

“आदर्श अनुशासन मर्यादा ईमानदारी तथा उच्च मानवीय मूल्यों के बिना किसी का जीवन महान नहीं बन सकता।”

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E-MAGAZINE

‘DARPAN’



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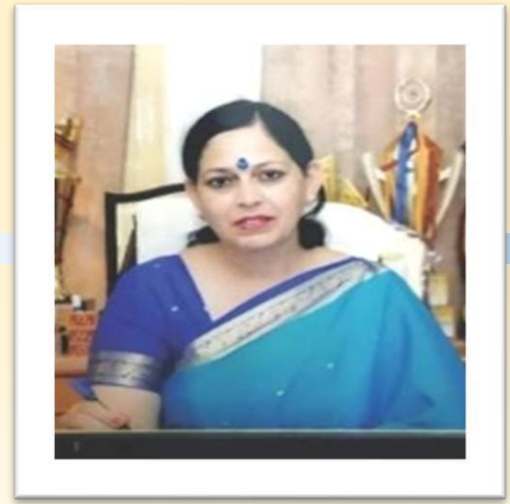


Dr. Khushboo
Editor



Mr. Ashwani
Technical Expert





Dear Sdians...

It gives me immense sense of fulfilment when I look at the monthly edition of college e-Magazine '**DARPAN**' which has now successfully completed four glorious years. The essential purpose of e-magazine '**DARPAN**' is to inform, engage and inspire faculty, students, parents, alumni and our stakeholders. This e-magazine endeavors to reflect the values and the long tradition of excellence of the institution itself. Throughout the year campus buzzes with various activities that makes learning experience at SD Gurdaspur, a unique one. The perpetual efforts of the faculty, students and clubs/societies of the college in keeping the campus alive are commendable. Workshops, conferences, competitions, rallies, sports, guest lectures, FDPs, PDPs and a great variety of activities that corroborate academic learning help our students to grow in the real sense.

I congratulate Er. Surkhab Shelly, Dr. Khushboo (editors) along with Mr. Ashwani (Technical Expert) for giving practical shape to my idea of e-magazine and wish all the best for inspired and result oriented session.

Dr. (Mrs.) Neeru Sharma
Principal



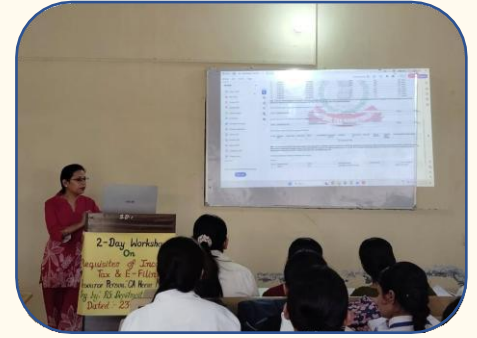
COMMEMORATING PT. MOHAN LAL JI ON HIS BIRTH ANNIVERSARY



The Central Association commemorated the birth anniversary of its esteemed founder, Pt. Mohan Lal Ji. The programme began with floral tributes offered by Management Member Mr. Arvind Hastir, College Principal Dr. (Mrs.) Neeru Sharma, faculty, students, and support staff, honouring his legacy as a visionary and dedicated social worker. To uphold his ideals of compassion, a charitable initiative “Neki Ki Diwar” was organized outside the college campus, where clothes were collected and distributed among the needy. The activity reflected the institution’s commitment to social responsibility and community service. Marking the birth centenary celebrations, a Fruit Langar was also organized under the Poshan Pakhwada scheme through the joint efforts of the Rotaract Club and NSS Unit. Fresh fruits were distributed among newly admitted students and underprivileged people in nearby areas and Shani Mandir, Gurdaspur. On this occasion, the College Principal appreciated the collective efforts and highlighted that such initiatives not only pay tribute to the noble ideals of Pt. Mohan Lal Ji but also promotes health awareness, empathy, and the spirit of sharing among students. The event served as a meaningful blend of service, social responsibility, and awareness.



TWO-DAY WORKSHOP ON 'INCOME TAX AND E-FILING'



With the objective of imparting practical knowledge of taxation and return filing procedures to students, the Department of Commerce organized a two-day workshop on 'Requisites of Income Tax and E-filing'. The resource person for the workshop was Mrs. Heena Mahajan, Chartered Accountant and a proud alumna of the institution. The session began with a detailed explanation of the process of applying for a PAN card. The resource person introduced students to the official Income Tax e-portal and discussed key provisions of the New Income Tax Act, 2025. She further elaborated on important forms such as Form 15G and Form 15H, clearly explaining the differences between them with relevant examples. Mrs. Mahajan also provided insights into Form 26AS and the Annual Information Statement (AIS), highlighting how taxpayers can review and give feedback on their financial information. The concept of e-pay tax (challans) was explained, followed by a comprehensive discussion on ITR-1 and ITR-4 forms. A key highlight of the workshop was the practical demonstration of tax calculation under both the old and new tax regimes. The resource person illustrated the differences by filing returns under each regime, enabling students to understand their applicability. She also clarified the distinction between TDS and TCS and explained the various forms required during the return filing process. The workshop was highly interactive and practice-oriented, with live demonstrations including the online application of PAN cards for students. It provided valuable hands-on experience and significantly enhanced students' understanding of income tax procedures and e-filing, making it an enriching learning experience.



