NUS Graduate School for Integrative Sciences and Engineering
Research Project Write-up

Title of Projects :	Sub-30 nanometer Device and Process Technologies for Next-Generation Semiconductor Manufacturing; Strained-Silicon Transistor Technology; High Mobility Transistors based on compound semiconductors; Device Technology for Electronics with Ultra-Low Power Consumption.
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Short Description

Research in Dr. Y.-C. Yeo's team focuses on nanoelectronics and next-generation semiconductor technology. His team realized sub-30 nm transistors and employed novel techniques such as strain engineering to enhance the speed performance of integrated circuits employing such transistors. New and key fabrication process technologies for next-generation manufacturing are being explored. His team also works on high-speed and high-mobility transistors based on compound semiconductors. Another major research effort is a new device technology to realize electronics with ultra-low power consumption. His team works closely with many companies in the semiconductor industry to solve challenges faced in next-generation technologies.