



10<sup>th</sup> INTERNATIONAL TEXTILE, CLOTHING & DESIGN CONFERENCE

# Magic World of Textiles

## PRELIMINARY PROGRAMME

Organized by:

University of Zagreb  
**Faculty of Textile Technology**  
**Zagreb, Croatia**

**Under the Auspices of:**

Ministry of Science and Education, Zagreb, HR  
University of Zagreb, Zagreb, HR  
Croatian Academy of Engineering, Zagreb, HR  
Danube Adria Association for Automation & Manufacturing, Vienna, AT  
Association of Universities for Textiles, Ghent, BE  
International Federation of Knitting Technologists, Reutlingen, DE HIST,  
Croatian Association of Textile Engineers, Zagreb, HR International  
Technical Committee for Textile Care  
TSRC, Textile Science Research Center, Zagreb, HR  
The Fibre Society

**Dubrovnik, CROATIA**  
**October 2<sup>nd</sup> to October 5<sup>th</sup>, 2022**

**ITC  
& DC**



The Faculty of Textile Technology, University of Zagreb, has organised the 10<sup>th</sup> International Textile, Clothing and Design Conference in Dubrovnik, making our wish that the conference (ITC&DC) become a traditional one real. This conference is aimed at opening new roads in the development of global textiles, garment and fashion design, and to offer most recent knowledge to those who are able to use it.

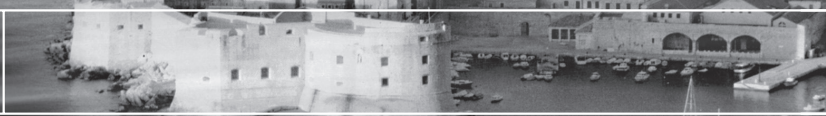
Out of all the papers received, the International Review Committee has accepted 76 papers from 18 countries. They are printed in their integral form in the Book of Proceedings of the 10<sup>th</sup> ITC&DC 2022, and will be presented in one of the following sections:

- A Textile fibres and advanced materials
- B Textile finishing, dyeing and care
- C Clothing technologies and engineering
- D Analysis, testing and quality control
- E Design and marketing of textile and clothing
- F Sustainable textile products and processes.

We would like to express our sincerest thanks to all the participants for their valuable contribution and readiness to spend a part of their time in Dubrovnik, making the picture of the Magic World of Textiles more valuable and more real.

ITC&DC Team will try to do everything necessary to realise the aims of the Conference and to make all the participant feel welcome guests in Croatia.

Welcome to Dubrovnik!



## International Scientific/Programme Committee of the 10th ITC&DC 2022

### President:

Zvonko DRAGČEVIĆ, University of Zagreb, Zagreb, Croatia

### Vice-president:

Anica HURSA ŠAJATOVIĆ, University of Zagreb, Zagreb, Croatia

### Members:

Dominique C. ADOLPHE, Université Française d'Égypte, Cairo, Egypt  
Azam ALI, University of Otago, Dunedin, New Zealand  
Antonela CURTEZA, University of Iassy, Iassy, Romania  
Chuansi GAO, Lund University, Lund, Sweden  
Jelka GERŠAK, University of Maribor, Maribor, Slovenia  
Jaime C. GRUNLAN, Texas A&M University, Texas, United States of America  
Hüseyin KADOGLU, Ege University, Izmir, Turkey  
Branko KATALINIĆ, Vienna University of Technology, Vienna, Austria  
Thomas LUXBACHER, Anton Paar, Austria  
Malgorzata MATUSIAK, Lodz University of Technology, Lodz, Poland  
Rimvydas MILAŠIUS, Kaunas University of Technology, Kaunas, Lithuania  
Jiri MILITKY, Technical University of Liberec, Liberec, Czech Republic  
Fernando Batista NUNES FERREIRA, University of Minho, Guimaraes, Portugal  
Klaus OPWIS, German Textile Research Centre North-West, Krefeld, Germany  
Elizabeth RAMOS KALMAR, University of Los Andes, Bogota, Colombia  
Ivo SOLJAČIĆ, University of Zagreb, Zagreb, Croatia  
Norma STARSZAKOWNA, The London Institute, London, Great Britain  
George STYLIOS, Herriot-Watt University, Galashiels, Great Britain  
Xiaoming TAO, Hong Kong Polytechnic University, Hong Kong, China  
Anna UJHELYIOVÁ, Slovak Technical University, Bratislava, Slovakia  
Savvas G. VASSILIADIS, Technological Education Institute of Piraeus, Athenes, Greece  
Malgorzata ZIMNIEWSKA, Institute of Natural Fibres & Medicinal Plants, Poznan, Poland

