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## PREFACE

Global Academic Research Institute is proud to present 02nd International Conference on Apparel Textiles and Fashion Design (02<sup>nd</sup> ICATFD 2017) in Collaboration with The Textile Institute (Sri Lankan Section) which is a continuation of a series of successful research symposium. The Inaugural Session and the Technical Sessions were conducted on 24<sup>TH</sup> March 2017 @ Galle Face Hotel, Colombo, Sri Lanka. The conference was organized into main Textile and Fashion design which empirical, conceptual and methodological papers were received from academics, practitioners and public policy makers were accepted paying austere attention to the academic standards of the papers. To maintain consistency, authors were prescribed to follow the academic writing format of the GARI Publishers. The reviewing process was apparently transparent where papers underwent a double blinded review process by eminent subject specialists in respective areas. Thus refereed full papers selected to be presented at the conference were published here. We do not assume any responsibility for any errors or omissions in the research papers which rests solely with the authors.

Special thank goes to an enlightening key note addresses was delivered Mr. Felix A. Fernando, Chairman of the Sri Lanka Apparel Exporters Association, Director, Main Boards of Omega Line Ltd/Alpha Apparels Ltd, Mr. Mohandas Seneviratne, Program Manager - PaCT International Finance Corp, Dr. Larissa Noury, Artist, designer-colorist, President-Founder of Colour-Space-Culture international Association, France, Mr. Puneet Dudeja, Sales Director – South Asia, WGSN as well as Co-Chaired by Prof. R. N. Kuruppu - Chairman of The Textile Institute Sri Lanka Section, Ms. Janet Best, Fashion Colour Management Specialist natific and Session Chaired by Mr. Christoph Bergmann & Dr. Galina Mihaleva. The organizing committee specially thanks to our Journal Publications GARI Publishers and International Journal of Apparel and Textile, Further the support given by Trends partners WGSN, industry partners JAAFSL, sustainability partners Hirdaramani and MAS Holdings, Colour management partners Natific and Cassims, along with Fibre 2Fashion, GIFT University, Sri Lankan airline, Kolormondo, CBRT, Barefoot & Sri Lanka Convention bureau Official Creative Partner Dream Angle. The conference committee expresses deep gratitude to the panel of reviewers for the priceless service rendered. Finally the committee extends sincere thanks to the presenters and participants for the valuable contribution and active participation.

Conference Committee  
02<sup>nd</sup> ICATFD 2017

## ABOUT SRI LANKA

This is an island of magical proportions, once known as Serendib, Taprobane, the Pearl of the Indian Ocean, and Ceylon. Set in the Indian Ocean in South Asia, the tropical island nation of Sri Lanka has a history dating back to the birth of time. It is a place where the original soul of Buddhism still flourishes and where nature's beauty remains abundant and un-spoilt. Few places in the world can offer the traveler such a remarkable combination of stunning landscapes, pristine beaches, captivating cultural heritage and unique experiences within such a compact location. Within a mere area of 65,610 kilometers lie 8 UNESCO World Heritage Sites, 1,330 kilometers of coastline - much of it pristine beach - 15 national parks showcasing an abundance of wildlife, nearly 500,000 acres of lush tea estates, 250 acres of botanical gardens, 350 waterfalls, 25,000 water bodies, to a culture that extends back to over 2,500 years. Sri Lankan cinnamon, ivory and gems had been the main cause for invasion of two nations, Portuguese and Dutch, who followed the Moor traders to the country in search of the world's best spices and riches. According to the Dutch, who reorganized the cultivation and marketing of cinnamon in Sri Lanka, the 'shores of Sri Lanka had been full of it, that you can smell it eight leagues out to sea'. Even today the country produces the world best cinnamon and one of the world's top cinnamon exporters. With Endless beaches, timeless ruins, welcoming people, herds of elephants, killer surf, cheap prices, fun trains, famous tea, flavorful food, newly gained peace and improved infrastructure Sri Lanka had been repeatedly named the next tourist destination worth all the investments. Meanwhile Sri Lanka is fast gaining popularity in the MICE tourism industry, with 11% of the total visitors coming into the country representing the segment, while the industry anticipates the arrival of 240,000 MICE tourists by 2016, which is nearly 10% of the 2.5 million tourist target. With more than one million tourist arrivals in 2012 the Sri Lankan tourism service providers has set a target of 22,500 rooms in the next five years when tourist arrivals are expected to reach 2.5 million.

Discover Refreshingly Sri Lanka!

## About Collaboration Partner Textile Institute (Sri Lankan Section)

The Textile Institute is an international organization governed by a Council representing members throughout the world. It is legally constituted by a Royal Charter, granted in Britain in 1925 and is registered as a charity in England; the Institute is recognized as a non-profit association under the laws of many countries.

