

PLECS WORKSHOP

Advanced Modeling and Simulation of Power Electronic Systems

ENSEEITH, April 19, 2023

08:30	Registration
09:00	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
12:00	Lunch
13:00	Introduction to Thermal, Magnetic & Mechanic Modeling & Simulation <ul style="list-style-type: none">▶ Switching & conduction loss descriptions▶ Combined electrical-thermal simulation▶ Permeance Capacitance Analogy Model
14:00	Break
14:30	Overview of PLECS Tools <ul style="list-style-type: none">▶ Custom components▶ Steady State analysis▶ Small signal analysis▶ State machine, C-Script and the DLL block▶ Simulation scripting
15:00	Overview and Introduction to the PLECS RT Box <ul style="list-style-type: none">▶ Hardware-in-the-Loop (HIL)▶ Rapid control prototyping (RCP)▶ Interleaved Control and Sampling with the RT Box and Implementation on Target DSP using the PLECS Coder
16:00	End of day
Contact	Plexim GmbH, +41 44 533 51 00, info@plexim.com
Location	ENSEEITH, Room C002, Salle des Thèses, Ground Floor, 2 Rue Camichel, 31071 Toulouse, France
Note	Visitors must show proof of ID

PLECS WORKSHOP

Advanced Modeling and Simulation of Power Electronic Systems
ENSEEITH, April 19, 2023

Arriving at LAPLACE / ENSEEIHT, Toulouse (Airport Blagnac, train station : Matabiau)