### International Review Committee of the 10<sup>th</sup> ITC&DC 2022

Azam ALI (NZ), Aleksandra ANIĆ VUČINIĆ (HR), Sandra BISCHOF (HR), Mario CETINA (HR), Edit CSANÁK (HU), Antonela CURTEZA (RO), Virginija DAUKANTIENĖ (LT), Tihana DEKANIĆ (HR), Zvonko DRAGČEVIĆ (HR), Krešimir DRAGČEVIĆ (HR), Sanja ERCEGOVIĆ RAŽIĆ (HR), Sabina FIJAN (SI), Sandra FLINČEC GRGAC (HR), Petra FORTE TAVČER (SI), Petra FRANITZA (DE), Jelka GERŠAK (SI), Jaime C. GRUNLAN (USA), Renata HRŽENJAK (HR), Anica HURSA ŠAJATOVIĆ (HR), Igor JORDANOV (MK), Romana KOREZ VIDE (SI), Sonja KOŠČAK KOLIN (HR), Zorana KOVAČEVIĆ (HR), Karlo LELAS (HR), Thomas LUXBACHER (AT), Rossane MAILDE SANTOS (BR), Jadranko MATUŠKO (HR), Daiva MIKUČIONIENĖ (LT), Rimvydas MILAŠIUS (LT), Branko NERAL (SI), Klaus OPWIS (DE), Marijana PAVUNC SAMARŽIJA (HR), Željko PENAVAL (HR), Slavenka PETRAK (HR), Tanja PUŠIĆ (HR), Elizabeth RAMOS KALMAR (CO), Dubravko ROGALE (HR), Tomislav ROLICH (HR), Katarina Nina SIMNOČIĆ (HR), Zenun SKENDERI (HR), Ivo SOLJAČIĆ (HR), Maja STRACENSKI KALAUZ (HR), Bosiljka ŠARAVANJA (HR), Ivana ŠPELIĆ (HR), Anita TARBUK (HR), Josip VINČIĆ (IT), Branka VOJNOVIĆ (HR), Julija VOLMAJER VALH (SI), Bojana VONČINA (SI), Zlatko VRLJIČAK (HR), Edita VUJASINOVIĆ (HR), Xungai WANG (AU)



## Organizing Committee of the 10<sup>th</sup> ITC&DC 2022 (ITC&DC Team)

Tanja PUŠIĆ, Edita VUJASINOVIĆ, Bosiljka ŠARAVANJA, Ivana ŠPELIĆ, Zorana KOVAČEVIĆ, Marijana PAVUNC SAMARŽIJA, Marin ŠPERANDA, Katia GRGIĆ, Željka PAVLOVIĆ

## Coordinators of the 10<sup>th</sup> ITC&DC 2022:

Section A - Textile fibres and advanced materials: Thomas LUXBACHER

Section B - Textile finishing, dyeing and care: Jaime C. GRUNLAN

Section C - Clothing technologies and engineering: Anica HURSA ŠAJATOVIĆ

Section D - Analysis, testing and quality control: Rimvydas MILAŠIUS

Section E - Design and marketing of textile and clothing: Antonela CURTEZA

Section F - Sustainable textile products and processes: Elizabeth RAMOS KALMAR

**Registration desk:** Ivana ŠPELIĆ & Zorana KOVAČEVIĆ

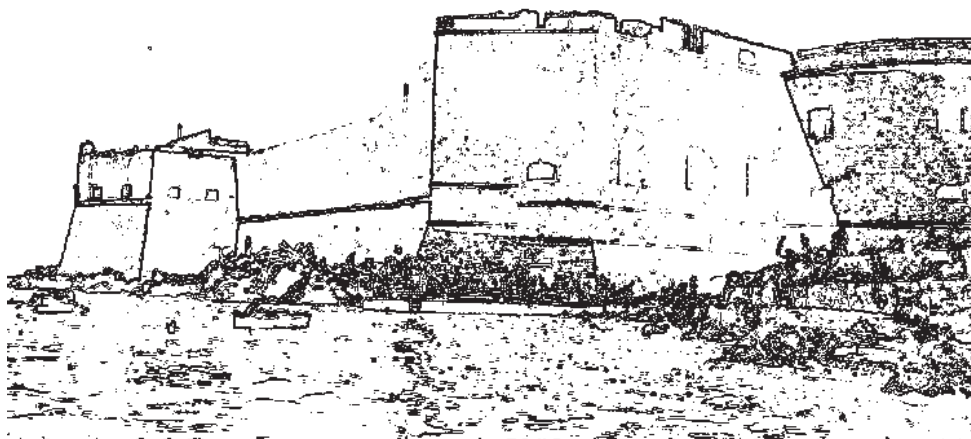
**Technical assistance:** Marin ŠPERANDA

## GENERAL INFORMATION

10<sup>th</sup> ITC&DC 2022 will start on Sunday, October 2<sup>nd</sup> to Wednesday October 5<sup>th</sup> 2022 in the Centre for Advanced Academic Studies (CAAS) in the heart of the historic city centre of Dubrovnik (area Pile), Don Frana Bulica Street 4 (see map).

Information desk is in operation at the CAAS during the Conference. All details and necessary information on the contents and schedule of the Conference, as well as other relevant matter, will be available there for the participants and guests.