WORKSHOP ON TALLY PRIME



The Department of Commerce organized a one-day workshop on Tally Prime with the objective of enhancing students' practical knowledge of accounting software. The workshop was conducted by certified Tally trainers from Ludhiana, Ms. Alka and Ms. Prachi, along with Mr. Sandeep, Managing Director of CBA Infotech, Gurdaspur. The session aimed to familiarize students with the fundamentals of computerized accounting, including company creation, ledger management, voucher entries, and the preparation of financial statements. The resource persons delivered the content in an interactive manner by integrating theoretical concepts with hands-on training.

HONOURING OF SHINING SDIANS FOR ACADEMIC EXCELLENCE



The college organized a special ceremony titled 'Honouring of Shining SDians' to recognize and celebrate the academic achievements of meritorious students. Prof. Raj Kumar, Retired Principal and President of the History Society, Gurdaspur, graced the occasion as the Chief Guest, while S. Inderjeet Singh Bajwa, a prominent social worker, attended as the Guest of Honour and motivated the students to pursue lifelong learning. Both dignitaries have been consistently supporting girl students by providing financial assistance to economically weaker students to continue their education. A total of 58 students from various streams were honoured for their outstanding performance in the pre-semester examinations. Students securing first, second, and third positions were awarded certificates by the Chief Guest.



WORKSHOP ON RAISING CAPITAL AND FINANCIAL MANAGEMENT FOR START-UPS



With the objective of equipping students with practical knowledge of entrepreneurial finance and funding strategies the Startup Cell of the Institution's Innovation Council (IIC) organized an insightful workshop on 'Raising Capital and Financial Management for Start-ups'. The session was conducted under the expert guidance of Mrs. Manbir Walia from the Department of Commerce. The workshop witnessed enthusiastic participation from students keen to explore entrepreneurship and business management. During the workshop, Mrs. Walia elaborated on various sources of raising capital, including bootstrapping, angel investors, venture capital, bank financing, and government funding schemes.

SLOW LEARNERS' MEET



The Slow Learners' Club organized a Slow Learners' Meet in the presence of the College Principal. The session was conducted for students from various classes who had secured low marks in MSTs and university examinations. The College Principal and incharges interacted personally with the students, offering guidance and sharing practical tips to manage examination stress and improve academic performance.

WALL MAGAZINE BY MATHS DEPARTMENT



The Department of Mathematics organized an engaging academic activity by displaying a vibrant wall magazine in the college. The display featured a variety of posters, diagrams, slogans, and illustrations based on different concepts and themes of mathematics, aiming to make the subject more interesting and visually appealing for students. Students actively contributed to the preparation and presentation of the wall magazine, showcasing their creativity, conceptual understanding, and teamwork.



FELICITATION CEREMONY FOR CONTRIBUTORS OF E-MAGAZINE DARPAN



The college organized a special felicitation ceremony to honour students who made significant contributions to the college e-magazine Darpan. The initiative was aimed at recognizing and appreciating the creative and research-oriented efforts of students, while fostering a strong culture of academic inquiry and intellectual expression. The e-magazine Darpan serves as a dynamic platform where students and faculty present their ideas, research-based articles, and reflections on contemporary issues. On this occasion, the College Principal, appreciated the dedicated efforts of the editorial team, including Er. Surkhab Shelly, Dr. Khushboo, and Mr. Ashwani, for their commitment to compiling and publishing the e-magazine. She also motivated students to actively participate in such academic initiatives to enhance their research aptitude and creative expression.

BRIDAL MAKEUP WORKSHOP



The students of the Department of Cosmetology attended a one-day Bridal Makeup Workshop at Lakmé Academy, Gurdaspur. The workshop aimed to provide students with practical exposure to contemporary trends and techniques in bridal makeup. During the session, participants received hands-on training in modern makeup applications, product usage, and professional grooming standards. The workshop also focused on developing essential client-handling skills and familiarizing students with industry-relevant tools and practices.



VOCATIONAL TRAINING PROGRAMME



The Departments of Fashion Designing and Home Science organized a vocational training programme from 2nd April to 30th April, 2026. The programme witnessed the participation of 31 students from PM Shri Government Girls Senior Secondary School, Gurdaspur. The training programme focused on providing practical and skill-based learning aligned with the students' respective fields. In the Food Production section, students were trained in preparing a variety of dishes using different culinary techniques and methods. Meanwhile, in the Garment Making section, students learned designing and stitching various types of garments, along with innovative techniques in clothing construction. The faculty members ensured hands-on training and provided individual attention to cater to the learning needs of each student. The participants displayed great enthusiasm and dedication throughout the programme. Their regular attendance and active involvement in all activities made the training programme highly interactive, productive, and successful.