The mission of The Textile Institute is to promote professionalism in all areas associated with the textile industries worldwide. It is an association of men and women throughout the world which unites those with an interest in textiles. The individual professional expertise of members is diverse: it includes management, art, design, fashion, economics, science, engineering, research, production, marketing, selling, retailing, education and training. These skills relate to the totality of industrial and commercial operations from fibre production to the use of products by individual and corporate consumers. The word "textile", which originally referred to woven fabrics, now covers the broad field of products made from fibres.

<http://www.texti.org>



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**FAST, LEAN AND GREEN; EXPERIENTIAL LEARNING AS THE PEDAGOGICAL MODEL FOR  
EDUCATING THE FASHION BUYERS OF THE FUTURE**

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***ABSTRACT***

When researching the knowledge gaps in fashion graduates, consultation with industry was a critical part of the process. Feedback pointed towards knowledge gaps in textiles and textile properties, product development, quality assurance processes, manufacturing and manufacturing terminology. Through the development of key collaborations such as the one with MAS, Thurulie, Ravensbourne students have taken part in a unique learning experience. In February this year, we took 24 Fashion Buying students away from Ravensbourne, London, to Thurulie, Sri Lanka to experience a vertically integrated carbon neutral manufacturing plant. Two second year Digital Film Production students were tasked with recording the student journey and learning experience. This presentation and a short film aim to capture why this live learning experience is effective in developing engaged, critically aware, enquiring and responsible buyers ready to shape a more sustainable future for fashion



## **COUTURE IN ORBIT**

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### ***ABSTRACT***

To mark five ESA missions to the International Space Station between 2014 and 2016, fashion schools from each astronaut's home country were challenged by the ESA to create outfits inspired by space flight. This presentation will highlight the student journey; how they worked in cross-disciplinary teams, how they incorporated intelligent fabrics into their designs and how they interacted with space technology to create collections for the future consumer. We will look at how collaborating with innovative fabric suppliers increased awareness of 'conscious consumerism' and how wearable technology might be embedded into garments to create a more sustainable future. Finally this presentation will share initial experimentation with 3D scanning of the ESA collection and the future potential that this could bring in terms of consumer interaction, instant feedback and speed to market.

## ENHANCING THE FABRICATION OF MOTORSPORTS GEAR IN SRI LANKA

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### **ABSTRACT**

Motorsports has become a universal sport. Many researchers have discussed about the fitness levels of racecar drivers. But none has given an in depth guide into the problems that are faced by drivers in the perspective of Sri Lanka. Motorsports was introduced to Sri Lanka during 30s from that day onwards the interest among the people for this has increased significantly. The focus of this study is on Sri Lankan motorsport apparel. It discusses the problems faced by Sri Lankan racers to comply with international sport and safety standards when it comes to choosing racing gear, which is affordable as well as, comfortable. The study further explores the possibility of locally manufacturing racing gear to cater to an increasingly growing enthusiasm for motorsport in Sri Lanka. Through a review of literature, the report looks at various fabrics that are internationally developed for competitive racing to discern modern standards and trends. The empirical data is gathered through in-depth interviews with key informants from the local motorsport arena to analyze issues faced by them with regard to their safety and comfort when selecting racing gear. Solutions for enhancing the fabrication of the gear while minimizing the problems faced. Through a SWOT analysis the study finds that it would be possible to locally produce affordable motorsport gear within reasonable parameters.

*Keywords: Motorsports, safety, comfort, affordable, enhancing, fabrication.*

## DESIGN AND IMPLEMENTATION OF 3D VIRTUAL SCENE DISPLAY OF BAIKU-YAO COSTUME

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### **ABSTRACT**

The BaiKu -yao nationality is a long-term mountain ethnic group living in the mountains, Years of living a life of slash-and-burn, but she inherited a wisp in the long history of Chinese culture---Baikuyao costume. Through the design of the style, color and pattern of the dress, the people integrate their aesthetic standards, outlooks on life, moral values and ecological view into the costumes. Obviously, BaiKu-yao costume has irreplaceable cultural value and educational value. For further inheritance of BaiKu-yao costume culture, in this paper, the data collection and arrangement of the BaiKu-yao clothing had been carried on. To form a model database by the means of 3D dress simulated by the three-dimensional virtual display technology, the 3D garment, pattern model imported to Unity3d software, and establish a comprehensive viewing platform by using C language and Java Script scripting language, as well as we can select the BaiKu-yao costume patterns freely in the ornamental platform for dress collocation show, which can roam in the scene interactivity. As an example, the user could watch patterns corresponding to the story through the mobile phone identification to the dress pattern, both realistic and interesting, which greatly improves the study of BaiKu-yao minority costumes and the efficiency of popularization, and has the profound significance to the national costume culture dissemination and education. Digital display design with strong interactivity and comprehensiveness brings people a unique presentation of the scene, so that this new method to display has been received and loved by the public.

