

Conference program

Sunday, 9 September 2007

Venue: Grenoble Musuem

- 15:00-15:20 Opening of the conference (*Helene Juhola*)
- 15:20-15:50 Opening presentation** Chair: *Helene Juhola*
Alain Dufresne, LGP2, INPG, Grenoble, France
Polymer nanocomposites reinforced with poly-saccharide nanocrystals
- 15:50-16:05 Break (15 min)**
- 16:05-17:45 Plenary session 1 - Industry development and strategies** Chair: *Helene Juhola*
- 16:05-16:30 Positioning in the printing industry - differentiation in terms of price, lead time, print quality and flexibility
T. Mejtoft, M. Viström, STFI-Packforsk and KTH, Stockholm, Sweden
- 16:30-16:55 Tabloid vs. Broadsheet: is format change the magic bullet for newspapers?
H.-J. Bucher, University of Trier, Germany
- 16:55-17:20 Importance of short production runs, variable data printing and web interfaces
M. Viström, T. Mejtoft, KTH and STFI-Packforsk, Stockholm, Sweden
- 17:20-17:45 New business models for printed functionality
U. Lindqvist, L. Hakola, H. Linna, P. Moilanen, T. Siivonen, VTT, Espoo, Finland
- 17:45-18:00 Break (15 min)**
- 18:00-19:30 Concert and welcome cocktails

Monday, 10 September 2007

Venue: EFPG

- 09:00-09:30 Introductory session - Keynote lecture 1** Chair: *to be announced*
Printed electronics: What to expect
William J. Ray, Applied Printed Electronics, Holt, MI, USA
- 09:30-10:45 Plenary session 2 - Environment and sustainability** Chair: *Manfred Werfel*
- 09:30-09:55 Customer oriented and sustainable printed paper
H. Wessman, A. Leinonen, C. Hohenthal-Joutsimo, KCL, Espoo, Finland
- 09:55-10:20 Energy efficiency improvement for graphic/media SME's
A. Politis, M. Dattner, TEI, Athens, Greece
- 10:20-10:45 Screening environmental life cycle assessment of printed newspaper, web based newspaper and tablet e-paper newspaper
Å. Moberg, STFI-Packforsk and KTH, Stockholm, Sweden
- 10:45-11:15 Coffee break (30 min)**
- 11:15-12:55 Session 3A - Offset printing** Chair: *Helmut Kipphan*
- 11:15-11:40 Mechanisms of non-image area accumulation in HSWO
S. Passoja, U. Mattila, A. Sneck, KCL, Espoo, Finland
- 11:40-12:05 Aquapiling: Coated substrate-related influences on reverse piling piling from a one-side single colour image in multicolour offset printing
P. A. C. Gane, C. J. Ridgway et al., Omya AG, Oftringen, Switzerland and UPM-Kymmene Research Center, Lappeenranta, Finland
- 12:05-12:30 Aspects on water-induced mottle when printing on coated paper in sheet-fed lithographic offset
C. Lie, KTH, Stockholm, Sweden
- 12:30-12:55 Predicting print-through in coldset newsprint
C. Antoine, LGP2, INPG, Grenoble, France
- 12:55-14:00 Lunch break (65 min)**
- 11:15-12:55 Session 3B - Special materials** Chair: *Per-Åke Johansson*
- 11:15-11:40 Measurement of colour on translucent material viewed by reflection
A. Sole, P. J. Green, London College of Communication, London, UK
- 11:40-12:05 The problem of a quantitative evaluation of adhesive strength in printing on polymer films
E. B. Bablyuk, V. A. Bakanov, K. V. Farenbrukh, MGUP, Moscow, Russia
- 12:05-12:30 Modification of the polymeric films surface for the quality printing
V. G. Nazarov, E. B. Bablyuk, B. P. Stolyrov, MGUP, Moscow, Russia
- 12:30-12:55 Color differences on offset printed PET and PVC shrink sleeve labels
G. Golob, D. Gregor, B. Zorž, NTF, University of Ljubljana, Slovenia
- 12:55-14:00 Lunch break (65 min)**



14:00-15:40 Session 4A - Flexography and gravure Chair: *Timothy Claypole*

- 14:00-14:25 Kinetics and thermodynamics of flexographic-plate polymer interaction with low-molecular liquids
A. I. Dzhvarsheysvili, M. K. Sherstneva, V. Yu. Konyukhov, MGUP, Moscow, Russia
- 14:25-14:50 Analysis of interferometric data to obtain accurate geometric characterization of engraved cells
D. Deganello, T. C. Claypole, D. T. Gethin, WCPC, Swansea, UK
- 14:50-15:15 Modelling the anilox-plate micro contact
D. Bould, S. M. Hamblyn, J. A. Cherry, T. C. Claypole, WCPC, Swansea, UK
- 15:15-15:40 Wavelet automatic classification system of substrates in packaging
A. Sanchez-Alandí, V. de Gracia; S. Otero, C. Gomez, AIDO, Paterna, Valencia, Spain

