5th IEEE International Workshop

Impact of Low-Power Design on Test and Reliability (LPonTR)

Annecy, France
May 31- June 1, 2012

LPonTR'12 Programme

Thursday, 31st May

15:30 – 16:30 Registration

16:15 – 16:30 Opening Remarks (A. Bystrov, P. Girard)

16:30 – 17:00 Keynote

- ***Robin Wilson***, STMicroelectronics, Crolles, France
  Manufacturable Energy Efficient IC design "Taming the Untamed World"

17:00 – 18:40 Special Session: *Power And Thermal Issues In 3D*

- ***Aida Todri-Sanial***, LIRMM, France
  Introduction by the Session Chair
- ***Pascal Vivet, Fabien Clermidy,*** *and* ***Denis Dutoit***, CEA-LETI, France
  Design-for-Test and Fault Tolerant Architecture for a 3D NoC TSV-based Infrastructure

--------- Coffee break ---------

- ***Vasilis F. Pavlidis*** *and* ***Giovanni De Micheli***, EPFL, Switzerland
  Low-Power Pre-Bond Testable 3-D Clock Distribution Networks
- ***Nicolas Peltier, Pierre Lebeaut, Philippe Duchene, Sylvian Kaiser***, DOCEA Power, France
  How 3D impacts thermal budget: illustration and tool for simulation

18:40 – 19:00 Test and 3D

- ***Indira Rawat*** (Govt. Engineering College, Ajmer, Rajasthan, India.)**,** ***M.K. Gupta*** (Maulana Azad National Institute of Technology, Bhopal, India), ***Virendra Singh*** (Institute of Technology, Mumbai, India)
  Thermal Aware Test Scheduling of 3D SoCs (research paper)

Friday, 1st June

8:30 – 9:00 Registration

9:00 – 9:30 Keynote

- ***Hans Manhaeve,*** Hans Manhaeve, Qstar, Belgium
  Deployment and Application of Current Testing in the Context of Low Power Design

9:30 – 11:30 Special Session: *Cross-Layer Reliability and Low Power*

- ***Ilia Polian***, Univ. of Passau, Germany
  Introduction by the Session Chair
- ***Michael Nicolaidis*** , TIMA, France
- ***Mehdi B. Tahoori*** , Karlsruhe Institute of Technology, Germany
  Dealing with Aging Effects: A Cross-layer Approach

--------- ***Coffee break*** ---------

- ***Norbert Wehn***, University of Kaiserslautern, Germany
  Cross Layer Error Resilience in Wireless Communication Systems

11:30 – 12:30 ATPG

- ***Nikolaus Mittermaier,*** Synopsys, Germany – invited talk
  Power Aware Test, a hot topic in Implementation and ATPG
- ***Irith Pomeranz,*** Purdue University, USA
  Diagnostic Test Sets with Increased Switching Activity for Transition Faults (research paper)

12:30 – 14:00 -------------- **Lunch** --------------

14:00 – 14:45 Fault-Tolerance and Energy

- ***Avinash Lingamneni,*** CSEM, Switzerland – invited talk
  Realizing Energy-Parsimonious Systems through "Inexact" Circuits
- ***Sergey Frenkel***, Russian Academy of Sciences, Moscow, Russia
  Some Probabilistic and Formal Techniques for Fault-Tolerant Design
  (research paper)

14:45 – 15:00 Closing Remarks (A. Bystrov, P. Girard)

LPonTR'12 Chairs

Alex Bystrov, Newcastle University, UK
Patrick Girard, LIRMM, France