

Plenary Speech 1P.2

Quality SoC Design and Implementation for Real Manufacturability

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Device miniaturization near 100nm node and beyond together with extreme multi-level interconnect started to create fundamental economical and engineering challenges. Especially, past success model of “Layer Masters” confessed difficulties to fill the gaps between each separated layers to complete integrated results, for meeting performance and yield with a reasonable timing. However, it is also obvious that classic IDM model proved to be so inefficient, since inevitable separation and standardization of various aspects of design and technology are not established adequately. Those issues are even more significant when we discuss complex SoC’s for 90nm and 65nm nodes, where design and implementation commingle in various different manners. A solution for these challenges is a new open IDM model where open collaboration and strong differentiator are essential. This presentation will discuss from a “SoC centric Open IDM” perspective, the whole flow of design and implementation for real manufacturability, where true knowledge of integration and management skill function to enhance differentiators on top of open platforms.

About Susumu Kohyama

Dr. Susumu Kohyama is currently Corporate Senior Vice President of TOSHIBA Corporation, and Executive Vice President of Semiconductor Company (Toshiba corporation consists of 10 in-house companies, and Semiconductor is the core company). Dr. Susumu Kohyama was born in 1943 in Japan. He received B.S.,M.S. and Doctor's degree from the University of Tokyo, Department of Applied physics in 1966,1968, and 1984, respectively. In 1969, he joined Toshiba R and D Center, then participated to establish Integrated Circuits Laboratory in 1976, and Semiconductor Device Engineering Laboratory in 1979 . In 1984 he moved to Integrated Circuits Division , and from 1988 through 1990, he was Chief Technology Officer , responsible for R and D activities and Strategic Partnerships. Since 1990 through 1996, he was General Manager of System LSI Division, then became Deputy Group Executive of the Semiconductor Group. In 1997 he was elected as a member of the Board of Directors, Toshiba Corporation, and in 1998 he became Corporate Vice President and Chief Strategy Officer. In June, 2000, he became Corporate Senior Vice President of Toshiba Corporation. Since April 2001, he has been on the current position, after 3 years of Corporate responsibility.