

8th Conference on Information and Graphic Arts Technology

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University of Ljubljana, Faculty of Natural Sciences and Engineering has organized an international event – the **8th Conference on Information and Graphic Arts Technology**. The event took place in Ljubljana, Slovenia from **7 to 8 June 2018**. The conference was held under the auspice of the [International Circle of Educational Institutes for Graphic Arts Technology and Management](#).

We are pleased that the participation in the conference exceeded our expectations – more than 80 colleagues from abroad (Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Slovakia and Serbia) as well as Slovenia honored us with their presence.

Numerous contributions, which have been selected and evaluated by international experts in the corresponding fields, were presented at the conference. Beside four invited lectures of prominent experts from the field of graphic arts – *dr. Gorazd Golob*, *dr. Tomislav Stipančić*, *dr. Matjaž Kunaver* and *Mrs. Barbara Wilkesmann Hočevar*, 22 contributions and 28 posters from different fields of graphics, printing and media technology were presented.

We are convinced that this two-day international conference offered a unique opportunity to bring together researchers from the different disciplines of graphic communications to discuss and share their knowledge, and provided a platform for further conceptual development on all conference topics.

Thanks to all the participants for support and participation in the event.

We look forward to seeing you soon!

Your organizing and programme committee.

Book of Proceedings+

[8_CIGT_Proceedings](#)

Conference programme for June 7+

08.00	<i>Registration</i>	
09.00	Conference opening	Markoli (NTF dean), Muck (Head of CIGT), Urbas (Conference director)
09.20	Invited lectures	Chair: Klanjšek Gunde
09.20	STUDY OF GRAPHIC ARTS TECHNOLOGY – FROM THE BEGINNING TO THE FUTURE	Golob
09.50	COMPUTATION APPROACH FOR REALISATION OF CONTEXT-AWARE ROBOTS	Stipančić
10.20	BIOMASS UTILIZATION IN POLYMER SYNTHESIS AND NANOCELLULOSE PRODUCTION	Kunaver
10.50	<i>Coffee break</i>	
11.20	Session 0: Invited lecture & sponsors' presentations	Chair: Muck
11.20	3D PRINTING FOR DESIGN AND ART	Wilkesmann Hočevar, sponsors
13.00	Lunch	
14.00	Session A: Novel printing materials	Chair: Čeppan

14.00	ON THE WIDTH OF COLOUR HYSTERESIS LOOPS IN LEUCO DYE-BASED THERMOCHROMIC PRINTING INKS	Klanjšek Gunde, Slemenik Perše, Bašnec, Šumiga, Boh Podgornik, Hladnik
14.20	OPTICAL DENSITY OF PRINTING SUBSTRATE REQUIRED FOR CLEARLY VISIBLE COLOR PLAY EFFECT OF THERMOCHROMIC LIQUID – CRYSTAL PRINTING INKS	Strižič Jakovljevič, Lozo, Klanjšek Gunde
14.40	FORMATION AND CHARACTERISATION OF SHELLAC FILMS	Vrabič Brodnjak
15.00	BIOCOMPOSITE PLA FILAMENT FOR 3D PRINTING	Gregor Svetec, Stankovič Elesini, Leskovšek, Vrabič Brodnjak, Urbas
15.20	Coffee break	
15.40	Session B: Education, Communication, Advertising	Chair: Vrabič Brodnjak
15.40	EDUCATION IN 21ST CENTURY	Demšar, Aneja
16.00	EQUIPPING THE ARS VIVA INSTITUTE WITH WEB COMMUNICATION CHANNELS	Škerjanc, Vidmar, Prevc, Marolt
16.20	THE DEVELOPMENT OF THE GENERATIVE BRANDS' CATEGORIZATION	Gabrijelčič Tomc, Kavčič
16.40	THE EFFECTS OF TYPEFACE AND IMAGE COMPLEXITY ON CONSUMER VISUAL ATTENTION AND ATTITUDINAL RESPONSES IN ADVERTISING	Puškarevič, Nedeljčević, Pinčjer, Pušnik, Franken
19.00	Dinner	

