PWM BATTERY CHARGERS INCORPORATING
MULTIPLE LOOP CONCEPTS

by

Tuli Dake
Texas Instruments, Inc.
Dallas, Texas

Abstract: Portable Consumer electronics that are battery powered is all around us. Power management of the battery is a critical element in optimizing the charge duration and battery life.

This presentation will discuss state-of-the-art Li-ION PWM battery chargers that incorporate up to seven loops. Using a simple concept, the hand-off between loops is continuous and seamless.

This is very important since Li-ION batteries are sensitive to sudden current and voltage changes.

Tuli Dake received his EE BS degree from Kwame Nkrumah University of Science and Technology (KNUST) in Ghana and his MS from Texas A&M University, College Station in 2000.

He has a number of conference and Journal publications including Journal of Solid-State Circuits. He also has a number of patents to his name.

He is currently a Senior Designer manager with the Battery Management group at Texas Instruments and a Senior IEEE member.