7th International Symposium on

QUALITY ELECTRONIC DESIGN

March 27-29, 2006
DoubleTree Hotel, San Jose, CA, USA

www.isqed.org

The International Symposium on Quality Electronic Design (ISQED) is a premier Manufacturing, Design & Design Automation conference, aimed at bridging the gap among electronic design tools and processes, integrated circuit technologies, processes & manufacturing, to achieve design quality. ISQED is the pioneer and leading conference dealing with design for manufacturability and quality issues front-to-back. The conference attendees are primarily designers of the VLSI circuits & systems (IP & SoC), process/device technologists, semiconductor manufacturing specialists including equipment vendors, and those involved in the R&D and application of EDA Tools & design flows. ISQED emphasizes a holistic approach toward design quality and intends to highlight and accelerate cooperation among the IC Design, EDA, Semiconductor Process Technology and Manufacturing communities. The conference spans three days, Monday through Wednesday, in three parallel tracks, hosting over 100 technical papers, six keynote speakers, two panel discussions, workshops /tutorials and other informal meetings. ISQED proceedings are published by IEEE Computer Society and hosted in the digital library. Proceedings CD ROMs are published by ACM.

CONFERENCE HIGHLIGHTS

TUTORIALS/WORKSHOPS

ISQED 2006 is pleased to offer a single full-day tutorial track, presented by six experts in their respective fields. This tutorial track consists of two (2) major topics shown below. The first topic examines the critical and timely issues of "variability" and its impact in design with 65nm and finer CMOS technologies. The second topic explores the exciting field of emerging Nanoelectronic technologies and their application toward future ULSI designs.

Variability and its Impact on Design	Emerging Technologies for VLSI Design
Dr. Keith Bowman, *Intel Corporation*	***Dr. Rajiv Joshi,*** *IBM T J Watson Research Center, NY*
Dr. Michael Orshansky, *University of Texas-Austin*	***Dr. Kaustav Banerjee,*** *University of California, Santa Barbara, CA*
Dr. Sachin S. Sapatnekar, *University of Minnesota*	***Dr. Andre DeHon,*** *California Institute of Technology, Pasadena, CA*

PLENARY SESSIONS

Two plenary sessions will be held on Tuesday and Wednesday mornings. Six industry & academia leaders will discuss the issues surrounding electronic design, design for yield and manufacturability and other critical topics from various points of view. Plenary keynote speakers are:

Dr. Risto Suoranta, Principal scientist & Research Fellow, Nokia
Dr. Tohru Furuyama, GM, Toshiba SoC Research and Development Center
Dr. Di Ma, Vice President of Field Technical Support, TSMC
Dr. Raul Camposano, Sr. Vice President, CTO, and GM, Synopsys
Dr. Changhyun Kim, Vice President and Fellow, Samsung Electronics
Dr. Philip Wong , Professor, Stanford University

PANEL DISCUSSIONS

ISQED is pleased to offer two high-power evening panel discussion sessions, where many leading experts, address the important issue of quality design. These panels would focus on the following topics:

1 Power management and optimization challenges for sub 90nm CMOS designs - What is the real cost of long battery life?

2 Soft IP Quality: Who is responsible to ensure quality throughout the design process?

LUNCHEON SPEECH

Simplicity and Executability: Cornerstones of Quality
Michael Keating, Synopsys

VENDOR EXHIBITION

The exhibition is being held for the 1st time in conjunction with ISQED, features vendors offering design tools and methodologies in the area of design for manufacturing and quality. Exhibit floor will be open on Tuesday March 28, in parallel with technical sessions.

TECHNICAL SESSIONS

ISQED Technical sessions start on Tuesday March 27, and continue until the afternoon of Wednesday, March 29. Beside the above plenary sessions, panel discussions, and workshops, the program consists of nineteen technical sessions featuring over 100 papers on various challenging topics related to design for manufacturability and quality. Detail program would be available on the web at **www.isqed.org**.

- **EDA Tools, Flows & IP Blocks; Interoperability (EDA)**
- **Design for Manufacturability & Quality (DFMQ)**
- **Design Verification and Design for Testability (DVFT)**
- **Package - IC Design Interactions & Co-Design (PDI)**
- **Robust Device, Interconnect, and Circuits (RDIC)**
- **Physical Design, Methodologies & Tools (PDM)**
- **Effects of Technology on IC Design, Performance, Reliability, and Yield (TRD)**
- **System Level Design, Methodologies and Tools (SDM)**

Please refer to ISQED web site at **www.isqed.org** for information regarding the tutorials, conference, and hotel registration. Direct all conference inquiries to **isqed@isqed.org**. Early registration is recommended to take advantage of the discounted registration fee.