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LiveStylz Magazine

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LiveStylz

EDITORIAL BOARD

Front Cover was designed by S.LOGESWARAN II B.Sc. CDF

CONTENTS

ZIPPERS MADE FROM RECYCLED BOTTLE

- Yoshida Kogyo Kabushikikaisha (YKK), the world's foremost zipper manufacturer is tackling the plastic waste issue with materially recycled NATULON zippers which has saved millions of plastic bottles from landfills in the past five years.
- This is just one of the many environmentally friendly products.
- NATULON zippers are resources-conserving, recycling-oriented products made from PET bottles, old fibres and other polyester remnants.
- 10,000 NATULON zippers of 60 cm length recycle approximately 3600 plastic bottles(29 g / bottles). The materially recycled zippers are Bluesign certified.
- The collection also features GreenRise zippers, the first in the industry to use plant based plastic, which contributes to the prevention of global warming by reducing fossil resources consumptions.

  Courtesy: www.textileworld.com

S.MALINI
II B.Sc. CDF

SUSTAINABLE TEXTILE INNOVATIONS

1. HEMP FIBERS

One of the most versatile natural fibers can be obtained from hemp, which is antibacterial, durable and resilient and work as a natural air – conditioning system

2. COFFEE GROUND FIBRES

The yarn is multifunctional and can be used in variety of products from outdoor and sports performance wear to household items used every day. It offers excellent natural anti-odour qualities, in addition to UV ray protection and a quick drying time.

3. PINEAPPLE FABRIC

Although the idea may sound unbelievable, there is a vegan alternative to leather, which is made from pineapple leaves. The revolutionary pineapple fabric is made from pineapple leaf fibres, a by- product from the pineapple harvest in the Philippines.

4. BANANA FIBERS

Banana fiber is one of the world's strongest natural fibres. It is made from the stem of the banana tree and is incredibly durable and biodegradable. The fibre consists of thick- walled cell tissue, bonded together by natural gums and is mainly composed of cellulose, hemicelluloses and lignin. Banana fiber is similar to natural bamboo fiber, but its spinnability, fineness and tensile strength are said to be better.

5. LOTUS FIBER

Using lotus fabric and textile may sound exotic to western ears, but in countries like Thailand and Myanmar, for example, lotus fibers have been used for special garments for centuries. Not surprisingly because the manufacturing process produces a luxurious fabric that feels like a mixture of silks and raw linen that is also stain-resistant, light, weight, soft, silky and extremely breathable.

Courtesy : https//www.fashionunited.com

K.KAAVIYA SREE
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HOW FASHION RULES THE WORLD

- In the 21st century, the style trends of the fashion industry dominate the world more than they ever did and control not only the way people dress but also trends in home ware designs, makeup fashion and people's overall attitudes.
- In the 60s flower power did not only mean flares and tunics, it summed up the whole attitude of a generation, and this is even more prominent today.
- Now a days, fashion is bold and daring, and this reflects a generation that is not afraid to say what they think, or wear what they want.
- Trends in fashion unify women and men around the world, yet they still allow people the ability to portray their own individual style at the same time.
- A period of time portrayed in a picture can be identified immediately just by the style of clothes the people are wearing, and this sums up just how powerful and all encompassing fashion is.
- Fashion can change from one second to next, but what never changes is the hold it has over society, and the role it plays in the modern world.
- Fashion is so important that whole magazines are dedicated to it, TV programs dedicate hours of transmission time to the subject, and people discuss it between their friends continually.

Courtesy : https://www.Fibre2fashion.com

P. GOKUL
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EXPENSIVE FABRIC MATERIALS

Expensive fabric materials such as silk, wool, linen, fur, velvet, cotton etc. are must haves in the closet not only because of the design and comfort but also its quality. Let us have look at the most expensive fabric materials.

Wool: The most expensive wool of the world comes from Vucana sheep, the national animal of Peru. The wool from vucana is the most expensive wool on the world because the sheep can only be

shorn every three years. The fabric can be used for apparel and home décor. The vucana wool range from $1,800 to $3,000 per yard, so a scarf will cost around $20,000! Cashmere wool is another expensive wool fabric.

Silk: Mulberry silk, Muga silk, Velvet and Chartreuse silk are the most famous and royal silk fabrics. Mulberry silk is the finest and soft silk which is the most expensive silk fabric in the world!

Fur: This is the oldest fabric worn since ages. Fur clothes are considered as one of the most luxurious apparel fabrics in the world. The soft animal fur is used to make clothes, home décor items and accessories is the most expensive fur fabric.

Linen: It is another expensive fabric which differs in quality and style! It is expensive because it is woven and the fabric is produced by growing flax plants. The quality of linen depends on the plant. Linen is a preferred fabric because it is moth resistant, light and can dry easily.

Courtesy: https//www.boldsky.com

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TEXTILE DYEING

COTTON:

Dyeing: warm temperature, long process time, requires addition of large amounts of salt and alkali fixatives

Dye fixation: poor,75%

Washing: Long, energy and water intensive process using multiple baths, with at least one at boiling temperature.

POLYESTER:

Dyeing: Hot temperature, short process time, no fixatives required

Dye fixation: Good,99% or more

Washing: shorter process requiring less energy, water, and chemicals than cotton. Uses alkali and chemical reducing agent.

VISCOSE RAYON:

Dyeing: warm temperature, long process time, requires less salt and alkali than cotton

Dye fixation: Fair,85-90%

Washing: similar to cotton but shorter process, possibly due to less unfixed dye to be removed.

WOOL:

Dyeing: Warm temperature, simple process

Dye fixation: Good, 95% or more

Washing: Generally a relatively simple wash-off procedure.

