

# AUTOSAR Appropriates Functional Safety and Multi-core Exploitation

Bert Böddeker

► **To cite this version:**

Bert Böddeker. AUTOSAR Appropriates Functional Safety and Multi-core Exploitation. Sang Lyul Min; Robert Pettit; Peter Puschner; Theo Ungerer. 8th IFIP WG 10.2 International Workshop on Software Technologies for Embedded and Ubiquitous Systems (SEUS), Oct 2010, Waidhofen/Ybbs, Austria. Springer, Lecture Notes in Computer Science, LNCS-6399, pp.2, 2010, Software Technologies for Embedded and Ubiquitous Systems. <10.1007/978-3-642-16256-5\_2>. <hal-01061223>

**HAL Id: hal-01061223**

**<https://hal.inria.fr/hal-01061223>**

Submitted on 5 Sep 2014

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



# AUTOSAR Appropriates Functional Safety and Multi-core Exploitation

Bert Böddeker<sup>1</sup> and Rafael Zalman<sup>2</sup>

<sup>1</sup> DENSO AUTOMOTIVE Deutschland GmbH  
Eching, Germany

<sup>2</sup> Infineon Technologies AG  
Automotive Electronics  
Munich, Germany

**Abstract.** The main subject of this presentation is the connection between AUTOSAR as software standardization initiative and the automotive functional safety domain. The History of AUTOSAR and the functional safety evolution for road vehicles will be presented together with a short overview of the typical implementation of these techniques (E-Gas, X by Wire, etc.).

New emerging multi-core architectures are influencing the automotive related software implementations and have relevance in both software standardization and in the implementation of specific functional safety techniques. The actual status will be presented together with the potential future techniques.

It is discussed how much support AUTOSAR can already provide for practical implementations of functional safety and multi core today followed by an outlook on ongoing research and further standardization needs.