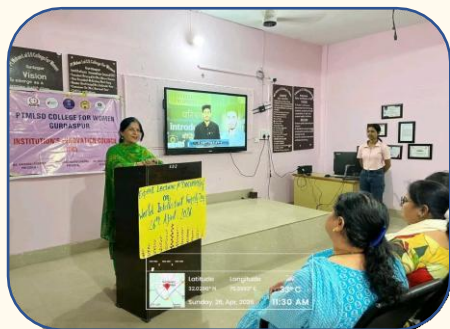
WORLD CREATIVITY AND INNOVATION DAY



The IIC in collaboration with the Eco Club celebrated World Creativity and Innovation Day. The event focused on key stages of design thinking, including identifying environmental challenges, addressing waste generation, and developing sustainable solutions through creative reuse. Students actively transformed discarded materials such as plastic bottles, containers, and old tyres into attractive and functional planters, demonstrating innovative approaches to waste management. The Creative Reuse Hub was also revitalized, where students refurbished old pots and improved the campus greenery through hands-on activities.



WORLD INTELLECTUAL PROPERTY RIGHTS DAY



The Celebration Cell of the IIC marked World Intellectual Property Rights Day with an informative and engaging session aimed at creating awareness about the significance of intellectual property. Mrs. Samita Khajuria, Celebration Cell Coordinator, delivered an insightful lecture on the concept of Intellectual Property Rights (IPR). She elaborated on its various types, including patents, trademarks, copyrights, and trade secrets, and emphasized the importance of safeguarding innovation and creative work. She highlighted how intellectual property rights play a crucial role in fostering creativity and driving economic growth.

ADVANCE LEARNERS' MEET



A meeting of Advance Learners from all streams was organized by the in-charges of the Advance Learners' Club with the aim of encouraging and motivating academically outstanding students. The session brought together students who secured top positions in the pre-semester and university examinations. During the session, students were guided on effective study strategies, time management, and goal setting to further enhance their performance. Faculty members also interacted with the students, discussing ways to channel their potential into research, competitive examinations, and higher education opportunities.



FAREWELL PARTY 'LAMHEIN'



The Youth Club organized a vibrant farewell party titled “Lamhein” to bid a heartfelt farewell to the outgoing students. The highlight of the event was the modeling competition, which added elegance and excitement to the celebration. Various titles were conferred upon the participants: Miss Farewell – Ms. Jasmine Kaur; 1st Runner-up – Ms. Lavanya; 2nd Runner-up – Ms. Pallavi; Miss Million Dollar Smile – Ms. Aastha; Beauty with Brain – Ms. Sahajdeep Kaur; Miss Charming – Ms. Arsh; Miss Resourceful – Ms. Ruby; Attractive Ramp Walk – Ms. Raman Puwar; Beautiful Eyes – Ms. Riya; and Miss Graceful – Ms. Tanveer Kaur. The event was smoothly anchored by Ms. Mehak Jasrotia and Ms. Tania Rajput, making the occasion memorable for all.

NUKKAD NATAK ON 'STUBBLE BURNING'



Six students of the Youth Club, in collaboration with the IIC, along with one faculty member, organized an awareness activity through a Nukkad Natak on the theme “Paraali Na Jalao” in the villages of Sahowal and Sirkian. The street play effectively captured the attention of local residents and conveyed a powerful message about the harmful effects of stubble burning. Through their impactful performance, the students highlighted issues such as air pollution, respiratory and asthmatic diseases, environmental degradation and public health. The team also interacted with the villagers, encouraging them to adopt eco-friendly alternatives and sustainable agricultural practices.



STAFF TRIP TO 'GAGAN DA TILLA' SHIVA TEMPLE



The college organized a one-day spiritual and recreational trip for its staff to the renowned Gagan Da Tilla Shiva Temple in Talwara Known for its historical and spiritual significance, the ancient temple is situated on a hilltop, offering breathtaking views of the surrounding landscape and attracting devotees with deep-rooted faith for centuries. A total of forty teaching and support staff members participated in the trip. The members paid their obeisance at the temple, prayed for the well-being of all, and experienced a sense of peace and spiritual rejuvenation. On this occasion, the College Principal, Dr. Neeru Sharma, remarked that such visits provide a refreshing break from routine work and contribute to mental well-being.

