

47th Textile Research Symposium 2019

June 17-19, 2019, Liberec, Czech Republic

Programme

MONDAY 17.6.2019		
8:00 – 9:00	Registration	
9:00 – 10:00	<i>Opening of conference (room B4)</i>	
10:00 - 10:30	<i>Invited Lecture – A. Aneja</i> TEXTILE INDUSTRY 4.0 – PREPARING FOR DIGITAL FUTURE	
10:30 – 11:00	<i>Coffee break</i>	
	Room B4	Room B5
11:00 – 12:20	Chairman: A. Aneja	Chairman: Y. Yamashita
	<i>Zunjarrao Kamble, B. K. Behera, Teruo Kimura, Ino Haruhiro</i> UPCYCLING TEXTILE WASTE INTO FIBRE REINFORCED COMPOSITES	<i>Chong Heng, Fumei Wang</i> STUDY ON COTTON COLOR MEASUREMENT USING SCANNER
	<i>Gaku Kanazawa, Wataru Takarada, Takeshi Kikutani</i> STRUCTURE AND PROPERTIES OF POLYETHER-ESTER ELASTOMERIC FIBERS PREPARED BY HIGH-SPEED MELT SPINNING AND IN-LINE DRAWING PROCESSES	<i>Sheikh Javed, Mukul Gupta, Indrajit Bramhecha, Nagender Singh</i> DEVELOPMENT OF MULTIFUNCTIONAL LINEN THROUGH IN-SITU SYNTHESIS OF SILVER NANOPARTICLES USING GROUNDNUT SHELL EXTRACT
	<i>Michał Puchalski, Konrad Sulak, Grzegorz Szparaga, Izabella Krucińska</i> INVESTIGATION OF CRYSTALLISATION AND DISORDER-TO-ORDER PHASE TRANSITION OF PLA BY WAXD TECHNIQUE AS A METHOD IN THE OPTIMIZATION OF FIBROUS MATERIALS FORMING PROCESSES	<i>Vildan Sölar, Filiz Ersoy</i> USEFUL LIFE OF TOWELS AFTER INDUSTRIAL LAUNDERING CYCLES
	<i>Nanjanorn Roungpaisan, Wataru Takarada, Takeshi Kikutani</i> PREPARATION OF POLYLACTIDE FIBERS WITH HIGHLY-ORIENTED STEREO-COMPLEX CRYSTALS VIA HIGH-SPEED BICOMPONENT MELT SPINNING	<i>Adine Gericke, Jiri Militky, Mohanapriya Venkataraman, Divan Coetzee</i> INVESTIGATING THERMAL COMFORT PROPERTIES IN MOHAIR FABRICS
12:20 – 13:20	<i>Lunch</i>	
