



Rajamangala University of Technology  
Phra Nakhon



Technical University of Liberec

## The 4<sup>th</sup> RMUTP International Conference

### Textiles & Fashion

JULY 3<sup>rd</sup> - 4<sup>th</sup> 2012

Pullman Bangkok King Power, Thailand



# PROGRAM OF THE CONFERENCE

## July 3<sup>rd</sup>, 2012- Tuesday

| Time          | Schedule   |
|---------------|--|
| 08:00 – 09:00 | <b>Registration</b>  |
| 08:00 – 09:00 | <b>Poster Decoration</b>   |
| 10:00 – 10:45 | <b>Opening Ceremony</b><br>(By Her Royal Highness Princess Soamsawali)<br><b>Infinity 1-2 Room</b>   |
| 10:45 – 11:00 | <b>Coffee break</b>  |
| 11:00 – 12:00 | <b>Keynote Presentation: Future Trends in Textile Branch</b><br><b>Prof. Ing. Jiří Militký, CSc.</b><br><b>Technical University of Liberec, Czech Republic</b> |
| 12:00 – 13:00 | <b>Lunch</b>   |
| 13:00 – 14:00 | <b>Keynote Presentation: Trend Forecasting</b><br><b>Prof. Veronica Bogao,</b><br><b>Polimoda Ent Art, Florence, Italy</b>                                     |
| 14:00 – 14:30 | <b>Coffee break</b>  |
| 14:30 – 15:30 | <b>Keynote Presentation: Trends in Technical Textiles</b><br><b>Prof. Ing. Sayed Ibrahim, CSc.</b><br><b>Technical University of Liberec, Czech Republic</b>   |
| 15:30 – 17:00 | <b>Poster Session</b>  |
| 18:00 – 21:00 | <b>Textile &amp; Fashion Party (Infinity 1-2 Room)</b>   |

## July 4<sup>th</sup>, 2012- Wednesday

| <b>Time</b>          | <b>Schedule</b>                 |                                   |                                      |
|----------------------|---------------------------------|-----------------------------------|--------------------------------------|
|                      | <b>SECTION: I<br/>Beta Room</b> | <b>SECTION: II<br/>Delta Room</b> | <b>SECTION: III<br/>Epsilon Room</b> |
| <b>08:00 – 08:30</b> | <b>Registration</b>             | <b>Registration</b>               | <b>Registration</b>                  |
| <b>08:30 – 10:10</b> | <b>Presentations</b>            | <b>Presentations</b>              | <b>Presentations</b>                 |
| <b>10:10 - 10:30</b> | Coffee break                    | Coffee break                      | Coffee break                         |
| <b>10:30 – 12.10</b> | <b>Presentations</b>            | <b>Presentations</b>              | <b>Presentations</b>                 |
| <b>12:10 – 13.10</b> | Lunch                           | Lunch                             | Lunch                                |
| <b>13:10 – 15.10</b> | <b>Presentations</b>            | <b>Presentations</b>              | <b>Presentations</b>                 |
| <b>15:10 – 15.30</b> | Coffee break                    | Coffee break                      | Coffee break                         |
| <b>15:30 – 17.10</b> | <b>Presentations</b>            | <b>Presentations</b>              | <b>Presentations</b>                 |

