

Seminar Announcement: Rapid Prototyping of Power Electronic Systems

Leuven – Thursday, September 11, 2008

Speakers: Prof. Johan Driessen, ESAT-ELECTA, K.U. Leuven
Dr. Wolfgang Hammer, Plexim GmbH, Zurich
Dr. Jeroen Van den Keybus, Triphase N.V., Leuven

Agenda:

8:00	<i>Registration, Coffee</i>
9:00	Denis Vlaeminck, KWx: Introduction
9:15	Wolfgang Hammer: Simulation of power electronic systems with PLECS <ul style="list-style-type: none">• Challenges in numerical simulation of switching power systems• Different degrees of simulation detail• System (Simulink) versus circuit (Spice) simulation• Ideal/perfect switches• Variable versus fixed time step simulation
10:30	<i>Coffee break</i>
11:00	Wolfgang Hammer: Thermal modeling and advanced circuit analysis <ul style="list-style-type: none">• Look-up tables for conduction and switching losses• Structure modeling and heat sink concept• Steady-state analysis• AC sweep and small signal analysis
12:30	<i>Business lunch at 'Oude Kantien'</i>
14:00	Johan Driessen: Power electronics activities at K.U. Leuven <ul style="list-style-type: none">• Current research projects• Need for simulation software in research and education• Application of rapid prototyping
14:30	Jeroen Van den Keybus: Triphase rapid prototyping platform
15:00	Jeroen Van den Keybus: Case study 'Formula Zero Racing Kart' <ul style="list-style-type: none">• Electrical simulation of kart• Energy management system• From simulation to implementation in a few steps
15:45	<i>Coffee break</i>
16:15	Panel discussion: Future trends in simulation and rapid prototyping
17:00	<i>Closing</i>

Venue: Katholieke Universiteit Leuven, Department Electrical Engineering, ESAT-ELECTA, Kasteelpark Arenberg 10, 3001 Leuven-Heverlee, Belgium

Delegate fee: € 200.-

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