15:40-16:10 Coffee break (30 min)

14:00-15:40 Session 4B - The printed dot Chair: *Björn Kruse*

- 14:00-14:25 A micro-scale view of optical dot gain in halftone color prints
D. Nyström, B. Kruse, Li Yang, Linköping University, Sweden
- 14:25-14:50 Correcting method of optical dot gain to full color halftone image printed on white paper
M. Nonaka, S. Kitazawa, Faculty of Engineering, Tokyo Polytechnic University Kanagawa, Japan
- 14:50-15:15 The modeling of mechanisms of printed dot physical extension
Y. Vinogradov, V. Goobankov, E. Borisenko, The St. Petersburg State University of Technology and Design, St. Petersburg, Russia

15:15-15:40 **Cancelled** Percentibility of missing dots and unevenness in print

M. Kaukonen, M. Malanin, P. Oittinen, HUT, Helsinki, Finland

15:40-16:10 Coffee break (30 min)

16:10-17:50 Session 5A - Non-impact printing Chair: *Bernard Pineaux*

- 16:10-16:35 Effect of drops interactions in ink-jet print quality
C. Mercier, M. Peralba, M. Dubé, J-F Bloch, P. J. Mangin, CIPP, Trois-Rivières, Québec, Canada and Laboratoire Génie des Procédés Papetiers, St. Martin d'Hères, France
- 16:35-17:00 New ink absorption method to predict inkjet print quality
T. Lamminmäki, P. Puukko, KCL, Espoo, Finland
- 17:00-17:25 Digital paper and print surface topology
P. Vernhes A. Blayo, B. Pineaux J-F. Bloch, EFPG, St. Martin d'Hères, France
- 17:25-17:50 A lumped parameter model for thermal conductivity of paper coatings
P. Gerstner, J. Paltakari, P. A. C. Gane, HUT, Helsinki, Finland

16:10-17:50 Session 5B - Printing inks Chair: *Scott Williams*

- 16:10-16:35 Time-dependent rheology effects on print quality using water-based ink compositions
S. Williams, S. Pieruccini, RIT, Rochester, NY, USA
- 16:35-17:00 Study of the rheological behaviour of conventional, hybrid an UV offset inks
M. Kaplanova, K. Remenarova, B. Jasurek, J. Valis, UPCE, Pardubice, Czech Republic
- 17:00-17:25 Hydrodynamics of ink transfer and ink tack on porous substrates
M. Dubé, F. Drolet, J-F. Bloch, C. Daneault and P. J. Mangin, CIPP, Trois-Rivières, Québec, Canada
- 17:25-17:50 Flexographic printing ink performance on coated paperboard under elevated temperatures
R. Olsson, L. Yang, M. Lestelius, Karlstad University, Karlstad, Sweden

Tuesday, 11 September 2007

Venue: EFPG

09:00-10:45 Session 6A - Color reproduction Chair: *André Dion*

- 09:00-09:25 Spectral color reproduction versus color reproduction
J. Gerhardt, J. Y. Hardeberg, HIG, Gjøvik, Norway
- 09:25-09:50 The development of six colour separation algorithms
E. H. Jewell, T. C. Claypole, B. Palmer, WCPC, Swansea, UK
- 09:50-10:15 Deriving optimal spectra for standard offset primaries
P. Urban, A. Kraushaar, RIT, Rochester, USA and FOGRA, Munich, Germany

10:15-10:45 Coffee break (30 min)



