

**SHORT COURSES (June 15)**

**Short Course 1: Heterogeneous Integration-To Boldly Go Where No Moore Has Gone Before**

Organizers: Alvin Loke (TSMC), Kazuhiko Endo (AIST), Makoto Nagata (Kobe University), Vijay Narayanan (IBM)

1. Chiplet Meets the Real World: Benefits and Limits of Chiplet Designs  
Sam Naffziger (AMD)
2. Heterogeneous System Partitioning and the 3D Interconnect technology Landscape  
Eric Beyne (IMEC)
3. Back-End Based Chiplet Integration Solutions & Roadmap  
C. Key Chung (ASE)
4. Heterogeneous Integration for AI Architectures  
Arvind Kumar & Mukta Farooq (IBM)
5. Heterogeneous Integration of Chiplets for Sensors  
Marco Del Sarto (ST)
6. Chiplet-to-Chiplet Communication Circuits for 2.5D/3D Integration Technologies  
Kenny Hsieh (TSMC)
7. Performance-Driven Design Methodology and Tools for 2.5D/3D Multi-Die Integration  
Rajesh Gupta (Synopsys)
8. Generic design strategies & considerations for 2.5D and 3D stacked IC designs  
Kichul Chun (Samsung)

## Short Course 2: Trends and Advancements in Circuit Design

Organizers: Minkyu Je (KAIST), Xin Zhang (IBM)

1. Topologies and Design Techniques of Switched-Capacitor Converters  
Wing-Hung Ki (HKUST)
2. The noise-shaping SAR ADC technique : The best of both worlds  
Michael Flynn (Umich)
3. Next Generation Resistor-Based Sensors  
Kofi Makinwa (Delft)
4. Time reference and frequency generation  
Jae-Yoon Sim (Postech)
5. Recent advancement in ultra-miniaturized wireless transceiver IC design  
Yao-Hong Liu (IMEC)
6. Advances and trends in high-speed serial links for high-density IO applications  
Mounir Meghelli (IBM)
7. Adaptive Circuit & System Design Techniques  
Tom Burd (AMD)
8. Trends and design considerations for emerging memories and in-memory computing  
Eric Wang (TSMC)