Conference programme for June 8+

09.00	Session C: Image processing, Colorimetry	Chair: Karlovits
09.00	USE OF IMAGE SEGMENTATION FOR WOVEN FABRICS' POROSITY AND ALPHA MAP DETERMINATION	Kočevar, Zupin
09.20	MONTE CARLO DENOISING OF COMPUTER GENERATED IMAGES BY NON-LOCAL MEANS FILTERING	Gabrijelčič Tomc, Hladnik
09.40	COLORIMETRIC CHANGES CAUSED BY UV VARNISHING	Car, Majnarič, Lozo
10.00	DEFINING THE OPTIMAL TRAINING SET SIZE FOR CAMERA-BASED COLOUR MEASUREMENT OF GONIOCHROMATIC PRINTS: A PRELIMINARY STUDY	Tomić, Dedijer, Novakovič, Pinčjer
10.20	Poster Session and coffee break	
11.20	Session D: Typography, User experience	Chair: Bouters
11.20	COMPUTER GENERATED HANDWRITING SIMULATION BASED ON ALTERNATION OF CHARACTERS	Mahkovic, Možina
11.40	DIFFERENCES BETWEEN DESIGNERS' AND USERS' PERCEPTION OF INSTRUCTIONS DESIGN	Kovačević, Brozović
12.00	USER EXPERIENCE OF WAIT-ANIMATION PROGRESS INDICATORS	Pibernik, Dolic, Stanić, Mandić
12.20	RECOGNITION OF WORDS WITH JUMBLED LETTERS	Pušnik, Weingerl, Puškarevič
12.40	Lunch	
13.40	Session E: Instrumental methods, Novel technologies	Chair: Tomić
13.40	ANALYSIS OF 3D PRINTS BY X-RAY COMPUTED MICROTOMOGRAPHY	Korat
14.00	FABRICATION OF CAPACITIVE SLIDERS	Pleša, Kavčič, Lavrič, Muck
14.20	THE POSSIBILITY OF USING ARDUINO BASED WATER LEVEL SENSOR FOR TISSUE PAPER ABSORPTION RATE AND CAPACITY MEASUREMENT	Karlovits, Kavčič, Pleša, Sežun
14.40	Coffee break	
15.00	Session F: Packaging, Paper	Chair: Mahovič Poljaček
15.00	ELECTRON BEAM CURING OF PRINTING INKS IN PACKAGING INDUSTRY	Griger, Šarisky, Štromajer, Oravec, Čeppan, Jančovičova
15.20	EXTEND OF PAPER COATING CRACKING	Možina, Ahtik, Bečaj, Krajnc, Pivar, Ravnjak, Gregor Svetec
15.40	THE INFLUENCE OF BACTERIAL NANOCELLULOSE ADDITION ON MECHANICAL PROPERTIES OF PAPER	Lavrič, Karlovits, Pleša, Sežun
16.00	Conference closing	Urbas, Hladnik

Poster presentations+

AVAILABILITY OF E-TEXTBOOKS ON THE SLOVENIAN MARKET

Grega TOMAŽIN¹, Urška STANKOVIČ ELESINI²

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BLUEPRINTING – AN ANCIENT BUT STILL LIVING WAY OF PRINTING TEXTILES

Veronika KRAVCOVÁ¹, Ondrej PANAK¹ & Petra FORTE TAVČER²

¹ University of Pardubice, Faculty of Chemical Technology, Department of Graphic Arts and Photophysics, Czech Republic

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COLOUR AND ODOUR PERCEPTION AT COSMETIC PACKAGING

Kaja JOKIĆ, Barbara BLAZNIK & Sabina BRAČKO

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Design, Slovenia

COLOUR OF TASTE

Gregor FRANKEN

University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design, Slovenia

COMPARISON OF DIGITAL AND TRANSFER PRINTING OF COTTON FABRIC

Michaela ČESÁKOVÁ¹, Ondrej PANAK¹ & Petra Forte TAVČER²

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COMPARISON OF SCREEN PRINTED AND ARDUINO-BASED SENSORS FOR ALCOHOL DETECTION

Urška KAVČIČ¹, Igor KARLOVITS¹ & Matej PIVAR²

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CREATION OF INTERACTIVE BOARD FOR LEARNING ABOUT TYPOGRAPHY

Tevož ZRINSKI, Klementina MOŽINA & Dejana JAVORŠEK

University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design, Slovenia

DESIGN OF A GIFT CERTIFICATE USING PROTECTIVE ELEMENTS IN A STANDARD TRIAD

Nadezhda SAVCHUK, Olga NOVOSELSKAYA

Byelarusian State Technological University, Informatics and Web-Design Department, Belarus

DEVELOPMENT OF DISPERSION BARRIER COATING FOR GREASE, MINERAL OIL AND WATER VAPOUR

Jelena VASILJEVIĆ¹, Barbara GOLJA¹, Ivan JERMAN², Ervin ŠEST², Matic ŠOBAK², David RAVNJAK⁴, Mateja KERT¹, Marija GORJANC¹, Brigita TOMŠIČ¹, Tea KAPUN³, Diana GREGOR-SVETEC¹ & Barbara SIMONČIČ¹

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ENZYMATIC DEINKING OF FLEXOGRAPHIC PRINTED PAPER

Mija SEŽUN¹, Gregor LAVRIČ¹, Gašper DOKL2 & Matej PIVAR³

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EVOLUTION OF NATURAL PATTERNS FROM RANDOM FIELDS

Lovrenc ŠVEGL¹, Igor GRABEC²

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EYE TRACKING ANALYSIS OF INTERNAL FACIAL FEATURES IN OBSERVATION AND RECOGNITION PROCESS

Andrej ISKRA, Helena GABRIJELČIČ TOMC

University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design, Slovenia

HOW COLOR SHAPES BRAND IDENTITY

Urška STANKOVIČ ELESINI¹, Karla MRKOBRADA¹ & Jani TOROŠ²

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IMPACT OF THE AGE OF THE PIGMENT PRINTING PASTE ON THE PRINT QUALITY

