

Educational Sessions

Sunday, April 14

Educational Session 1 - Power Management Fundamentals

Organizer: Dina El-Damak, USC

Co-Organizer: Tufan Karalar, Istanbul TU

ES1-1

8:30 – 10:00 am

High Voltage Devices, Topologies, and Gate Drivers, Yogesh Ramadass, Texas Instruments

ES1-2

10:30 – 12:00 pm

Wireless Power Transfer: Analysis and IC Design, Wing-Hung Ki, HKUST

ES1-3

1:00 – 2:30 pm

Power Management for Low Power Sensors, Patrick Mercier, UCSD

ES1-4

3:00 pm – 4:30 pm

Portable and Scalable High Voltage Circuits for Automotive Applications in BiCMOS Processes, Sri Navaneeth Easwaran, Texas Instruments

Educational Session 2 - What You Need to Know to Design Effectively in 10 nm and Beyond

Organizer: Jiangfeng Wu, Tongji University Shanghai China

Co-Organizer: Colin McAndrew, NXP Semiconductors

ES2-1

8:30 – 10:00 am

IC Design after Moore's Law, Greg Yeric, ARM

ES2-2

10:30 – 12:00 pm

Nanoscale CMOS Implications on Analog/Mixed-Signal Design, Alvin Loke, Qualcomm

ES2-3

1:00 – 2:30 pm

Developing Analog Circuit Generators using the Berkeley Analog Generator Framework, Eric Chang, UC Berkeley

ES2-4

3:00 pm – 4:30 pm

ESD in FinFET and Gate-All-Around Transistors, going from 14nm to 3nm, Shih-Hung Chen, IMEC

Educational Session 3 - 56/112G Link Foundations

Organizer: Sudip Shekhar, University of British Columbia

Co-Organizer: Shreyas Sen, Purdue University

ES3-1

8:30 – 10:00 am

Standards, Link Budgeting and Modeling, Ganesh Balamurugan, Intel

ES3-2

10:30 – 12:00 pm

Optical Links, Azita Emami, CalTech

ES3-3

1:00 – 2:30 pm

ADC-based Wireline Transceivers, Yohan Frans, Xilinx

ES3-4

3:00 pm – 4:30 pm

Mixed-signal electrical interfaces, Elad Alon, UC Berkeley

Educational Session 4 - Machine Learning, Quantum, and Security Hardware

Organizer: Rajiv Joshi, IBM

Co-Organizer: Gregory Chen, Intel

ES4-1

8:30 – 10:00 am

New Frontiers in Hardware Security in the IoT Regime, Swarup Bhunia, University of Florida

ES4-2

10:30 – 12:00 pm

Mobile Deep Learning Processors on the Edge, Hoi-Jun Yoo, KAIST

ES4-3

1:00 – 2:30 pm

Introduction to Compute-in-Memory, Dave Fick and Laura Fick, Mythic-AI

ES4-4

3:00 pm – 4:30 pm

Quantum Technology Overview, Mark Ritter, IBM