**July 4<sup>th</sup>, 2012- Wednesday**

**SECTION I  
TEXTILE TECHNOLOGY & INNOVATION  
(Beta Room)**

**PRESENTATION (Oral)**

**Chairman: Dr. Sarunya Kasembuyakorn**

|                      |   |
|----------------------|---|
| <b>08:30 - 08:50</b> | <b>Acoustic Dynamic Modulus of Staple Yarns</b><br>Jiří Militký, Dana Křemenáková   |
| <b>08:50 - 09:10</b> | <b>The Use of Monte Carlo Techniques to Study the Effect of Cotton Fiber Properties on Yarn Hairiness</b><br>Josphat Igadwa Mwasiagi, Alice Waithaka, Jerry Rawling Ochola, Lydia Nkatha Kinuthia |
| <b>09:10 - 09:30</b> | <b>Characterization of Yarn Diameter Measured on Different</b><br>Sayed Ibrahim, Jiří Militký, Dana Křemenáková, Rajesh Mishra  |
| <b>09:30 - 09:50</b> | <b>Functional Characterization of Fiber Reinforced Nanocomposites</b><br>Rajesh Mishra, Jiří Militký, Richa Tiwari, B.K. Behera   |
| <b>09:50 - 10:10</b> | <b>New 3D Textile Composite Protection against Armour Piercing Ammunitions</b><br>François Boussu, Jonathan Pariente, Frédéric Veyet  |
| <b>10:10 - 10:30</b> | <b>Coffee break</b>   |
| <b>10:30 - 10:50</b> | <b>Teleintimation Garment: A wearable Electronic Garment for Soldier's Status Monitoring Applications</b><br>L. Ashok Kumar   |
| <b>10:50 - 11:10</b> | <b>Numeric Modelling of the Weaving Process for Textile Composite</b><br>François Boussu, Jérôme Vilfayeau, David Crepin, Philippe Boisse   |
| <b>11:10 - 11:30</b> | <b>Effect of Needle Diameter on Diameter of Electrospun Silk Fibroin Nanofibers</b><br>Nuray Kizildağ, Beceren Yeşim, Kazancı Murat, Cukul Dilek  |
| <b>11:30 - 11:50</b> | <b>Development and characterization of woven orthopedic casting tape</b><br>Abha Bhargava, B K Behera, Preeti Rawat   |
| <b>11:50 - 12:10</b> | <b>Investigation of Basic Yarn Parameters Influencing Formability Behavior of Cotton Shirting Fabrics</b><br>Ganesh S. Kakad, Avinash W. Kolhatkar  |
| <b>12:10 - 13:10</b> | <b>Lunch</b>  |

July 4<sup>th</sup>, 2012- Wednesday

**SECTION I**  
**TEXTILE TECHNOLOGY & INNOVATION**  
**(Beta Room)**

**PRESENTATION (Oral)**

**Chairman: Dr. Chanchai Sirikasemlert**

|                      |   |
|----------------------|---|
| <b>13:10 - 13:30</b> | <b>New 3D Warp Interlock Composite for Armouring of Vehicles</b><br>François Boussu, Benjamin Provost, Daniel Coutellier, Daniel Vallee,<br>Fabien Rondot   |
| <b>13:30 - 13:50</b> | <b>Development of E-Health Monitoring Garment</b><br>Munish Arora, Kamini Sharma  |
| <b>13:50 - 14:10</b> | <b>Investigation of Slendering on Coarse Wool Fiber and its characteristics</b><br>Zahra, Motaghi, Safdar Eskandarnejad, Majid Montazer   |
| <b>14:10 - 14:30</b> | <b>Effect of Different Conductive Yarns on Heating Behaviour of Fabrics</b><br>Fatma Kalaoglu, Senem Kursun Bahadir, Y. Erhan Boke, Hande Sezgin  |
| <b>14:30 - 14:50</b> | <b>Dynamic In-Situ Measurements of 3D Composite Material Mechanical Constraints During the Weaving Process</b><br>François Boussu, Nicolas Triffigny, Vladan Koncar   |
| <b>14:50 - 15:10</b> | <b>The Effect of Fiber Diameters on the Mechanical Properties of Fiber Reinforced Composites</b><br>Solmaz Banifazl, Masoud Latifi, Hajir Bahrami   |
| <b>15:10 - 15:30</b> | <b>Coffee break</b>   |
| <b>15:30 - 15:50</b> | <b>Medtex Project – A Smart Textile Solution for the Prophylaxis of Pressure Ulcers</b><br>Nuno José Ramos Belino, Geraldés M.J.O, Figueiredo M.N.,<br>Ferreira P.A.R.C, Pimenta N., Cardoso F., Matos J. L |
| <b>15:50 - 16:10</b> | <b>The Effect to Electromagnetic Shielding of the Thickness of the Needle Punched Nonwoven Fabrics</b><br>M.S. Özen, İ Usta, A Beyit, M. Uzun, E. Sancak, M. Yüksek   |
| <b>16:10 - 16:30</b> | <b>Study on Optimum Twist in Cotton Roving Based on Fibre Properties &amp; Roving Hank</b><br>Sachin Rawat, Pranay Ray  |

