

# **Comparative Performance, Leakage Power and Switching Power of Circuits in 150nm PD-SOI and Bulk Technologies Including Impact of SOI History Effect**

Siva Narendra, James Tschanz, Ali Keshavarzi, Shekhar Borkar, and Vivek De  
Microprocessor Research Labs, Intel Corporation, Hillsboro, OR, USA

## **Abstract**

History effect measurements on different circuits in a 150nm SOI technology show no adverse impact on worst-case delay vs. leakage trade-offs. Performance advantage of SOI over bulk is shown to come mostly from capacitance reduction. Hence, it will diminish with technology scaling.