PLECS WORKSHOP

Advanced Modeling Simulation of Power Electronic Systems Harbin Institute of Technology, June 23, 2016

08:30-09:00	Registration
09:00-10:00	Introduction to PLECS
	✓ General use of PLECS Blockset & PLECS Standalone
	✓ Instantaneous Switching
	√ Variable and Fixed Step Operation
	Exercise: Modeling a Switched-Mode Power Supply
10:00-10:30	Break
10:30-12:00	Solver Setting
	✓ Definition of Stiff and Non-Stiff Systems
	✓ Explicit and Non-Explicit Solvers
	✓ Stability Domains
	✓ Accuracy Considerations, Step Size Control
	✓ Proper handing of Discontinuities, Zero-Crossing detection
	Exercise: Solver Accuracy and Settings
12:00-13:00	Lunch
13:00-14:30	Introduction to Thermal, Mechanical, Magnetic Modeling
	& Simulation
	✓ Switching & Conduction Loss Descriptions
	✓ Combined Electrical-Thermal Simulation
	✓ Permeance Capacitance Analogy Model
	✓ Mechanical Model
	Exercise: Thermal Modeling of a Buck Converter



PLECS WORKSHOP

Advanced Modeling Simulation of Power Electronic Systems Harbin Institute of Technology, June 23, 2016

14:30-14:45	Break
14:45-16:00	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 Workshop
Contact	Infomatic Pte Ltd, +86-75586243782, info@infomatic.com.sg
Venue	Room 20010, 2F, DianJi Building
Address	92 West Dazhi Street , Nan Gang District, Harbin, Heilongjiang Province 150001, China

