2016 SYMPOSIA ON VLSI TECHNOLOGY & CIRCUITS

Semiconductor industry's premier event on advances in microelectronics technology & circuits

Hilton Hawaiian Village
HONOLULU
June 13-17, 2016

VLSI TECHNOLOGY & CIRCUIT INFLECTIONS FOR A SMART SOCIETY

The 2016 VLSI Symposia technical program consists of overlapping sessions from June 13–16 (Technology) and June 14–17 (Circuits), with more than 200 presentations, short courses and panel discussions by the industry's leading researchers and scientists. The program features recent advances in microelectronics technology and circuits, and promotes networking amongst participants.

SYMPOSIUM ON VLSI TECHNOLOGY

JUNE 13–16

TECHNOLOGY PROGRAM:

- Plenary presentations — Tuesday, June 14
  - "Future Automotive Technology"
    Dr. Takao Asami, Senior V.P., Nissan
- Evening panel session — Tuesday, June 14
  - "How Moore's Law, Industry Consolidation, and System Trends are Shaping the Memory Roadmap"
    Gary Bronner, Rambus & Fred Chen, Winbond
- Executive panel
  - "Semi Business Beyond Scaling"
    Leading industry executives to discuss new inflections in semiconductor business and future industry drivers as scaling slows down.
- Technology focus sessions
  - System and Embedded Memory
  - Local, Global and Chip-Chip Interconnects

PROFESSIONAL DEVELOPMENT OPPORTUNITIES (TECHNOLOGY)

SHORT COURSE — MONDAY, JUNE 13

- "Inflections in VLSI Technologies – Cloud & Beyond"
  - High performance computing
  - Future interconnect – photonics
  - Memory for Cloud Computing Communication
  - 3D SoC and 2D hetero-integration
  - Power management and devices
  - Ultra low power computing
  - Non-volatile spin logic and memory
  - Neurocomputing
  - Sensors: MEMS & bio
  - Energy consideration and storage

JOINT PROGRAM HIGHLIGHTS

FOCUS SESSIONS

- Design in scaled technologies
- Design enablement
- Embedded memory technology & design
- 3D & heterogeneous integration
- Smart power
- Analog / RF integration and design/technology co-optimization in CMOS

JOINT TECHNOLOGY/CIRCUITS EVENING PANEL SESSION

TUESDAY EVENING, JUNE 14

- "More Moore, More than Moore, or Mo(o)re Slowly"
  Moderator – Subu Iyer, UCLA

LUNCHEON PRESENTATION

THURSDAY, JUNE 16

- "Cyborg Insects & Other Things; Building Interfaces Between the Synthetic & the Multicellular"
  By Michel Maharbiz, UC Berkeley

JOINT RECEPTION

TUESDAY, JUNE 14

JOINT BANQUET ON THE GREAT LAWN

WEDNESDAY, JUNE 15

SATELLITE WORKSHOPS

Each year, two workshops are held in conjunction with the Symposia

- IEEE Silicon Nanoelectronics Workshop
  Sunday & Monday, June 12 & 13
- Spintronics Workshop

SYMPOSIUM ON VLSI CIRCUITS

JUNE 14–17

CIRCUITS PROGRAM:

- Plenary presentations — Wednesday, June 15
  - "The Robotics Revolution"
    Charles Bergan, VP, Qualcomm
  - "Accelerating the Sensing World through Imaging Evolution"
    Tetsuo Nomoto, VP & Senior General Manager, SONY
- Circuits evening panel sessions — Thursday, June 16
  - "Top Circuit Techniques: Life With and Without Them"
    Un-Ku Moon, Oregon State University
  - "It's All a Common Platform – How Do I Build a Differentiated Product?"
    Ajith Amerasekera, TI
- Circuits focus sessions
  - "Innovative System Directions for a Smart Society"
  - Invited and regular papers covering "Big Integration" on Internet of Things, Industrial Electronics, Big Data Management, Biomedical Applications, and Smart Cars

PROFESSIONAL DEVELOPMENT OPPORTUNITIES (CIRCUITS)

SHORT COURSES — TUESDAY, JUNE 14

- "Advanced Wirelines Techniques"
  - 28-56Gb/s Standards and Design Implications
  - Low Power CMOS Transceivers for 28Gb/s Serial Links & Future Prospects
  - ADCs for PAM-X/QAM-X Backplane & Optical Data Links
  - 56Gb/s Analog based NRZ Electrical Transceiver
  - Silicon Photonics Transceivers for Short-Reach Optical Interconnects
  - Automotive Transceiver
- "Circuit Design in FinFET, FDSOI & advanced technologies"
  - System architectures
  - FinFET embedded memory
  - FinFET mixed-signal
  - Advanced DRAM/NAND
  - FDSOI ultra-low power
  - FDSOI analog

For complete conference and registration information, visit: **http://www.vlsisymposium.org/**

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