- 09:00-10:45** **Session 6B - Proofing and standards** Chair: *Susanna Nieminen*
- 09:00-09:25 An evaluation of color differences and tolerances in soft proofing
J. Laine, VTT, Espoo, Finland
- 09:25-09:50 Improved proofing method for postage stamps
E. Novotny, PNYME, Budapest, Hungary
- 09:50-10:15 Implementing process color printing by colorimetry
R. Chung, RIT, Rochester, NY, USA
- 10:15-11:45** **Coffee break (30 min)**
- 10:45-12:25** **Session 7A - Printed functionality** Chair: *Ulf Lindqvist*
- 10:45-11:10 Printing process for lithium-ion electrodes elaboration
F. Medlege A. Blayo, H. Rouault, N. Belgacem,
CEA, Grenoble and EFPG, St. Martin d'Hères, France
- 11:10-11:35 Rotogravure and PAD printing of microstructures for electronic applications like oFETs
W. Till, G. Hübner, Hochschule der Medien, Stuttgart, Germany
- 11:35-12:00 An experimental study to identify key factors affecting the performance of RFID tag antennas
Yung-Cheng Hsieh, Hui-Wen Cheng, National Taiwan University of Arts, Taipei, Taiwan
- 12:00-12:25 Carbon black loaded paper: an intelligent substrate for electronic sensors design
R. Koehly M. M. Wanderley, T. Van de Ven, D. Curtil,
MusicTech, McGill University, Montreal, Canada
- 12:25-13:30** **Lunch break (65 min)**
- 10:45-12:25** **Session 7B - Color and quality assessment** Chair: *Robert Chung*
- 10:45-11:10 Achieving color agreement: evaluating the options
R. Chung, F. Hsu, RIT, Rochester, NY, USA
- 11:10-11:35 Comparing corresponding colors
L. Mandić, D. Agić, M. Kurečić, FGA, University of Zagreb, Croatia
- 11:35-12:00 Influence of paper and printing processes on the visual perception and colorimetric characteristics of newsprint
T. C. Claypole E. H. Jewell, N. Wells, P. Casey, WPCPC, Swansea, UK
- 12:00-12:25 ~~Process variability: optimization and control~~
~~*N. Padalkar, A. Virdhe, R. Oswal*, Design Studio, Thomson Digital, Noida, India~~
- 12:25-13:30** **Lunch break (65 min)**
- 13:30-15:10** **Session 8A - Cross-media** Chair: *Nils Enlund*
- 13:30-13:55 Consumer expectations as drivers of media change
C. Teljas, A. Jonsson, N. Enlund, KTH, Stockholm, Sweden
- 13:55-14:20 Designing community-based print products
K. Grenman, M. Forsell, H. Roschier, M. Ylisiurua, KCL and HUT, Espoo, Finland
- 14:20-14:45 User centric approach for designing cross media applications in personal photography
S. Vihavainen et al, Helsinki Institute of Information Technology, Helsinki, Finland
- 14:45-15:10 Potential applications for hybrid media, the benefits, and the roles in the operations model
E. Rusko, L. Hakola, VTT, Espoo, Finland
- 15:10-15:40** **Coffee break (30 min)**
- 13:30-15:10** **Session 8B - Special printing** Chair: *Ulrike Herzau-Gerhardt*
- 13:30-13:55 Photoacoustic study of varnished solids printed by different techniques
M. Držkova, J. Hejduk, K. Grolichova, UPCE, Pardubice, Czech Republic
- 13:55-14:20 Quality control for printed interference colours - investigation for a basic measuring geometry
H. Hupp, E. Dörsam, TU Darmstadt, Darmstadt, Germany
- 14:20-14:45 Flip flop and spatial (3D) graphics in lenticular technique
I. Žiljak, J. Žiljak-Vujić, K. Pap, FGA, University of Zagreb, Croatia
- 14:45-15:10 Printing of functional layers using flexography
H. Nagel, U. Herzau-Gerhardt, HTWK, Leipzig, Germany
- 15:10-15:40** **Coffee break (30 min)**
- 15:40-16:10** **Closing session 9 - Keynote lecture 2** Chair: *Anne Blayo*
- Hybrid document starts to embrace hybrid information
François Gouverneur, Xerox France
- 16:10-16:25** **Closing of the conference (*Helene Juhola*)**
Presentation of the 35th International Research Conference



- 16:25-16:40** Break (15 min)
- 16:40-18:00** General assembly (*representatives only*)
- 20:00-23:00** Conference dinner (*Restaurant at La Bastille*)

Wednesday, 12 September 2007

Industrial tour

09:00-11:30 Visit to the Minatec Innovation Center



Minatec is the first European center for micro and nanotechnology innovation. It came into existence at the instigation of CEA-Leti Grenoble and INP Grenoble. The ambition of Minatec is to become Europe's top center for innovation and expertise in micro and nanotechnology



Partners program

Sun. 9 Sept. 07 18:00-19:30 Concert and welcome cocktails at the Grenoble Museum

Mon. 10 Sept. 07 morning Visit of the Grenoble Museum

Tue. 11 Sept. 07 08:46-16:00 Excursion day in the Matheysine



Come on board of a typical train straight out of the 30's and enjoy in breathtaking scenery of mountains and lakes.

Following the train ride, you will be invited aboard of the Mira, the boat that will take you along the lake for a lunch cruise.

20:00-23:00 Conference dinner at the restaurant *La Bastille*

Wed. 12 Sept. 07 09:00-11:30 Industrial tour to Minatec Innovation Center

Sign up for the conference here



Deadline for registrations 27 July 2007