

PLECS WORKSHOP

Advanced Modeling and Simulation of Power Electronic Systems
Raleigh NC, Tuesday 1/14/2014

07:30	Registration, Computer Setup, and Coffee
08:00	Introduction to PLECS <ul style="list-style-type: none">▶ General use of PLECS Blockset and PLECS Standalone▶ Instantaneous switching▶ Variable and fixed-step operation Exercise: Modeling a switched-mode power supply
10:00	Break
10:30	Solver Settings <ul style="list-style-type: none">▶ 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	Thermal Modeling & Simulation <ul style="list-style-type: none">▶ Switching & conduction loss descriptions▶ Combined electrical-thermal simulation Exercise: Thermal modeling of a buck converter
14:30	Break
15:00	Magnetic Modeling & Simulation <ul style="list-style-type: none">▶ Permeance Capacitance Analogy Model▶ Complex coupled magnetic structure▶ Iron loss and saturation
16:30	Q&A
17:00	End of day
Contact	Plexim, 617 209 2121, info@plexim.com
Location	McKimmon Conference and Training Center North Carolina State University 1101 Gorman Street Raleigh NC 27606