**All participants during the conference should bring accreditation and appropriate tickets for individual events.**





## FINAL PROGRAMME

### Sunday, October 2<sup>nd</sup> 2022, Arrival day

15:00 – 20:00	Registration of authors and other participants
19:30 – 20:00	Meeting of International Scientific Committee and Coordinators of Sections (Conference Hall 2)
20:00 – 21:30	Welcome party (CAAS)

### Monday, October 3<sup>rd</sup> 2022

08:00 – 09:00	Registration of authors and other participants
09:00 – 09:30	Opening ceremony (Conference Hall 1)
09:30 – 10:30	Plenary lecture (Conference Hall 1)
10:30 – 11:00	Coffee break
11:00 – 12:00	Research focus lecture (Conference Hall 1)
13:00 – 15:00	Conference lunch (Restaurant Atrium, CAAS)
15:00 – 17:00	Oral presentation – Section A & B A1 – A7      B1 – B7
17:00 – 18:00	Poster presentations and discussion – Section A, B and F (with refreshments) AP1 – AP8      BP1 – BP13      FP1 – FP11
20:00 – 21:00	Evening entertainment (dance and music spectacle at Lazareti)

### Tuesday, October 4<sup>th</sup> 2022

09:00 – 10:30	GreenTEX meeting*	Oral presentation – Section D D1 – D6
10:30 – 11:00	Coffee break	
11:00 – 13:00	GreenTEX meeting*	Oral presentation – Section F F1 – F6
13:00 – 15:00	Conference lunch (Restaurant Atrium, CAAS)	
15:00 – 17:00	Oral presentation – Section E & F E1 – E2      F7 – F9	
16:30 – 17:30	Poster presentations and discussion – Section C, D & E (with refreshments) CP1 – CP7      DP1 – DP12      EP1 – EP5	
17:30 – 18:00	Closing ceremony (Conference Hall 1)	
20:00	Conference dinner (Restaurant BANJE BEACH CLUB)	

\*Sustainable Design and Process in Textiles for Higher Education (acronym: GreenTEX)

### Wednesday, October 5<sup>th</sup> 2022

10:00	Official ITC&DC Excursion for authors and other participants
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Conference Hall 1

Conference Hall 2

Conference Hall 3

**09:30 – 10:30 Plenary lecture (Conference Hall 1)**

Sandra BISCHOF

*Future textiles - back to the past*

Chair persons: Anica HURSA ŠAJATOVIĆ &amp; Jaime C. GRUNLAN

**11:00 – 12:00 Research focus lecture (Conference Hall 1)**

Tanja PUŠIĆ &amp; Sandra BISCHOF

*TSRC - Textile Science and Research Centre*

Chair persons: Anica HURSA ŠAJATOVIĆ &amp; Jaime C. GRUNLAN

**15:00 – 17:00 Section A: Textile Fibres and Advanced Materials (Conference Hall 2)**

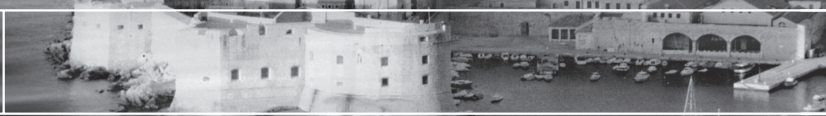
Chair person: Alenka OJSTRŠEK

A1	Norina ASFAND; Virginija DAUKANTIENĖ <i>Study of thermal properties of antistatic knitted fabrics</i>
A2	Adine GERICKE; Jiří MILITKÝ; Mohanapriya VENKATARAMAN; Hester STEYN & Jana VERMAAS <i>The effect of mask style and fabric selection on the comfort properties of fabric masks</i>
A3	Thomas LUXBACHER <i>From wood to regenerated cellulose fibers – a material transition accompanied by the zeta potential</i>
A4	Jiří MILITKÝ; Vijay BAHETI; Wang YUANFENG & Daniel KARTHIK <i>Utilization of fibrous waste for the preparation of advanced carbon materials</i>
A5	Julija PETKEVIČIŪTĖ; Audronė SANKAUSKAITĖ; Vitalija RUBEŽIENĖ; Paulius RAGULIS & Aušra ABRAITIENĖ <i>Structural parameters of fabric affecting performance of electromagnetic shielding textile with conductive coating</i>
A6	Alaa SALMA; Frank GRÜNING; Sophia DIRCKS; Andrea BÖFGERS; Christine KUBE; Jochen TÜRK; Jochen S. GUTMANN & Thomas MAYER-GALL <i>Functional adsorber fibers for the micropollutants treatment</i>
A7	Andreas WEGO; Eui-young SHIN & Muhammad Saif MAQSOOD & Jochen S. GUTMANN <i>Black carbon for green energy and mobility. A story about polyacrylonitrile (PAN) and the use of it in carbon materials</i>

**15:00 – 17:00 Section B: Textile Finishing, Dyeing and Care (Conference Hall 3)**

Chair person: Anita TARBUK

B1	Martinia GLOGAR; Tanja PUŠIĆ; Veronika LOVREŠKOV; Tea KAURIN; Nino KERMAN & Lidija SRŠAN <i>VAT dye printing of inherent fire retardant fabrics</i>
B2	Jaime C. GRUNLAN <i>Environmentally-benign flame retardant treatments for textile</i>
B3	Igor JORDANOV <i>Intumescent flame retardant multiayer nanocoatings for synthetic fabrics</i>
B4	Thomas MAYER-GALL; Wael ALLI; Valbone SHABANI; Klaus OPWIS & Jochen S. GUTMANN <i>Novel halogen free flame retardants</i>



