## **Organisational information**

For registration please use the registration form which is available on the ECPE web page: <a href="www.ecpe.org">www.ecpe.org</a> > ECPE Events > ECPE Workshops: ECPE Workshop: <a href="www.ecpe.org">µPower Electronics/PowerSoC - Powering Low-Power Systems > Registration Form</a>

#### www.ecpe.org/ecpe-events

#### Deadline for registration:

9 June 2015

#### Participation fee:

- > **€ 595,-** \* for industry
- ➤ **445,-** \* for universities/institutes
- ➤ 150,- \* for students/PhD students
  (copy of student ID requested)
  (limited number only)
  (optional dinner: € 45,-\* extra fee)

\*plus 19 % German VAT

- The participation fee includes dinner, lunch, coffee/soft drinks and a CD with the workshop presentations. Students/PdD students can book the dinner for an extra fee of € 45,-.
- A printed version of the workshop handout is available on request (€ 50-\*).
- With the confirmation of registration by email you are registered for the workshop and the invoice will be sent by post.
- Three participants from each ECPE member company free of charge. Allocation in sequence of registration.
- Further information (hotel list and maps) will be provided after registration and is available on the ECPE web page.
- In case of cancellation after 2 June 2015 or non-attendance 50 % of the participation fee is payable.

## **Organisational information**

Organiser	ECPE e.V. 90443 Nuremberg, Germany www.ecpe.org
Chairmen	Prof. Bruno Allard, INSA de Lyon - ISP3D Prof. José A. Cobos, Universidad Politécnica de Madrid Prof. Cian O'Mathuna, Tyndall National Institute
Organisation	Ingrid Bollens, ECPE e.V. +49 (0)911 / 81 02 88 – 10 ingrid.bollens@ecpe.org
Venue	Commundo Tagungshotel Ismaning Seidl-Kreuz-Weg 11 85737 Ismaning/Munich Germany





# **ECPE PowerSoC Workshop**

μPE: Powering Low-Power Systems





## **ECPE PowerSoC Workshop**

#### μPE: Powering Low-Power Systems

16 – 17 June 2015 Ismaning-Munich, Germany

Micro Power Electronics  $\mu PE$ ) is an emerging and exciting technology and application field in power conversion. Highly integrated power management systems are key enablers in many systems. Power management should operate in a seamless manner, no footprint, no cost and maximum efficiency. Depending on the technology at hand, efforts are devoted to push the integration limits to offer better performance at lower footprint.

The workshop goal is to cover fundamental issues relating to key technologies, trends, applications and products in the area of Power-System-on-Chip (PwrSoC) and Power-System-in-Package (PwrSiP).

The presentations will be given by leading experts from industry and academia and will address all aspects of this emerging space. The discussion will address tradeoffs and constraints from design through to manufacturing and ultimate product applications. A particular emphasis will be placed on the growth of the business and market opportunities for European companies across the full supply chain.

The workshop is chaired by Prof. Bruno Allard (INSA de Lyon - ISP3D), Prof. José A. Cobos (Universidad Politécnica de Madrid) and Prof. Cian O'Mathuna (Tyndall National Institute).

All presentations and discussions will be in English.

## **Programme**

#### Tuesday, 16 June 2015

9:30	Start of Registration / Welcome Coffee
10:00	Welcome, Opening Thomas Harder, ECPE e.V.
Market-0	Oriented Vision
10:15	Overview of Space / Vision C. Ó'Mathuna, Tyndall National Institute (IRL)
10:45	Market and Players – Status in Industry A. Avron, PointTheGap (F)
11:15	State of the Art in µPE F. Neveu, INSA de Lyon - Lab Ampere (F)
Target A	pplictations
11:45	Design and Optimization of Integrated Wireless Power Receivers M. Agostinelli, Infineon Technologies Austria (A)
12:15	Lunch
13:30	Achieving Energy Efficiency in Personal Health Wearables A. Sathanur, Philips (NL)
14:00	Multi-objective Optimization of Fully Integrated Voltage Regulators: Switched Capacitor and Inductor-Based Converters P. Bezerra, ETH Zurich - Power Electronic Systems Laboratory (CH)
14:30	Energy Harvesting Systems with Micro Power Voltage Converters P. Spies, Fraunhofer IIS (D)
15:00	Development of Integrated Magnetic Core Transformer for isoPower®, J. Kubik, Analog Devices (IRL)
15:30	Coffee break
Inductiv	e Converters
16:00	Envelope Tracking and Low-Power RF Front-End B. Labbe, Nujira (UK)
16:30	High-Frequency Low-Power Integrated Multiphase Converter for Automotive Applications G. Aulagnier, Freescale (F)
17:00	Design Considerations for Distributed and Coupled Inductors on Silicon M. Duffy, University of Galway (IRL)
17:30	Towards Integration of Offline Very High Frequency Switch Mode Power Supplies A. Knott, Technical University of Denmark (DK)
18:00	Discussion
18:30	End of 1 <sup>st</sup> workshop day
20:00	Dinner at Restaurant "Zur Muehle"

Kirchplatz 5, 85737 Ismaning, Germany

## **Programme**

### Wednesday, 17 June 2015

Switche	ed Cap Converters
8.30	From Mains to Application: High Voltage Conversion Ratio Switched-Capacitor Converters N. Butzen, KU Leuven (B)
9:00	System Optimization of Switch-Capacitor DC-DC Converter for Hearing Aids D. Øland Larsen, GN ReSound, DTU (DK)
9:30	Fully-Integrated Switched-Capacitor DC-DC for Digital SoC T. Souvignet, INSA de Lyon - Lab Ampere (F)
10:00	High Vin Fast-Switching Inductive and Capacitive Point-of-Load Converters  B. Wicht, Reutlingen University (D)
10:30	Coffee break
Passive	
11:00	Thin-Film Based Microtransformer for Power Applications at High Frequencies D. Dinulovic, Würth Elektronik (D)
11:30	High Density Silicon Integrated Capacitor for Power Decoupling F. Voiron, IPDiA (F)
12:00	High Efficiency Coupled Inductors on Silicon for Integrated Voltage Regulation S. Kulkarni, Tyndall National Institute (IRL)
Scaling	-up
12:30	<b>3D Packaging Roadmap</b> M. Hayes, Tyndall on behalf of PSMA
13:00	Lunch
14:00	Towards a PowerSoC Solution for Automotive Microcontroller Applications M. Agostinelli, Infineon Technologies Austria (A)
14:30	Buck Converter Optimization Tool for PowerSoC and PowerSIP J. Oliver, UPM Madrid (ES)
15:00	Chip-Scale PCBs, Chip-Scale Power: Embedded S Enabling Greener Electronics N. Renaud-Bezot, Austria Technologie & Systemstechnik (A)
15:30	Manufacturing of Magnetic Components R. Lehndorff, Sensitec (D)
16:00	Final Discussion – Wrap up

**End of Workshop**