Courtesy : https//www.textileleaner.blogspot.com

S. PRANESH KUMAR
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KNITTED DENIM

- There's still a lot of love for the classic 3x1 kind of denim. It's both right and left handed; heavy and light weighted. What is truly new in weaving is the knitted kind of denim.
- Several of the experts argue that it's actually a 'non-woven' fabric and we're once again challenging the definition of denim, which up until this point has been a woven fabric.
- Knitted denim is very comfortable, but it doesn't have that familiar look of denim which is so important for true denim lovers. The next level of knitted denim is circular knits that are completely seamless.

Courtesy : https://www.denimhunters.com/#

V.GOKUL
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VEOCEL LYOCELL FIBER

- VEOCEL lyocell fibers with eco disperse technology is designed for use in flushable wipes. This new fiber demonstrates enhanced biological performance.
- Versatile and tailor-made for daily care routines, the new veocel lyocell fiber by Lenzing offers optimized flushability and represents the most advanced fiber under the Veocel brand portfolio.
- These cellulosic fibers come in cut lengths of 8mm to 12mm, and are versatile for blending ratios of 20%-40% in most wetlaid processing technologies.
- It is the most sustainable alternatives in the nonwoven industry value chain and meets the various products.
- This fiber offers the value added benefits of enhanced absorbency, natural smoothness and most importantly biodegradability.
- It is produced via sustainable closed loop process where 90% of the solvent used for the production process will be recovered and reused.

- It acts as the blending material for nonwoven products including baby wipes, facial cleansing wipes, flushable wipes, general purpose wipes and intimate wipes.
  Courtesy: https://www.veocel.com

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BLACK IS BEAUTIFUL

ANOK YAIA, a girl from southern Sudan is ranked the most beautiful woman on Earth and the most expensive model. Currently she charges $15,000 for every hour of fashion photography. People who spread racism and discriminate others by colors should open their eyes.

Courtesy:https://hypevirals.com/anok-yai-the-most-expensive-model

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MODERN MEADOW

With lab grown leather, Modern Meadow is engineering a fashion revolution. This innovative company is bringing science fiction to reality by managing to bio-fabricate leather without animals. Through collagen growth, they are able to create leather and modify it for different purposes and quality bases. Their product is completely controlled from DNA to clothing.
Courtesy : https//www.modernmeadow.com

V.GOKUL
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PROMOTING SUSTAINABLE FASHION

- The campaign "SHOW YOUR LABEL 2019" encourages people to wear their clothing inside-out to show its label to see if it bears Fairtrade mark. The Indian branch of Fairtrade is promoting sustainable fashion through initiatives and campaigns.

- The initiative is intended to make people feel more proud of wearing sustainable fashion. The campaign across Bangalore, Mumbai, Kolkata and Goa come up with a number of interactive events in schools.

- Students promoted the show Your Label campaign and wore 100 percent sustainable fair trade uniform T-shirts. Going forward, Fairtrade will deepen engagement to minimize exploitation and maximize positive impact across the entire life-cycle of fashion products.

- Fair trade for instance, aims at reducing the social and environmental costs of cotton production.
  Courtesy: https://in.fashionnetwork.com

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LATEST INNOVATIONS IN TEXTILES AND FASHION

1. Maestley by Teijin

Teijin has managed to present a new high-grade man made leather. Seeking to tackle rising prices on leather, this comes as an option for leather-based apparel – especially footwear due to this fabric‘s high durability.

2. Post-Consumer cotton based jeans by Levi‘s and EVRNU

Jeans giant Levi‘s has joined forces with EVRNU to bring eco-friendly jeans into the market. The trousers are made entirely of regenerated post-consumer cotton waste. This new way of reutilizing waste seeks to ensure the garments’ quality and strength, while being characterized by the 511 classic Levi‘s denomination is certainly a step forward towards a circular economy.

3. Wood Fiber Yarn Technology by Spinnova

From wood to yarn through an innovative process, simplicity is the key word of Spinnova. Avoiding complex chemical processes, this is an important textile in order to improve environmental conditions and reduce the industry‘s impact.

4. Tech infused wearables by Emel+Aris

Heating technology is one of the key trends for 2017 in the realm of textiles and clothing. After collecting more than £100.000 through a Kickstarter campaign, these coats are available to shop online and in physical stores. Their infrared heat energy warms up without any faulty wires, nor does it sacrifices the garment’s aesthetic value. Their slogan sums it up pretty accurately: “whatever the weather, style is never compromised”. Certainly, a high performance in fashion.

Courtesy: www.businessbeyondborders.info

K.VARALAKSHMI
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PATAN PATOLA

- India's most expensive fabric and the most luxurious fabric. This saree costs Rs.2,00,000/- and it took 10 months to be made. The price is not because of a brand or a designer but it’s because of how much work has gone into making it.
- A team of 6 makes 1 patola, weaving takes 1.5 months and designing takes 6 months and in total it takes 7 months for one patola.
- There are only three families in entire India that know the art of designing and weaving a patola. Every patola is perfect. Even a single mistake can ruin the entire design and there are no second chances!
- In a design, if there are two colors over there red and yellow, so if they have to color the thread red, so they will cover everything that will not be red and then dip it into the dye.

- So then everything that is exposed will be red. Then they will repeat the process the opposite way. So they will expose the part that needs to be yellow.
- If it is two colors, then the process repeats 2 times. If it is 4 colors, then the entire process will have to be repeated 4 times.
- The patola is so soft that it passes through a ring. This is 900 old technique. At that time 700 families used to make patola and the king would wear a new patola everyday for Pooja.
- The color of patola don't fade for 300 years.

Courtesy : https://www.patanpatola.com/about-us.html

K.KAAVIYA SREE
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VESTIPHOBIA -THE FEAR OF CLOTHING

CAUSES:

- Traumatic events involving clothing or fabric can lead to vestiphobia. Soldiers and other people with history of working in the military have been known to develop this phobia.
- By associating bullet-proof vests, military boots or other items of clothing with bad experiences, the phobia can be triggered.
- Tight clothing leads to the feeling of claustrophobia, and over a long period of time, leads to vestiphobia. However, there is a little evidence for this and it is suggested that the child's phobia is caused externally by growing up watching their parent(s) suffer from vestiphobia.

