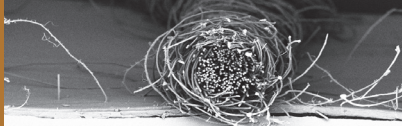




TECHNICAL UNIVERSITY OF LIBEREC
Faculty of Textile Engineering

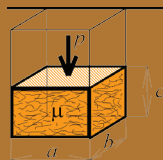
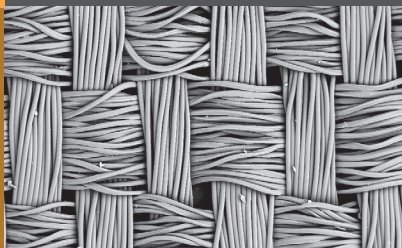
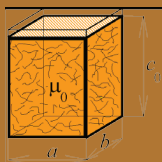


Pocket Programme

22nd International Conference STRUTEX

**Structure and Structural
Mechanics of Textiles**

**December 5 - 7, 2018
Building B, 2nd floor
Liberec, Czech Republic**





VLÁKNA
TEXTIL
FIBRES AND TEXTILES
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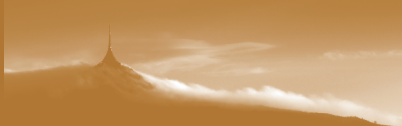
RIETER


schoeller
Křešice


Caledon
Textile factory



 **ADFORS**
SAINT-GOBAIN



Dear,

Welcome to the 22nd International Conference STRUTEX at the Faculty of Textile Engineering, Technical University of Liberec. Faculty of Textile Engineering was established in 1960 as the second faculty of the Technical College.

Structure and Structural Mechanics of Textiles „STRUTEX“ conference is focused on presentation of textile structures and structural mechanics in modules: fiber layer, linear formations, 2D and 3D textile structures, description of special experimental methods for analysis of textile properties as well as textile structure, research and development of new 2D and 3D textile structures in the field of clothing and technical textiles.

We would like to wish you a pleasant stay at conference in Liberec.

Conference organizers.

Wednesday 5 December 2018

16:00 - 19:00 Registration & Welcome drink

(Building G)

Thursday 6 December 2018

08:00 - 15:00 Registration

(Room B5)

ORAL PRESENTATIONS

Chairman: Jirsák Oldřich

(Room B4)

**09:00 - 09:30 Brzezina Miroslav (Rector of Technical University of Liberec)
Drašarová Jana (Dean of Faculty of Textile Engineering TUL)
Neckář Bohuslav (President of the Conference)
Kolčavová Sirková Brigita (Head of KTT Department)**

CONFERENCE OPENING

**09:30 - 10:00 Březinová H, Bravermanová M, Víchová JB (Invited Lecture)
*THE STRUCTURE OF ARCHAEOLOGICAL TEXTILES***

**10:00 - 10:30 Barburski M (Invited Lecture)
*FORMATION OF THE TEXTILE STRUCTURE FOR A SPECIFIED PURPOSE***

**10:30 - 11:00 ÖZGEN KELEŞ B (Invited Lecture)
*GEOMETRICAL MODELLING OF WOVEN TEXTILE STRUCTURES***

**11:00 - 11:20 Neckář B, Das D
*COMPUTATIONAL METHODOLOGY FOR DETERMINATION OF YARN
TWIST AND DIAMETER***

11:20 - 11:40 Coffee Break

(Room B5)

ORAL PRESENTATIONS

Chairman:

Neckář Bohuslav

(Room B4)

11:40 - 12:00 **Büyükbayraktar RB**

MODELLING THE CROSS-SECTIONAL PROPERTIES OF YARN ALONG THE FABRIC

12:00 - 12:20 **Liu Y, Kyosev Y**

AUTOMATIC ANALYSIS THE BRAIDING ANGLE OF THE BRAIDED FABRICS USING IMAGE PROCESSING

12:20 - 12:40 **Hassmann M, Krach W**

EXPERIMENTAL TESTING AND FINITE ELEMENT SIMULATION OF TH-7 BENDING TEST OF SPORTS BRA TEXTILES

12:40 - 13:00 **Kolčavová Sirková B, Mertová I**

MODELLING OF CONSTRUCTION OF WOVEN FABRIC

13:00 - 14:00 **Lunch**

(Room B5)

POSTERS

Chairman:

Wiener Jakub

(Room B4)