*Key words: The BaiKu -yao nationality; national costume; 3D dress; digital display design*

# TRACING THE HERITAGE OF SOUTHEAST ASIA THROUGH WEARABLE TECHNOLOGY

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## **ABSTRACT**

The aim of this paper is to find meaningful connection and relationship between tradition and innovation and to demonstrate their functional implementation in the wearable technology applications. While developing new field of smart textiles, this paper stresses the importance of learning from traditional crafts and the value of craftsmanship. Exploration and use of the traditional textile motifs or ornamental pieces popular in traditional dance found in Southeast Asia are the input for a discussion about the role of craftsmanship and skills in developing materials with interactive properties that is held with relation to the possibilities for societal sustainability. Translation of traditional textile structures to digital code using biological data to make 3D printed textiles is discussed in this paper. The relationship of the behavior of that printed textile unit and what kind of functionality we want to enable inside our clothes is also examined.

*Keywords: Textile, Cultural value, Biological data, cells, bacteria, 3D printed textiles, Textile code,*

## THE ERGONOMIC FACTORS: A STUDY ON ACTIVE WEAR

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### **ABSTRACT**

Ergonomics requisites are of particular importance in the design and development of active wear. Ergonomics in clothing is interpreted as the consideration of comfort and performance factors in clothing made for a specific end user requirement. Although active wear has been introduced in a global context, their functionality within customized circumstances, appropriateness in geographical and climatic contexts has been an insufficiently explored aspect. Thus, the focus of this study is to identify the influence of ergonomic factors on active wear in the Sri Lankan context. In order to identify the factors that need to be considered when designing active wear for the Sri Lankan market, this research was conducted on the joggers in the urban population of Sri Lanka. A questionnaire survey was carried out among working professionals aged between 20-40 years to understand the current level of consideration of ergonomic factors among users of active wear, particularly jogging, in the local context. A statistical data analysis process was used to analyze the gathered data. The analysis yielded varying results with certain ergonomic factors such as fit of the garment, weight of the clothing being considered as significant while the functional features of the fabrics used and the items of clothing worn being somewhat inappropriate in the environmental context. Particular attention should be given in the future to develop novel fabrics and innovative constructions that are compatible with the environmental conditions. This will be an essential support for designers and product developers to gain an understanding on special ergonomic factors that need to be considered when designing active wear (jogging clothing) for the Sri Lankan context.

*Key words- ergonomic factors, clothing, and active wear, Sri Lankan context,*

## ANALYSIS AND DESIGN OF FUTURISM FASHION

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### **ABSTRACT**

Traditional futurism fashion, usually with geometric or streamline profile characterization of its science and technology elements, are seeking innovation structure breakthrough. At the same time, the distinct personality of the high-tech materials is used to make the form more diverse and more unique appearance. The popularity of the global environmental protection, low carbon life concept, futuristic clothing is no longer just focus on the subject of science and technology, industry and space, and more focused on human survival environment, focus on the thinking about the future of the environment, typical and high research value. In our research, using technology perfectly to interpret the futurism style of fashion design, we will make a functional fashion design as an example, which can change temperature under the influence of the independent environment. In the concept of time and space, combining with TPO design principle, it will make the wearer feel both external models of the future feeling, also will realize comfort from the science and technology. Adding PEG (polyethylene glycol) and other compound processing of cotton and polyester cotton blended fabric on the mezzanine, the functional fashion design can store heat when the temperature rise and release heat when the temperature reduce, which makes the dress more energy-saving, environmental protection and comfortable in the future.

*Keywords: Futurism fashion, Heat storage, Heat releasing*

# INVESTIGATION ON PATTERN OF CHINA MIAO SPLIT LINE STITCH AND ITS INNOVATIVE APPLICATION IN FASHION DESIGN

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## **ABSTRACT**

Miao Split Line Stitch craft in China southeast is one of the most famous special one in multiple miao embroidery. It's one of China's ancient national art and well known for its exquisite embroidery skill/delicate screen and pattern formation, while, it is always lack of investigation and research compared with it's history. Through the investigation in Taijiang country of Guizhou in China, this paper starts from the pattern of Split Line Stitch, analyzes and summarizes the artistic characteristics such as visual impression/features and color matching, and then through restructure the pattern lines and color combination by refer to other arts such as Pop and Trompe L'oeil, in order to use this traditional pattern in fashion design through a new exterior, rediscovery this national art and achieve its value reproduction. At the same time, we can be inspired from this way to find a mode to use traditional pattern into fashion design in a quick way.