Petra FORTE TAVČER

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INFLUENCE OF OPTICAL PAPER PROPERTIES OF RECYCLED AND NON-RECYCLED PAPERS FOR DIGITAL PRINTING ON COLOUR REPRODUCTION

Ivana JURIČ, Dragoljub NOVAKOVIĆ, Nemanja KAŠIKOVIĆ, Sandra DEDIJER & Neda MILIĆ

University of Novi Sad, Faculty of Technical Sciences, Department of Graphic Engineering and Design, Serbia

POLYLACTIC ACID FIBERS CONTAINING FLUORESCENT PIGMENTS

Viera JANČOVIČOVÁ, Barbora ĎURICOVÁ, Veronika HRABOVSKÁ & Katarína HABEROVÁ

Slovak University of Technology in Bratislava, Faculty of Chemical and Food Technology, Department of Graphic Arts Technology and Applied Photochemistry, Slovakia

PREVENTION OF STARCH DEGRADATION IN PAPER MAKING PROCESS FOR RECYCLED PACKAGING PAPER

Dimitrina TODOROVA, Ventsislav BLYAHOVSKI & Spas LADZHOV

University of Chemical Technology and Metallurgy, Bulgaria

PRINTING BRAILLE WITH SPECIAL EXPANDABLE SCREEN PRINTING INKS

Karin KUKEC, Raša URBAS

University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design, Slovenia

SCIENTIFIC ILLUSTRATIVE DESIGNS IN GRAPHIC PRODUCTS

Tadej PREZELJ, Urška VRABIČ BRODNJAK

University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Textiles, Graphic Arts and Design, Slovenia

SELECTING THE TRADEMARK COLOUR DEPENDING ON THE COMPANY'S BUSINESS AREA

Ivan PINČJER, Ivana TOMIĆ, Irma PUŠKAREVIĆ & Gojko VLADIĆ

University of Novi Sad, Faculty of Technical Sciences, Department of Graphic Engineering and Design, Serbia

SELF-FOLDABLE KNITTED BAGS FOR HOUSEHOLD STORAGE OF BAKERY PRODUCTS BASED ON BIOMIMETICS

Darja RANT, Alenka PAVKO-ČUDEN

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STUDY OF ACCELERATED AGING OF BLACK INKJET PRINTS

Michal ORAVEC, Lukáš GÁL, Michal ČEPPAN & Patrícia PARAČKOVÁ

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STUDY OF CHANGES OF WRITING INKS ON THE PAPER DOCUMENTS

Silva STAŠKOVÁ, Milena REHÁKOVÁ & Aleš HÁZ

Slovak University of Technology in Bratislava, Faculty of Chemical and Food Technology, Department of Graphic Arts Technology and Applied Photochemistry, Slovakia

SYNTHESIS, COATING AND EVALUATION OF ANTIMICROBIAL MICROCAPSULES ON PAPER

Bojana BOH PODGORNİK¹, Boštjan ŠUMIGA², Barbara GOLJA¹, Matej ŠUŠTARŠIČ², Barbara ŠUMIGA² & David RAVNJAK³

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TLC AND GC/MS ANALYSIS OF INK JET PRINTING INKS

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TYPEFACE AND ECOLOGICAL DESIGN

Klementina MOŽINA, Alenka TOMAŠIČ

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USE OF BIOCOMPOSITE FILAMENTS FOR 3D PRINTING

Maruša ROPRET, Helena GABRIJELČIČ TOMC & Deja MUCK

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Design, Slovenia

USING UAV RGB CAMERA AS A COLOUR MEASURING DEVICE

Andrej UČAKAR, Aleš HLADNIK

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Registration+

Registration form is available [here](#)

Venue+

The venue of the conference in [NTF, Department of Textiles, Graphic Arts and Design \(Snežniška 5, Ljubljana\)](#).

Registration fees and payment information+

Basic conference fee is 150 € (VAT included).

In the case of multiple participants, coming from the same institution, each additional participant will be offered a 10% discount.

Example: first participant 150 €, second participant 135 €, third participant 120 € etc.

PAYMENT INFORMATION

Account holder: UNIVERSITY OF LJUBLJANA, FACULTY OF NATURAL SCIENCES AND ENGINEERING

IBAN: SI56 0110 0603 0708 186

Bank: BANKA SLOVENIJE, Slovenska cesta 35, 1505 Ljubljana

SWIFT code: BSLJSI2X

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Reference: 501 5000 50940 (CIGT 2018)

Organizing, programme and review committees+

Organizing committee

Conference director

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- Aleš Hladnik – University of Ljubljana, Slovenia
- Barbara Luštek Preskar – University of Ljubljana, Slovenia
- Klemen Možina – University of Ljubljana, Slovenia
- Deja Muck – University of Ljubljana, Slovenia
- Nace Pušnik – University of Ljubljana, Slovenia

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8. CIGT

