



First IEEE International Workshop on Silicon Lifecycle Management

October 14-15, 2021



Keynote 1 (October 14, 3:40pm PT)

- TITLE: TRAINING IN TURMOIL: SILENT DATA CORRUPTION IN SYSTEMS AT SCALE.
- SPEAKER: RICH BONDERSON, GOOGLE



Keynote 2 (October 15, 8:00am PT)

- TITLE: RESILIENCE OF AI-DRIVEN APPLICATIONS
- SPEAKER: RAVISHANKAR K. IYER, UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN (US)



Panel Discussion (October 15, 1:40pm PT)

"THE SILICON LIFECYCLE MANAGEMENT ECOSYSTEM AT LARGE"

- MODERATOR: ROBERT JIN (NXP SEMICONDUCTORS)
- PANELISTS: SERGE LEEF (DARPA)
 - JOHN OAKLEY (SEMICONDUCTOR RESEARCH CORPORATION)
 - ANIS JARRAR (NXP SEMICONDUCTORS)
 - YERVANT ZORIAN (SYNOPTIS)
 - KRISHNENDU CHAKRABARTY (DUKE UNIVERSITY)
 - MARK TEHRANIPOOR (UNIVERSITY OF FLORIDA)

Technical Program (October 14)

3:30pm	Opening
3:40pm	Keynote - Rich Bonderson (Google)
4:20pm	Technical Session 1 (Chair: Yiorgos Makris, UT Dallas)
	Addressing the Lifecycle Challenge for Automotive-IC Reliability and Quality in Advanced CMOS Mehul Shroff (NXP)
	Unprecedented Scaling Demands Have Changed The Face Of EDA Prashant Seetharaman (Siemens)
	Telemetry for System Reliability Robert Kwasnick (Intel)

Technical Program (October 15, part I)

8:00am	Keynote – Ravi Iyer (UIUC)
8:45am	Technical Session 2 (Chair: Waleed Khalil, OSU)
	Electronics Health and Performance Monitoring from Production to the Field with Deep Data Analytics Evelyn Landman (ProteanTecs)
	The Critical Role of In-Silicon Visibility, Measurement, and Intelligent Analysis from Design to In-Field Stephen Crosher (Synopsys)
	Extracting Added Value from Test Dan Alexandrescu (iROC)
9:40am	Break
9:50am	Technical Session 3 (Chair: Hussam Amrouch, Uni Stuttgart)
	Accurate and Robust Malware Detection: Running XGBoost on Run-Time Data from Performance Counters Lorenzo Servedai (Infineon)
	physical assurance for electronics Navid Asadi (U Florida)
	Enabling Holistic Protection of FPGA Supply Chain with Blockchain Technology Tao Zhang (U Florida)

Technical Program (October 15, Part II)

10:45am	Technical Session 4 (Chair: Gajinder Panesar, Siemens)
	Using Silicon Lifecycle Management to Monitor Aging Effects on Automotive Electronics Lee Harrison (Siemens)
	Aging-Aware Operating Performance Points Adaptation for Embedded Applications Lifetime Extension Lorena Anghel (Spintec)
	Leveraging SLM monitors for IP characterization and bring up Gurgen Harutyunyan (Synopsis)
11:50am	Lunch/Dinner Break
12:45pm	Technical Session 5 (Chair: Mehdi Sai, Auburn U)
	IEEE P2851: A Landscape for the Development of Dependable Machines Jyotika Athavale (Nvidia)
	SLM for mixed-signal circuits Haralampos Stratigopoulos (LIP6)
	Use of Functional monitoring for Inlife latency reduction Aileen Ryan (Siemens)
1:40pm	Panel Discussion
3:00pm	Closing