*Keywords: Miao Split Line Stitch, Pattern, Restructure, Fashion design*

## THINKING OUT OF THE BLOCKS – JOURNEY OF BLOCK PRINTING FROM TABLE TO LABELS

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### **ABSTRACT**

Block-printing of Sangner and Bagru are treasured as the heritage crafts of India. Indian crafts have survived and sustained for generations of craftsmen, however lately with the influence of patronage and culture diminishing the sustainability of most crafts is in doubt. Block-printing from Jaipur, contrary to the general trend towards obsolescence is increasing its value and popularity. Today it has found a reasonable market share in the competitive and fast moving retail sector. The evolution of block-printing from modest printing tables of the chhipas (community that practices this craft) to the racks of successful and renowned brands/labels that have an enormous national and international presence, is a case study in itself. The essential factor that literally turned the tables of fortune for this craft has been the intervention of new age patrons who have scripted a success story. This paper intends to build a narrative of Block-printings's journey through the role of designers and labels such as Fab India, Anokhi, Killol, Ratan Textiles, Rasa, Puja Arya, Gitto and Suvasa. The methodology for the paper is inquiry based descriptive interviews of designers, brand owners and artisans. This case study of transformation from a modest craft to a retail brand focusses on its evolution, critical factors involved, key influencers and the road ahead.

*Keywords: Craft, design intervention, block printing*



## COLOUR AND THE CULTURAL DRESS: THE CASE OF KANDYAN KINGDOM OF SRI LANKA

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### **ABSTRACT**

Sri Lanka is situated at the southern tip of the Indian peninsula which processes over 2500 years of culture and tradition. Perception of colour of dress has been derived through inherited values, norms and customs. Therefore, colour, dress and culture have been interwoven into the lives of the people. Fashion designing, the essential component that plays a vital role in apparel industry in present, deserves a careful and comprehensive study. Creating new fashions is the key to the product development in the industry. A new creation would not simply incubate unless it conforms to some underlying concepts. The objective of this research is to discuss cultural explanations for how people perceived colour and its affective meanings in dress. The selected study setting of the research is the Kandyan era of Sri Lanka (16th Century AD to 1815) where traditional perception of colour has been changed with the influences of foreign cultures. The Kandyan era has been continued with a living culture to present day since then. The research was carried out by studying folklore, wall paintings, original dresses which depict the dress of the era, sketches of foreign diplomats, relevant to the subject. According to the cultural exploration on colour perception, it was found that people perceived colour in a common way although there were some differences in perception at individual level. As a community people had common perception of values and norms of certain colour and that was cleared through common ceremonies like temple, funeral and marriage ceremonies. Perception of colour is unique to individual cultures.

*Keywords: Colour, culture, foreign influences, Dress, The Kandyan era.*

**DEVELOPMENT OF TECHNOLOGY TO PRODUCE SEAMLESS JUTE CARRY BAGS USING  
MODIFIED POWER LOOMAN EFFORT TO HELP JUTE WEAVERS TO PRODUCE VARIETY OF  
SEAMLESS JUTE CARRY BAGS WITH INCREASED PRODUCTIVITY**

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**ABSTRACT**

Objectives of the project:

To modify power loom to produce seam less leno jute bags, To modify power loom to double plush loom for producing low cost jute carry bags

To popularize jute carry bags by organizing workshops/seminars

To help jute industry by providing them technological support Strategy:

To reduce cost by selecting appropriate construction parameters without sacrificing quality requirements

To reduce conversion cost by

Doubling productivity – Double plush loom

Eliminate cutting process and minimizing stitching

Issues to be addressed prior to commercialization/Future action plan. The modified looms need to be examined for ease of operation and acceptability by the shop-floor personnel; At different regions test runs may be conducted by installing at least 4 to 6 looms in each locality / factory for fine tuning cost of production; Standardization / specifications of the bags for different varieties of goods/items to be carried out' As ban on plastics is not effectively implemented all across the country, acceptability/affordability depends on regions/localities. So acceptability of these jute bags has to be studied at various regions/localities

## SHARING THE PASSION FOR STITCH BY CREATING A NEW SPECIES OF ECO-DOLL

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### **ABSTRACT**

The basis of this project was to design a soft doll suitable for both artisan and mass commercial production methods, using sustainable practices and materials throughout the manufacturing process. Materials used were the natural fibres of cotton, cotton velvet, waxed cotton, silk and wool. Because this could be artisan produced, a decision was made to use only a domestic sewing machine to trial fabric manipulation, stitching, embellishment, embroidery and top stitching. Some hand-stitching was also used. These methods can be adapted for commercial production. The overall approach was to create a doll appealing to the increasing market demands of full provenance and transparency in production methods that fulfils the niche for an eco-doll that embraces cultural diversity and inclusivity by using unusual cross-species hybrid concepts, initially a cactus/human fusion with sea-creature facial features. The dolls will be gender neutral enabling the owner to develop the dolls persona fully from their own imagination. On completion it was found that the doll exceeded expectations by: appealing strongly not only to the target market of children aged up to 10 years, but also to the 18-25 age group; by inspiring a further range of hybrid dolls alongside a children's clothing and textile brand that is able to challenge the current heavily gendered stereotyping in children's products; by supporting the learning and development of traditional sewing skills; and by having potential for merchandising beyond textiles enabling accessibility to the brand from any entry point from budget to luxury.