SYMPTOMS:

- The symptoms are largely related to panic and anxiety. Each individual in differ depending on the severity of this fear, but most people with Vestiphobia will report shaking, hyperventilating or feeling trapped and out for control and others feeling breathless, dizzy or nauseas.

- For example, excessive sweating one day but then severe shaking on another day.

CURES:

- Hypnotherapy is a common treatment used by many people. Since the fear of clothing can interfere tremendously with day to day life, hyphotherapy can be effective in altering the subconscious to minimize the phobia.
- Doctors will often prescribe medication for patients suffering from vestiphobia although these cause side effects.
- Talking therapy can also be effective in removing some or all of the fear felt by vestiphobia. Although this can take several months, the effects are more permanent then medication.

  Courtesy:https//www.common/phobias.com/vesti/phobia.html

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FIBER FROM PLASTIC BOTTLE

- Carvico ,a leading Italian warp knit and circular knit technology has pioneered the latest environmentally sustainable fabric called Melville with REPREVE, a 100% recycled polyester yarn derived from PET bottles.
- Wastes which make it into fashion, plastic which is turned into fabrics, pollution which bring about new opportunities- this is how Melville, a new recycled fabric made by Carvico from plastic bottles has been engineered, the company said in a press statement.
- Eco-sustainable and innovative, Melville is officially the first recycle P.B.T (polybutylene terephthalate) fabric.

  The process is as follows:
- Recycled bottles to bottle flakes.
- Bottles flakes to Repreve chip.

- Repreve chip to Repreve recycled fiber finally converted to Melville fabric by Carvico.
- It is compact and breathable, Melville is highly UV protective, resistant to sweat and chlorine proof, thus it can be used for competition swimwear.

Courtesy: https://www.carvico.com/en/fabrics/melville/

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MILK FIBER

HISTORY:

- According to Euro flax industries, milk fibre was invented in 1930's in both Italy and America and was called "milk casein".
- Casein was invented way before the1930's. Apparently they've discovered that many churches from the 14th and 15th centuries were painted with casein based paints, the colours are still bright and unfaded even to this day.
- Apparently "milk casein" fibre was used in many clothing and household items in America and Europe during the 1930's and 40's, says Joan Kiplinger of fabrics.net.

- It was substitute for wool, which was needed by men on the front lines.
- The fibre was blended with other natural fibers and known under the brand names of Aralac, Lanatil and Merinova for those of you checking your vintage clothing labels.
- While these brand's fabrics were very similar to wool and co dyed by after crosslinking with citric acid.
- Cross linked casein fibres had tensile strength as high as 110MPa.

CHARACTERISTICS:

- In milk fibre, the natural protein humectants factor is present which makes the skin delicate and smooth.
- It absorbs moisture very well as it is hygroscopic in nature.
- It is antibacterial and antifungal as amino acids are present in the fibre.
- It is glossy and luxurious in appearance, feel and comfort ability, just like silk.
- It is very easy to dye and can be dyed under normal temperature.
- It can be blended well with other different fibers, such as tencel, cotton, bamboo, modal fiber.
- Because of the healthy and bacteriostatic nature of milk fiber, it is being considered as a perfect material for manufacturing of underwear, which can lubricate the skin.
- The milk protein contains the natural humectants factor which can help to maintain the skin moisture, to reduce the wrinkles and to smoothen the skin- which may help to realize the people of taking milk bath.

USES:

- T-shirts
- Underwear
- Sports wear
- Ladies outerwear
- Sweaters

Courtesy: http://www.allthings.bio/making-clothes-milk/

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K.SOUNDARYA
III B.Sc. CDF

ORANGE FIBRE

- Orange Fiber is a textile made by extracting the cellulose from the fibers that are discarded from the industrial pressing and processing of the oranges.
- This innovative idea has the potential to bring sustainability inside the textile industry, tackling the environmental issue of the citrus waste.
- Adriana Santanocito, specialized in design and innovative textile and Enrica Arena, expert in communication and marketing, were students in Milan when they invented Orange fibre.
- Fiber Adriana, for her thesis, was conducting a research on a sustainable and vitamin-enriched textile from citrus waste.
- Enrica, her flatmate at that time, embraced the idea adding to it her communication and marketing expertise.

- The thesis became a project at the Polytechnic of Milan. After the feasibility study, the team patented Orange Fiber. With the financial support of Trentino Sviluppo and the help of two business angels and a lawyer, Orange Fiber officially became an innovative startup based in Catania and Rovereto in February 2014.
- Orange Fiber has special connection with the Sicilian territory. It is not only the place of origin of the two co-founders, but also the location candidate to establish the production of their sustainable textile.
- The citrus sector is suffering and in general the labor market is stagnant, especially for young people. The project potentially can have important positive social and economic effects for the island.
- From an environmental prospective it is not less interesting. Sicily has a massive production of citrus and consequently a production of waste materials from the industry, up to 700 tons per years.
- Orange fiber is offering a solution to the problem of reducing the amount of this materials. So far the idea has won several awards at national and international level such as the UNECE Ideas for Change Award in April 2015.
- Also the future is promising. The possible uses of the fiber are varied and the presence in the market, from cosmetic textile to home textile, until develop their own fashion line, is relevant.
- Orange Fiber has many characteristics to succeed. Great strengths are the innovative and sustainable approach applied to the textile and fashion industry, the respect and valorization of local resources and the internationalization of the products able to spark interest of the biggest fashion brands.