13:20 – 13:50	<i>Invited Lecture – H. Li</i> SCIENCE OF BIOMEDICAL TEXTILE ENGINEERING	
13:50 – 14:50	Chairman: H. Li	Chairman: D. Sutula
	<i>Kotaku Saigusa, Wataru Takarada, Takeshi Kikutani</i> MECHANICAL PROPERTIES AND STRUCTURE OF POLY(GLYCOLIC ACID) FIBERS IMPROVED THROUGH CONTROL OF MOLECULAR ENTANGLMENTS IN MELT SPINNING PROCESS	<i>Shuichi TANOUE, Taiki YOSHIDA, Hideyuki UEMATSU</i> EFFECT OF ANNEALING AND ADDING MAGNESIUM OXIDE ON THE PROPERTIES OF POLYPROPYLENE/VAPOR-GROWN CARBON FIBER COMPSITES
	<i>Takaichi Watanabe, Shohei Toyota, Tsutomu Ono</i> PREPARATION OF POLYMER FIBERS WITH CONTROLLED INTERNAL STRUCTURES USING MICROCHANNEL WET-SPINNING PROCESS AND PHASE SEPARATION	<i>YASUNAGA Hidekazu; OGIHARA Hiroki; VIKOVÁ Martina; VIK Michal</i> ESTIMATION OF HAIR DAMAGE BY USING BERBERINE III. FLUORESCENCE, ADSORPTION DEGREE AND DISTRIBUTION OF BERBERINE IN HAIR
	<i>Wenqi Nie, Shu Zhang</i> GROUPING SUPERCAPACITOR FIBERS INTO ROPE: SCALING UP ENERGY WITH A SURGING VOLUME	<i>Yanfang Xu, Guangbiao Xu</i> STUDY ON OIL SORPTION AND RELEASE CHARACTERISTICS OF KAPOK FIBER POWDER
14:50 – 15:20	<i>Coffee break</i>	
15:20 – 17:00	Chairman: D. Kremenakova	Chairman: R. Mishra
	<i>KyoungOk Kim, Chen Lyu, Chunhong Zhu, Hiroaki Ishizawa, Masayuki Takatera</i> MEASUREMENT OF TEMPERATURE DISTRIBUTION ON LOWER LEG WEARING DIFFERENT SIZES OF TROUSERS	<i>Sibel KAPLAN, Betül AKGUNOGLU</i> PRESSURE COMFORT CHARACTERISTICS OF SPORTS SOCKS MADE OF MODIFIED SYNTHETIC MATERIALS WITH DIFFERENT WEAVES
	<i>Malgorzata Matusiak</i> THERMAL INSULATION PROPERTIES OF THE SEERSUCKER WOVEN FABRICS OF DIFFERENT STRUCTURE	<i>Nazife KORKMAZ MEMİŞ, Sibel KAPLAN</i> DYNAMIC CREASE RECOVERY AND RETENTION OF WOOL FABRIC BY SHAPE MEMORY POLYURETHANE

