2013 Symposia on VLSI Circuits Workshop

(Suzaku III)

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9:30-10:30 Storage Class Memory and NAND Flash Memory Hybrid Solid-State Storage System for Big-Data Application

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Abstract

Big-data enterprise storage is escalating demand for SSD, because of SSD's high speed, low power and small form factor. As a high-speed, low power and highly reliable enterprise storage, this talk overviews the hybrid memory solution which is the best mix and match of the high capacity NAND flash memories and storage class memories with non-volatility, speed, page re-writability, and high endurance.

Biography

Ken Takeuchi is currently a Professor at the Department of Electrical, Electronic, and Communication Engineering of Chuo University. He is now working on the VLSI circuit design, signal processing and device especially on the emerging non-volatile memories, 3D-integrated SSDs, low-power 3D-LSI circuits and ultra low-voltage SRAMs. Before joining Chuo University, he was an Associate Professor at the University of Tokyo from 2007 till 2012. From 1993 till 2007, he had been leading Toshiba's NAND flash memory circuit design team and commercialized six world's highest density flash memory products. He holds 210 patents worldwide. He won the Takuo Sugano Award for Outstanding Paper at ISSCC 2007. He has served on the program committee member of International Solid-State Circuits Conference (ISSCC), Asian Solid-State Circuits Conference (A-SSCC), International Memory Workshop (IMW) and Non-Volatile Memory Technology Symposium (NVMTS).