



45th iarigai Conference
Advances in Printing
and Media Technology:
From Printing to Manufacturing

3-7 October 2018
Warsaw, Poland

PROGRAMME >>

Day 0 | Wednesday, 3rd October 2018

12:00-17:00 Board meeting (members only) | ZTP

18:00-19:30 Registration | Hotel IBIS

Day 1 | Thursday, 4th October 2018 | ZTP | Konwiktorska 2

8:30-9:00 Registration | ZTP

Opening session | lecture hall 19a

9:00-9:10 Opening of the Conference, President of **iarigai**

9:10-9:20 Welcome addresses WIP, Dean

9:20-9:25 Welcome addresses Head of ZTP and Director of the Conference

9:25-9:30 Introduction of new members

9:30-9:45 JPMTR, Editor-in-Chief

9:45-10:00 Official photo

10:00-10:25 Coffee break | hall 19c

Plenary session 1

PRINTING I: Print and User Interaction

Chair: Edgar Dörsam | lecture hall 19a

10:25-10:50 Gunter Hübner, Thomas Fischer and Ricardo Martinez, Hochschule der Medien, Germany: *Man-Machine Interfaces Using Screen Printing*

10:50-11:15 Helmut Wittenzellner, Manuela Blass and Eva Paap, Hochschule der Medien, Germany: *Augmented Print – Cross-media Learning Tools for Primary School Children*

11:15-11:45 Coffee break | hall 19c

Plenary session 2

MEDIA AND GRAPHIC I: Graphic Design

Chair: Ian Baitz | lecture hall 19a

11:45-12:10 Petr Roudný and Markéta Držková, University of Pardubice, Czech Republic: *The Method for Legibility Assessment and its Application for Model Pharmaceutical Leaflets*

12:10-12:35 Michael Abildgaard Pedersen, The Danish School of Media and Journalism, Denmark: *Reality Check: What to expect when buying different Print Products for a Campaign – Brand Color Reproduction across Print Substrates and Technologies*

12:35-13:00 Yung-Cheng Hsieh, Cheng-Cheng Jiang and Xin-Yi Wong, National Taiwan University of Arts, Taiwan: *Key Elements of Developing a Customized Web-to-Print Platform*

13:00-14:00 Lunch | hall 19c

Plenary session 3

PACKAGING AND SUBSTRATES I: Substrate and Materials

Chair: Zuzanna Żółek-Tryznowska | lecture hall 19a

14:00-14:25 Gregor Lavrič and Igor Karlovits, Pulp and Paper Institute, Slovenia: *The Influence of Nanocellulose Addition on Printing Properties of Recycled Paper*

14:25-14:50 Tim Claypole (invited speaker), Andrew Claypole, James Claypole and Sarah-Jane Potts, Welsh Centre for Printing and Coating, Swansea University, UK: *Plasma Functionalised GNP for Volume Printed Flexible Electronics*

14:50-15:15 Mustafa Bilgin and Johannes Backhaus, Bergische Universitaet Wuppertal, Germany: *Development of a unidirectional Switchable Photochromic Ink for Smart Packaging*

15:15-15:45 Coffee break | hall 19c

Plenary session 4

PRINTING II: Printing processes and products – industrial processes and product development

Chair: Patrick Gane | lecture hall 19a

15:45-16:10	Dominik Kapović, Branka Lozo and Wilco De Groot, University of Zagreb, Croatia: <i>Interpretation of Ink Tack Stability Testing Results for Improved Offset Printability</i>
16:10-16:25	Julian Schäfer, Hans Martin Sauer and Edgar Dörsam, Technische Universität Darmstadt, Germany: <i>Direct Observation of High-speed Fluid Transfer Phenomena in the Nip of a Gravure Printing Machine</i>
16:25-16:50	Małgorzata Zakrzewska, hubergroup Polska Sp. z o.o., Halina Podsiadło, WUT ZTP, Poland: <i>Study of the Effect of the Adhesion Promoter on the Coefficient of Friction, COF, of OPP Film</i>
17:00-17:45	General Assembly (appointed representatives only) lecture hall 19a
17:45-18:30	Board meeting (members only) lecture hall 212
19:00	Welcome reception together with IC conference Restaurant Dom Smaków, INTRACO Building

Day 2 | Friday, 5th October 2018 | ZTP | Konwiktorska 2

9:00-9:40	Opening session of IC, optional for iarigai members lecture hall 19a
9:40-10:40	Joined plenary session – iarigai and IC – Chair: Gunter Hübner, Luk Bouters
10:40-11:00	Coffee break hall 19c
	Plenary session 5
	PRINTING III: Prints quality
	Chair: Markéta Držková lecture hall 217
11:00-11:25	Patrick Gane, Cathy Ridgway and Dirk Kisters, Omya International AG, Switzerland: <i>Evaluating Contact Angle on Complex Surfaces to obtain a meaningful Surface Energy for Print Adhesion</i>
11:25-11:50	Christina Bodenstein, Hans Martin Sauer, Felipe Fernandes, Edgar Dörsam and Elisabeth Warsitz, Technische Universität Darmstadt, Germany: <i>Assessing the quality of pad-printed images by evaluating edge sharpness</i>
11:50-12:15	Ahmad Al Aboud, Edgar Dörsam, Arash Hakimi Tehrani and Dieter Spiehl, Technische Universität Darmstadt, Germany: <i>Using FEM Simulation as a Tool to develop Pad Printing</i>
12:15-12:45	Coffee break Open space 2nd floor

