safety and cyber security validation platform. The impactful automotive demonstration leverages existing technology while introducing a viable V2X communication option and addressing specific automotive functional safety risks in the cybersecurity realm.

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Automotive functional safety and cyber security validation framework

EMBEDDED COMPUTING DESIGN STAFF

LHP Engineering Solutions has brought together

National Instruments, PTC, and AASA LiFi subsidiary 01LightComm to create a framework for an NI-based Functional Safety and Cyber Security Validation Platform. The demonstration addresses the universal automotive principles of functional safety violations resulting from cyber security compromises.

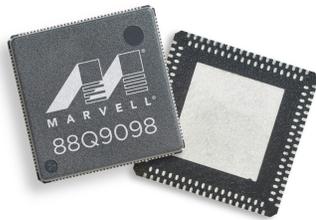
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ON Semiconductor announces ultra-high PSRR LDO regulators

EMBEDDED COMPUTING DESIGN STAFF

ON Semiconductor has announced a new range of ultra-low noise LDO regulators with the industry's best power supply rejection ratio (PSRR), enabling better performance in noise sensitive analog designs. The new NCP16x series, along with the AEC-Q100 qualified NCV81x automotive variants, delivers improved performance in applications such as automotive ADAS image sensor modules

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Marvell's 802.11ax concurrent dual Wi-Fi targets next-generation connected cars

RICH NASS, BRAND DIRECTOR

Marvell recently introduced what it claims is the industry's first high-efficiency wireless 802.11ax solution with 2x2+2x2 concurrent dual Wi-Fi, dual-mode Bluetooth 5/Bluetooth Low Energy, and 802.11p for connected vehicles. The 88Q9098 combo solution enables gigabit-level performance, high reliability, and enhanced security for the car.

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Win the autonomous race to market with Crystal Group RACE

CRYSTAL GROUP

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Accelerating the connected car

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