Courtesy:https//www.orangefibre.it/en/how-to-turn-citrus-waste-into-a-sustainable-fabric/

K.VARALAKSHMI
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PANTONE COLOR OF THE YEAR 2019

PANTONE 16-1546 Living Coral

"An animating and life-affirming coral hue with a golden undertone that energizes and enlivens with a softer edge"

- Vibrant, yet mellow PANTONE 16-1546 Living Coral embraces us with warmth and nourishment to provide comfort and buoyancy in our continually shifting environment.
- Sociable and spirited, the engaging nature of PANTONE 16-1546 Living Coral welcomes and encourages lighthearted activity.
- Symbolizing our innate need for optimism and joyful pursuits, PANTONE 16-1546 Living Coral embodies our desire for playful expression.
- PANTONE Living Coral is a nurturing color that appears in our natural surroundings and at the same time, displays a lively presence within social media.
- PANTONE 16-1546 Living Coral emits the desired, familiar, and energizing aspects of color found in nature.
- Lying at the center of our naturally vivid and chromatic ecosystem, PANTONE Living Coral is evocative of how coral reefs provide shelter to a diverse kaleidoscope of color.

ABOUT PANTONE COLOR OF THE YEAR

- The Color of the Year selection process requires thoughtful consideration and trend analysis. To arrive at the selection each year, Pantone's color experts at the Pantone Color Institute comb the world looking for new color influences.

- This can include the entertainment industry and films in production, traveling art collections and new artists, fashion, all areas of design, popular travel destinations, as well as new lifestyles, playstyles, and socio-economic conditions.

- Influences may also stem from new technologies, materials, textures, and effects that impact color, relevant social media platforms and even upcoming sporting events that capture worldwide attention.

Courtesy:https//www.pantone.com/color-intelligence/color-of-the-year/color-of-the-year-2019

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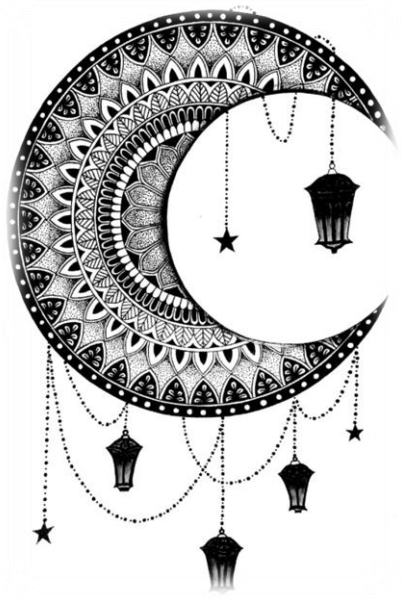

S.SUVETHA
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PINEAPPLE LEATHER.. REALLY?

- One of the first off the mark was ethical and ecological shoe brand *Po-Zu*, which has three Piñatex versions of its popular Ello flats available online.
- This is not leather. Piñatex is its own thing entirely, with a slightly crinkly look, matte finish and felted feel. The shoes are incredibly light – as light as a pineapple leaf, perhaps – and deliver on the promise of softness, pliability and breathability.
- They're something to look forward to wearing, sans socks, all summer long.

- The sensation is probably best compared to wearing classic espadrilles, which the Ello's shape resembles, only more comfortable (thanks to a coconut fibre foot-mattress) and rather incredibly not just suitable for sunny days.
- Despite the felted feel, Piñatex is water-resistant – if not water-repellent – so the shoes will withstand a shower, and dirt can be wiped off with a moist cloth.

Courtesy: https://www.ananas-anam.com

P.PAVITHRA
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IMPORTANCE OF TEXTILE RECYCLING

- Textile recycling is for both, environmental and economic benefits.
- It avoids many polluting energy intensive processes that are used to make textiles from fresh materials.
- Demand is reduced for textile chemicals like dyes and fixing agents.
- The requirement of landfill space is reduced. Textiles lead to many problems in landfill. Synthetic fibers don't decompose. Woolen garments do decompose but produce methane, which contributes to global warming.
- Leads to balance of payments as we buy fewer materials for our requirements.
- As fibers get locally available, they don't have to be transported from abroad thus reducing pollution and saving energy.
- Lesser energy is consumed while processing, as items don't need to be re-dyed or scoured.
- Waste water reduces as it does not have to be thoroughly washed with large volumes of water as it is done for, say, raw wool.
- Pressure on fresh resources too is reduced.

Courtesy: https://textilelearner.blogspot.com

S.PRANESH KUMAR
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SUSTAINABLE TEXTILES

HEMP

- Hemp has been gaining a lot of attention lately and for good reason.
- It's pretty incredible, and is one of the most sustainable natural textiles you can look for in your garments.
- It also is naturally resistant to pests, requires little land to grow, and uses 50% less water than cotton.
- Hemp fabric is made from long fibrous strands that when spun together will create a thread that can be used to weave hemp fabric

TENCEL

- TENCEL is one of the most progressive fibers that are being engineered today.
- The material for TENCEL comes from the eucalyptus tree, which require no harmful pesticides or insecticides to grow.
- Additionally, the process of actual manufacturing the TENCEL yarn is fueled with 100% renewable energy and uses 80% less water.

LINEN

- Linen is made using the entire flax plant and is often combined with cotton to create a fully biodegradable and soft textile.
- Linen is considered to be one of the most eco-friendly textiles that is used today in the making of clothing and bedding.
- Natural plant based fibers that will biodegrade after it is discarded making it a more eco-friendly option.

MODAL

- Last on our list is Modal, an innovative textile that is made from spinning cellulose from the beechwood tree.

- Beechwood trees self-rejuvenate they are considered a sustainable raw material that can be used to create the innovative modal fabric.
- Modal is also 50% more water-absorbent than cotton, and is silky smooth making it a good choice for active wear and undergarment manufacturers.

Courtesy: https:/www.thewellessentials.com

J.SANTHIYA
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PRADA LAUNCHES RE-NYLON PROJECT WITH ECONYL

Reflecting changing times and a shifting world, Prada launches a new project Re-Nylon, introducing a sustainable line of iconic Prada bag silhouettes executed in a unique new regenerated nylon Econyl made by Aquafil.

