

About Ultracapacitors

Contributed by Greg Allen
Wednesday, 09 April 2008

Is there a Ultra Capacitor or a SuperCapacitor in your future? YES! Almost everything we use requires a battery (computers, mobile cell phones, flashlights, hybrid electric cars, personal entertainment devices like Ipod, etc). As functionality increases in the digital age, so has our reliance on the traditional battery. The battery has not progressed far beyond the basic design developed by Alessandro Volta in the 19th century. Until just now. Recent work at MIT's Laboratory for Electromagnetic and Electronic Systems (LEES) offers the most economically viable alternative to conventional batteries in more than 200 years. The Ultracapacitor is both a battery and a capacitor. Ultracapacitors could allow laptops and cell phones to be charged in a minute. Unlike laptop batteries, which start to lose their ability to hold a charge after a year or two (several hundred charge/discharge cycles), ultracapacitors have hundreds of thousands of charge/discharge cycles and could still be going strong long after the device is obsolete. 'Theoretically, there's no process that would cause the [ultracapacitor] to need to be replaced.' says professor John Kassakian.