July 4<sup>th</sup>, 2012- Wednesday

**SECTION II**  
**TEXTILE CHEMISTRY & FINISHING**  
**(Delta Room)**

**PRESENTATION (Oral)**

**Chairman: Assoc. Prof. Dr. Khemchai Hemachandra**

|               |   |
|---------------|---|
| 08:30 - 08:50 | <b>Application of Plasma in Different Branches of Industries</b><br>Sheila Shahidi, M.Ghoranneviss  |
| 08:50 - 09:10 | <b>Preparation of flexible fabric based electronic circuit Using inkjet printing co electroless plating technique</b><br>Fateme Mohtaram, Fateme Haghdoost, Vahid Motaghtalab,<br>Akbar Khodaparast Haghi |
| 09:10 - 09:30 | <b>Development of Polyester-Wool Fabrics Dye Ability Using Plasma Sputtering</b><br>Zahra, Motaghi, Sheila Shahidi  |
| 09:30 - 09:50 | <b>Electrical conductivity and chromic behavior of poly (3-methylthiophene) - coated polyester fabrics</b><br>Javad Mokhtari, Mahdi Nouri, Maryam Jahan Biglari   |
| 09:50 - 10:10 | <b>Effect of Dispersing Agents on Synthesis and Application of Nano Titanium Oxide for Antimicrobial Property</b><br>Neha Khurana, R. V. Adivarekar   |
| 10:10 - 10:30 | <b>Coffee break</b>   |
| 10:30 - 10:50 | <b>Investigation on Antibacterial Activity of Cotton Silver Coated Fabric After Dyeing</b><br>Sheila Shahidi  |
| 10:50 - 11:10 | <b>Development of Essential oil/ Dye Extraction Condensed by Refrigeration System for Using in Textile Industry</b><br>Wirote Ritthong, Duongruitai Nicomrat  |
| 11:10 - 11:30 | <b>Polypropylene Nanocomposite Fibres with Improved Dyeability and Thermal Stability</b><br>Ashok Sabale, Raghav Mehra, M.D.Teli  |
| 11:30 - 11:50 | <b>Effect of Alkali Treatment &amp; Dyeing on Fibrillation Properties of Lyocell Fiber</b><br>Aravin Prince Periyasamy, Bharathi Dhurai   |
| 11:50 - 12:10 | <b>Alternative Wet Pretreatments for Ramie Fabric and Their Evaluation</b><br>Arun Kumar Patra, Amit Madhu  |
| 12:10 - 13:10 | <b>Lunch</b>  |

July 4<sup>th</sup>, 2012- Wednesday

**SECTION II**  
**TEXTILE CHEMISTRY & FINISHING**  
**(Delta Room)**

**PRESENTATION (Oral)**

**Chairman: Asst. Prof. Dr. Nattaya Punrattanasin**

|               |   |
|---------------|---|
| 13:10 - 13:30 | <b>Trend in the Bio-Fibers Application</b><br>Jiří Militký, Dana Křemenáková, Arun Aneja  |
| 13:30 - 13:50 | <b>Synthesis and Characterization of Shape Memory Polyurethane Grafted with a pH Indicator</b><br>In-Hong Jung, Yong-Chan Chung, Jae Won Choi, Byoung Chul Chun |
| 13:50 - 14:10 | <b>Application of Nano Technology in Textile Finishing</b><br>Neha Parmar, Bharti Pahuja  |
| 14:10 - 14:30 | <b>Synthesis and evaluation of a novel insect-repellent MCT reactive dye on nylon 6</b><br>Javad Mokhtari, Ali Shams Nateri, Mohammad Amin Sarli                |
| 14:30 - 14:50 | <b>Elastic Electrospun Nanostructures Based on Polyurethane/MWNT</b><br>Mahdi Nouri, S. Mojtaba Alizadeh Darbandi, Javad Mokhtari                               |
| 14:50 - 15:10 | <b>Effect of Plasma Treatment on Denim Fabric</b><br>Sandip K. Soni, Avinash W. Kolhatkar   |
| 15:10 - 15:30 | <b>Coffee break</b>   |
| 15:30 - 15:50 | <b>Ionic Crosslinking of Polyurethane Copolymers by the Grafted Pendant Groups</b><br>Kyung-Suk Kang, Young-Chan Chung, Duy Khiem Nguyen, Byoung Chul Chun      |
| 15:50 - 16:10 | <b>Some Studies on Temporary and Permanent Flame Retardants on 100 % Cotton Fabric</b><br>Patil Vilas Mulchand, Anajali Deshmukh                                |
| 16:10 - 16:30 | <b>Studies on Wicking Behaviour of Polyester Fabric</b><br>Arobindo Chatterjee, Pratibha Singh  |
| 16:30 - 16:50 | <b>Technical Textile</b><br>Yashashree Ambaadkar  |

