



## CIPS 2010 Programme Finalised

CIPS stands for the 6<sup>th</sup> International Conference on Power Electronics Systems Integration. It will be held from March 16 to 18, 2010, at Nuremberg's Maritim Hotel which is located close to the main railway station. It will be co-organized by VDE ETG and ECPE and technically co-sponsored by IEEE PELS as well as by ZVEI.

The three main topics of CIPS are: Power electronics systems, high-power modules, and reliability of power electronics systems. For all three topics system integration will help to increase power density (and reduce costs), to increase performance (and reduce EMI), and improve reliability by a more efficient thermal management (and better cooling).

One of the basic ideas of CIPS is to bring together industry and academia such, that industry is describing new concepts and needs and academia is providing solutions for it. The scientific/technical quality of presentations and written papers, however, is ensured by an international Technical Programme Committee, which is headed by Dieter Silber, University of Bremen and Eckhard Wolfgang, ECPE e.V.

The programme structure can be seen from the overview chart. Two keynote, 11 invited and 41 oral papers, 18 posters and one Panel Discussion will be presented. 26 come from industry, 26 from academia, 7 are authored by industry and academia and 13 come from applied research institutes, like Fraunhofer.

CIPS 2010 Program Overview

Tuesday, March 16, 2010		Wednesday, March 17, 2010		Thursday, March 18, 2010		
Time	Room A	Time	Room A	Time	Room A	
10:30	Opening	8:30	Session 5: Power Electronics Applications		8:30	Session 11: Prognostics - Thermal Management
10:50	Session 1: Power Electronics Systems	10:00	Coffee Break		10:20	Coffee Break
12:00	Lunch Break	10:30	Session 6: Power Modules		10:40	Session 12: EMI & Cooling
13:20	Session 2: System Integration	12:30	Lunch Break		12:20	Lunch Break
15:10	Coffee Break	13:50	Session 7: Power Electronics	Session 9: Packaging	13:40	Session 13: Future Perspectives
15:40	Session 3: Reliability	15:30	Coffee Break		15:20	Closing
17:50	Break	16:00	Session 8: DC/DC Converters	Session 10: Materials	15:40	End of the Conference
18:00	Session 4: Driver	17:20	Break			
19:00	Break	17:30	Panel CAD Tools			
19:15	Dialog Session & Frankonian Snacks and Beverages	18:50	End			
		20:00	Conference Dinner			

Johann Kolar/ ETH Zurich will open the CIPS 2010 with the Keynote on "Performance, Trends and Limitations of Power Electronics". The status of "Integrated Driver Circuits" will be described by Reinhard Herzer/ Semikron. Dushan Boroyevich/ CPES will give an overview on "Status of Power Electronics Systems Integration", followed by 4 papers on this topic.

Michel Mermet-Guyennet starts the reliability session with a contribution to "Railway Traction Reliability" followed by five regular papers. Three contributions to driver circuits finish the oral presentations of day 1.

The Dialog Session starts at 19:15 during that Franconian snacks and beverages will be served.

The second day starts with five invited papers:

“Power Electronics System Integration for Electric and Hybrid Vehicles”, Martin März, Fraunhofer IISB,

“Solar Power Converters”, Regine Mallwitz, SMA,

“Fault Tolerant Designs”, Glynn Atkinson, Univ. Nottingham,

“Paralleling of High-power Modules”, Ulrich Schlapbach, ABB Semiconductors,

“Nondestructive SOA Testing of Power Modules”, Giovanni Busatto, Univ. Cassino.

In the afternoon there are two parallel sessions on: Power Electronics and DC/DC Converters, and in parallel Packaging and Materials.

The final session on day 2 is a Panel Discussion on “Virtual Prototyping - CAD Tools for Power Electronics: What is available and what is missing”, moderated by Thomas Harder/ ECPE e.V., and Dushan Boroyevich/ CPES.

The Conference Dinner takes place at the famous medieval Nuremberg Old City Hall.

The third day starts with an invited lecture on “Prognostics and Health Management” by Chris Bailey, Univ. Greenwich. He will explain how the “rest-of-life” of a system under operation can be estimated. The following five papers will deal with thermal management, two with EMI and two with advanced cooling technologies.

Finally, in the afternoon session “Future Perspectives” there will be two invited papers:

“New Semiconductor Technologies Challenge Package and System Setup”, Gerhard Miller, Infineon Technologies,

“Future Power Device Possibility” Ichiro Omura, Univ. Kyushu.

Finally, Alex Lidow (EPC) will present the second keynote on “Is it the End of the Road for Silicon in Power Management?” where he will discuss the perspective of GaN devices and systems.

In the closing session the best regular oral paper will receive the “ECPE Best Paper Award” as well as the best poster the “VDE ETG Best Poster Award”.

For companies and institutes there will be an opportunity to display results and demonstrators from current research in a tabletop exhibition.

For further information please visit

[www.cips-conference.de](http://www.cips-conference.de)