	<i>Sunny Pannu, B. K. Behera</i> ENGINEERING STRETCH FABRIC FOR IMPROVED MECHANICAL COMFOR	<i>Shubham Meetooa; Roshan Unmar; Anagha Vaidya-Soocheta</i> UPCYCLING OF KNITTED FABRIC WASTE INTO TEXTILE REINFORCED COMPOSITE
	<i>Raphael Santos, Yuta Yamaguchi, Sachiko Sukigara</i> TRAJECTORY SIMILARITY OF THE THUMB AND INDEX FINGER DURING NATURAL FABRIC ASSESSMENT BY A NON-EXPERT	<i>Matsumoto Tatsumori</i> TWIST STRUCTURE OF THE VORTEX® YARN
17:30 – 19:30	<i>Welcome drink (memory of Niwa and prof. Vladimír Svátý)</i>	
Thursday 18.6.2019		
9:00 – 9:30	<i>Invited lecture – S. Sukigara</i> OPTICAL PROPERTY OF TEXTILES RELATED TO HUMAN PERCEPTION AND PHYSICAL PROPERTIES	
9:30 – 10:00	<i>Coffee break</i>	
	Room B4	Room B5
10:00 – 11:40	Chairman: S. Sukigara	Chairman: T. Kikutani
	<i>KyoungHou KIM, Kohei OYA, Kouta MOCHIZUKI, Toshifumi IKAGA, Y. OHKOSHI</i> ANALYSIS FOR STRUCTURAL DISTRIBUTION OF MELTBLOWN NONWOVEN FABRIC TO THICKNESS DIRECTION USING X-RAY CT	<i>Lekhani Tripathi, Ghashyam Neje, B. K. Behera</i> MECHANICS OF 3D WOVEN HONEYCOMB STRUCTURE
	<i>Meenakshi Ahirwar, Mesay Dubale, B. K. Behera</i> DEVELOPMENT OF HAND EVALUATION SYSTEM FOR BED LINEN	<i>Shivendra Yadav, Dipayan Das</i> EFFECT OF FIBER SIZE ON FILTRATION PERFORMANCE OF NONWOVEN SYNTHETIC FILTER MEDIA FOR ENGINE INTAKE AIR
	<i>Lubos Hes, Monika Boguslawska - Baczek</i> THERMAL COMFORT OF QUILTED BLANKETS	<i>YAMASHITA Yoshihiro, MIYAKE Hajime</i> WATER RESISTANT NANOFIBER FILTER CONSISTING OF EVOH / PU
	<i>Mari Inoue</i> HAND EVALUATION OF TOWEL AND WASHING DURABILITY	<i>Hu Jiyong, Dong Xiaolong, Zhang Yong, Wang Tingting</i> EFFECT OF COVERING STRUCTURE ON THE PERFORMANCE OF WRAPPED CONDUCTIVE YARN AS STRAIN SENSOR
11:20 – 12:20	Poster section 1	
12:20 – 13:20	<i>Lunch</i>	
13:20 – 13:50	<i>Invited lecture – A. Seyam</i> MECHANISM OF ELECTRIFICATION AND CHARGE DECAY ON WOVEN FABRIC STRUCTURES	
13:50 – 14:50	Chairman: A. Seyam	Chairman: M. Matusiak
	<i>Jinhua Jiang, Yi Geng, Qinghua Yu, Chenglong Zhang, Nanliang Chen</i> INVESTIGATION OF THE INFLUENCE OF COMPRESSION ON THE IN PLANE PERMEABILITY OF FABRIC PREFORMS IN VIMP	<i>Vikas Khatkar, B K Behera</i> DESIGN, DEVELOPMENT AND CHARACTERIZATION OF 3D WOVEN STRUCTURE REINFORCED COMPOSITE LEAF SPRING
	<i>Morihiro Yoneda, Chie Nakajima</i> MEASUREMENT OF EFFECTIVE THERMAL CONDUCTIVITY OF FIBER ASSEMBLY AND 3D HEAT CONDUCTION ANALYSIS	<i>Toshiyasu Kinari, Takuru Suehiro, Eiki Sakanishi, Lina Wakako</i> BENDING PROPERTIES OF BRIDED CFRP WITH SHELL - BULKHEAD PREFORM
	<i>Kavita, Lalit jajpura, B. K. Behera</i> COMFORT BEHAVIOR OF UNCONVENTIONAL NATURAL FIBRE BASED UNION FABRICS	<i>Ashok Kumar, B. K. Behera</i> 3D WOVEN STRUCTURES FOR AUTOMOTIVE SEAT COVERS
14:50 – 15:20	<i>Coffee break</i>	
15:20 – 16:40	Chairman: L. Hes	Chairman: H. Kanai
	<i>Lexi Tu, Haoxuan Shi, Xinrong Luo, Hua Shen</i> DEPENDENCE OF TEXTILE STRUCTURE ON HEAT TRANSMISSION	<i>Fenye Meng, Yuling Li</i> AUTOMATIC FORMATION TECHNIQUES AND UNIFORMITY EVALUATION OF CONICAL VASCULAR GRAFT

