

PROGRAM OF THE 46th TEXTILE RESEARCH SYMPOSIUM AT Mt.FUJI

TEIJIN ACADEMY FUJI
SUSONO CITY, SHIZUOKA PREFECTURE, JAPAN

September 3, 4 and 5, 2018

3th September (Monday)	
11:00~12:00	<i>Registration</i>
12:00~13:00	<i>Lunch</i>
13:00~13:10	<i>Opening</i>
13:10~14:40	<i>Session 1 : Production Technology of Fiber, Yarn and Textiles</i>
14:40~14:55	<i>Coffee break</i>
14:55~16:55	<i>Session 2 : Robotics and Textiles</i>
18:00~19:30	<i>Dinner</i>
19:30~	<i>Welcome Party</i>
4th September (Tuesday)	
8:30~	<i>Registration</i>
9:00~10:30	<i>Session 3 : Design and Quality of Textiles</i>
10:30~10:45	<i>Coffee break</i>
10:45~12:15	<i>Session 4 : Advanced Fiber and Yarn Technology</i>
12:15~13:30	<i>Lunch</i>
13:30~14:30	<i>Session 5 : Composite and Industrial Textiles</i>
14:30~14:45	<i>Coffee break</i>
14:45~16:15	<i>Session 6 : Textiles Science and Engineering</i>
16:15~17:15	<i>Poster presentation</i>
18:00~19:30	<i>Dinner</i>
19:30~	<i>Beer Party</i>
5th September (Wednesday)	
8:30~	<i>Registration</i>
9:00~9:30	<i>Session 7 : Environment and Sustainability</i>
9:30~10:30	<i>Session 8 : Fabric Handle and Sense Evaluation</i>
10:30~11:30	<i>Session 9 : Composite and Industrial Textiles</i>
11:30~11:35	<i>Closing Address</i>
11:35~13:00	<i>Lunch</i>
13:00~17:00	<i>Excursion</i>

3th September (Monday)11:00~12:00 **Registration**12:00~13:00 **Lunch**13:00~13:10 **Opening****13:10~14:40 *Session 1 : Production Technology of Fiber, Yarn and Textiles*****1. Production of non-circular cross-section fibers**Yiwen Chen, Wataru Takarada, Takeshi Kikutani
Tokyo Institute of Technology, Japan**2. Simulation of the sliver linear density behavior in a drawing process**You Huh, Jung Ho Lim, Jong Sung Kim, Marko Wischnowski*
Kyung Hee University, Korea
*: ITA, Germany**3. Water wicking of knit fabric in comparison of Ring yarn with of Vortex yarn**Tatsumori Matsumoto
Murata Machinery Ltd., Japan**- Coffee Break 15 min -****14:55~16:55 *Session 2 : Robotics and Textiles*****4. Deep reinforcement learning of robotic cloth manipulation**Takamitsu Matsubara
Nara Institute of Science and Technology, Japan**5. Forcibly spinning of bombyx mori silkworm silk ended in a complete failure :Spinning system of domestic silkworm**Yutaka Kawahara
Gunma University, Japan**6. New design of knitted gloves to stimulate hand motor rehabilitation**Raphael Santos, Yuta Yamaguchi, Sachiko Sukigara
Kyoto Institute of Technology, Japan**7. Viscoelastic flow simulation of polymer melts in the cylinder group region for the discussion of carbon fiber bundle impregnation process**Shuichi Tanoue, Hideyuki Uematsu
University of Fukui, Japan18:00~19:30 **Dinner**19:30~ **Beer Party**

4th September (Tuesday)8:30~ **Registration**9:00~10:30 ***Session 3 : Design and Quality of Textiles***

8. **Suppression of hair photodamage by using bio-reductants**
Hidekazu Yasunaga, Aya Shomura, Martina Viková*, Michal Vik*
Kyoto Institute of Technology, Japan
*: Technical University of Liberec, Czech Republic
9. **Novel buoyant fabrics created by integrating inlay knitted structure**
Nga-wun Li, Chu-po Ho, Kit-lun Yick, Jin-yun Zhou
The Hong Kong Polytechnic University, Hong Kong
10. **Unit-cell modeling of woven fabrics for digital design of textile**
Atsushi Sakuma, Hikaru Miyaki
Kyoto Institute of Technology, Japan