PARENT-TEACHER MEET



The Parent-Teacher Association organized a Parent-Teacher Meet that aimed to provide a comprehensive overview of students' performance in the pre-semester examinations, along with their achievements in cultural activities and active participation in various clubs and committees. As the final meeting of the semester, special emphasis was laid on transparency and evaluation. Answer sheets were first assessed through table marking by the teachers and subsequently reviewed by the Principal to ensure accuracy and fairness in evaluation. During the interaction, the teaching staff engaged with parents, discussed students' academic progress and future prospects, and gathered valuable feedback. The meet served as a meaningful platform for strengthening communication and collaboration between parents, teachers, and students, making it an encouraging and productive initiative.



HOW FASHION MANAGES OUR STRESS

ABSTRACT

In the midst of a fast-paced and highly competitive world, stress is inevitable. Everyone is on the lookout for ways to cope and stay sane. In this scenario, fashion, though often seen as an accessory, plays a significant role in shaping the psychology of a person. It is a tool that can help reduce stress, build confidence, improve moods, and even act as a stress-relieving therapy. The paper aims to explore the role that fashion plays in shaping the psychology, building confidence, improving moods, and even acting as a stress-relieving therapy.

INTRODUCTION

Stress is the response that an individual's body and mind give to a high-pressure situation. It is considered to be one of the major factors responsible for health problems across the world, according to the World Health Organization. There are a number of ways to relieve stress, such as meditation, yoga, therapy, and many more. In recent times, a new form of relieving stress, namely, through fashion, has gained popularity. Fashion is not just a matter of clothing; rather, it is a means through which a person expresses them, is unique, and communicates. Clothing is a major factor that determines a person's mood, confidence, and even self-image. The concept of "enclothed cognition," as coined by researchers Hajo Adam and Adam D. Galinsky, is a tool that helps to determine how clothing influences a person's psychology.

FASHION AND PSYCHOLOGICAL WELL-BEING

1. Enclothed Cognition and Mood Enhancement

HIV infection typically begins with flu-like symptoms, including fever, sore throat, and fatigue. Over time, if untreated, it progresses to AIDS, where the immune system fails to protect the body from opportunistic infections like tuberculosis and pneumonia. The social impact of AIDS is profound. Beyond the physical toll, individuals often face stigma, discrimination, and isolation, further complicating their struggles.

2. Fashion as a Means of Self-Expression

Fashion allows individuals to express their personality and emotions without speaking a word. This release of emotions through clothing helps reduce stress levels, especially when one has hidden emotions inside. For instance, a person might wear loose clothing to feel

secure when under stress, while another person might wear fashionable clothing to feel empowered. This self-expression through clothing helps reduce stress levels and provides psychological comfort to individuals.

3. Enhancing Self-Confidence and Self-Esteem

One of the most important ways in which fashion helps reduce stress levels in individuals is through enhanced self-confidence and self-esteem. When individuals feel proud to wear clothing, they feel proud of themselves, and this helps reduce stress levels significantly. According to research from Fashion Psychology, dressing smartly helps enhance one's self-confidence and self-esteem, especially in professional and social settings.

4. Fashion as a Means of Therapy (Retail Therapy)

Retail therapy, also known as fashion therapy, refers to a means through which individuals engage in shopping activities to reduce stress levels and induce happiness. Moderate levels of engagement in fashion activities can prove to be effective, especially in channelling one's creativity and providing a sense of satisfaction and happiness. However, extreme levels of engagement might prove to be counterproductive.

5. Comfort Clothing and Emotional Security

Wearing comfortable clothing provides a sense of security to individuals. For instance, loose clothing with soft fabric provides a sense of security, especially during stressful times such as exams and professional settings. This sense of security through clothing can be compared to security blankets provided to individuals during childhood.

6. Social Interaction and Belongingness

Fashion can provide social connections and a sense of belonging. Wearing clothing that is in line with the current fashion or cultural norms can create a sense of belonging. For example, wearing traditional clothing during cultural festivals can create cultural identity, which can reduce stress.

7. Fashion and Creativity as Stress Relief

Fashion can provide an outlet for creativity, which can reduce stress. Fashion can provide a sense of achievement and happiness, which can reduce stress.

Impact of Sustainable and Ethical Fashion on Stress

Modern consumers are becoming more aware of the environmental and ethical implications of fashion. Sustainable fashion can provide a sense of value alignment, which can reduce stress. Wearing 'green' clothing can provide a sense of accountability, which can create happiness, an essential component in the reduction of stress.

Limitations of Fashion in Stress Management

Fashion cannot be solely relied on to reduce stress, as it can sometimes create more stress than it can reduce. Fashion can sometimes become an obsession, which can create stress, especially when one has to maintain the current fashion.

Conclusion

Fashion can play an integral role in the management of stress, as it can affect one's mood, which can lead to the creation of one's emotional state. Fashion can provide an outlet for self-expression, which can reduce stress, as explained in the concept of enclothed cognition and fashion psychology.

