

Wai Tung Ng (M'90, SM'04) received his B.A.Sc., M.A.Sc., and Ph.D. degrees in Electrical Engineering from the University of Toronto, in 1983, 1985 and 1990, respectively. Prof. Ng is with the Edward S. Rogers Sr. Dept. of Electrical and Computer Engineering from the University of Toronto. He is also the director of the Toronto Nanofabrication Center (TNFC), and open access research facility. Prof. Ng is a recognized researcher in the areas of power semiconductor devices and smart power integrated circuits. His research group has demonstrated many world-first innovative designs, including a digitally reconfigurable DC-DC power converter with resizable output stage [ISPSD 2006], a superjunction power FinFET [IEDM 2010], and a series of smart gate driver integrated circuits for Insulated Gate Bipolar Transistors (IGBTs) and Gallium Nitride (GaN) power transistors. Currently, Prof. Ng's group is actively engaged in the promotion of digitally reconfigurable gate driver circuits to improve the switching characteristics of GaN and Silicon Carbide (SiC) power transistors. These include many novel features such as one-step dead-time correction, indirect current sensing, dynamic driving strength to suppress Electromagnetic Interference (EMI), liquid-cooled packaging for intelligent power modules (IPMs), etc.

