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with Hanh-Phuc Le

UCSD

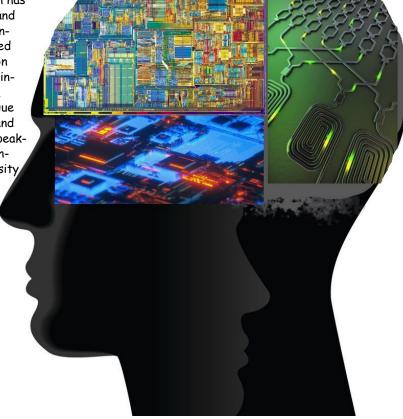
Next-Generation Circuit Architectures for Power-Supply on Chip (PwrSoC)

Abstract: The need for an efficient power management solution has never been more critical across virtually all electronic devices and systems from low power to high power, smartphones to data centers, battery-powered components to renewable-energy-powered grids, and from stationary systems to aircraft. The key, common challenge for power management in these systems is to satisfy increasingly demanding requirements in terms of efficiency, size, reliability, and cost, simultaneously. This talk will present a unique flow of integrated power converter architectures, topologies, and circuit techniques to address this challenge. Particularly, the speaker will discuss his group research work on a family of hybrid converters that achieve high efficiency for high output power density and current density.

Thursday Mar 2<sup>nd</sup>, 2023

12:00PM-1:00PM CST





Dr. Hanh-Phuc Le is an Assistant Professor of ECE at the University of California San Diego and a co-Director of the Power Management Integration Center, an NSF IUCRC center. He received the Ph.D. degree from UC Berkeley (2013), M.S. from KAIST, Korea (2006), and B.S. from Hanoi University of Science and Technology in Vietnam (2003), all in Electrical Engineering. In 2012, he co-founded and served as the CTO at Lion Semiconductor until October 2015. The company was acquired by Cirrus Logic in 2021. He was with the University of Colorado Boulder from 2016 to 2019, before joining the ECE department at UC San Diego. He held R&D and consulting positions at Oracle, Intel, Rambus, JDA Tech in Korea and the Vietnam Academy of Science and Technology (VAST) in Vietnam. His current research interests include miniaturized/on-die power conversions, large conversion ratios, smart power delivery and control for high performance IT systems, data centers, telecommunication, robots, automotive, mobile, wearable, and IoT applications.