References

- Adam, H. and Galinsky, A. D. (2012). Cognition in clothing. The Journal of Experimental Social Psychology.
- World Health Organization (2020). Reports on Mental Health and How to Deal with Stress.
- Kawamura, Y. (2005). Fashion-ology: A Primer on Fashion Studies.
- Entwistle, J. (2015). The Fashioned Body: Style, Clothing, and Social Theory.
- Crane, D. (2012). Fashion and Its Social Goals.
- Lipovetsky, G. (1994). The Fashion Empire.
- McNeill, L., & McKay, J. (2016). Fashion and How People Act as Consumers.
- Fletcher, K. (2014). Fashion and Textiles That are Good for the Environment.
- S. Woodward (2007). Why Women Dress the Way They Do.
- M. R. Solomon (2018). Fashion and how people act.

MRS. HARSHA SHARMA
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HOW ARTIFICIAL INTELLIGENCE IS CHANGING FASHION DESIGN AND STYLING

Fashion Meets Technology: How AI is Becoming Fashion's New Creative Partner

Fashion has always evolved alongside technology. We've gone from hand-stitching to sewing machines, from paper sketches to digital design software, and now AI represents the next leap forward. At its core, AI refers to systems that can learn, analyze, and make decisions. In fashion, this means analyzing massive datasets—consumer preferences, fabrics, colors, and global trends—to help designers and brands stay ahead of the curve. This shift isn't about replacing creativity. Instead, it's about amplifying it. Designers can now combine their artistic vision with AI's ability to process information at scale, resulting in collections that are both imaginative and market-relevant.

AI as a Designer's Partner: From Data to Digital Sketches and Trend Forecasting

Think of the traditional design process—sketches, intuition, and a keen eye on the runway. AI adds another layer by spotting patterns hidden in millions of data points. It can suggest color palettes, generate digital sketches, and even forecast trends by analyzing social media chatter and shopping behavior.

Brands are already experimenting:

- Zara uses AI to track customer feedback and sales in real time, adjusting collections almost instantly.
- Gucci has played with AI-generated designs to spark creative variations in its luxury lines.
- Nike integrates AI into product innovation, from smart sneakers to personalized gear.

Styling Gets Personal: Virtual Stylists, Smart Recommendations, and Fitting Rooms of the Future

Shopping today is less about browsing racks and more about curated experiences. AI recommendation systems on apps and websites suggest outfits based on your browsing history, lifestyle, or even body type. It's like having a digital stylist who knows your taste better than you do. Virtual fitting rooms are another breakthrough. Imagine "trying on" a jacket online using augmented reality before hitting purchase. It reduces uncertainty, cuts down on returns, and makes online shopping feel more like stepping into a boutique.

Sustainability Through Smart Tech: Reducing Waste and Creating Eco-Friendly Fashion

Fast fashion has long been criticized for waste and environmental damage. AI is helping to change that. By predicting demand more accurately, brands avoid overproduction. Inventory management becomes smarter, supply chains more efficient, and waste is minimized.

The Challenges: Costs, Privacy Concerns, and the Debate Over Creativity

Of course, it's not all smooth. Implementing AI is expensive, requiring investment in technology and skilled professionals. Data privacy is another concern—AI thrives on consumer data, but mishandling it risks trust and then there's the big question: will AI replace human creativity? The answer is no. Fashion is culture, identity, and emotion—things machines can't replicate. AI should be seen as a collaborator, not a competitor.

Looking Ahead: Virtual Runways, Digital Garments, and AI-Powered Shopping Experiences

The future of AI in fashion is dazzling. Picture virtual fashion shows with AI-generated models, digital-only garments for social media avatars, or smart fitting rooms that instantly recommend your perfect size. Imagine scrolling through Instagram and seeing influencers wearing digital outfits that exist only online, or walking into a store where AI scans your measurements and suggests clothes

that fit like they were made for you. The possibilities are endless, but the heart of fashion will remain human imagination.

Conclusion: A Future Where Human Imagination and AI Work Hand in Hand

AI is transforming fashion design and styling by making them smarter, faster, and more sustainable. It helps designers innovate, gives consumers personalized experiences, and pushes the industry toward eco-conscious practices. While challenges exist, the real magic lies in collaboration—where human creativity and AI work hand in hand to shape the future of fashion. Fashion is entering a new era—one where artistry and algorithms coexist, redefining what it means to create and wear clothing.

References

- McKinsey & Company. (2023). The State of Fashion Report.
- Bhardwaj , V., & Fairhurst, A. (2010). Fast Fashion: Response to Changes in the Fashion Industry.
- Brynjolfsson, E., & McAfee, A. (2017). Machine, Platform, Crowd: Harnessing Our Digital Future.
- WGSN. (2022) . AI and Fashion Trend Forecasting.
- Deloitte Insights. (2021). Artificial Intelligence in Retail and Fashion Industry.
- Jain, S. (2020). Technology and Innovation in Fashion Design.
- Kim, H., & Forsythe, S. (2018). Adoption of Virtual Fitting Technology in Fashion Retail.
- Forbes. (2026). How AI Is Rewiring Fashion’s Art and Science—Beyond the Hype.
- Stylistics (2026). Fashion Brands Using AI: Nike, Gucci, ASOS.
- Fashion NXT. (2025). Green Tech Meets High Fashion: AI Companies Leading Sustainable Fashion.