**July 4<sup>th</sup>, 2012- Wednesday**

**SECTION III  
ECOTEXTILE & FASHION DESIGN  
(Epsilon Room)**

**PRESENTATION (Oral)**

**Chairman: Asst. Prof. Dr. Anothai Cholchartpinvo**

|                      |  |
|----------------------|--|
| <b>08:30 - 08:50</b> | <b>Commercial viability for colouration of nylon substrate with natural vegetable dyes</b><br>Agrawal Bipin                          |
| <b>08:50 - 09:10</b> | <b>How to Design a Retail Distribution Channel for Apparel Industry</b><br>Selin Hanife Eryuruk                                      |
| <b>09:10 - 09:30</b> | <b>Colour Gamut of Holarrhena antidysentrica Linn Dyed Silk</b><br>Anjali Sanjay Deshmukh  |
| <b>09:30 - 09:50</b> | <b>Sustainability of Green Fashion</b><br>Surabhi Mahajan  |
| <b>09:50 - 10:10</b> | <b>Factors Affecting Branding with Special Reference to Clothing Industry</b><br>Bulent Ozipek, Mehmet Tanyas, Nagme Mahmutoglu Ding |
| <b>10:10 - 10:30</b> | <b>Coffee break</b>  |
| <b>10:30 - 10:50</b> | <b>Comparison of True Color and E-color on Indigeneous Textile</b><br>Sukanya Phongsuphap, Kannikar Kamolrat                         |
| <b>10:50 - 11:10</b> | <b>Digital Technologies in Textile Art</b><br>Havva Halaceli   |
| <b>11:10 - 11:30</b> | <b>Properties and application of Milk fiber in the nonwoven fabric</b><br>Zhao Bo  |
| <b>11:30 - 11:50</b> | <b>Development of an Optimized Sizing System for Chinese Dress-form</b><br>Zhaohui Wang, Lijuan Wu, Detao Hao                        |
| <b>11:50 - 12:10</b> | <b>Properties and Product development and Application of Soybean Protein Fiber</b><br>Zhao Bo  |
| <b>12:10 - 13:10</b> | <b>Lunch</b>   |



July 4<sup>th</sup>, 2012- Wednesday

**SECTION III**  
**ECOTEXTILE & FASHION DESIGN**  
**(Epsilon Room)**

**PRESENTATION (Oral)**

**Chairman: Miss. Nittaya Tubtimthai**

|                      |   |
|----------------------|---|
| <b>13:10 - 13:30</b> | <b>Mysterious Design</b><br>Esra Ok   |
| <b>13:30 - 13:50</b> | <b>Effect of Tannin Mordant on Dyeing Silk Fabric with Dye from Tropical Almond Leaves</b><br>Sarunya Kasembuyakorn, Pornsuda Mouchai, Wallop Arirob  |
| <b>13:50 - 14:10</b> | <b>The Development of Home Textile Product from Hibiscus tiliaceus Fiber</b><br>Sakorn Chonsakorn, Sutausanee Boonyophas, Kittiyaphan Pholam, Thepthida Arrak, Rattanaphol Mongkholrattanasit   |
| <b>14:10 - 14:30</b> | <b>Body and Handle Pattern Age 3-6 Children's basic Drawing in the New an Essay Topics</b><br>Melike SOLMAZ   |
| <b>14:30 - 14:50</b> | <b>Value-Adding Strategies for Silk Garments by Redesigning and Patterning with Embroidery</b><br>Muthita Chuntrikun, Padhanan Bussapakes, Atchara Sairat, Wanchanok apun, Benno Vollmann, Sid Terason  |
| <b>14:50 - 15:10</b> | <b>Studies on Kinetic and Thermodynamic Parameters of Natural Dye Extracted from <i>Punica granatum</i> on Protein Fibres</b><br>Sankar Roy Maulik  |
| <b>15:10 - 15:30</b> | <b>Coffee break</b>   |
| <b>15:30 - 15:50</b> | <b>Properties of Silk Fabric Dyed with Eucalyptus, Quercetin, Rutin and Tannin Using Padding Techniques</b><br>Rattanaphol Mongkholrattanasit, Nattaya Punrattanasin  |
| <b>15:50 - 16:10</b> | <b>The Taste in Organic Cotton Bedding Products Among Thai Household Consumers</b><br>Bunyanuch Siriwattanapornkul, Puntarika Hongpanich, Puttiporn Kittikot, Chayanee Thongyam, Prapaporn Khunprasert, Kiatisak Nithitheerakant, Sid Terason |
| <b>16:10 - 16:30</b> | <b>The Factors of Lingerie Purchase Intention Influencing RMUTP Students</b><br>Paphawarin Suwannarach, Sivakorn Thavornwan, Kriangkrai Siangwong, Phumsith Patcharaviphakkij, Wariya Chupinitsakulwong, Nawarat Prommi, Sid Terason          |