B5	Klaus OPWIS; Dennis PLOHL; Jessica SCHNEIDER; Julia SEITHUEMMER; Dennis WUNSCHIK & Jochen S. GUTMANN <i>Metallization of textiles in supercritical carbon dioxide</i>
B6	Jovana PETKOVSKA & Igor JORDANOV <i>Lignin-based nanocoating for flame retardant cotton fabric</i>
B7	Ajna PRSTAČIĆ VUKOVIĆ; Martinia GLOGAR, Tihana DEKANIĆ, Sanja ERCEGOVIĆ RAŽIĆ, Anja LUDAŠ & Ivan BERETIĆ <i>Analysis of breakage of the polymer layer in the conditions of use and care of digitally printed textile products</i>

### 17:00 – 18:00 Poster presentation

#### Section A: Textile Fibres and Advanced Materials

Coordinator: Thomas LUXBACHER

AP1	Selestina GORGIEVA & Liliana VERESTIUC <i>Gelatin enabled (bio)textiles for medical applications</i>
AP2	Ginta LAURECKIENĖ; Md. Reazuddin REPON & Daiva MIKUČIONIENĖ <i>Heat generation in electroconductive textile composites</i>
AP3	K.Z.M. Abdul MOTALEB & Rimvydas MILASIUŠ <i>Influence of gamma radiation on natural fabric reinforced polyester composites: studies on mechanical properties</i>
AP4	Alenka OJSTRŠEK; Gabrijela PETEK; Nataša POKLAR ULRIH; Drago KOČAR; Mitja KOLAR; Beste ELVEREN & Manja KUREČIČ <i>Development of bio-active nanofibrous nonwoven using emulsion electrospinning</i>
AP5	Eui-young SHIN; Muhammad Saif MAQSOOD; Wael ALI; Andreas WEGO & Jochen S. GUTMANN <i>Textile supercapacitors based on carbon nanofibers (CNFs) from polyacrylonitrile (PAN) precursors as energy storage device</i>
AP6	Sharof SHUKHRATOV; Rimvydas MILAŠIUŠ & Jahongir GAFUROV <i>Formation and propagation of solitary waves along the thread with intense short-term exposure</i>
AP7	Sara STRGAČIĆ & Edita VUJASINOVIĆ <i>Sea silk - myth or reality</i>
AP8	Anna UJHELYIOVÁ; Kristína BANÍKOVÁ; Jozef RYBA; Roderik PLAVEC; Veronika HRABOVSKÁ & Marcela HRICOVÁ <i>Fibres from biodegradable polymers and additives for textile applications</i>

#### Section B: Textile Finishing, Dyeing and Care

Coordinator: Jaime C. GRUNLAN

BP1	Olga BELUKHINA; Daiva MILASIENE & Remigijus IVANAUSKAS <i>Influence of cyclic treatment on the cuxse layer formation on the different fibres surface</i>
BP2	Iva BRLEK, Olivera ŠAUPERL, Tanja PUŠIĆ & Sandra BISCHOF <i>Influence of the synthesis method on the preparation of immortelle oil microcapsules for cosmetotextiles</i>
BP3	Tihana DEKANIĆ; Tanja PUŠIĆ; Anita TARBUK; Sandra FLINČEC GRGAC; Darko ŠTANC & Branko NERAL <i>Hygiene effectiveness of innovated washing process for hospital textiles</i>
BP4	Sandra FLINČEC GRGAC; Anamarija KREŠIĆ; Ana VRBIĆ; Ivana ČORAK; Anita TARBUK; Snježana BRNADA & Tihana DEKANIĆ <i>Investigation of the possibility of binding cationized <math>\beta</math>-cyclodextrin on cotton fabric</i>
BP5	Remigijus IVANAUSKAS & Daiva MILASIENE <i>Peculiarities of thin silver selenide layer formation on the polymeric fibres surface</i>