DEEPIKA

M.SC. FASHION DESIGNING (4th SEM)

VIRTUAL FASHION, THE METaverse AND AI IN DESIGN

Importance of Environmental Ethics

Fashion has always been closely connected with society, culture, and technology. Every era has introduced new styles, materials, and ways of expressing identity through clothing. In the 21st century, fashion is entering a completely new digital phase with the rise of virtual fashion, the metaverse, and artificial intelligence (AI). These technologies are not only changing the appearance of fashion but also transforming the entire fashion industry, including designing, marketing, communication, shopping, and sustainability. Today's consumers spend a large amount of time online through social media, gaming platforms, and digital communities. As a result, fashion is no longer limited to physical garments worn in everyday life. People are now interested in digital identities and virtual appearances. Fashion brands and designers are adapting to this shift by creating virtual garments, digital runways, and AI-assisted designs. As a fashion design student, I believe these innovations are exciting because they combine creativity with technology. They allow designers to experiment freely without physical limitations while also helping reduce environmental damage caused by excessive production and waste. However, even though technology is becoming more powerful, human creativity, emotions, and artistic expression still remain at the heart of fashion.

Understanding Virtual Fashion

Virtual fashion refers to clothing and accessories that exist only in digital form. These garments are designed using advanced software and can be worn by avatars in games, social media applications, or virtual worlds. Digital clothing can also be added to photographs or videos using augmented reality (AR). Unlike traditional fashion, virtual fashion is not limited by fabric texture, stitching techniques, gravity, or manufacturing costs. Designers can create futuristic concepts with floating silhouettes, glowing fabrics, animated textures, and impossible structures. This gives fashion designers complete creative

freedom to explore imagination and innovation. Designers can first test garments digitally before creating real products. This saves fabric, energy, water, and production costs.

The Metaverse and Fashion Industry

The Metaverse is a shared virtual world where people interact digitally through avatars. It combines virtual reality (VR), augmented reality (AR), gaming, blockchain technology, and social networking into immersive online environments. In the metaverse, fashion becomes an important tool for identity, communication, and self-expression. People use avatars to represent themselves in digital environments, and fashion helps avatars express personality, status, and creativity. Just as clothing is important in real life, digital fashion is becoming equally important in virtual spaces. Users can attend virtual concerts, exhibitions, fashion shows, and social gatherings while wearing digital outfits. In digital spaces, emerging designers can create and sell virtual garments globally with fewer physical limitations. This makes the fashion industry more accessible and democratic.

Artificial Intelligence in Fashion Design

Artificial intelligence has become one of the most powerful technologies in modern fashion. AI systems can analyse huge amounts of data from social media, online shopping behaviour, runway trends, and customer preferences. This information helps brands predict upcoming trends and understand consumer demands more accurately. AI tools assist fashion designers in multiple ways. They help with colour forecasting, fabric selection, digital illustration, trend analysis, and virtual garment creation. AI-generated mood boards and design suggestions can inspire designers during the creative process. This improves efficiency and saves time. This reduces waste and unsold inventory. Despite its advantages, AI cannot replace human creativity and emotional storytelling. Fashion is not only about trends and data; it is also about emotions, culture, imagination, and individuality. Designers bring personal experiences and artistic vision into their work, something machines cannot fully replicate. Therefore, AI should be viewed as a creative partner rather than a replacement for human designers.

Digital Fashion Marketing and Social Media

Social media has become one of the most influential factors in modern fashion. Platforms such as Instagram, TikTok, Pinterest, and Snapchat allow fashion brands to connect directly with consumers worldwide. Virtual fashion works perfectly with social media because digital garments can be displayed instantly online. Influencers and content creators play an important role in promoting digital fashion. Some influencers now wear AI-generated or virtual outfits in photographs and videos. Brands use augmented reality filters to allow consumers to try products digitally through their smartphones.

Future of Fashion Education

Fashion education is also changing because of digital innovation. Fashion students are now learning 3D design software, digital illustration, virtual prototyping, and AI-assisted design tools alongside traditional techniques such as draping, sewing, and embroidery. At the same time, traditional craftsmanship remains important. Hand embroidery, textile weaving, dyeing, and garment construction continue to represent cultural heritage and artistic skill. The future of fashion education should therefore balance modern technology with traditional knowledge.

Fashion Gaming Collaborations Utilitarianism

Gaming and fashion are becoming closely connected. Popular platforms such as Fortnite, Roblox, and The Sims now feature fashion collaborations with global brands. These partnerships allow users to purchase digital clothing for their avatars. This shows that gaming is no longer only a source of entertainment—it has become a powerful marketing platform for fashion brands.

