

PLECS WORKSHOP

Advanced Modeling and Simulation of Power Electronic Systems
Warsaw University of Technology, May 16, 2018

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 Exercise: Solver accuracy and settings
12:00	Lunch
13:00	Overview and Introduction to RT Box Workflow using PLECS <ul style="list-style-type: none">▶ PLECS overview▶ Ideal switch concept▶ From PLECS offline models to RCP and HIL▶ Code Generation
13:30	Real-time Simulation of a Voltage Source Inverter (VSI) <ul style="list-style-type: none">▶ PLECS model creation using the target blocks library▶ Deployment on the RT Box
14:30	Model Optimization <ul style="list-style-type: none">▶ Sub-cycle averaging and power modules▶ Model separation
16:00	End of day
Contact	Plexim GmbH, +41 44 533 51 00, info@plexim.com
Location	Institute of Control and Industrial Electronics, Warsaw University of Technology, Koszykowa 75 St., Room GE407 (Faculty of Electrical Engineering), 00-662 Warsaw, Poland