*Keywords: sewing skills, cultural diversity, children's textiles, dolls*

**REFORMS IN CLOTHING FOR THE 21ST CENTURY TWEEN DUE TO THE PARADIGM SHIFT IN  
LIFESTYLE- AN INTEGRAL DESIGN APPROACH**

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***ABSTRACT***

This paper presents an insight to the various literary works referring to the definition of “twens”, with a focus on the aspects affecting the tween’s behavior. The paper would put forth various issues related to tween’s growth pattern, their choices and preferences and would also analyses the need to meet these preferences in clothing. Integral Design is a systemic approach where the solution is a part of the system and not on the surface. As the tweens reflect tomorrow’s society, this paper attempts to go deep into the system to widen the scope of inquiry and thus widen the scope of suggestive reforms in this direction.

*Keywords: tweens, behavior, consumer, self-perception, integral design*

## COLOUR DISCOURSES: FASHION TRADITION OF SRI LANKA

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### **ABSTRACT**

Discourses of colors have often been addressed by culture and tradition of a particular country. Furthermore complex ideological systems also have been represented by discourses of colour. The research focuses on identifying codified language of colours used in fashions during the 15<sup>th</sup> Century Sri Lankan with a view to exploring its field of intellectual enquiry and of social practice by the royalties aiming to novel insights for fashion creators who do new collection for the upcoming seasons. According to the trickle-down theory of George Simmel, fashion created by the royalties. In this study colour is concerned as producing a number of aesthetic representations which are contextualized historically, qualities associated with colours are examined in terms of interrelationship between historical, cultural and stylistic factors found in poetical literature, manual texts and published literature. Validity of data was concerned by utilizing triangulating method. The research design is based on qualitative research method followed by inductive method. The term discourse used in this research is not defined any post modernism or Foucauldian sense. It is primarily linked to notions of ideology or power, but defined in a far more general sense. The research reveals that white colour played a pivotal role in royal fashion line of the era placed in a specific context as exchange of ideas and creating meanings of these visual texts (fashion dresses) are defined by cultural and historical contexts firmly.

*Keywords: Kotte Era, Colour, Royal Dress, Ideology, Tradition*

## EXPLORATION OF NEWER NATURAL DYES TO SRI LANKAN TEXTILE INDUSTRY

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### **ABSTRACT**

With the revival of natural dye usage in the world as a solution to the enhanced environmental pollution arising out of the wet processing of textile industry, an upsurge in interest in natural dyes has been manifested in many areas including reconstruction of ancient and traditional dyeing technologies and chemical characterisation of colourants in flora and fauna. (Anon, 1998; Howes, 1953). Therefore the use of waste materials as a resource for dye extraction would be beneficial to the environment in many ways. In an overall view, such a natural dyeing application provides eco friendly dyestuffs and dyed textile products leading to the conservation of environmental and human health. Such an application also may minimise the environmental pollution arising in the synthesis and usage of synthetic dyes. Another advantage of using a natural dye obtained from a bio resource categorised as a 'waste', is that it reduces the accumulation of waste materials in the environment by reuse of them leading to a cleaner and healthier environment while saving the cost of handling and discharging the wastes. It is with this intention that the explorations of newer plant species for natural dyes were tried. There is no doubt that the use of natural dyes on a commercial scale is gradually increasing. There is no difficulty in accepting the challenge of retailer selling merchandise dyed or printed with natural dyes (Horrocks, 1996). The scope of this part of the study was to extract or develop new natural dye yielding materials from available plant sources in Sri Lanka and to investigate their suitability as textile dyes, based on the colour fastness properties. High emphasis was given to the selection of waste materials as sources of extraction or development as potential textile dye yielding bio-materials. The aim of this work is to show the feasibility of producing high quality natural dyes creating new opportunities for both farmers and the fabric / garment industry –in line with the current consumer trends towards eco-friendly natural products. In this research 'environmental and economical' factors too need to be considered to make the study viable. This paper includes the colour catalogue of swatches generated and detailed analysis of selected 10 best possible colour yielding bio-materials in Sri Lanka.

