Tool-Supported Validation of Embedded Systems in Automotive Applications

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Abstract

Safety and reliability are crucial factors in the design of electronic circuits and systems in automotive as they are often used in safety-critical applications (e.g., ABS, Airbag). Therefore, methods and tools play a significant role in establishing the correct function. This talk will address which methods like formal verification are already applied for designing such systems, which additional requirements result from the special application domain, and where further development is necessary, in order to improve methods and tools especially in the automotive domain.

Curriculum Vitae

Thomas Kropf studied electrical engineering at the Technical University of Darmstadt. After receiving his doctoral degree and habilitation degree from the Faculty of Computer Science at the University of Karlsruhe and a work stay at Synopsys, Mountain View, California, he changed to Robert Bosch GmbH, where he was responsible for the development and introduction of new methods and design flows for circuit designs in microelectronics. Since the middle of 2002, he is responsible for the software development of the business unit „Driver Assistance Systems". Additionally, as a lecturer he is leading the research group „Hardware Verification" at the Wilhelm-Schickard-Institut of Computer Science at the University of Tuebingen.