Conclusion

Virtual fashion, the metaverse, and artificial intelligence are transforming the future of fashion in remarkable ways. These technologies are expanding creativity, improving sustainability, and creating new opportunities for

designers and consumers worldwide. Fashion is no longer limited to physical garments; it is becoming a digital experience that combines creativity, technology, and communication. The future fashion industry will likely involve a balance between traditional craftsmanship and modern innovation. While technology can improve efficiency and reduce waste, human imagination and emotional expression will always remain essential. As a future fashion designer, I believe understanding digital tools and modern technologies is extremely important. At the same time, preserving artistic creativity and cultural identity is equally valuable. By combining technology with imagination and responsibility, the fashion industry can move toward a more sustainable, inclusive, and innovative future.

References

- Mu, X., Zhang, H., Shi, J., Hou, J., Ma, J., & Yang, Y. (2024). Fashion intelligence in the Metaverse: promise and future prospects. *Artificial Intelligence Review*, 57(67).
- Periyasamy, A. P., & Periyasami, S. (2023). Rise of digital fashion and metaverse: influence on sustainability. *Digital Economy and Sustainable Development*, 1(16).
- Mesjar, L., Cross, K., Jiang, Y., & Steed, J. (2023). The Intersection of Fashion, Immersive Technology, and Sustainability: A Literature Review. *Sustainability*, 15(4), 3761.
- Ramos, L., Rivas-Echeverría, F., & Pérez, A. G. (2023). Artificial intelligence and sustainability in the fashion industry: a review from 2010 to 2022.
- Vogue Business. (2021). Understanding fashion's role in the metaverse.

ISHMEET KAUR PADAM
B.SC. FASHION DESIGNING (3RD SEM)

LIFE CYCLE OF STARS : FROM BIRTH TO DEATH

The birth, evolution and death of stars includes a number of well-defined stages which ranges from formation as a protostar (formed from nebula), the main sequence stage through red giant or supergiant phases, to an endpoint as white dwarfs, neutron stars and black holes. Molecular clouds produce stars, which form when dust and gas in a higher density region collapse under their own gravity until central temperatures are reached high enough to ignite nuclear fusion.

What is the life cycle of a star ?

A star's life cycle has four main stages: nebula, main sequence, red giant or supergiant and their final endpoint whether it be a white dwarf neutron star or black hole. From a definition point of view, stars are born in nebulae (a cloud made from dust and gas) and as materials collapse due to gravity: we get our first proto star. The protostar continues to gain mass and eventually the temperatures and pressures are high enough for nuclear fusion, where it enters into main sequence phase and will spend most of its life following in this stable state fusing hydrogen atoms into helium. Depending on its starting mass, a star changes into a red giant or supergiant after running out of hydrogen fuel. Helium fusion takes place during this phase, and the outer layers greatly enlarge [2]. While less massive stars lose their outer layers and leave behind a white dwarf, large stars undergo a supernova explosion that produces either a neutron star or a black hole. Stellar evolution models and observations of different star types throughout the cosmos corroborate this pattern, validating the phases of stellar growth and their mass-dependent outcomes.

How do stars form from nebulae?

Gravitational collapse is the process by which stars are created from nebulae. Higher density areas in a nebula draw in nearby gas and dust, increasing mass and gravitational attraction. Protostars are created as the material starts to clump together as it builds up. The core's temperature and pressure

considerably increase during this phase. Nuclear fusion starts when the core temperature hits about 10 million Kelvin, generating energy and changing hydrogen into helium. This is when a new star is born. This process is demonstrated by observations of star formation in areas such as the Orion Nebula, which reveal the progression from dense molecular clouds to fully formed stars.

How are stars classified based on their mass ?

Low-mass stars, intermediate-mass stars, and high-mass stars are the three primary categories into which stars are divided according to their mass. Red dwarfs and other low-mass stars with masses under two solar masses are distinguished by their lengthy lifetimes and steady hydrogen burning. Red giants develop from intermediate-mass stars, which range in mass from 2 to roughly 8 solar masses, and can go through more intricate fusion processes. High-mass stars—those with masses greater than eight solar masses—have brief lives and frequently leave behind neutron stars or black holes when they explode as supernovae. The Hertzsprung-Russell diagram, which shows the relationship between a star's mass, brightness, and temperature and confirms that mass is a crucial factor in defining a star's evolutionary course, supports this classification.

What characteristics define main sequence stars, giants and supergiant?

Giants, supergiants, and main sequence stars are distinguished by their luminosity, mass, and stage in the stellar life cycle. Main sequence stars, like our Sun, have consistent luminosity and temperature depending on their mass because they fuse hydrogen into helium in their cores. Giants are evolved stars that have expanded after using up all of the hydrogen in their cores. This has led to a decrease in surface temperature and an increase in luminosity. The most massive stars, known as supergiants, are even brighter and larger. They frequently experience the fusing of heavier elements in their cores, which results in a brief but intense life before supernova occurrences. The Hertzsprung-Russell diagram, which shows the correlation between a star's

temperature and luminosity and divides stars into these many groups according to their evolutionary phases, supports these traits.