## **FACTORS THAT CONTRIBUTE TO DISAGREEMENTS DUE TO VARIATIONS IN COLOUR OBSERVERS' DECISIONS IN VISUAL COLOUR ASSESSMENT IN TEXTILE INDUSTRY**

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### ***ABSTRACT***

Colour assessment is a process where the colour of a manufactured textile is validated against the same of a pre-defined product for acceptance purposes. Therefore, colour assessment is identified as a quality assurance technique. A growing dialogue has been in focus on the reliability of the visual colour assessment through manual, people dependent techniques and its appropriateness for today's context. To meet today's demand, digital colour management processes have been developed and many manufacturers believe that these techniques have enhanced reliability and the level of acceptance and thus identified as a way for brands to achieve strategic advantages. Nevertheless, many textile and garment manufacturers have become reluctant to switch to digital colour management systems because they still believe in traditional practices. Therefore, this study focuses on the accuracy and reliability of traditional visual colour assessment process. Visual colour decisions are made by both highly trained colourists in the industry and colour assessors who often have little or no colour assessment training. A carefully constructed questionnaire was the key in the methodology of this study. The general information of the participants mainly consisted of their knowledge, readiness to adhere to standard operating procedures, use of equipment, having colour vision tests etc. The results were statistically analysed and graphically represented to identify factors that significantly contribute to different colour decisions and disagreements i.e. customer understanding, colouristic experience of supplier and colour vision protocol. The study concluded with recommendations to colour assessors who are relying on conventional colour assessment techniques on how variations and disagreements can be reduced.

*Keywords: Visual Colour Assessment, Colour Management, Colour Decision*

## THE APPLICATION OF PORTABILITY PLANT LANDSCAPE IN CLOTHING DESIGN

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### **ABSTRACT**

This paper proposed plant clothing eco-friendly design concept, environmental protection and sustainable development as the perspective, through the miniature plant landscape in the use of clothing components, making the concept of environmental protection intuitively reflected in the costume design. These micro algae seed growing environment can be determined by the methods of experiments, including setting the selection of fabrics, temperature and humidity to ensure that seaweed can grow plants from the cultivation of the fabric out and let the plant formed a natural fabric recycling, enhanced clothing fashionable. Then, the landscape design of the cultivation of the plant fabric can be connected with different shape and clothing ontology. Meanwhile, according to ergonomic principles and clothing components removable design concept, the wearer can switch to a different shape of the plant through its own fabric to match the needs of different styles of clothing, in order to achieve the purpose of portability plant landscape. This study not only created a modern fashion crowd creative way of dressing, but also the clothing itself has a small ecological system to achieve sustainable development. This is also the new design direction in the field of fashion design.

*Keywords: Portability, Plant Landscape, Clothing Design*



# EXAMINATION OF COLOURFASTNESS FAILURE OF CASUALWEAR TO CHLORINATED WATER

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## **ABSTRACT**

The colorfastness testing for chlorinated water is well established for swimwear. But it has now become increasingly more important to also test a wider range of casual wear type garments, as tap water can contain higher ppm chlorine and detergents for domestic washing contain oxidation agents. Casual wear and swimwear made of cotton and/or polyamide which are dyed or printed can be sensitive to high chlorine content in water and laundry wash liquors. Hence it is essential to confirm the fastness to chlorinated water of these products. Chemical suppliers can provide a range of specific single dyes that can achieve a range of colors (hue and brightness) which are fastness to chlorinated water. However, if a dye is not available for the required color, a dye house needs to formulate a new recipe using the trichromatic RYB color model. It was found that the majority of cotton casualwear dyed using a combination RYB dye recipe to achieve a good matching shade, were not resistant to chlorinated water. This paper shares insight and outcome of number of dyeing case studies and summarizes the outcomes and gives conclusions

*Keywords: Colorfastness testing, chlorinated water, oxidation agents.*

# DEVELOPING A TEXTILE COLOUR RANGE BY USING SKIN HEALTH BOOSTING NATURAL HERBS

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## **ABSTRACT**

Many people are struggling with skin related disorders which were caused by the fabrics of their daily clothing. The chemicals used in fabric manufacturing and finishing processes as well as fiber types have identified as major causative agents for these skin diseases. Natural dyeing is one of alternatives to overcome this issue but it is having limited colour range and some of the dye materials are having lack of strength to add medicinal values to the fabric. They can just act as colour agents. This study is an introductory level approach to see the feasibility to produce colour range by using pure herbs which are using to cure skin diseases in eastern medicine culture. Eastern medicine text books were referred and filtered six major potential herbal mixtures which are directly using to boost skin health. Special recipe was used to conduct the trials hence different concentrations; 3, 6, 9, 12 and 15g/l of copper sulfate and aluminum sulfate have being used as fixing agent. Each mixture gave different types of colours; black, brown, red, and green while the variety of concentrations of fixing agents gave different shades in each colour. The depth of the colour was increased from low concentration to high concentration of fixing agents. Fabrics were tested under colour fastness to wash test ISO – 165-CO1:1987 and found acceptable durability.