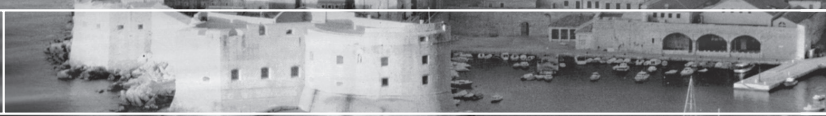


BP6	Tea KAURIN; Tanja PUŠIĆ; Martinia Ira GLOGAR & Veronika LOVREŠKOV <i>Functional and spectral properties of inherent flame retardant fabrics after washing</i>
BP7	Manja KUREČIĆ; Branko NERAL & Selestina GORGIEVA <i>XRD and TGA as methods for evaluation of structural damage on a macro scale during a household textile tumble drying process</i>
BP8	Zorana KOVAČEVIĆ, Katia GRGIĆ, Ana SUTLOVIĆ & Sandra BISCHOF <i>Electrokinetic properties of wool and cotton fabrics dyed with the flower extract of spanish broom plant</i>
BP9	Josip MARKOVIĆ; Anita TARBUK; Tihana DEKANIĆ; Rajna MALINAR & Tanja PUŠIĆ <i>The influence of repeated washing to change in properties of hospital protective cotton fabrics</i>
BP10	Daiva MILASIENE; Olga BELUKHINA & Remigijus IVANAUSKAS <i>Effects of copper selenide layer quality on electrical properties of treated different polymeric fibres</i>
BP11	Ana PALČIĆ, Sandra FLINČEC GRGAC, Ana VASILJEVIĆ & Anita TARBUK <i>Functionalization of cotton/polyester fabric with dimethyltetradecyl 3-(trimethoxysyl) ammonium chloride</i>
BP12	Tanja PUŠIĆ; Agata VINČIĆ; Viktorija VUSIĆ & Dejan ŽMUK <i>Release of PEŠ fibers particles during washing - estimation by reducing the fabrics mass and dry mass of the remaining bath</i>
BP13	Anita TARBUK; Ivana ČORAK; Dragan ĐORĐEVIĆ & Lea BOTTERI <i>The influence of poly(ethylene terephthalate) cutinase hydrolisis to fabric properties</i>

## Section F: Sustainable Textile Products and Processes

Coordinator: Elizabeth RAMOS KALMAR

FP1	Ivana ČORAK; Branka VOJNOVIĆ & Anita TARBUK <i>Reactive black 5 removal from aqueous media using cationized cotton fabric with 3-chloro-2-hydroxypropyl-trimethylammonium chloride</i>
FP2	Iva DIVJAK; Ana ŠARAVANJA; Ana SUTLOVIĆ; Branka VOJNOVIĆ & Mario CETINA <i>Kinetic and thermodynamic studies of Everzol black B dye adsorption on activated carbon</i>
FP3	Martinia GLOGAR; Sanja ERCEGOVIĆ RAŽIĆ; Carla HERTLEER; Angel TERZIEV; Hassan SAEED, Silvana LAUDONI <i>E-learning approach in the field of textile printing and functionalization, developed in a scope of the ICT-TEX project</i>
FP4	Katarina KRNIĆ; Branka VOJNOVIĆ; Mirjana ČURLIN; Agata VINČIĆ & Tanja PUŠIĆ <i>Determination of microplastic particles released in the textile washing process</i>
FP5	Kristina MARŠIĆ & Anica HUNJET <i>Student awareness and activities in the process of textile waste management in Croatia</i>
FP6	Alka MIHELIĆ - BOGDANIĆ & Ivana ŠPELIĆ <i>Flue gases heat recovery in synthetic polyisoprene production</i>
FP7	Antonio SLAVUJEVIĆ & Edit VUJASINOVIĆ <i>Recycling of carbon fiber reinforced composites from Rimac car production</i>
FP8	Ana SUTLOVIĆ; Anita TARBUK; Sandra FLINČEC GRGAC & Tihana DEKANIĆ <i>Sustainability of wet textile processes</i>
FP9	Ana ŠARAVANJA; Tihana DEKANIĆ; Ana SUTLOVIĆ & Tanja PUŠIĆ <i>Influence of detergent type on the washfastness of polyester fabrics dyed with a dye extracted from Juglans Regia L</i>
FP10	Ivana ŠPELIĆ; Alka MIHELIĆ - BOGDANIĆ & Ivana DOROTIĆ <i>Comparison of energy savings applying direct vs. Indirect heating systems</i>
FP11	Julija VOLMAJER VALH; Aleksandra LOBNIK & Bojana VONČINA <i>Biochemical transformation of textile waste into secondary raw materials</i>



**Tuesday, October 4<sup>th</sup> 2022**

**09:00 – 10:30 Section D: Analysis, Testing & Quality Control (Conference Hall 3)**

Chair person: Małgorzata MATUSIAK

D1	Marcin BARBURSKI & Tsegaye LEMMI <i>Influence of thermal aging on the mechanical properties of high tenacity polyester yarn used for reinforcement conveyor belt</i>
D2	Marcin BARBURSKI; Bethalihem SAMUEL & Ewa WITCZAK <i>The influence of the incidence angles of sound wave on the acoustic performance of woven fabrics</i>
D3	Sikander Abbas BASRA; Eglé KUMPIKAITĒ & Norina ASFAND <i>Evaluation of sensorial comfort properties of different weft knitted structures</i>
D4	Nikolina JUKL; Slavenka PETRAK; Snježana FIRŠT ROGALE & Dubravko ROGALE <i>3D computer design of modular clothing system and testing of its thermal properties</i>
D5	Małgorzata MATUSIAK <i>Investigation of surface topography of seersucker woven fabrics</i>
D6	Tamaki MITSUNO & Wkana KONDO MIURA <i>The effect of abdominal pressure stimulation on forearm blood flow volume</i>

