

Has Anything Changed in Electronic Design Since 1983?

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In this talk Mike answers the question, has anything changed in electronic design since 1983. That was the year in which work began on the design of the first ARM micro processor chip set for a home computer. Leading edge semiconductor manufacturing was at 3000 nanometers (nm) and COBOL was the world's most popular programming language. 25 years later has system design really changed that much when today's Hi-Fi remote control has the same architecture as the original home computers? Is designing for a 32 nm process any different? Does programming in Java and JavaScript change anything? Recent changes in the power/performance scaling of semiconductor processes and the increase in variability fundamentally challenges the design assumption we have been comfortable with for so many years and requires new approaches to system architecture, micro architecture and device architecture. Changing consumer expectations also require product manufactures to increasingly provide services to complete their offerings dramatically changing the importance that software plays in the design process.