14:00 - 14:05 **Demir M, Kilic M, Kiral Z, Sayin S, Denge KK, Balduk F**

AIR-FLOW ANALYSIS OF COMPACT YARN

14:05 - 14:10 **Kilic M, Balci Kilic G, Öztürkmen B**

EFFECTS OF INTERMINGLING ON PROPERTIES OF FALSE TWIST TEXTURED YARNS

14:10 - 14:15 **Moučková E, Ursíny P, Jirásková P, Janoušek M**

ANALYSIS OF FORMATION OF MASS IRREGULARITY IN DRAFTING DEVICE DURING YARN SPINNING FROM SLIVER

14:15 - 14:20 **Nováková T, Čapek L, Henyš P**

TENSILE STRENGTH OF AN ABSORBABLE SUTURE MATERIAL

14:20 - 14:25 Abel J, Unmar R, Rosunee S

PREDICTIVE MODELLING OF OPEN AREA AND AIR PERMEABILITY OF COTTON PLAIN WOVEN FABRICS

14:25 - 14:30 Lenfeldova I, Peckova J

THE EFFECT OF YARN LINEAR DENSITY ON STRUCTURE PROPERTIES OF PLATED WEFT KNITTED FABRIC UNDER HOME LAUNDERING PROCESS

14:30 - 14:35 Bittner V, Tunáková V, Maršík F

MATHEMATICAL MODEL FOR THE DETERMINATION OF VISCOELASTIC PROPERTIES OF SPATIAL FABRICS USING INDENTATION STRESS TESTS

14:35 - 14:40 Glessner PP

INVESTIGATION OF THE CAPILLARY KINETIC TRANSPORT OF LIQUID FUELS IN DIFFERENT ROUND BRAIDS

14:40 - 14:45 Baheti S, Tunak M, Karthik D

STRUCTURE ANALYSIS OF CARBONIZED NEEDLE-PUNCHED NONWOVENS BY X-RAY COMPUTED TOMOGRAPHY

14:45 - 14:50 Demír M, Kilic M, Kiral Z, Sayin S, Denge KK, Balduk F

A REVIEW ON MULTI-STRAND STAPLE YARN PRODUCTION

14:50 - 14:55 Brown L

TEXGEN GEOMETRIC TEXTILE MODELLING SOFTWARE AND ITS USE IN MULTI-SCALE MODELLING OF COMPOSITES

14:55 - 15:00 Stránská E, Neděla D

FIXATION OF REINFORCING FABRIC FOR ION EXCHANGE MEMBRANE

15:00 - 15:05 Fischer H, Hofmann M, Miene A, Heilos K

RE-USE OF PYROLYSED CARBON FIBRES IN SOPHISTICATED COMPOSITES AS INDUSTRIAL VIABLE PROCESS WITH INTEGRATED QUALITY MONITORING: RECYCARB

- 15:05 - 15:10 Krivoš Š, Ujhelyiová A, Holcová K**
PROPERTIES OF NANOADDITIVE MASTERBATCHES FOR ANTIMICROBIAL POLYPROPYLENE FIBRES PREPARATION
- 15:10 - 15:15 Gavendová M, Krmelová V, Zatroch T, Bizubová B, Kleščík M, Moricová K**
THE IMPACT OF STORAGE TIME ON THERMAL PROPERTIES OF PP/QA FIBERS
- 15:15 - 15:20 Vančo M, Krmela J, Krmelová V, Balogová Ľ, Artyukhov A, Pešlová F**
ABRASION AND ELECTRICAL RESISTANCE OF KEVLAR WITH PVD SURFACE TREATMENT
- 15:20 - 15:25 Miller V, Šourková H, Lovětinská Šlamborová I, Exnar P, Škach J**
HYDROPHOBIC AND ANTIBACTERIAL TREATMENT OF TEXTILES USING ORGANIC-INORGANIC HYBRID LAYERS PREPARED BY SOL-GEL

15:30 - 16:00 Discussion and Coffee Break

(Room B5)

Culture Program and Banquet

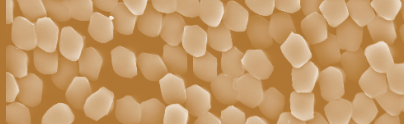
17:00 - 21:00

(City Hall, Liberec)



Marek Sůva & Daniel Matejčka
violoncello violin

Friday 7 December 2018



ORAL PRESENTATIONS

Chairman:

Kůs Zdeněk

(Room B4)

09:00 - 09:30 **Freger V (Invited Lecture)**

OPPORTUNITIES IN MEMBRANE TECHNOLOGY FOR TEXTILE MATERIALS

09:30 - 10:00 **Ouagne P, Grégoire M, Barthod-Malata B, Evon P, Labonne L, De Luycker E, Placet V (Invited Lecture)**

MECHANICS OF BIOBASED FIBROUS ASSEMBLIES: FROM SINGLE FIBER TO COMPOSITE MATERIAL

10:00 - 10:20 **Salem MM, De Luycker E, Fazzini M, Ouagne P**

STUDY OF THE TOW BUCKLING DEFECT DURING THE COMPLEX SHAPE FORMING OF SYNTHETIC AND VEGETAL FIBRE REINFORCED STRUCTURAL COMPOSITES

10:20 - 10:40 **Žák J**

PROBLEMATICS OF LARGE-SIZE BATCH WINDING OF TECHNICAL TEXTILES

10:40 - 11:00 **Coffee Break**

(Room B5)

ORAL PRESENTATIONS

Chairman:

Drašarová Jana

(Room B4)