## **POSTER SESSION**

| <b>Title/ Author</b>  | <b>Poster No.</b> |
|---|-------------------|
| <b>Tearing Behaviour of Fabric Using Various Testing</b><br>Chi-Wai Kan, K.F. Choi, T. Hua, R.H. Yang, Q. Zhang, S.Y. Wang  | <b>1</b>          |
| <b>Effect of Reactive Dyeing and Cellulase Treatment on the Pilling Properties of Cotton Knitted Fabric</b><br>Chi-Wai Kan, C.W.M. Yuen   | <b>2</b>          |
| <b>A Study of Reactive Dyeing and Enzymatic Treatment on Some Properties of Cotton Knitted Fabric</b><br>Chi-Wai Kan, C.W.M. Yuen   | <b>3</b>          |
| <b>Setting-up an Occupational Safety and Health Management System in a Textile Testing Laboratory</b><br>Chi-Wai Kan  | <b>4</b>          |
| <b>Occupational Safety and Health Management System in Textile Industry – a Continual Improvement Approach</b><br>Chi-Wai Kan   | <b>5</b>          |
| <b>The Influential factors of impulse buying behavior on casual wear in Hong Kong</b><br>Jimmy K.C. Lam, onia H.T. Chan   | <b>6</b>          |
| <b>An Investigation of Electromagnetic Wave Absorption Potential of Woven Fabrics with Stainless Steel Wire</b><br>Erhan Sancar, M.S. Özen, Usta, A Beyit, M. Uzun, E. İşgören                                      | <b>7</b>          |
| <b>Surface Modification of Cotton and Polyester Fabrics Using Alginate and Copper (II) Sulphate Interactions: Characterisation of Thermal Comfort Properties</b><br>M. Uzun, E. Sancak, I. Usta, O. Atak, M. Akalin | <b>8</b>          |
| <b>Apparel Product Evaluation and Quality Perception of Turkish Consumers</b><br>Canan SARICAM, Fatma KALAOGLU, Yasin Sercan OZDUYGU, Hulya ORUN  | <b>9</b>          |
| <b>An Investigation on the Tensile Properties of Soybean Blended Yarn</b><br>Esra Serife Pampal, Özcan Özdemir  | <b>10</b>         |
| <b>Investigation of Electromagnetic Shielding Properties of Boron and Carbon Fibre Woven Fabrics and Their Polymer Composites</b><br>S.Ilker Mistik, Erhan Sancar, Dilara Kocar, Mehmet Akalin                      | <b>11</b>         |
| <b>Investigation of Mechanical Properties of Treated Ready Made Garment Waste Reinforced Polymer Composites</b><br>Mahmut Kayar, S. Ilker Mistik  | <b>12</b>         |
| <b>Investigation of Sound Absorbance Properties of Formic Acid Treated Luffa Fibres</b><br>Dilara Kocar, Nigar Merdan, Erhan Sancak, S.Ilker Mistik, Ismail Usta, Mehmet Akalin                                     | <b>13</b>         |
| <b>Dyeing of Polyester by Using Microwave Method in Glycercerine Media</b><br>Nigar Merdan, Muge Yukseloglu, Dilara Kocar, S. Ilker Mistik  | <b>14</b>         |
| <b>Dyeing of Enzymatic Treated Hemp Fibre by Microwave Method</b><br>Nigar Merdan, Dilara Kocar, S. Ilker Mistik, Metin Yuksek, Mehmet Akalin   | <b>15</b>         |
| <b>Eco-textiles – Sustainable, Green and eco-friendly textiles</b><br>Agrawal Bipin J.  | <b>16</b>         |