	<i>Liu Su, Sun Kexia, Long Hairu</i> THE INVESTIGATION ON THERMAL PROPERTIES OF CONDUCTIVE KNITTED FABRICS UNDER DIFFERENT VOLTAGES	<i>Ghanshyam Neje, Bijoya Kumar Behera</i> EFFECT OF CELL GEOMETRICAL PARAMETERS ON THE MECHANICAL PROPERTIES OF 3D WOVEN SPACER SANDWICH COMPOSITES
	<i>Mizue KAKEHI, Hiroto AKAGI, Hideyuki UEMATSU, Shuichi TANOUE</i> THE DEVELOPMENT OF THE FOAM CONTAINING PULP FIBER AND THERMOPLASTIC FOAMING AGENT FOR ACOUSTIC ABSORPTION MATERIALS	<i>Sandeep Olhan, Vikas Khatkar, B. K. Behera</i> MECHANICAL BEHAVIOR OF NATURAL FIBER BASED 3D WOVEN STRUCTURAL COMPOSITES FOR AUTOMOTIVE APPLICATIONS
	<i>Yanping Liu, Yuan Zhang</i> FINITE ELEMENT MODELLING OF WARP KNITTED SPACER FABRICS	
18:00 – 22:00	<i>Gala dinner (Technical Museum of Liberec + Museum tour 18:00 - 19:00)</i>	
Wednesday 19.6.2019		
9:00 – 9:30	Invited lecture – <i>B.K. Behera</i> AUXETIC WOVEN STRUCTURES: DESIGN ENGINEERING, PRODUCTION PROCESS AND APPLICATIONS	
9:30 – 10:00	<i>Coffee break</i>	
	Room B4	Room B5
10:00 – 11:20	Chairman: <i>B.K. Behera</i>	Chairman: <i>M. Tunák</i>
	<i>Dhirendra Sharma, Priyal Sawla, Meenakshi Ahirwar, B. K. Behera</i> INDUSTRIAL HEMP AS A SUSTAINABLE TEXTILE FIBRE TO PRODUCE HIGH QUALITY APPAREL FABRIC	<i>Adit Gupta, Lakhan Vijayvargiya, Sayan Mukherjee, B.K. Behera</i> PREDICTION OF COMPRESSIONAL PROPERTIES OF FILAMENT WOUND COMPOSITES BY ANALYTICAL AND COMPUTATIONAL MODEL
	<i>A.K.Dash, Lekhani Tripathi, B.K.Behera</i> FORMABILITY OF 3D TEXTILE PREFORMS FOR COMPOSITE APPLICATIONS	<i>Song Liu, Takuro Sumi, Yasuhito Mukai</i> DEVELOPMENT OF CIBACRON BLUE-ENHANCED AFFINITY NANOFIBER FABRIC FOR PROTEIN SEPARATION
	<i>Qing Li, Jin Peng</i> CIRCULATING PRE-OWNED FASHION ---- O2O TRADE OF SECONDHAND TEXTILES IN CHINA	<i>Shivangi Shukla, Renu Kumari, Mohanapriya Venkataraman, B K Behera</i> DEVELOPMENT OF FLEXIBLE FIBER REINFORCED SILICA AEROGEL BLANKETS/SHIELDS FOR THERMAL INSULATION IN AEROSPACE APPLICATIONS
	<i>Křemenáková D., Militký J., Novosad A., Venkataraman M., Večerník J.</i> TEXTILE LAYERS ENABLING BACK REFLECTION OF HUMAN BODY THERMAL RADIATION	<i>Y. Fang, Y. Wang, J. Chen, Liqiang Yi, Haonan Jin, J. Militky, J. Marek, J. Yao, M. Zhang</i> PREPARATION OF PARAFFIN WAX/POLYACRYLONITRILE THERMO-REGULATING NANOFIBERS BY COAXIAL ELECTROSPINNING
11:20 – 12:20	Poster section 2	
12:20 – 13:20	<i>Lunch</i>	
13:20 – 14:20	Chairman: <i>J. Militky</i>	
	<i>Arun Aneja, Karel Kupka, Jiri Militky</i> MULTICOMPONENT FIBER RECYCLING – ANALYSIS OF HETEROGENOUS HYDROLYTIC KINETICS	
	<i>Hafsa Jamshaid, Ali Raza, Sikander Abbas Basra, Rajesh Mishra</i> DEVELOPMENT OF THERMALLY INSULATED CONSTRUCTION STRUCTURE BY SUSTAINABLE NATURAL FIBERS	
	<i>Rui-Hua Yang</i> A SMART AND SUSTAINABLE SPINNING FOR COLORFUL TEXTILES	
14:20 – 15:00	Closing of conference	

