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CALL FOR PAPERS
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The 29th IEEE International Symposium on On-Line Testing and Robust System Design (IOLTS 2023), will be an in-person event at the Minoa Palace Resort at Platanias, Chania, Crete (Greece, https://www.minoapalace.gr/), on July 3rd-5th, 2023!

Submit your Paper now! https://welcome.molesystems.com/tttc/IOLTS/2023/login.php

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SCOPE
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Issues related to On-line testing techniques, and more generally to design for robustness, are increasingly important in modern electronic systems. In particular, the huge complexity of electronic systems has led to growth in reliability needs in several application domains and pressure for low cost products. There is a corresponding increasing demand for cost-effective design for robustness techniques. These needs have increased dramatically with the introduction of nanometer technologies, which impact adversely noise margins; process, voltage and temperature variations; aging and wear-out; soft error and EMI sensitivity; power density and heating; and make mandatory the use of design for robustness techniques for extending, yield, reliability, and lifetime of modern SoCs. Design for reliability becomes also mandatory for reducing power dissipation, as voltage reduction, often used to reduce power, strongly affects reliability by reducing noise margins and thus the sensitivity to soft-errors and EMI, and by increasing circuit delays and thus the severity of timing faults. There is also a strong relation between Design for Reliability and Design for Security, as security attacks are often fault-based.

The International Symposium on On-Line Testing and Robust System Design (IOLTS) is an established forum for presenting novel ideas and experimental data on these areas. The Symposium is sponsored by the IEEE Council on Electronic Design Automation (CEDA) and by the IEEE Computer Society Test Technology Technical Council (TTTC). The Politecnico di Torino and the University of Athens will organize the 2023 edition.

You are invited to participate and submit your contributions to IOLTS'23. The areas of interest include (but are not limited to) the following topics:

- Dependable system design
- Dependable Computer Architectures
- Design-for-Reliability
- Design for Reliability approaches for Low-Power
- Cross-layer reliability approaches
- Fault-Tolerant and Fail-Safe systems
- Functional safety

- Self-Test and Self-Repair
- Self-Healing design
- Self-Regulating design
- Self-Adapting design
- Reliability issues of Low-Power Design
- Robustness evaluation
- Quality, yield, reliability and lifespan issues in nanometer technologies
- Variability, Aging, EMI, and Radiation Effects in nanometer technologies
- On-line testing techniques for digital, analog and mixed-signal circuits
- Self-checking circuits and coding theory
- On-line monitoring of current, temperature, process variations, and aging
- Power density and overheating issues in nanometer technologies
- Field Diagnosis, Maintainability, and Reconfiguration
- Design for Security
- Hardware Security
- Fault-based attacks and countermeasures
- Design for Robustness for automotive, railway, avionics, space, large industrial applications, IT infrastructure, cloud computing, and wired, cellular and satellite communications
- CAD for robust circuits design

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SUBMISSION
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Regular papers

The IOLTS Program Committee invites original, unpublished, and not currently under review submissions for IOLTS 2023.

Submissions are accepted through the IOLTS website: http://iolts.tttc-events.org

Submitted papers must be complete manuscripts, up to six pages (the references do not count towards the page limit and references don't have page limits) in a standard IEEE A4 two-column format. Papers exceeding the page limit will be returned without review. Authors should clearly explain the significance of the work, highlight novel features, and describe its current status.

If a paper is accepted as a full paper (6 pages) or a poster (2 pages), authors will be invited to prepare a camera-ready paper to be included in the formal proceedings of the conference, to register at least one author as a speaker (full registration rate), and to attend the conference in person.

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KEY DATES
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Title and Abstract registration: March 23, 2023
Paper submission: March 27, 2023
Notification of acceptance: May 10, 2023
Camera Ready: June 07, 2023

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ORGANIZING COMMITTEE
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Best regards,

Roberta Bardini
IOLTS23 Publicity Chair