**11:00 – 13:00 Section F: Sustainable Textile Products and Processes (Conference Hall 3)**

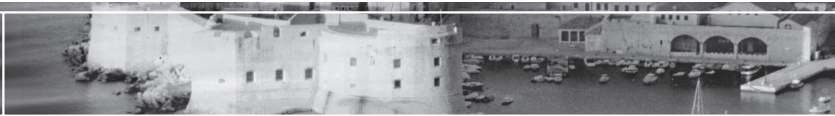
Chair person: Alka MIHELIĆ-BOGDANIĆ

F1	Tuser BISWAS; Junchun YU & Vincent NIERSTRASZ <i>Digital inkjet printing of antimicrobial lysozyme on pretreated polyester fabric</i>
F2	Ivana ČORAK & Anita TARBUK <i>The process sustainability for polyester fabric</i>
F3	Andrej DEMŠAR <i>Sustainability – circular economy - education</i>
F4	Elizabeth RAMOS KALMAR <i>Ecokit-tex: design tool to better understand sustainability in fashion - case study</i>
F5	Elizabeth RAMOS KALMAR <i>Fiberland: map of the potential of sustainable textiles in Colombia</i>
F6	Ivana ŠPELIĆ; Alka MIHELIĆ - BOGDANIĆ & Ivana DOROTIĆ <i>Experimental analysis of gas consumption applying indirect heating in fabric drying processes</i>

**15:00 – 17:00 Section: E: Design and Marketing of Textile and Clothing (Conference Hall 2)**

Chair person: Daiva MIKUČIONIENE

E1	Victoria DANILA; Antonela CURTEZA; Stela BALAN <i>Consequences of the use of improper clothing for premature children</i>
E2	Nuran ZARİF & Özgür CEYLAN & Elçin KÜÇÜKERDEM <i>The impact of 3D simulation software in design and product development processes</i>



### 15:00 – 17:00 Section F: Sustainable Textile Products and Processes (Conference Hall 3)

Chair person: Julija VOLMAJER VALH

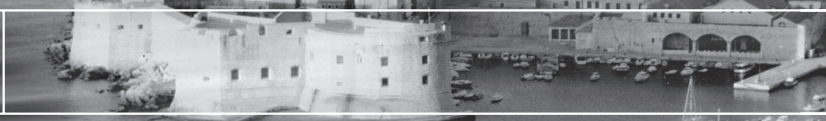
F7	Monika MALINOWSKA-OLSZOWY & Anna LASKA-LEŚNIEWICZ <i>Design thinking methodology in creation of innovative and sustainable textiles</i>
F8	Elisabeth T. PEREIRA; Margarita ROBAINA & Joana ROCHA <i>The role of consumer in a circular economy transformation in the textile sector</i>
F9	Margarita ROBAINA, Elisabeth T. PEREIRA & Wesley RIBEIRO <i>Circular economy in the textile sector: financial impacts</i>

### 16:30 – 17:30 Poster presentation

#### Section D: Analysis, Testing & Quality Control

Coordinator: Rimvydas MILAŠIUS

DP1	Edgaras ARBATAITIS & Daiva MIKUČIONIENE <i>Flexible theoretical modelling of weft knitted fabrics structural parameters</i>
DP2	Snježana BRNADA; Rajna MALINAR; Stana KOVAČEVIĆ & Laura ODAK <i>Impact of weave on topographic characteristics of polyester /cotton fabrics before and after washing</i>
DP3	Daniel DOMOVIĆ & Tomislav ROLICH <i>Influence of different types of evolutionary algorithms on marker efficiency</i>
DP4	Edita GELAZIENE; Raimonda CVILIKAITĖ; Audrone RAGAIŠIENE & Daiva MILASIENE <i>Possibilities of compressive load effect prediction of 3D printed polymeric heels prototypes</i>
DP5	Mateo Miguel KODRIČ KESOVIA & Željko PENAVAL <i>Determining the density of historical fabrics using the gray line profile method</i>
DP6	Rajna MALINAR; Snježana BRNADA & Sandra FLINČEC GRGAC <i>The influence of fabric structure properties on surface roughness and textile dust generation</i>
DP7	Marijana PAVUNC SAMARŽIJA; Bernardo PELESK & Edita VUJASINOVIĆ <i>Damage of high-performance hunting uniform materials - forensic evidence</i>
DP8	Željko PENAVAL; Željko KNEZIĆ; Dubravko ROGALE & Diana ŠIMIĆ PENAVAL <i>Influence of washing on the heat dissipation in electrically conductive threads woven into the fabric</i>
DP9	Tanja PUŠIĆ, Ivo SOLJAČIĆ & Katia GRGIĆ <i>Objective evaluation of washed cotton fabrics motivated by subjective assessment</i>
DP10	Bosiljka ŠARAVANJA; Krešimir MALARIĆ & Tanja PUŠIĆ <i>Shield effectiveness of functional textiles with metal content subjected to dry cleaning</i>
DP11	Franka ŽUVELA BOŠNJAK; Sandra FLINČEC GRGAC & Kristina MARŠIĆ <i>Economic efficiency of leather treated with zeolite after the picking process</i>
DP12	Marcin BARBURSKI <i>A brief introduction of the SustDesignTex</i>