## POSTER SESSION

| Title/ Author   | Poster No. |
|---|------------|
| <b>Characterization and Properties of Nypa Fruticans Wurmb Fiber</b><br>Acharya Maungpanil, Suthusanee Punyopat, Sakorn Chonsakorn,<br>Rattanaphol Mongkholrattanasit   | 17         |
| <b>Characteristics and Properties of <i>Hibiscus tiliaceus</i> Yarn</b><br>Thepthida Arrak, Suthusanee Punyopat, Sakorn Chonsakorn,<br>Rattanaphol Mongkholrattanasit   | 18         |
| <b>Development and Processed Products from Lemongrass Fibre</b><br>Saowanee Areechonchareon, Nuchdow Texsamut   | 19         |
| <b>Microwave Assists the Synthesis of Aryl Azopyridones Dyes and Studying Their Printing Properties</b><br>Heba Mohamed El Henawi, K. A. Ahmed, M. A. Elkashouti  | 20         |
| <b>Application of the Synthesized Arylzopyrazolopyrimidine Dyes in Printing Polyester and Polyamide Fabrics</b><br>Kawther Abd Elzaher Ahmed, M. A. Elkashouti, S.T. Mahmoud, Sh. S. Mohamed  | 21         |
| <b>Application of Neural Networks for Colour Recipe Prediction of Reactive Dyes</b><br>Javad Mokhtari, ES.Yazdi Almodarresi, SMT. Modarresi, Mehdi Nouri  | 22         |
| <b>Evaluation of Physical properties of Twill weave Morhom fabric</b><br>Benyapha Khuangthip, Supa Chulakup, Srikanjana Jatuphatwarodom,<br>Sakorn Chonsakon, Rattanaphol Mongkholrattansit   | 23         |
| <b>Antibacterial Activity by <i>Kaempferia Parviflora</i> Microencapsulation from and Applications for Textile Industry</b><br>Jiraporn Koatsaha, Supa Chulakup, Siriwan Teepoo, Sakorn Chonsakorn,<br>Rattanaphol Mongkholrattanasit | 24         |
| <b>Application of aromatherapy on cotton fabric by Microcapsules</b><br>Nonglak Suthaphot, Supa Chulakup, Sakorn Chonsakorn,<br>Rattanaphol Mongkholrattanasit  | 25         |
| <b>Thickening Agent Based on Tamarind Seed Gum for Disperse Printing of Polyester</b><br>Wancheng Sittikijyothin, Kittiya Klaha, Janya Piku, Rattanaphol Mongkholrattanasit   | 26         |
| <b>Effect of Calcium Chloride on Electrospinning of Silk Fibroin Nanofibers</b><br>Nongnut Sasithorn, Lenka Martinova   | 27         |
| <b>Antimicrobial Activity of Chitosan and Tannic Acid on Cotton Fabrics Materials</b><br>Kantima Juntarapun, Chutimon Satirapipathkul   | 28         |
| <b>The Atractylodes Lancea Extract for Bacterial Resistant in Textile</b><br>Pichet Duangsri, Kantima Juntarapun, Chutimon Satirapipathkul  | 29         |
| <b>The Tobacco Leaf Extract and Bacterial Activity in Textile</b><br>Pichet Duangsri, Kantima Juntarapun, Chutimon Satirapipathkul  | 30         |
| <b>Natural Dyeing of Hemp Yarns</b><br>Monthon Nakpathom, Buppha Somboon, Nootsara Narumol, Sarita Pinmanee   | 31         |
| <b>UV Protection Properties of Wool Fabric Dyed with Eucalyptus Leaf Extract by the Padding Techniques</b><br>Nattadon Rungruangkitkrai, Nitaya Tubtimthai, Anothai Cholachatpinyo,<br>Rattanaphol Mongkholrattanasit                 | 32         |