The product of a partnership between Prada and the textile yarn producer Aquafil, Econyl nylon is obtained through the recycling and purification process of plastic waste. Aquafil brings new purpose to waste materials that would otherwise pollute the world's landfills and oceans. Econyl sustainable yarn is wholly made from waste- including fishnets, fabric scraps, carpet flooring and industrial plastic.

Econyl aims to help reduce the global warming impact of nylon by up to 80% compared with material generated from oil. For everyday 10,000 tons of Econyl raw material, 70,000 barrels of crude oil are saved, and 57,100 tons of CO_2 equivalent emissions are avoided, according to the manufacturer.

Courtesy: https//www.innovationintextiles.com/prada-launches-renylon-project-with-econyl

V.GOKUL
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GREEN SYNTHESIS OF NANOPARTICLES

Novel therapeutic approaches replacing the inefficient antibiotics are in high demand to overcome increasing microbial multidrug resistance. In the recent years, ongoing research has focused on development of nano-scale objects as efficient antimicrobial therapies. Among the various nanoparticles, silver nanoparticles have gained much attention due to their unique antimicrobial properties. However, concerns about the synthesis of these materials such as use of precursor chemicals and toxic solvents, and generation of toxic byproducts have led to a new alternative approach, green synthesis. This eco-friendly technique incorporates use of biological agents, plants or microbial agents as reducing and capping agents. Silver nanoparticles synthesized by green chemistry offer a novel and potential alternative to chemically synthesized nanoparticles. These green synthesized naoparticles have wide spectrum of application in medical textiles.

Courtesy:
https://pubs.rsc.org/en/content/articlelanding/2019/ra/c8ra08982e#!divAbstract

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V.KAVYA
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HOW SPACESUITS ARE MADE?

- Neil Armstrong's much-quoted line: it was one small step for man, one giant leap for mankind.
- Amy Ross, NASA's advanced spacesuit engineer says "We haven't built individual spacesuits, we've built what we call hardware system". If anyone knows the ins and outs of the intricacies required for spacesuit sizing, it's Ross**.**
- She was 19 years old, she's briefly mused over other professions—from becoming a librarian to considering a career as a veterinarian—but she "fell in love with spacesuits" as she have a successful career in space, having flown seven times and conducted nine spacewalks, setting two records for America.
- NASA's system that astronauts use to dress themselves may be simple, but creating a spacesuit is anything but (a pair of gloves can take up to five months to make). From fabric testing to sewing and inspecting, there's a lot of "touch time".
- For Ross, she uses a "more of hands-on, eyes-up type of engineer", thanks to her "eyes up" training as a pilot.

Courtesy:https://www.vogue.co.uk/article/all-female-spacewalk-spacesuit-nasa-designer-amy-ross

P.ABARNA
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PROTEASE ENZYME DEGUMMING

- The enzymes degrade protein fibers on the surface of the fabrics and mechanical action removes the weakened fibers from the surface.As a result the fabric becomes softer and smooth.
- Sericin specific protein was used to degum the silk without causing damage, impact softness and increase dye uptake of about 30%.
- Degummed by alkaline treatment results damage to fibrin and heavy weight loss.
- This helps to improve luster and softness.

- Milder mechanical treatment using enzymatic degumming, the finishing of silk is smoother than the degummed with soap.

TYPES OF PROTEASE ENZYMES:

- Cysteine protease- Papain
- Aspartic protease- Pepsin
- Serine protease- Trypsin
- Metallo or Bacterial protease- Bio-Degummase

Courtesy:
https://pdfs.semanticscholar.org/b0a2/cb465958b3007631e9faaa7214224359bdee.pdf

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NANOSPHERE PLUS

- Swiss company schoeller launches its new finishing technology called “Nanosphere plus”
- The special effect of this new development is protection against fingerprints and greasy stains.
- Even after being absorbed by the fabric stains are quickly and easily wiped away without washing the company reports.
- Unpleasant sebum residues and dirt that are often released by finger and handprints are less absorbed by the fabric and can be easily wiped out.
- The protection against finger and handprint textiles with nano sphere plus are additionally water and oil repellent, abrasion resistant and durable.
- Non-washable textiles that are in indirect contact with the skin benefit most from this new technology.

Courtesy:https://textile-network.com/en/Technical-Textiles/NanoSphere-Plus

M.SANDHIYA
I M.Sc. CDF

TOP 5 MANUFACTURING TRENDS IN FASHION

1**. The Rise of Machine Learning:**

A machine’s ability to learn and adopt intelligent human behavior is not new. Today, these advanced algorithms are transforming the way the manufacturing industry collects information, performs skilled labor and predicts consumer behavior. Some even predict themes in trending paterrns, silhouettes, colours and styles and provide customer sentient around products and runway images.Some are almost taking the place of humans to detect when it’s the right time and product for a brand’s ideal customer.

2. Supply-Chain Optimization:

As people become increasingly "impatient" shortening lead times is key to ensure delivery with optimum timing. This is why many companies have taken a step further and are entire process "in-house" to increase speed and supply chain efficieny. Things like materials sourcing, creative and technical design, samples, production and shipping under the same roof. And for everything to run smoothly all the teams must have real-time flow of information to ensure everyone has access to the same data and the same version of the latest products.

3. Robot Design For The Manufacturing Floor:

Robots have traditionally been ideal to perform tedious, repetitive tasks on the assembly lines in factories. However, the latest advancements have equipped robots with memory and agility making them highly programmable and collaborative. It is not about eliminating positions, but about making smarter workers and also keeping humans safe by replacing them in dangerous situations where robots can do the job.

