PLECS WORKSHOP

Advanced Modeling and Simulation of Power Electronic Systems

RWTH Aachen, May 28th, 2013

08:30	**Registration**
09:00	**Introduction to PLECS** ▶ General use of PLECS Blockset and PLECS Standalone ▶ Instantaneous switching ▶ Variable and fixed-step operation Exercise: Modeling a switched-mode power supply
10:00	**Coffee break**
10:30	**Solver Settings** ▶ Definition of stiff and non-stiff systems ▶ Explicit and non-explicit solvers ▶ Stability domains ▶ Accuracy considerations, step size control ▶ Proper handling of discontinuities, zero-crossing detection Exercise: Solver accuracy and settings
12:00	**Lunch**
13:00	**Introduction to Thermal & Magnetic Modeling & Simulation** ▶ Switching & conduction loss descriptions ▶ Combined electrical-thermal simulation ▶ Permeance Capacitance Analogy Model Exercise: Thermal modeling of a buck converter
14:30	**Coffee break**
15:00	**Overview of PLECS Tools** ▶ AC Sweep and Impulse Response Analysis Tools ▶ Steady State Analysis Tool ▶ Implementing custom components Exercise: Creating a custom PV string component
16:00	**End of day**
Contact	Plexim GmbH, +41 44 533 51 00, info@plexim.com
Location	RWTH Aachen, Bibliothek 1. Etage, Jägerstrasse 17/19, 52056 Aachen
Note	This workshop on May 28 addresses to anyone who already has experience with the simulation software PLECS. A workshop will be held on May 27th, 2013 in the same location.

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electrical engineering software