Poster section 1

Małgorzata Giełdowska, Izabella Krucińska, Michał Puchalski
INVESTIGATION OF THE INFLUENCE OF PLA SUPRAMOLECULAR STRUCTURE ON THE THERMAL-SUPPORTED
HYDROLITIC DEGRADATION OF WET SPINNING FIBRES

Jian HAN, Xiang Ji, Juanjuan SU, Yonghuan ZHAO
STUDY ON PROPERTIES OF POLYETHERAMINE FUNCTIONALIZED GRAPHENE OXIDE/ POLYAMIDE 6 COMPOSITE
FIBERS

Ivan Ulman, Radek Jirkovec, Jiří Chvojka
COMBINATION OF KNOWN FIBROUS TECHNIQUES TO FORM A SUITABLE MATERIAL FOR SORBENT SUPPORT

Fumei Wang, Meiqin Wu
A New Method for Measuring Fiber Length

Aravin Prince Periyasamy, Kai Yang, Xiaoman Xiong, Mohanapriya Venkataraman, Jiri Militky, Rajesh Mishra, Dana Kremenakova
IMPACT OF SOL-GEL COATING ON THERMAL PROPERTIES OF CU- COATED NONWOVEN FABRIC

Martina Viková, Michal Vik, Jana Čandová
LCAM Cotton White Scale

Lina Wakako, Kai Kodama, Toshiyasu Kinari
FUNCTION OF COLOR IN AESTHETIC PROPERTIES OF PLAIN KNITTED FABRIC

Aleksandra Wyszowska, Zbigniew Draczyński
MICROENCAPSULATION OF PHENOLPHTHALEIN IN ALGINATE MICROSPHERES AS PH SENSOR SYSTEMS AND
THEIR POSSIBLE DEPOSITION ON FIBERS OR OTHER TEXTILE MATERIALS

MURAOKA Yumiko, YASUNAGA Hidekazu
ESTIMATION OF HAIR DAMAGE BY TENSILE MEASUREMENT AND EFFECT OF TREATMENT WITH BIOBASED
MATERIALS FOR INVENTION OF DAMAGE SUPPRESSION TECHNIQUE

UCHIDA Akiko, YASUNAGA Hidekazu
RELATIONSHIPS BETWEEN COLOURING CONDITION AND RESULTING COLOUR IN HAIR COLOURING BY DYESTUFFS
OBTAINED FROM (+)-CATECHIN PHOTO-OXIDISED WITH PHOTSENSITISERS UNDER VISIBLE LIGHT

Azam Ali, Vijay Baheti, Jiri Militky
COPPER AND SILVER COATED TEXTILES FOR SMART APPLICATIONS

Evren Boyraz, Fatma Yalcinkaya
OILY WASTE WATER SEPERATION BY USING NANOFIBROUS MEMBRANE

Sajid Faheem, Vijay Baheti, Maros Tunak, Jakub Wiener, Jiri Militky
COMPARATIVE INTUMESCENT FLAME RETARDANT FEATURES OF COTTON TEXTILES TREATED WITH ALKALINE
AND ACIDIC CASEIN SUSPENSION

Muhammad Zaman Khan, Vijay Baheti, Jiri Militky
HYDROTHERMAL SYNTHESIS OF TiO₂ NANOPARTICLES ON PET FABRIC AND THEIR FUNCTIONAL PROPERTIES

Yasuhito Mukai, Eiji Amano, Satoshi Hara
PREPARATION OF NANOCARBON-SUPPORTED NANOFIBER FABRIC FOR PURIFICATION OF CONTAMINATED WATER

Yanfang Xu, Guangbiao Xu
POPLAR SEED FIBER AS A NATURAL ABSORBENT FOR OIL REMOVAL

Kaori Yano, Yoko Okahisa
COMPARISON OF CELLULOSE NANOFIBER PROPERTIES OBTAINED FROM BAMBOOS OF DIFFERENT AGES

Brigita Kolčarová Sirková, Iva Mertová, Eva Moučková
PROPERTIES AND STRUCTURE OF SPUN YARNS IN RELATION TO THE SPINNING AND WEAVING TECHNOLOGIES

Yuki Karasawa, Mayumi Uemae, Hiroaki Yoshida, Masayoshi Kamijo
CLOTHING COMFORT EVALUATION OF UNDERWEAR THROUGH COMPARISON BETWEEN POLYPROPYLENE YARN
AND POLYESTER YARN

Poster section 2

Yasuhito Mukai, Eiji Amano, Satoshi Hara

PREPARATION OF NANOCARBON-SUPPORTED NANOFIBER FABRIC FOR PURIFICATION OF CONTAMINATED WATER

Rajesh Mishra, Tao Yang, Xiaoman Xiong, Jiri Militky

ACOUSTIC PROPERTIES OF ADVANCED NONWOVENS

Jana Novotná, Hana Šourková, Miroslava Pechočiaková

DIELECTRIC ANALYSIS OF COMPOSITE MATERIALS WITH PLASMA TREATMENT RECYCLED CARBON FIBERS

Veronika Tunakova, Zuzana Hrubosova, Jiri Prochazka

FASHION CLOTHING WITH ELECTROMAGNETIC RADIATION PROTECTION

Vik M., Glombíková V., Víková M., Havelka A., Adamcová J., Pechová M.