## POSTER SESSION

| <b>Title/ Author</b>  | <b>Poster No.</b> |
|---|-------------------|
| <b>Eco-Friendly of Textiles Dyeing and Printing with Natural Dyes</b><br>Nattadon Rungruangkitkrai, Rattanaphol Mongkholrattanasit  | <b>33</b>         |
| <b>The Antimicrobial Effect of Silver Nanoparticles Released From Commercial Detergents on Human Flora Through Fabric Usages</b><br>Duongruitai Nicomrat, Nanthasak Supkittiwu  | <b>34</b>         |
| <b>Tailored jacket Pattern for Particular Shape Women</b><br>Benchawan Bungtong, Srikanjana Jatuphatwarodom, Suthusanee Punyopat, Sakorn  | <b>35</b>         |
| <b>Development of Women's Pattern Making by the Anatomy Principle</b><br>Jaruts Pinyokeerati, Srikanjana Jatuphatwarodom, Supa Chulakup, Suthusanee Punyopat, Rattanaphol Mongkholrattanasit  | <b>36</b>         |
| <b>Development of Transformation Textile Product from Mulberry Fiber</b><br>Kitiyaphan Pholam, Sakorn Chonsakorn, Uraiwan Khamsingka  | <b>37</b>         |
| <b>An Analysis of Factors Affecting the Knitwear Ironing: A Case Study of Hi-Progress Knitting Co., Ltd</b><br>Pranom Lommoontree, Srikanjana Jatuphatwarodom, Supa Chulakup, Sakorn Chonsakorn, Rattanaphol Mongkholrattanasit, Wachira Chongrak | <b>38</b>         |
| <b>Evaluation of Efficiency of Ease Techniques for Blouse Arm Holes</b><br>Saichon Mongkon, Srikanjana Jatuphatwarodom, Suthusanee Punyopat, Sakorn Chonsakorn, Rattanaphol Mongkholrattanasit  | <b>39</b>         |
| <b>Evaluation of the Efficiency of Flat Pattern Making and Draping Techniques</b><br>Sakorn Dumridhammaporn, Suthusanee Punyopat, Srikanjana Jatuphatwarodom, Sakorn Chonsakorn   | <b>40</b>         |
| <b>Efficiency Increase Rate of Standard Pattern Making in Garment Industry by Computer</b><br>Sakorn Chonsakorn, Uriwan khamsingka, Kitiyaphan Pholam   | <b>41</b>         |
| <b>Thai Children Standard Sizes</b><br>Srikanjana Jatuphatwarodom   | <b>42</b>         |
| <b>Banana Fiber Ribbon with Flowers</b><br>Winai Taravake   | <b>43</b>         |
| <b>Testing of Silk Yarn for weaving Kab Bua Fabric</b><br>Karntarat Wuttisela, Duenphen Phosaphim   | <b>44</b>         |
| <b>Eco-Friendly Printing of Cotton Fabric Using Natural Dye From Acacia Catechu Wild</b><br>Charoon Klaichoi, Chamlong Sarikanon, Rattanaphol Mongkholrattanasit, Potjana Intajak, Warunee Saleeyongpuay  | <b>45</b>         |
| <b>The Design of Special Embossed Loom with Jacquard for Developing Community Product in Economic</b><br>Kittisak Ariyakuare  | <b>46</b>         |
| <b>Lotus Pattern Design on Fabric for the Textile Product Development</b><br>Suwadee Pradup   | <b>47</b>         |
| <b>The Development of Green Packaging From Banana Fiber for Instant Food Products</b><br>Praparnporn Theeramongkol, Bussara Soyraya, Chompunuch Phuenpipop, Duangkamol Thangsattidporn, Autcha Siripun  | <b>48</b>         |
| <b>The Development of Indicators Marking the Characteristics Of Creative City in the Design of Bangkok</b><br>Pichet Musikapodok  | <b>49</b>         |
| <b>Poly(<math>\epsilon</math>-Caprolactone)/Nanoclay Nanofiber Mat as a Novel Scaffold for Tissue Engineering</b><br>Mahdi Nouri, Mahsa Rostamloo, Javad Mokhtari   | <b>50</b>         |