## Section C - Clothing Technologies and Engineering

Coordinator: Anica HURSA ŠAJATOVIĆ

CP1	Blaženka BRLOBAŠIĆ ŠAJATOVIĆ; Emma STEPHANIE GAUNT & Irena ŠABARIĆ <i>Construction and modelling of dresses inspired by modern fashion of Japan</i>
CP2	Vaida BUZAITE & Daiva MIKUČIONIENE <i>Development of 3D weft knitted structures for special purposes</i>
CP3	Victoria DANILA; Antonela CURTEZA; Stela BALAN <i>Study of anthropometric data characterizing premature born children</i>
CP4	Renata HRŽENJAK; Slavica BOGOVIĆ & Beti ROGINA-CAR <i>Functional design and construction of children's clothing with microbial barriers</i>
CP5	Snježana KIRIN; Anica HURSA ŠAJATOVIĆ & Zvonko DRAGČEVIĆ <i>Assessment of workload in the technological sewing process</i>
CP6	Jelka GERŠAK <i>Physiological responses of the human body as a criterion for evaluating the wear comfort of clothing</i>
CP7	Jelka GERŠAK <i>Design of clothing manufacturing processes - A systematic approach to developing, planning and control</i>

## Section E: Design and Marketing of Textile and Clothing

Coordinator: Antonela CURTEZA

EP1	Eglė KUMPIKAITĖ; Olena NYKORAK; Erika NENARTAVIČIŪTĖ; Ludmyla HERUS; Tetiana KUTSYR, Olena KOZAKEVYCH, Daiva MILAŠIENĖ & Žaneta RUKUIŽIENĖ <i>Comparison of décor of Lithuanian and western Ukrainian folk towels</i>
EP2	Daiva MIKUČIONIENE & Md Reazuddin REPON <i>Textile digitalization and digital education in the context of the European economy</i>
EP3	Ivan NOVAK; Maja STRACENSKI KALAUZ & Kristina MARŠIĆ <i>Brand value evaluation issues</i>
EP4	Vesna Marija POTOČIĆ MATKOVIĆ & Ivo SOLJAČIĆ <i>Study of advertisements in Croatian professional textile journals from 1930 to 2019</i>
EP5	Irena ŠABARIĆ; Alison IVAŠIĆ; Franka KARIN & Blaženka BRLOBAŠIĆ ŠAJATOVIĆ <i>Synergy of fashion and technology through 3D print</i>



## MANNER OF PRESENTATION

For the papers to be **orally presented**, presentation is limited to 15 min and 5 min for discussion after all presentation.

An PC and LCD projector will be available for the participants wishing to accompany oral presentation of their papers with a Microsoft PowerPoint presentation. **These participants are requested to submit a CD-ROM or USB stick for each paper at the registration.** The following data should be written on the CD-ROM cover:

Section, Name and Surname of the presenter, Paper title.

The CD-ROMs and USB sticks will be returned to the authors.

For the papers to be **poster presented**, the posters should be prepared in 1189 mm high and 841 mm wide (A0 format). Letters should be of such a size that can be read from 1 m distance.

The title is an integral part of the poster and should include:

Paper title  
Name of author(s)  
Institution  
Address of author(s)

The posters should be on boards as follows:

- for the presentation on October 3<sup>rd</sup> in sections A, B, and F: 08:30 – 09:00
- for the presentation on October 4<sup>th</sup> in sections C, D and E: 08:30 – 09:00

After poster presentation in sections, the authors are required to remove their poster materials..

## CONFERENCE FEE

Conference fee for authors and participants (in EUR):

Regular participants	550
Young scientists	400
Accompanying person	300

*Participants who did not pay the registration fee by bank transfer should pay their registration fee before the beginning of the conference (possible cash/card payment in EUR or HRK at some of the banks in Dubrovnik).*

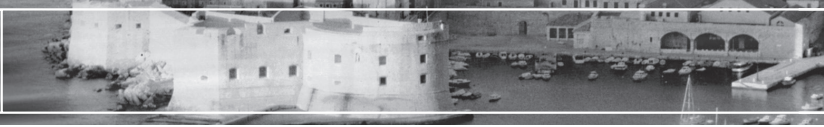
Registration fee for the individual authors (both regular participants and young scientists) include access to all the sessions, conference proceedings and materials, welcome cocktail, conference lunches (2), refreshments at conference coffee breaks, official ITC&DC excursion, a ticket for the evening entertainment and a ticket for the conference dinner.

Registration fees for the accompanying persons include admission to all sections, welcome cocktail, conference lunches (2), refreshments at conference coffee breaks, official ITC&DC excursion, a ticket for the evening entertainment and a ticket for the conference dinner.

The participants are cordially invited to attend music and dance performance at Lazareti with beginning at 20:00 on October 3<sup>rd</sup>, 2022.

Conference dinner with music will be organised on October 4<sup>th</sup>, 2022 at 20:00 in the Banje beach club (Frana Supila 10/B, 20000, Dubrovnik) and is included in the registration fee.