PEDESTRIANS VISIBILITY AT NIGHT: EFFECTS OF PEDESTRIAN CLOTHING, BALANCING SAFETY AND CULTURE

Pavčina Bílá, Monika Vyšanská

RECONSTRUCTION OF THE INDIVIDUAL FIBERS' TRAJECTORIES IN AIR-JET YARN

Yuanfeng Wang, Daniel Karthik, Kai Yang, Tao Yang, Xiaoman Xiong, Vijay Baheti, Jiří Militký

ELECTRICAL HEATING PROPERTIES OF CARBON FABRIC/GREEN EPOXY COMPOSITES FILLED WITH FLY ASH

Xiaoman Xiong, Mohanapriya Venkataraman, Tao Yang, Rajesh Mishra, Jiri Militky

THERMAL PROTECTION PROPERTIES OF AEROGEL-COATED KEVLAR WOVEN FABRICS

Kai Yang, Mohanapriya Venkataraman, Yuanfeng Wang, Jakub Weiner, Jiri Militky, Rajesh Mishra, Guocheng Zhu, Juming Yao
PREPARATION OF COATED POLYAMIDE NANOFIBROUS MEMBRANES WITH PHASE CHANGE MATERIAL

Tao Yang, Xiaoman Xiong, Rajesh Mishra, Jean-Philippe Groby, Jiri Militky

OBTAINING NON-ACOUSTICAL PARAMETERS OF POLYESTER NONWOVEN MATERIALS BY USING ACOUSTIC METHOD

Takafumi Hata, Mari Inoue

OBJECTIVE HAND EVALUATION OF CAR INTERIOR MATERIAL

Jeoun Gyonran, Takako Inoue, Morihiro Yoneda

THE OBJECTIVE EVALUATION OF TOTAL HAND OF TOWEL FABRICS AND ITS CONFIRMATION BY SENSORY TEST

Hiroyuki Kanai, Takuma Kobayashi, Hiroki Maru, Shuhei Hanashiro

COMFORT ASSESSMENT OF BOTTOM MATTRESS FOR BEDDING APPARATUS

Run Qiu, Na Li, Run Wen

VISUAL PERCEPTION AND EVALUATION OF WOMEN'S SHIRT FABRICS BASED ON FAST FASHION E-COMMERCE PLATFORM

Hiroko YOKURA, Yuriko KIBAYASHI, Sachiko SKIGARA

EVALUATION OF TACTILE FEELS OF TOWEL AFTER WASHING

Frederick Tungshing Fung, Lubos Hes, Vladimir Bajzik

REVIEW OF MEN'S DRESS SHIRT PATTERN DEVELOPMENT FOR THE LAST 100 YEARS

Helena Březinová, Milena Bravermanová

RESEARCH OF ARCHAEOLOGICAL TEXTILES IN THE CZECH REPUBLIC

Hana Křížová, Jakub Wiener

ECOLOGICAL TREATMENT OF WOOL USING NATURAL POLYPHENOL SUBSTANCES

Zuzana Oulehlová, Markéta Klíčová, Jana Horáková, Andrea Klápšťová, Václav Liška, Jáchym Rosendorf, Richard Pálek, Lenka Červenková

PLANAR POLYMERIC NANOFIBROUS PATCHES FOR SEALING THE GASTROINTESTINAL ANASTOMOSES

Pavla Těšínová

INTERNATIONAL COOPERATION OF FACULTY OF TEXTILE ENGINEERING FROM LIBEREC WITH JAPAN PARTNERS