4. Rapid Data Analysis for Quick Adaption:

Thanks to the Internet and new software brands and factories can receive real-time feedback and alerts companies of defeats or damaged goods helping the save money and eliminate waste, helping deliver adequate products at the perfect time.

5. 3D Design, Printing and Mass customization:

Elsewhere, brands are exploring how 3D printing can help them produce goods on-demand and create new avenues for customization. This has become an increasing need as competitiveness lies more and more in delivering products tailored to the customer's tastes and needs in a speedy and timely manner.

Courtesy: https://www.manufacturingglobal.com

M.MOUNIGA DEVI
III B.Sc. CDF (VOC)

COCONUT WOOL

A relatively recently developed fabric, Coconut wool uses sustainably sourced coconut waste to Produce a "tree-free", soft rayon. Developed as an alternative to wool by the Australian company Nanollose, the first viable garment utilising the "Nullarbor" fibre created in December 2018. Nanollose claims it is the first wearable garment to be made from entirely tree-free rayon. The material is created in a facility where microbes ferment liquid waste product from the food industry including coconuts - to extract cellulose fibres.

Courtesy : https//www.//en.m.wikipedia.org/wiki/coir.com

K.NIVETHA
II B.Sc. (CDF)

FUTURE TRENDS

1) In the upcoming years, there will be the use of several unusual materials that are not being in use today. This will be a revolution of the Textile Industry. For instance substances such as sustainable polyester threads along with organic and environment- friendly materials will be used for manufacturing the garments in fashion.

2) According to the forester survey in 6 countries, more than 20% of fashion consumers were excellent with the smart sensors clipped to clothes while only 15% were in favor of embedded technology in garments. The wearable technology will be available latest by 2050. This technology will help fashion lovers to be able to pick & change the garments color/pattern as per your day's needs and mood. The technology will let the garment to switch the color according to the environment or weather outside.

Courtesy: https://futuretrends.com

B.LAVANYA
I M.Sc. CDF

HISTORY OF KANCHIPURAM SILK SAREES

- According to Hindu mythology, Kanchi silk weavers are the descendants of sage Markanda, the master weaver of Gods who is supposed to have woven tissue from lotus fiber
- Also, while cotton is considered to be favourite fabric of Lord Shiva, silk was preferred by Lord Vishnu

WEAVING:

- The sarees are woven from pure mulberry silk thread
- The pure mulberry silk used in the making of Kanchipuram saris comes from South India and the zari comes from Gujarat
- To weave a kanchipuram sari, three shuttles are used
- While the weaver works on the right side, his aide works on the left side shuttle
- The border color and design are usually quite different from the body
- If the pallu (the hanging end of the sari) has to be woven in a different shade, it is separately woven and then delicately joined to the sari
- The part where the body meets the pallu is often denoted by a zig zag line
- In a genuine kanchipuram silk sari, body and border are woven separately and then interlocked together
- The joint is woven so strongly that even if the sarees tears, the border will not detach.
- This differentiates the kanchipuram silk sarees from the others.

DESIGN:

- Saris are distinguished by their wide contrast borders
- Temple borders, checks, stripes and floral (buttas) are traditional designs found on a kanchipuram sarees
- The pattern and designs in the kanchipuram sarees were inspired with images and scriptures in south India temples or natural features like leaves, birds and animals.

- These are sarees with rich woven pallu showing paintings of Raja Ravi Varma and epics of Mahabharata and Ramayana
- Kanchipuram sarees vary widely in cost depending upon the intricacy of work, colors, pattern, materials used like zari (gold thread) etc.

Courtesy:https://medium.com/@prabhulakshaya/history-of-kanchipuram-silk-sarees-251f44521b7d

K.KAAVYASREE
II M.Sc. CDF

RECYCLED COTTON FABRIC

- Textile manufacturer Ventile is embracing the sustainability agenda by producing its first line of recycled cotton fabric in the company's 76-year history.
- The new fabric has been designed to achieve the best possible balance of performance, comfort, and sustainability in a bid to reduce overall textile waste and to create a durable and environmentally friendly resources for designers and fashion brands looking to create bags, coats and jackets.
- Ventile recycled cotton fabric is made from pro-consumer cotton; textile waste which is left over from fabric production.
- The raw fabric off cuts are firstly sorted by type or colour and are then shredded down to fine fibres.
- These fibres are spun into new yarns which make up the finished recycled fabric roll.

Courtesy: https//www.just-style.com

E.SUGUMAR
II B.Sc. CDF (VOC)

WHAT IS SUSTAINABLE FASHION?

- It's a movement aimed at making the fashion industry more environmentally responsible by changing the ways clothes are designed, made, transported, used and discarded.
- The idea is to move away from so called fast fashion, the rapid production of clothes- often inexpensive ones- in response to constantly changing trends, leading to a disposable attitude toward them on the part of consumers.
- There's also a focus on animal welfare and making the industry more socially responsible, notably by clamping down on poor working conditions and the use of child labor in developing countries.

Courtesy:https://www.washingtonpost.com/business/ready-to-wear-and-re-wear--meet-sustainable-fashion/

M.NANDHINI
I M.Sc. CDF

CLOTHES THAT TRACK HEART RATE

- UK based smart textile company Kymira has launched a prototype of T-shirts that can monitor the wearer's heart rate to help lower risk of heart attacks among athletes.
- It wirelessly transmits a wearer's heart rate to a smartphone using bluetooth and can detect irregular heart rhythm that may lead to a cardiac arrest.
- These clothes are designed such that the electrodes are printed onto the T-shirts's sleeves fabric feed and the processing unit transmits the ECG data to the smartphone.
- The company has developed an algorithm that processes the data and filters out the noise to detect unusual heartbeats.
- Kymira expects to hit shelves by the end of 2020.

- Kymira CEO and founder Tim Brownstone stated: “we hope that this product would be used for clinical purposes to help those who suffer from a chronic heart condition and warn them a out possible cardiac arrest".
- Using minerals that are embedded into the fabric, energy is produced by the body during exercise, which re-emit themselves as infrared energy into muscles.

