

- **Preview:** LOPE-C Conference: 06/23/2009 - 06/25/2009 June, 22nd 2009
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Dear Readers,



We have spent many hours preparing our presence at the LOPE-C 2009. Visit us at the LOPE-C and see the latest technology plus practice-oriented application examples that demonstrate the application areas of printed electronics. In addition to the trade fair stand, PolyIC will also be giving two presentations and a seminar at the LOPE-C. Please read more about this in the Preview section.

With other OE-A members, PolyIC has also driven the development of the OE-A give-away demonstrator and the system demonstrators for the LOPE-C. Please read more about this in the Network section.

In the Applications section, we report on a new research project that PolyIC is participating in. Inform yourself about this project of the top cluster Rhine-Neckar Forum Organic Electronics.

In the Review section, you can read in this issue about the conferences Printed Electronics Europe 2009 (Dresden, Germany) and Printed RFID 2009 (Orlando, FL). Find out from us at first hand how these events were perceived.

I wish you an exciting read.

Yours sincerely

Wolfgang Mildner
Managing Director PolyIC



Preview:

LOPE-C Conference: 06/23/2009 - 06/25/2009



One highlight of the LOPE-C 2009 will be the technical presentations that are scheduled for June 24 and 25. PolyIC will use the opportunity to announce for the first time competition-relevant technical details

about the printing process and roll-to-roll production.

A seminar held by a PolyIC employee will already be held on **June 23, 2009 at 9.30 a.m.**

Dr. Andreas Ullmann, Chief Technology Analyst, will inform you about the topic Devices in Organic / Printed RFID.

On the same day, **at 12.30, Dr. Wolfgang Clemens**, Head of Applications, will be holding a presentation on the topic of Printed Electronics: Market Entry with Printed RFID and Roadmap to High-Volume Markets:

- printed RFID and printed smart objects
- markets and market entry
- roadmap to high-volume markets

The presentation Roll-to-roll Printed Electronics to be held on Wednesday, **June 24, 2009 at 4.30 p.m. by Dr. Walter Fix**, Head of Technology, deals with the following content:

- ready-for-production, high-resolution printing process
- performance of printed circuit boards
- fast, printed Manchester code generators that run at low supply voltage

Top technology from Germany is by no means a slogan of the past: At the LOPE-C, PolyIC is showing the world's first production roll that contains printed RFID transponders. Today, progress has long not been confined to the laboratory: Practice-oriented and current application examples demonstrate

in a highly graphic manner the diverse fields of application for printed electronics labels. Visitors to earlier events who are already familiar with the PolyIC coffee machine that can be operated contact-free with RFID voucher cards will be surprised by its continuing revolution...

Applications:

PolyIC is taking part in the project Polytos (OSS1) of the top cluster Rhine-Neckar



The aim of the project Polytos (OSS1) within the framework of the top cluster Rhine-Neckar Forum Organic Electronics is the development of sensor printed boards based on organic electronics components. This incorporates the development of new concepts

and manufacturing procedures for printed organic boards with additional functions (e.g. sensors) for applications in the packaging and textiles area. These systems are also called smart labels, smart tags or smart objects. Within the framework of the sub-project Organic printed boards with sensors, PolyIC is developing organically based integrated printed boards and printable sensor elements for the recognition of threshold values of important external parameters such as temperature or moisture.

The cluster partners are aiming to complete the first fundamental prototypes after three years. The overall costs for Polytos will reach around 15.1 million. The partners own share of the industry costs will be around 7.3 million.

The cluster partners include Merck KGaA (Darmstadt, consortium leader), BASF SE (Ludwigshafen), SAP AG (Walldorf), Pepperl+Fuchs GmbH (Mannheim), Robert Bosch GmbH (Stuttgart) as well as the University of Heidelberg, the Technical University of Darmstadt and Mannheim University of Applied Sciences.

Mr Klaus Ludwig is PolyIC's contact person for this project.

Network:

OE-A give-away demonstrator at the LOPE-C 2009



The new OE-A competence brochure, which once again includes a give-away demonstrator, will be presented at the LOPE-C this year. The demonstrator will include a printed tag from PolyIC this time too.

The printed chips were produced at PolyIC, using the roll-to-roll method. The aluminium antennae were produced at the company Acreo in a roll-to-roll process. The end product i.e. the transponder works in the frequency range of 13.56 MHz. This low-cost product generates the basis for new mass markets in the areas of EPC, ticketing and brand protection.

Six other demonstrators that combine a wide variety of components on flexible plastic substrates and paper substrates will all be presented at the LOPE-C. PolyIC collaborated on these too. PolyIC coordinated in particular the development of a flexible play board on which many different components from OE-A partners were integrated. PolyIC will report in more detail on this in the next newsletter.

Conferences:

Printed Electronics Europe 2009



This year's Printed Electronics Europe, which was held from April 7 to 8 in Dresden, showed the latest developments from the area of organic and printed electronics. Dr Clemens was one of those who contributed, with a presentation on the topic Printed RFID and More for New Applications.

PolyIC was able to establish new contacts and develop existing business ties. The diverse results from the PRISMA project, among other things, could also be seen at the stand in the exhibition area.

Conferences:

Printed RFID 2009



The Printed RFID Conference organized by Inter-techPira during the RFID JOURNAL LIVE! 2009, one of the largest conferences and exhibitions for RFID, was held on April 27, 2009 in Orlando (FL). The conference

invited experts and companies to exchange ideas and information about the latest developments and applications of printed RFID and to show the use of printed electronics with low-cost tags.

Wolfgang Mildner, managing director of PolyIC, led the participants through the program and himself reported on the development of printed smart objects and printed RFID.

IC4U issue 02.2009

IC4U is published regularly and is available as an email newsletter.

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