

Conference Report

International Scientific Conference "Printing Future Days":
November 02-05, 2009 – Chemnitz, Germany

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General summary

The 3rd **International Scientific Conference "Printing Future Days"** for students was held at the Chemnitz University of Technology in Chemnitz, Germany, November 02-05, 2009. This series of conferences is organized biannually by the Chemnitz University of Technology, Institute for Print and Media Technology, (general chair: Prof. Dr. **Reinhard R. Baumann**) under the patronage of the IARIGAI (International Association of Research Organizations for the Information, Media and Graphic Arts Industries). It is arranged as a communication podium for young scientists who are conducting research in Print and Media Technologies.

The conference covers the fields of Conventional Printing, Digital Printing, Functional Printing, Inks and Substrates, Workflow, Pre-Press and Colorimetry. A total of 48 scientific presentations and 14 posters were presented having passed an international review process. Additionally, presentations of senior scientists and representatives of Sociétés of the graphic arts industry contributed to the balanced program. Next to the scientific program, guided tours through the laboratories of the **Institute for Print and Media Technology**, the **Fraunhofer ENAS** and the 'Freie Presse', home of one of **manroland** latest generation of newspaper printing machines, as well as a sightseeing tour introduced the attendees to the city of Chemnitz.

Figure 1: (top) Michael Stanel (TU Chemnitz) explains a LaborMAN laboratory printing press at the Institute for Print and Media Technology used for research on printed electronics (bottom) One highlight of evening event of the Printing Future Days 2009 was the visit to the print house of Chemnitzer Verlag und Druck GmbH & Co KG (newspaper Freie Presse) equipped with a colorMAN XXL, the most recent innovation from manroland Druckmaschinen AG. The picture shows the group in the mailingroom from Ferag GmbH where the newspaper copies are being prepared for their distribution
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The **Printing Future Days 2009** attracted more than 100 individuals (advanced students and scientists) from 17 countries. By courtesy of the **Ministry of Science and Arts** of the Free-State of Saxony, a number of **travel grants** for foreign students were awarded.

Highlights in the field of Functional Printing

Firstly, **Hyun-Kyoo Kang**, from **Konkuk University**, South Korea, reported on "Modelling of cross-direction register and effects on machine direction" presenting a sound theoretical description of register printing on a reel-to-reel printing machine. Such a control method is very important for functional printing as it is

necessary to print the different layers on top of each other in order to guarantee the functionality of complex electronic devices like printed transistors.

Secondly, **Jin-Hyun Ahn**, from **Konkuk University**, South Korea, suggested a "*Concept for the integration of electrohydrodynamic inkjet printing into a reel-to-reel printing machine*". The printing head is rotatable mounted so that it can move across to the web direction.

Thirdly, **Ashok Sridar** from the **University of Twente**, the Netherlands, presented his work "*Surface modification of PCB substrates for better adhesion of inkjet printed circuit structures*". The approach showed surface pre-treatment for printed circuit boards (PCB) in order to increase the adhesive strength of inkjet silver-inks on the substrate. Ashok Sridhar's talk was awarded with the best-oral-presentation-award donated by IARIGAI, combined with an invitation to give a presentation on the next IARIGAI conference, 2010 held in Montreal, Canada.