- Coffee Break 15 min -10:45~12:15 ***Session 4 : Advanced Fiber and Yarn Technology***

11. **A new spinning method and its yarn qualities**
Jong S. Kim, Jung H. Lim, You Huh
Kyung Hee University, Korea
12. **Fabrication of microporous active membranes by electrospaying**
Mohanapriya Venkataraman, Rajesh Mishra, Jiri Militky, Kai Yang, Xiaoman Xiong
Technical University of Liberec, Czech Republic
13. **Effects of process condition to galvanic traits of battery yarn**
Jung Ho Lim, Jong Sung Kim, You Huh
Kyung Hee University, Korea

12:15~13:30 **Lunch**13:30~14:30 ***Session 5 : Composite and Industrial Textiles***

14. **High performance fibrous sandwich composites**
Rajesh Mishra, Kasthuri Rajagopala Venkatesh, Jiri Militky, Dana Kremenakova
Technical University of Liberec, Czech Republic
15. **Bending properties of CFRP with braided structure**
Toshiyasu Kinari*, Nanang Endriatno**, Takuru Suehiro*
*: Kanazawa University, Japan
**: Halu Oleo University, Indonesia

- Coffee Break 15 min -

14:45~16:15 Session 6 : Textiles Science and Engineering

16. **Research and development of cervical cell harvesting fixtures from the experiment of the adsorption amount**
Hitomi Morino, Kozo Hirata, Shigeyuki Nakano*, Hideki Yamane**, Kazuhisa Nomura***
Kobe Women's University, Japan
*: Hyogo Prefectural Institute of Technology, Japan
**: Kyoto Institute of Technology, Japan
***: Nishiwaki Municipal Hospital, Japan
17. **Sound absorption behaviour of perpendicular-laid nonwovens**
Tao Yang, Xiaoman Xiong, Rajesh Mishra, Jan Novák, Jiri Militky
Technical University of Liberec, Czech Republic
18. **New definition of relative surface area of nanomaterials**
Jiri Militky, Dana Kremenakova, Rajesh Mishra
Technical University of Liberec, Czech Republic

16:15~17:15 Poster presentation

- P1. **Relationship between surging and yarn tension in false twisting machine**
Kouichi Hayashida, Naoto Kaneda
National Institute of Technology Fukui College, Japan
- P2. **Relationship between number of discs and twist form in a disc friction false twisting machine**
Naoto Kaneda, Ryosuke Sasa
National Institute of Technology Fukui College, Japan
- P3. **Identification of elastic characteristics of yarn woven in various textile**
Shohei Fujita, Atsushi Sakuma
Kyoto Institute of Technology, Japan
- P4. **Improvement in particle retention capacity of ultraporous nanofiber nonwoven fabric by plasma-induced surface modification**
Yasuhito Mukai, Yoshihiro Takayama
Nagoya University, Japan
- P5. **EVOH/PU composite nanofiber**
Yoshihiro Yamashita, Hajime Miyake*
Osaka Seikei College, Japan
*: Northeastern Industrial Research Center of Shiga Prefecture, Japan
- P6. **Textile identification using robotic fingers**
Felix Von Drigalski, Ding Ming, Jun Takamatsu, Tsukasa Ogasawara
Nara Institute of Science and Technology, Japan
- P7. **Compression resilience and impact resistant properties of fibre reinforced sandwich composites**
Kasthuri Rajagopala Venkatesh, Rajesh Mishra, Jana Novotna, Jiri Militky
Technical University of Liberec, Czech Republic
- P8. **Experimental study on convective heat transfer through fibrous insulators**
Xiaoman Xiong, Mohanapriya Venkataraman, Rajesh Mishra
Technical University of Liberec, Czech Republic
- P9. **Study on the properties of melt-blown nonwovens of poly (lactic acid)/polyamide11 blends**
Jian Han, Feichao Zhu, Bin Yu, Juanjuan Su
Zhejiang Sci-Tech University, China