Courtesy: https://www.wearable-technologies.com

M.CATHARIN QUEENE
II M.Sc. CDF

GERMINATOR TRANSIT JACKET

- The germinators come with many of the same features that most performance jackets include, such as ventilation and water-resistance, with a few extra add-ons.
- One of the most innovative features is the silver-infused anti-microbial fabric that has been incorporated into the design. This textile makes up the collar and sleeve cuffs that acts as literal shields for the wearer’s hands and mouth. The fabric serves as a filter for airbone or surface dwelling germs, and also filters out unpleasant smells.
- The germinator’s design also includes sleeve cuffs with thumb holes, allowing the wearer to cover his or her hands while touching a pole. The sleeves can also be removed and washed.
- A transit pass pocket is located on the right sleeve, so that the wearer does not have to touch anything when boarding a train. There is also a removable hood, with a cord to tighten it around the face so that the wearer can lean their head against a potentially dirty window without fear.

Courtesy: https://www.betaband.com

YOGESHWARAN
III B.Sc. CDF

THE NEXT ALEXANDER MCQUEEN IS AI

- The use of Artificial Intelligence in the fashion industry has already found a home in customer service and experience, in demand forecasting, planning and buying, in operations automation and supply chain inventory management and more recently in trend spotting, product design and customization.
- However, the case of YOOX and their lasted endeavour with 8, an AI-designed fashion label where the AI takes the role of co-designer it is beyond the traditional areas of machines tasks.
- It is a role that touches the creativity realm, blurring the line between technology, human and creativity
- A human-made garments encapsulates the craftsmanship, the heritage, the experience, the past, the history, the memories, the choices, preference and even the emotions of its creator.
- The AI designer will select the most suitable materials for its intended creations, according to the most relevant manufacturing technologies, as dictated by the inspiration the AI designer draw from humanity's past.
  Courtesy: https://www.vogue.com

K.DHARANI
III B.Sc. CDF

PAPAYA FIBER

- Papaya fibers are extracted from the perennial papaya plant.
- It has the chemical properties such as cellulose, lignin, ash, moisture and wax contents were determined and established by using standard methods.
- Chemical groups, crystalline structure, surface roughness and thermal stability of CPFs were examined

- These examine were done using Fourier transform infrared analysis, X-ray diffraction, atomic force microscope and thermo gravimetric analysis, respectively.
- The physic chemical properties of CPFs, crystalline index (56.34%), cellulose content (38071 wt.%), hemi-cellulose (11.8%) and density (943kg/m^3) were compared to those properties of other natural fibers
- The biodegradable CPFs can be used as a potential reinforcement in the polymer matrix composite structure.

Courtesy: https://www.tandfonline.com

P.PAVITHRA
II M.Sc. CDF

COLOUR PSYCHOLOGY

- Colour psychology is the study of hues as a determinant of human behaviour.
- Colour psychology is also widely used in marketing and branding.
- It acts as an important part of marketing because colour can be used to influence consumer's emotion and perception of goods and services.
- Companies also use colours when deciding on brand logos.
- The brand logos match the personality of the goods or services.
- Colours are also important for window displays in stores.
- Research shows that warm colours tend to attract spontaneous purchasers, despite cooler colours being more favourable.
- Not only the colour of the food itself but also that of everything in the eater's field of vision can affect this.
- Colour has long been used to create feelings of coziness or spaciousness.

Courtesy: https://www.verywellmind.com

P.KOKILAVANI
II M.Sc. CDF

POORNAMBIKA
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WATERPROOF BREATHABLE FINISH

- Waterproof breathable fabrics are designed for use in garments that provide protection from the environmental factors like wind, rain and loss of body heat.
- Waterproof fabric completely prevents the penetration and absorption of liquid water.
- High functional fabrics support active sportswear with importance placed on high functions as well as comfort.
- Water –resistant and moisture – permeable materials may be divided into three main categories- high density fabrics, resin- coated materials and film laminated materials which are selected by manufacturers according to be finished garment requirements in casual, athletics, ski or outdoor apparel.
- The densely woven waterproof breathable fabrics consist of cotton or synthetic microfilament yarns with compacted weave structure.

- Densely woven fabrics can also be produced from micro-denier synthetic filament yarns.
- Laminated waterproof breathable fabrics made by application of membranes into textile product.
- Coated fabrics with waterproof breathable fabrics consist of polymeric material applied to one surface of fabric.

Courtesy:https://textilelearner.blogspot.com/2013/05/an-overview-of-waterproof-breathable.html

K.KANMANI
II M.Sc. CDF

WATER CONSUMPTION IN JEANS

Spanish fashion company Mango has introduced new techniques in the production of its SS19 season jeans which have cut down water consumption by up to 10 litres per garment.

In a bid to reduce its water footprint, Mango teamed up with experts in the field to develop two initiatives. The consumption of water, energy and chemicals has been reduced through the introduction of ECOWASH technology, by the company Jeanologia. The consumption of water and chemicals has also been reduced through the incorporation of the Better Cotton Initiative (BCI) in garments, which encourages the use of sustainable cotton farming techniques, while additionally guaranteeing workers' health and safety.

The company has introduced the new techniques in the production of its SS19 season jeans and managed to reduce water consumption by up to 10 litres per garment, while for models such as Boy and Straight, water consumption has been decreased by up to 16.5 litres. The company now says 38 percent of its SS19 jeans collection has sustainable characteristics and this figure is expected to increase to over 50 percent for the coming season.

Mango also announced the launch of its Committed 2019 collection, a capsule first introduced by the brand in 2017 made up of a selection of "environmentally-committed" designs using recycled fabrics and sustainable fibres such as BCI certified

cotton, Greencel, and Tencel Lyocell. The company said in a release: "The desire to continue creating aware fashion has prompted Mango to endorse its pledge to increasing the proportion of sustainable fibres and to set the target of a 50 percent sustainable use of cotton by 2022.

