**CALL FOR PAPERS**

**21st IEEE International Mixed-Signal Testing Workshop**

Hotel Eden Roc, Sant Feliu de Guixols, Catalunya, Spain

July 4-6, 2016

[http://tima.imag.fr/conferences/imstw/imstw16/](http://tima.imag.fr/conferences/imstw/imstw16/)

under the umbrella of

**1st Federative Event on Design for Robustness**

[http://tima.imag.fr/conferences/fedfro/fedfro16](http://tima.imag.fr/conferences/fedfro/fedfro16)

The role of nano-electronic systems is rapidly expanding in every facet of modern life. To interact with environment and users the Integrated Circuits need analog, mixed-signal, RF or MEMS blocks. These blocks could represent a low part of the chip area but have a major impact on IC Yield and reliability. Indeed, one of the major bottlenecks nowadays for nano-electronics is the post-manufacturing testing of their analog, mixed-signal, RF, and MEMS functions, in order to guarantee outgoing quality while not sacrificing yield. Testing such functions is accounting for a large portion of the overall manufacturing cost.

The main reasons include the pressing demand for zero defective parts-per-million, the increasing frequency of operation, the high levels of integration, the limited controllability and observability of embedded blocks, the integration of heterogeneous devices onto the same substrate, the requirement for specialized, high-cost equipment, the new defect mechanisms and excessive process variations occurring in advance technology nodes, the long test times, etc.

In addition to the post-manufacturing testing problem, modern safety-critical, mission-critical, and remote-controlled systems need to be equipped with self-test, concurrent error detection, and fault-tolerance capabilities so as to detect early reliability hazards and guarantee reliable operation even in harsh environments.

For such systems, diagnosing the sources of failures occurring in the field of operation is of vital importance, in order to apply corrective actions and to prevent failure reoccurrence.

The International Mixed-Signal Testing Workshop (IMSTW) is one of the main forums that bring together analog, mixed-signal, RF, and MEMS the test community to discuss ideas and views on the above challenges. The scope of the workshop includes, but is not limited to, the following topics:

- Test generation
- Fault modeling and simulation
- Test metrics estimation
- Self-healing and self-adaptation
- Built-in self-test
- Design-for-test
- Fault diagnosis
- Failure analysis
- Defect characterization
- ATE technology
- Economics of test and yield optimization
- On-line test
- Fault tolerance
- Reliability and design-for-reliability

**Submissions:** Submissions should be via the workshop web-site: [http://tima.imag.fr/conferences/fedfro/fedfro16](http://tima.imag.fr/conferences/fedfro/fedfro16)

For a selection of papers will be invited to a special issue of Springer Journal of Electronic Testing: Theory and Applications (JETTA).

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**Program Information**

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For all updated information, please visit the event web site: [http://tima.imag.fr/conferences/imstw/imstw16](http://tima.imag.fr/conferences/imstw/imstw16)