



Call for Contributions

Special Issue on Automotive Reliability & Test Strategies

IEEE Design and Test seeks original manuscripts for a special issue on "Automotive Reliability and Test Strategies". The special issue will focus on test and reliability demands of automotive and mission-critical electronics, including design, manufacturing, burn-in, system-level integration and in-field test, diagnosis and repair solutions, as well as architectures and methods for reliable and safe operations under different environmental conditions. With increasing system complexity, security, stringent runtime requirements for functional safety and cost constraints, the reliable operation of electronics in today's automated driving systems has become a major challenge.

Topics of interest include but are not limited to:

- Functional Safety and Security
 - Functional safety and security in the automotive systems
 - Automotive functional safety standards and certification
 - Reuse of test infrastructure in automated driving solutions
 - System level test for safety critical systems
 - Hardware/Software architectures for functional safety and security
- Dependability
 - Multi-layer dependability evaluation
 - Verification and validation of automotive systems
 - Reliability challenges of autonomous driving and e-mobility
 - Aging effects on automotive electronics
 - Power-up, power-down and in-system periodic test
- Testability
 - Built-In Self-Test (BIST and SBST) in automotive systems
 - Functional and structural test generation for automotive systems
 - Automotive quality volume manufacturing test and minimizing DPPM
 - Life cycle test cost minimization in safety critical systems

Paper Submission and Review Schedule:

Submission Deadline: 6 April 2017

Notification of First Round: 15 June 2017

Submission of Revision: 20 July 2017

Final Notification: 17 August 2017

Final Paper Due: 31 August 2017

Guest Editors Contacts

Hans-Joachim Wunderlich, *University of Stuttgart*, wu@informatik.uni-stuttgart.de

Yervant Zorian, *Synopsys Inc*, yervant.zorian@synopsys.com