*Keywords: Natural Dyeing, Herbals, Skin Health, Textile colour range*

## A SUSTAINABLE MOVEMENT THROUGH SLOW FASHION; “KHADI CLOTH AND BEYOND”

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### **ABSTRACT**

India holds many crucial challenges for the global fashion industry with changing geography of production, falling prices and intrinsic values, climate and demographic changes, new technologies, and paradigm shifting the global economy. Future fashion trends over the next 20 years would bring unprecedented scenarios with innovative business, understanding of new consumers, and changing role of fashion industry with focus on sustainable manufacturing on apparel/fashion/lifestyle products. For example, sustainable development of “fibre to fashion” chain must reduce damage and stress to the environment and improve the live hoods and welfare of communities. The definition of the fashion industry today goes beyond simple clothing to express identity, the apparel and fashion provide a sense of wellbeing, advance creativity and connect global communities; the flip side of large scale of global fashion revolution has been characterized at its worst by factories exploiting workers (including child labour), generating throw away fashions, wasting and polluting resources and encouraging unsustainable consumption. The future of fashion is likely to be dramatically different from today. It is intended to be plausible, coherent, challenging descriptions of possible future worlds. Sustainable fashion will move as core element to inspire companies rooted in innovating the future to help plan “better future.” The fashion industry can play a vital role in delivering sustainable development. Not only does it create jobs and contribute to the economy, it also has a huge influence over society and the economy through its marketing, regular customer transactions and complex, globalized supply chains. The industry has already demonstrated and impressive capacity to adapt and create space for change. People will always need cloths and want to express themselves, their identity through what they wear. If industry can harness collective energy, adaptability and capacity for innovation, it can play an important role in creating a sustainable, fair and low-carbon footprint world. As consumers, have become increasingly aware of how their food is produced, demand has grown for healthy food, fair-trade and organic products. There would be similar trends in the fashion world as well where consumer opinion is arguably more important.

*Keywords: Khadi fabric, sustainability, slow fashion*

# INVESTIGATION OF CONSUMER ATTITUDES TOWARDS UP-CYCLING FASHION IN

## SRI LANKA

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### **ABSTRACT**

Increase of the production of clothing and fabric highly affected on the amount of wastages. As a healing method, Up Cycling fashion has emerged to reduce the wastage and to control the negative impact which occurs towards environment. This method is vastly expanded and established internationally, but yet, it is still emerging in Sri Lankan context with less aware of people around. Narrow mentality of certain Sri Lankan consumers towards up-cycling fashion is the main reason behind this as they nervous to purchase goods called “Up-Cycled”. As the main objective in this study is to identify the consumer’s attitudes and awareness towards Up Cycling fashion, I have used both Primary and Secondary research methods to fulfill my target sub objectives too. Sri Lankan’s attitudes are not positive with the concept. Most of them are price conscious and do not think of the better side of this concept. Hence, this study leads to identify the attitude and awareness of consumers and the future plans of retails to let more people to aware on this.

*Key Words: Sustainable fashion, Up-Cycling fashion,*

## FACTORS AFFECTING CLOTHING PREFERENCES OF COLLEGE GOING GIRLS

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### **ABSTRACT**

Selection of clothes by an individual is a complex phenomenon affected by personal, social and psychological factors. How each of these factors affects clothing selection of an individual depends upon age, sex and socio economic status to name a few. Present paper examines the factors that affect the choice of clothes of college going girl students of university of Delhi. In the first phase of the study, that was exploratory in nature, 12 focus group discussions were carried out on 114 girl students enrolled in university of Delhi. This helped to identify the main factors that affect their clothing decisions. Based on findings of first phase, a 54 item, five point likert scale questionnaire was developed with the help of standardized scales, during the second phase of the study. It was pretested on 50 respondents. Data was collected from 253 college going students. All questionnaires were personally administered. During last phase of the study, reliability of each part of the questionnaire was checked using Cronbach's alpha, value for which was higher than .6 for most parts. Principal component analysis was carried out to find the factors that affect clothing preferences of college going girls. It was found out that choice of clothes mainly depends upon: fashion innovativeness, leadership qualities, influence of peers & information seeking behavior etc. It also emerged that girls who are innovators in fashion, influence others for clothing selection.

*Keywords: clothes, selection, college-going, girls*

## NEED RECOGNITION TO IMPROVE THE FUNCTIONALITY OF MATERNITY WEAR TO FIT THE NEEDS OF PREGNANCY

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### **ABSTRACT**

This research is targeted to recognize the need of functional maternity wear to fit the needs of pregnant mothers. This is a qualitative research based on individual views and thoughts of pregnant mothers and physicians filtered through discussions and interviews. Random pregnant mothers, doctors, nursing officers and midwives are interviewed to recognize the problems faced by pregnant mother and the need for functional maternity wear. The technological advancements in the fashion and clothing industry are identified by interviewing textile experts, observational research and secondary sources. The findings are cross referred to find solutions for pregnancy problems through fashion and clothing technology. And the suggested solutions are subjected for criticism by the maternity wear consumers and medical professionals. The final conclusion proves that among pregnant mothers there exists a selective approach towards a change in maternity wear in functional method and that among medical professionals there exist a positive approach towards a change in maternity wear in functional method.