Session 6A

PACKAGING AND SUBSTRATES II:

Substrate and Materials

Chair: Marta Gajadhur | lecture hall 217

Session 6B

PRINTING IV:

Printed functionality

Chair: Mladen Lovreček | lecture hall 212

12:45-13:10	Sandra Rosalen and Johannes Backhaus, Bergische Universität Wuppertal, Germany: <i>Cardboards printed with water based inkjet inks</i>	Eveliina Jutila, Risto Koivunen, Roger Bollström and Patrick Gane, Aalto University, Finland: <i>Overcoming Printing Challenges related to Fabrication of Inkjet-printed Coated Microfluidic Reaction Platforms</i>
13:10-13:35	Fons Put and Michiel Van den Saffele, VIGC, Belgium: <i>Design of a lightfastness calculator for printed materials</i>	Zhiqing Xin, Jianghao Liu, Lingya Gu, Yi Fang, Lixin Mo and Li Yang: <i>Surface Energy-guided Patterning for Printed Electronics Applications</i>
13:35-14:00	Jacqueline Stamm, Dieter Spiehl, Jeannine Jaeger, Florian Groher, Tobias Meckel, Beatrix Suess and Edgar Dörsam, Technische Universität Darmstadt, Germany: <i>DNA and DNA Staining as a Test System for the Development of an Aptamer-based Biosensor for Sensing of Antibiotics</i>	Anne Blayo, Nathalie Marlin and Céline Chrétien, Grenoble INP Pagora, France: <i>About Deinking of Paper-based Printed Electronics</i>

14:00-15:00 Lunch | hall 19c

Session 7A**PRINTING V:****Secure printing and 3D Printing****Chair: Fritz Bircher | lecture hall 217****Session 7B****PRINTING VI:****Printing processes and products – industrial processes and product development****Chair: Cathy Ridgway | lecture hall 212**

15:00-15:25	Slavtcho Bonev and Sviatoslav Voloshynovskiy, University of Geneva, Switzerland: <i>Secure Printing for Labels and Packaging using Industrial Digital Printers: authentication of printed matrix codes with smartphone cameras</i>	Anastasios E. Politis, HELGRAMED, Greece: <i>Industry 4.0: What does it mean for the Graphic Arts Industry?</i>
15:25-15:50	Elena Yakovleva, Anton Makarov, Valery Gorbachev and Elena Kaynarova, Saint-Petersburg State University, Russian Federation: <i>Image Watermarking Using a Cover Work with Replicated Elements</i>	Samantha L. Schoenfelder, Alexandra Pekarovicova and Paul Daniel Fleming, Western Michigan University, USA: <i>The Modification of a Curtain Coating Formulation and Its Effect on Pitting</i>
15:50-16:15	Linlin Liu, Meng Li, Qiumin Wu, Jie Ma and Xiang Liu, Xian University of Technology, China: <i>Information Construction of MBD-based 3D Additive Manufacturing Process Model</i>	

19.00 Dinner with IC members | Restaurant Dom Smaków, INTRACO Building

Day 3 | Saturday, 6th October 2018 | WUT – Main Building | Plac Politechniki 1

9:30-10:00 Transfer by shuttle to WUT, Main Building

10:00-11:30 Official Jubilee Session | Mała Aula

11:30-12:30 Coffee break

Joined plenary session of iarigai and IC | Mała Aula

Chair: Luk Bouters, Gunter Hübner

12:30-12:50 Prof. Dr Ulrich Hermann, Heidelberger Druckmaschinen AG: *Smart factory – future of the graphic arts industry*

12:50-13:10 Jacek Kuśmierczyk, The Polish Guild of Gutenberg's Knights: *The results of the research of KPMG and PBKG – Modern printing market in Poland*

13:10-13:30 Andrzej Kunstetter, Heidelberg Polska Sp. z o.o., Department of Printing Technologies WUT, Printing House Perfekt S.A.: *Multidot – innovative offset screen*

13:30-14:30 Coffee break

14:30-15:30 Panel discussion. Wrap up session

15:30 Transfer by shuttle back to IBIS Hotel

17:45-18:15 Transfer by shuttle to WUT, Main Building

19:00 50th Jubilee Gala | Duża Aula, Main Building of WUT

From 23:00 Transfer by shuttle to IBIS Hotel (every 30 min)

Day 4 | Sunday, 7th October 2018

10:00 Sightseeing tours (optional)

10:30 Museum of King Jan III's Palace in Wilanów

12:30 Lunch

14:20 Copernicus Science Centre

16:30 Departure to ZTP