- P10. **Estimation of hair damage by fluorescence from berberine**
 Hiroki Ogihara, Martina Viková*, Michal Vik*, Hidekazu Yasunaga
 Kyoto Institute of Technology, Japan
 *: Technical University of Liberec, Czech Republic
- P11. **Objective evaluation of the hand of car interior materials**
 Takafumi Hata, Mari Inoue
 Kobe University, Japan
- P12. **Durability of hand in cotton towel fabrics**
 Hiroko Yokura, Sachiko Sukigara*
 Shiga University, Japan
 *: Kyoto Institute of Technology, Japan
- P13. **An analysis of woven fabric grain for men functional business dress shirt design using a stress body area (SBA) analysis method**
 Vannesa Chu, Chu-po Ho, Joe Au, Jin Lam
 The Hong Kong Polytechnic University, Hong Kong
- P14. **Basic research on deformation behavior of loop in plain knitted fabric under biaxial tension**
 Yumi Fujiki, Lina Wakako*
 National Institute of Technology, Ishikawa College, Japan
 *: Kanazawa University, Japan
- P15. **A design of "Wear promotes exercise effect" with the purpose of improving comfort**
 Yoshitaka Niimi, Toshiya Jitsuishi, Hiroyuki Kanai, Kiyohiro Shibata*, Antonín Havelka**
 Shinshu University, Japan
 *: AOKI Inc., Japan
 **: Technical University of Liberec, Czech Republic
- P16. **Softness design of head protection gear by nonlinear deformation of porous material**
 Yoshiki Umaba, Atsushi Sakuma
 Kyoto Institute of Technology, Japan
- P17. **Effects of braiding structure on artificial hair luster**
 Elizabeth Akaro, Sachiko Sukigara
 Kyoto Institute of Technology, Japan
- P18. **New geometrical model of four directional 3D braided preforms**
 Zunjarrao Kamble, B.K. Behera
 Indian Institute of Technology Delhi, India
- P19. **Carbon and silicon based electrically conductive elastomeric textile sensors**
 Daniel Karthik, Vijaykumar Baheti, Jiri Militky
 Technical University of Liberec, Czech Republic
- P20. **Inference of dyeing and finishing processes on center marks occurred in spandex plated fabric produced by circular knitting machines**
 Shunji Takeuchi, Kazuki Nishioka*, Hideyuki Uematsu*, Shuichi Tanoue*
 Kyoto Institute of Technology, Japan
 *: University of Fukui, Japan

18:00~19:30 **Dinner**

19:30~ **Beer Party**

5th September (Wednesday)8:30~ **Registration**9:00~9:30 ***Session 7 : Environment and Sustainability***

19. **Towards circular economy in textiles - a world with zero waste**
 Arun Pal Aneja
 East Carolina University, USA

9:30~10:30 ***Session 8 : Fabric Handle and Sense Evaluation***

20. **Relation between fingertip forces and tactile perception of cashmere fabrics**
 Davaajav Narantogtokh, Sachiko Sukigara
 Kyoto Institute of Technology, Japan
21. **Hand evaluation of silk thin dress fabrics and washing durability**
 Mari Inoue
 Kobe University, Japan

10:30~11:30 ***Session 9 : Composite and Industrial Textiles***

22. **Experimentally determined advanced mechanical properties of 3D spacer fabrics**
 Veerakumar Arumugam, Rajesh Mishra, Dana Kremenakova, Jiri Militky
 Technical University of Liberec, Czech Republic
23. **Mechanics of advanced 3D woven structural composites**
 B.K. Behera, Ghanshyam Neje, Manjunath R. N.
 Indian Institute of Technology Delhi, India

11:30~11:35 **Closing Address**11:35~13:00 **Lunch**13:00~17:00 **Excursion**

13:00 Departure Teijin Academy Fuji
 14:00~16:00 Tour Hakone Shrine
 16:00 Departure Hakone Shrine
 17:00 Arrival JR Mishima Station