*Keywords: Maternity, Functional, Textile, Fashion*

## VALUE ADDED ‘EDGE FINISHING TECHNIQUES’: A STUDY OF THE SRI LANKAN MARKET

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### **ABSTRACT**

The objectives of this study are twofold. The first objective of the study was to compare the globally available techniques for edge finishing of apparels with the edge finishing techniques available in the Sri Lankan market. This operation is usually performed in order to add value to apparels intended for the premium market. The supplementary objective was to identify the factors that determine the quality of edge finishing in the Sri Lankan context. Careful observation was made of photos of edge finishes taken in the USA & UK, representing the global premium level brands. The edge finishing of apparels at premium level fashion stores in Sri Lanka was also scrutinized carefully in order to accomplish the first objective of the study. A series of interviews with Sri Lankan apparel designers provided the data for the second objective of the study. Data were systematically evaluated using statistical and logical (thematic analysis) techniques. It became apparent that only the “serged seam” technique was popular in Sri Lanka by far since it was easy to perform with a simple machine attachment. Even other edge seams which could have been used in garments without much additional cost being incurred have not been used in the Sri Lankan premium quality apparel market. It was also concluded that the attitude of Sri Lankan designers in the matter of edge finishing of the garments reflected apathy and a lack of awareness. Low purchasing power of Sri Lankan customers, lack of industrial technology, lack of skilled labour and poor knowledge were among the factors that limited the exploration and adoption of value added edge finishing techniques for apparels in the Sri Lankan market. This study will be of significance to the designers and technologists in Sri Lanka as it will help them to gain an understanding of not only the globally available edge finishing techniques but also of the importance of keeping pace with modern edge finishing technology to provide good quality garments to the Sri Lankan consumers.

*Key words: edge finishing, value added edge finishing, apparels, Sri Lankan market*

*Abbreviations: SL- Sri Lanka, UK - United Kingdom, USA- United State of America*

# DRAPING REALIZATION METHOD OF THE GARMENT STRUCTURE BASED ON FUZZY ORIENTATION

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## **ABSTRACT**

This essay breaks through the evolution of the design theory and the curing thought influenced by the logic control to the draping, which is based on the theory of design principles. The implementation of the development process in the draping is divided into three stages: the first stage is the traditional draping programming; the second stage is that the cross application from modern draping to multi discipline; the third stage is the application of reverse thinking in the creation of draping. By comparing the creative draping design idea with traditional draping and modern draping, this article summarizes the whole thought process of reverse design of creative draping. Based on that, it combine with the steady development trend of chinese arts and cultural industries, and the garment has pivotal position to convey the aesthetic value of the art works of film and television drama, it can highlight the research value on draping realization method of the garment structure based on fuzzy orientation. It is to highlight the idea of draping in the fuzzy garment structure, and model the importance of thinking innovation in shaping fashion modelling. Meanwhile, using the fuzzy to clear and fuzzy interactive design thinking improve the draping realization method. Based on that, the paper illustrates the fuzzy orientation draping design example, to make further analysis about it. That can expand the designer's new understanding in the shape of clothing space, to extend garment design new thinking.

*Keywords: Fuzzy oriented garment structure; Draping; Non-human prototype; Design diversity*



**SIMONS BUSINESS CASE STUDY: PROMOTING SUSTAINABILITY AND BRAND LONGEVITY  
WITH UPSCALE BRANDS**

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***ABSTRACT***

Have advancements in the production of fibers produced a dramatic change in the consumer perception of major luxury brands and retail chains? While increasing numbers of brands are becoming concerned with sustainability and the production of eco-conscious products, successful fashion brands are seeking new and innovative ways to distinguish themselves from the competition. Consumers continue to demand merchandise that meets or surpasses high standards of quality workmanship, while seeking shopping experiences that are exciting, fulfilling and unique. The media and multiple online digital platforms continue to provide multiple lenses for the customer to perceive a fashion brand in relation to their values, brand, and brand identity in the marketplace. While many brands receive attention in the online space, brands face the problem of competition with an influx of thousands of fashion brands; both brick and mortar and e-commerce platforms compete for fashion consumption. While environmentalists intend to further trajectories of consumption concerning environmental brands, numerous studies have proven that while ethical fashion is a concern for consumers, consumers still have an increased demand for novelty and unique shopping experiences – which certain brands interpret as a demand for a faster fashion cycle. To keep up with this demand, brands present new merchandise appears on the shelves faster and with some retailers, this happens as often as every three weeks. Nonetheless, Simons has managed to offer a unique and exciting fashion experience while maintaining a mandate to preserve environmental sustainability and providing customers with classic and contemporary fashions for more than 170 years.

*Keywords: sustainability, brand longevity, fibers, shopping experiences, retail*

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