ITC&DC excursion for the authors and accompanying persons will be organised on October 5<sup>th</sup>, 2022 with departure from area Pile at 10:00 till the evening hours.



## TRAVEL INFORMATION

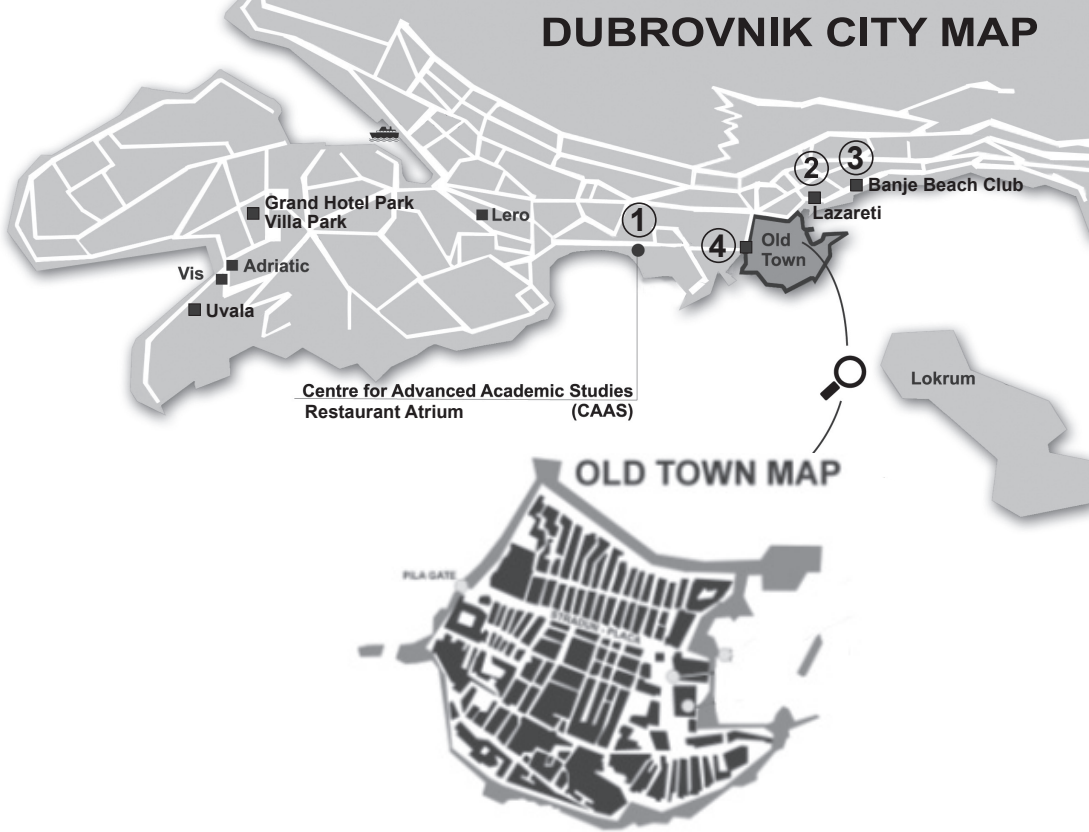
The Dubrovnik airport (Čilipi) is 20 km away from the town (and the Centre for Advanced Academic Studies CAAS). There is a taxi service at the airport (approx. 30 EUR), as well as a regular bus line (Atlas company: approx. 45 HRK per person – 7 EUR).

Hotels: Lero is 15 minutes walk from CAAS; Uvala, Vis, Grand hotel Park, Villa Park and Adriatic are 3 km away from CAAS (local bus line no. 4 or 45 minutes walk from CAAS).

All the other relevant information on your accommodation and stay in Dubrovnik you can find in your Dubrovnik Guide, which is a part of the conference material and will be distributed to each participant.



## DUBROVNIK CITY MAP

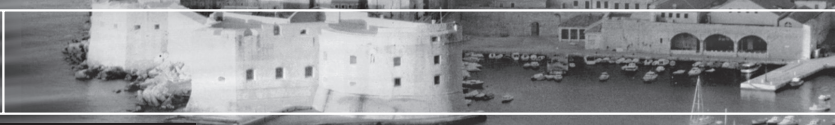


### OLD TOWN MAP

<b>MONDAY, October 3<sup>rd</sup>, 2022</b>			
①	13:00 – 15:00	CONFERENCE LUNCH (RESTAURANT ATRUIM CAAS)	
②	20:00	MUSIC AND DANCE SPECTACLE (LINDO, LAZARETI)	
<b>TUESDAY, October 4<sup>th</sup>, 2022</b>			
①	13:00 – 15:00	CONFERENCE LUNCH (RESTAURANT ATRUIM CAAS)	
③	20:00	CONFERENCE DINNER (BANJE BEACH CLUB)	
<b>WEDNESDAY, October 5<sup>th</sup>, 2022</b>			
④	10:00	OFFICIAL ITC&DC EXCURSION (area PILE)	

***We are here to welcome you!***



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