Challenges in Mobile Devices: Process, Design and Manufacturing

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The requirements for the recent mobile devices are significantly different from those for the conventional PC-oriented devices in many aspects: power consumption, performance and production ramp-up speed. These unique requirements have created many challenges in process technology, design, and manufacturing. Mobile devices are battery-sensitive, but still need the horsepower to run performance-hungry applications. We need a very tight DTCO (Design and Technology Co-Optimization), and a steep production ramp with high yield. Samsung Electronics has been focusing on the development and manufacturing of mobile devices for many years. The unique challenges associated with mobile devices will be addressed in the talk, along with our experience in overcoming them.

About the Speaker

Kwang-Hyun Kim is Executive Vice-President and Head of foundry business in the System LSI Division of Samsung Electronics. He spent several years in Samsung’s R&D division focusing on library and IP development, and network and communication SOC development. He has held several leadership positions in the System LSI Division of Samsung Electronics including the Head of sales and marketing (2006-2010), and his current position as the Head of foundry business (2011-). Dr. Kim received the BS degree in Electronics Engineering from Sogang University in South Korea, and the MS and Ph.D. degrees in Electrical Engineering from Virginia Tech., USA.