

**- PRESS RELEASE -**

## **MISRA consortium releases guidelines for Automotive Safety Arguments**

The MISRA consortium, a world-leading collaboration between manufacturers, component suppliers and engineering consultancies, has announced the release of a new document, 'Guidelines for Automotive Safety Arguments'.

The guidelines provide clarity on how to develop Safety Arguments in line with existing standards, with a view to justifying that the risk associated with an automotive system is within industry norms. Types of evidence to support the argument are also suggested, as well as advice on practical application.

Though absolute safety, the absence of all risk, is an infeasible target, particularly for complex road vehicle systems involving embedded electronics and close interaction with human users, conformity with safety and quality standards and guidelines is necessary.

Engineers have an obligation to investigate and communicate the level of risk associated with their systems and services, and are expected to produce and explain the evidence for the safe design and use of these systems. A key part of this is explicitly justifying why the available evidence is sufficient and trustworthy.

The concept of Safety Cases has been widely adopted across the automotive industry and beyond. Most definitions of Safety Case are centred on two concepts: evidence and argument. Current safety standards are, in general, good at providing detailed guidance on the different types of evidence that are recommended for meeting the compliance and safety requirements. However, there has been a lack of practical guidance on how safety arguments are developed, reviewed and maintained for automotive applications.

The new guidelines provide a more holistic framework through which to develop Safety Arguments, with practical guidance and examples.

David Blackburn, Chair of the MISRA consortium, said, "Without a well-developed Safety Argument, the evidence can become a lengthy, hard-to-navigate, list of documents. In more 'safety mature' industries, such as aviation and defence, Safety Arguments have been adopted to great benefit. Done well, they can knit together all of the documentation into a logical, robust justification for the safety of a product."

The concepts are applicable to safety standards used in all industries and are illustrated by detailed application to ISO 26262:2018.

Mr Blackburn added, "The purpose of these guidelines is to provide a set of structured ideas that any organisation may choose to adapt to its own needs. Although this model is illustrated and mainly used in this document for the development of safety arguments against the ISO 26262 objectives and requirements, it is not associated with any specific process."

The new document is now available to purchase [online](#). Electronic copies are available immediately and hard copies will be dispatched in October.

### **Notes to editors**

For more information, or to arrange an interview with David Blackburn, contact Luke Harrison on [luke@lhcomms.com](mailto:luke@lhcomms.com), or (44)7792 051739.

### **About MISRA**

MISRA is a collaboration between manufacturers, component suppliers and engineering consultancies which seeks to promote best practice in developing safety and security-related electronic systems and other software-intensive applications. ([www.misra.org.uk](http://www.misra.org.uk))

The MISRA consortium was conceived in the early 1990s as a project in the UK government's 'SafeIT' programme to develop guidelines for embedded software in road vehicle electronic systems. Membership now consists of members from other industries in the safety-related embedded systems world, alongside automotive companies.

### **About the MISRA Safety Argument working group**

The working group consists of functional safety representatives from industry and academia. Significant contributions were provided by the following members (in alphabetical order):

- Aston Martin Lagonda
- Bentley Motors Ltd
- Delphi Technologies Ltd
- HORIBA MIRA Ltd
- Jaguar Land Rover
- Protean Electric
- Ricardo UK Ltd
- University of York
- ZF