What is the end-of-life scenarios for stars?

Depending on their starting mass, stars can end up as white dwarfs, neutron stars, or black holes. White dwarfs are left behind after low to medium-mass stars, like our Sun, run out of nuclear fuel and shed their outer layers [4,5]. On the other hand, huge stars explode as supernovae, which can produce a black hole or a neutron star depending on how much core mass is left. For example, if a star's core mass is more than about three solar masses, it will collapse into a black hole; if it is less, it will generate neutron stars. The presence of white dwarfs and neutron stars in different star clusters, as well as observable evidence of supernova remnants, lend credence to these theories.

References:

1. Bertulani, Carlos A. (2013). *Nuclei in the Cosmos*. World Scientific. ISBN 978-981-4417-66-2.
2. Zhang, Guo-Yin; André, Ph.; Men'shchikov, A.; Wang, Ke (1 October 2020). "Fragmentation of star-forming filaments in the X-shaped nebula of the California molecular cloud". *Astronomy and Astrophysics*. 642: A76.
3. Vanbeveren, D.; De Loore, C.; Van Rensbergen, W. (1998). "Massive stars". *The Astronomy and Astrophysics Review*. 9 (1–2): 63–152.
4. Woosley, S. E.; Heger, A.; Weaver, T. A. (2002). "The evolution and explosion of massive stars". *Reviews of Modern Physics*. 74 (4): 1015–1071.
5. Heber, U. (1991). "Atmospheres and Abundances of Blue Horizontal Branch Stars and Related Objects". *Evolution of Stars: The Photospheric Abundance Connection: Proceedings of the 145th Symposium of the International Astronomical Union*. 145: 363.

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SPACE AND ASTRONOMY: EXPLORING THE UNIVERSE

Introduction

Astronomy is the scientific study of everything beyond Earth's atmosphere, including stars, planets, galaxies, and the universe itself. It combines physics, chemistry, and mathematics to understand how celestial objects form, evolve, and interact. Since ancient times, humans have looked up at the night sky with curiosity. Early civilizations used stars for navigation and timekeeping, while modern scientists use powerful telescopes and satellites to explore deep space. Today, astronomy helps us answer some of the biggest questions: How did the universe begin? Are we alone? What lies beyond our galaxy?

What is Space?

Space is the vast, nearly empty region beyond Earth's atmosphere. It is not completely empty—it contains small amounts of gas, dust, radiation, and mysterious substances like dark matter.

The universe includes everything:

- Planets
- Stars
- Galaxies
- Black holes
- Cosmic dust and energy

Scientists believe the universe began about 13.8 billion years ago with the Big Bang, a massive expansion of space itself. Since then, the universe has been continuously expanding.

The Solar System

Our solar system consists of the Sun and all objects that orbit it, including eight planets, moons, asteroids, and comets.

Key components:

- Sun – A star that provides energy and gravity
- Inner planets – Mercury, Venus, Earth, Mars
- Outer planets – Jupiter, Saturn, Uranus, Neptune
- Other objects – Asteroids, comets, dwarf planets.

The solar system formed from a cloud of gas and dust about 4.6 billion years ago.

Stars and Galaxies

Stars are massive balls of hot gas that produce light and heat through nuclear reactions. Our Sun is just one of billions of stars in the Milky Way galaxy. Galaxies are huge systems containing billions of stars, gas, and dust bound together by gravity. There are billions of galaxies in the observable.

Black Holes and Dark Matter

One of the most fascinating objects in space is a black hole, a region where gravity is so strong that nothing—not even light—can escape. Even more mysterious is dark matter, an invisible substance that does not emit light but affects the motion of galaxies. Scientists estimate that most of the universe is made of dark matter and dark energy, which are still not fully understood.

Importance of Astronomy

Astronomy is important because it:

- Helps us understand the origin of the universe.
- Explains Earth's place in space.
- Drives technological advancements (satellites, GPS).
- Inspires curiosity and scientific thinking.

It also helps scientists search for life beyond Earth by studying planets in other solar systems.

Conclusion

Space and astronomy reveal the incredible scale and beauty of the universe. From tiny particles to massive galaxies, everything is connected through physical laws. Although we have made significant discoveries, much of the universe remains unknown. As technology improves, future discoveries may answer questions about dark matter, black holes, and even extraterrestrial life. The study of space continues to expand our knowledge and imagination, reminding us that we are just a small part of a vast cosmos.

References

1. Encyclopaedia Britannica – Astronomy and Universe concepts.
2. Space.com – Basics of astronomy.
3. American Public University – Fundamentals of astronomy.
4. The Space Point – Solar system overview.
5. Scientific research on cosmic matter distribution.

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