

## **New SAE International Book Explores How Designing for Reliability Minimizes Potential Automotive Network and Communications Faults**

*SAE International announces its new book, [Design and the Reliability Factor](#) available now on the SAE International website.*

WARRENDALE, Pa. ([PRWEB](#)) January 22, 2016 -- SAE International announces its new book, [Design and the Reliability Factor](#) available now on the [SAE International website](#).

Sophisticated infotainment systems, lane departure warning, adaptive cruise control, and blind-spot monitoring are increasingly common in cars today. The proliferation of automotive electronics and other “smart” features has increased the market for automotive semiconductor devices and the number of sensors per vehicle.

Yet, more chips and greater functionality translate to further networking/communications activity within the car, and that raises the prospect of potentially serious errors. How to minimize them by design is the focus of this book, which contains seven of SAE International’s handpicked technical papers, covering:

- A way to calculate the reliability of priority-driven, real-time components with respect to timing failures, resulting in a realistic estimate of each component’s reliability
- A delayed-decision cycle detection method that can detect and prevent spoofing attacks with high accuracy
- An AUTOSAR-compliant automotive platform for meeting reliability and timing constraints
- An eight-point process for determining the cause of failures with real-world cases in which the process was used
- The use of accelerated reliability and durability testing technology for better performance estimation
- How to achieve reliable sensor-fusion despite system complexity and inconsistency
- How to improve domain controller availability while maintaining functional safety in mixed-criticality automotive safety systems

The book is edited by John Day.

Book details:

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For more information, including free front and back matter, or to order [Design and the Reliability Factor](#), visit <http://books.sae.org/pt-174/>.

To request an electronic review copy of the book, email [pr\(at\)sae\(dot\)org](mailto:pr(at)sae(dot)org). Forward published reviews to Shawn Andreassi at [pr\(at\)sae\(dot\)org](mailto:pr(at)sae(dot)org) or SAE International, 400 Commonwealth Dr., Warrendale PA, 15096-0001, or to receive a print copy of the book or another equivalent SAE International book.



SAE International is a global association committed to being the ultimate knowledge source for the engineering profession. By uniting over 137,000 engineers and technical experts, we drive knowledge and expertise across a broad spectrum of industries. We act on two priorities: encouraging a lifetime of learning for mobility engineering professionals and setting the standards for industry engineering. We strive for a better world through the work of our charitable arm, the SAE Foundation, which helps fund programs like A World in Motion® and the Collegiate Design Series™.

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