Courtesy:https://fashionunited.uk/news/fashion/mango-reduces-water-consumption-in-jeans-production-by-nearly-4-million-litres

S.CHANDRAVIDHYA
II M.Sc. CDF

FAN COOLED JACKETS

- Teijin Limited announced that it has begun producing an expanded lineup of fan- cooled jackets that the company developed with Makita corporation , a leading Japanese manufacturer of electric power tools.
- The jackets, which were introduced in 2018, use pressure controlled fan cooling to circulate air inside their outer shells and inner lining.
- The jointly developed lineup has been expanded to offer jackets with detachable sleeves and a full body jump suit capable of circulating cooling air around both the upper and lower torsos.
- Also some jackets newly allow weaver to run the power switch cord into either the left or right pocket from inside the jacket.
- Meanwhile, unique fan-cooled jackets developed by Teijin & Makita continue to be adopted by an increasingly wide range of companies for extended uses including for example by Descente Japan for sports apparel & by Ikeda Kogyo for work uniforms.
- As a result, Makita is forecasting that the lineup's annual sales will quadruple in 2019.

  Courtesy: https://www.teijin.com

V.KARAN KUMAR
I B.Sc. CDF

TOP STYLE TRENDS FOR 2019

METTLE OF METALLICS

- Year 2019 will see a more personalized understanding of what fashion means to a person.
- "Couture is going to see colour tones that haven't been done before. Unusual colours like sapphire, metallic pink and emeralds are coming to frontier in bridal wear" says Designer Amit Aggarwal.

LIVING CORAL

- Living coral is the official colour of 2019 and it is going to capture the market this season.
- "The best thing about the shade is that it suits the Indian Skin type beautifully. It is a great alternative to red lehengas that brides usually pick for weddings. And this colour can be worn perennially." Says Designer Rahul Mishra.

TAILORED SPORTS WEAR

- Classic tailoring has been fused with contemporary sportswear to bring out the tailored sportswear look.
- "Brands like hugo boss and Versace have also come up with the range and this trend is going to get bigger in 2019" says Designer Dhruv Vaish.

INNOVATION IN FASHION

- Men's wear will be exciting to look at with respect to experimental fashion like newer silks, asymmetrical garments, draped trousers and sharp tailoring with edgier detailing.
- "In couture garments indigenous techniques like bonding and sculpturing and play around with fabrics. It's always exciting to see brands or artists indulging in original and innovative stuff" says Designer Gaurav Gupta.

Courtesy: https://www.hindustantimes.com

S.GUNASHREE
II M.Sc. CDF

CUTTING EDGE BAGS WITH FLEXIBLE SCREEN

- Louis Vuitton has launched its monogram handbags with built in flexible OLED digital screens at its cruise 2020 show.
- The canvas of future bags are made from the classic brown and cream Louis Vuttion monogram motif PVC-coated canvas.
- The leather piece were premiered at the fashion show house's Cruise 2020 show at the TWA flight centre at JFK airport in new York.
- The bags come in two style, one is bucket bags which is called as Duffle bag and the other one is the speedy Bandouliere 35.
- It is designed by the creative director Nicolas Ghesquiere
- These prototype bags are described as a "cutting-edge fusion of technology and craft".
- The flexible screen- which allows for 1920*1440 resolution made using OLED technology.
- It produces thin and flexible light panels that don't require backlighting.
- The pieces aim to blur the boundaries between your Smartphone and bag-"a fusion of saviour-faire and innovation."

Courtesy: http://www.dezeen.com

V.SRILAJA
II M.Sc. CDF

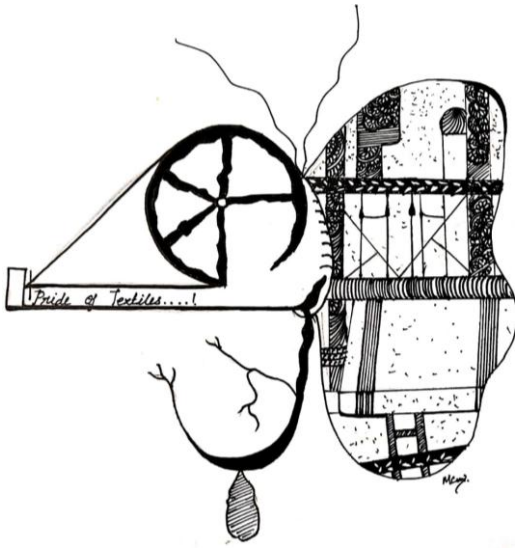
FUTURECRAFT 4D SHOES

- Adidas has unveiled designs for trainers with latticed plastic midsoles, which are shaped using a new additive-manufacturing technique that "overcomes shortcomings" of 3D printing.
- The soles of the Futurecraft 4D running shoes are formed by a process called Digital Light Synthesis, developed by Silicon Valley tech firm Carbon.

- This technique uses light to shape a specially developed liquid resin that has elastic properties, then heat to set the material.
- As a result the midsole can provide different levels of cushioning and stability across a single element.
- The brand revealed that it has found a production method that it believes is faster, more reliable, provides better surface quality and allows for more colour options.
- Digital Light Synthesis also allows the brand to easily alter the designs and create bespoke footwear for individual athletes.
- Digital Light Synthesis allows adidas to precisely address the needs of each athlete in regards to movement, cushioning, stability and comfort with one single component.
- A latest version also incorporated uppers made from biodegradable biosteel fibers that replicate natural silk.
- The company's experiments with materials have also resulted in trainers and swimwear made from recycled ocean plastic.

Courtesy: https://www.adidas.com/us/4D

V.KARAN KUMAR
I B.Sc. CDF



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