

TS2.3

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Testing of Automotive IC's: Introduction and Advances

Davide Appello holds a degree in Electronics Engineering from the Università di Pavia. He is with STMicroelectronics since 1994 where he is concerned with testability and testing and is currently product engineering director for the automotive digital products. Davide authored and co-authored 60+ papers published at conferences and on journals. He is active within TTTC and TTEP groups of IEEE.

Oscar Ballan holds a degree in Electronics Engineering from the University of Padova and a Masters in Business Administration from Hult International Business School. With 20+ years of experience in the Semiconductor industry he has been working on Functional Safety for integrated circuits since 2008 leading various assessments for different silicon vendors. He is author and co-author of various publications related to fault grading of hardware and software safety mechanisms and fault injection on integrated circuits.

"Electronics content in the car is constantly growing. On top of traditional applications for engine control, transmission, braking/steering, passive safety, body and dashboard also multimedia, advanced driver assistance and car2Xsegments are rapidly growing. The stability and extended duration in manufacturing of these components makes them very attractive for the industry. Extreme product quality achieved with controlled cost is the key challenge. The proposed tutorial covers a broad range of topics which are defining the testability, testing and manufacturing requirements of automotive products, keeping in mind their possible utilization for extreme safety-sensible applications like autonomous driving. Advanced topics like testing of safety critical and secure devices are proposed beside more traditional topics like testability, test development, qualification, industrialization, burn-in and manufacturing. Relevant industrial cases will be proposed to participants."