11:00 - 11:20 **Güneşoğlu S, Kaplangiray B**

APPLYING THE ARTIFICIAL NEURAL NETWORK TO PREDICT THE THERMAL PROPERTIES OF KNITTED FABRICS

11:20 - 11:40 **Hes L, Boguslawska-Baczek M**

THE EFFECT OF RIBS ON COOLING ABILITY OF WETTED SHIRT KNITS AT LOW AIR VELOCITY

11:40 - 12:00 Yakut E, Güneşoğlu C, Çot E, Balcı V
*ESTIMATION OF FOLDING AND LUMINANCE VALUES OF POLYPROPYLENE BCF Y
ARNS USING ARTIFICIAL NEURAL NETWORK TECHNIQUE AND MODELING STUDY*

12:00 - 12:20 Glogowsky A, Brunke T, Ratovo K, Büsgen A, Aslan B
*MECHANICAL FIXATION OF TUFTED PILE LOOPS INTO THE PRIMARY
BACKING BY USING THE PARAMETERS OF FABRIC WEAVE DESIGN*

12:20 - 12:40 Musilová B, Hôrecká A, Jariyapunya N
*METHOD OF GENERATION ZONING AREAS IN PATTERN CONSTRUCTION
NET OF SEAMLESS UNDERWEAR*

12:40 - 13:40 Lunch (Room B5)

ORAL PRESENTATIONS

Chairman: Tunák Maroš (Room B4)

13:40 - 14:00 Genç A, Yüceer M, Karakaplan N, Güneşoğlu C
*THE SET-UP OF A LABORATORY TYPE COATING / LAMINATING UNIT
AND THE OPTIMISATION OF LAMINATION PROCESS OF DENIM FABRICS*

14:00 - 14:20 Le Chi H, Louda P, Bakalova T, Kovacic V
*COMPOSITE BASED ON GEOPOLYMER MORTAR REINFORCED CHOPPED
BASALT FIBER AND CARBON TEXTILE*

14:20 - 14:40 Kumar Maddineni A, Das D
*OIL-TREATED FIBROUS AIR FILTERS FOR AUTOMOTIVE ENGINE
INTAKE APPLICATION*

14:40 - 15:00 Becker M, Ficker F, Miksch R
VARIATION BRAIDING TECHNOLOGY BY THE EXAMPLE OF NOVEL STENT STRUCTURES

15:00 - 15:20 Cheema MS, Shah TH, Anand SC
*DEVELOPMENT AND CHARACTERISATION OF NONWOVEN FABRICS
FOR APPAREL AAPPLICATIONS*

15:20 - 15:40 Coffee Break (Room B5)

POSTERS

Chairman: Tomková Blanka

(Room B4)

15:40 - 15:45 Bajzík V, Zaleská T

INFLUENCE OF THE SEAMS ON THE SUBJECTIVE HAND EVALUATIONS OF TEXTILES

15:45 - 15:50 Fung FT, Havelka A

EFFECT OF AIR PERMEABILITY ON GRAINLINES, AGED, WASHED AND MOISTED WOVEN FABRIC

15:50 - 15:55 Mansoor T, Hes L , Skenderi Z, Javed MA

EFFECT OF MOISTURE CONTENT ON THERMOPHYSIOLOGICAL PROPERTIES OF PLAIN KNITTED SOCKS FOLLOWED BY THERMAL RESISTANCE COMPARISON AMONG

15:55 - 16:00 Jariyapunya N, Musilová B, Havelka A

PREDICTION OF PATTERN DIMENSIONS FOR PRESSURE GARMENT

16:00 - 16:05 Havelka A, Tichý M, Soukup R, Nagy L, Martinka M

APPLICATION OF ELECTRIC BASED HEATING IN CLOTHING FOR SENIORS

16:05 - 16:10 Mazari FB, Adamek K, Wiener J, Mazari A, Havelka A

MODIFICATION OF PU- FOAM FOR IMPROVEMENT OF THERMAL VCOMFORT OF CAR SEAT

16:10 - 16:15 Glombikova V, Komarkova P, Kus Z

IMPACT OF HEAT ON RECOVERY EFFICIENCY OF CAR SEATS FABRICS

16:15 - 16:20 Ince A, Aksoy SA, Balci V, Gunesoglu C, Cot E, Sozcu S, Erboz MS

PRODUCTION OF THERMO-REGULATING CARPET THROUGH PHASE CHANGE MATERIALS (PCMS) TECHNOLOGY

16:20 - 16:25 Mazari A, Havelka A, Kolinova M, Martinka M, Nemcokova R

A STUDY ON THE PERFORMANCE OF ANTI-MITE & ANTI-BACTERIAL TEXTILES FOR CLIENTS AT NURSING HOMES

16:25 - 16:30 Boyraz E, Yalcinkaya F

POLYMERIC NANOFIBERS PRODUCED BY NEEDLELESS ELECTROSPINNING

Chairman:

Kolčavová Sirková Brigita

Neckář Bohuslav

(Room B4)

16:30 - 17:00 AWARD „BEST POSTER OF CONFERENCE STRUTEX 2018“

CONFERENCE CLOSING



ADDRESS

Technical University of Liberec
Faculty of Textile Engineering
Studentská 2, 461 17 LIBEREC
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