



SAFE Vehicle: Emergency Response Vehicle of the Future



The SAFE Vehicles project was designed to resolve reliability and performance issues in relation to vehicle power consumption, human-machine interfaces and ergonomics, and in-vehicle component and system integration of emergency response vehicles.

<<< Standardised Approach for Emergency Vehicles

Information and communication technologies have gained widespread adoption throughout society, and as such, emergency services are quickly learning to harness the positive benefits of these technologies for driver safety and security, reduced response times, speed enforcement, and navigation assistance. VPAC, in collaboration with the AutoCRC, Monash University Accident and Research Centre, Monash University Electrical Engineering and the National Safety Agency (NSA), developed a modular, standardised and adaptable framework to support new and future technologies in the public safety arena. The project, called the Standardised Approach for Emergency (SAFE) Vehicles, addressed issues surrounding driver distraction, in-vehicle system integration and power management.

Advanced Human Machine Interface & Power Management

A concept police vehicle, based on the Holden VE SV6 Commodore, was built to trial advanced information and communication technologies including remote network access, automated number plate and fingerprint recognition, video surveillance access, live traffic feeds and vehicle diagnostics. The advanced police car has five networks including Bluetooth and Wi-Fi which allows it to connect to PDAs or stream a live video feed to other police cars.

While these technologies have the potential to dramatically enhance the performance of our national safety and security response teams, they place heavy demands on the standard car battery and the vehicle driver. Working with the AutoCRC, VPAC designed a power supply management controller to improve power flow to in-vehicle components and a standard interface platform to minimise the duplication of technology. VPAC also evaluated the ergonomics design and human-machine interface issues for minimising driver distraction and improving safety and user interaction with technology.

Heading into the future, VPAC and the AutoCRC will continue to work together to apply virtual engineering and computational prototyping methodologies to create vehicles that are smarter, safer and cleaner.

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