

PT. MOHAN LAL S.D. COLLEGE FOR WOMEN

SH. UPKAR KRISHAN SHARMA BLOCK

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



Pt. MOHAN LAL S.D. COLLEGE FOR WOMEN, GURDASPUR

A MULTI FACULTY POST GRADUATE INSTITUTE

Re - accredited with 'A' grade by NAAC (3rd cycle 2024)

IIC Ranking '3 Star' Rating by Ministry of Education 2024

Listed in the Tribune Guide to Best Colleges (25th April, 2025)

MANAGED BY: GGDSD COLLEGE SOCIETY, CHANDIGARH

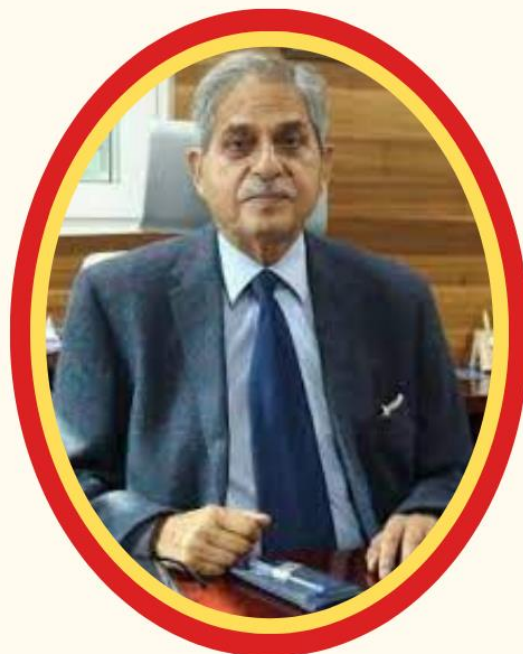
AFFILIATED TO: GURU NANAK DEV UNIVERSITY. AMRITSAR

OUR INSPIRING SPIRIT



PT. MOHAN LAL JI

FORMER EDUCATION, HOME AND FINANCE MINISTER, PUNJAB
FOUNDER PRESIDENT OF GGDSD COLLEGE SEC-32, CHANDIGARH
PT. MOHAN LAL S.D. COLLEGE FOR WOMEN, GURDASPUR
PT. MOHAN LAL S.D. SCHOOL, CHANDIGARH.



SH. UPKAR KRISHAN SHARMA JI

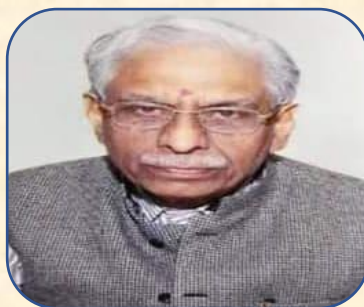
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E-MAGAZINE

‘DARPAN’



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GGDSD Society Chd.



Dr. PK Bajaj
General Secretary,
GGDSD Society Chd.



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Chairman,
PTMLSD College, Gurdaspur.



Dr. (Mrs.) Neeru Sharma
Chief Editor : Principal



Er. Surkhab Shelly
Editor

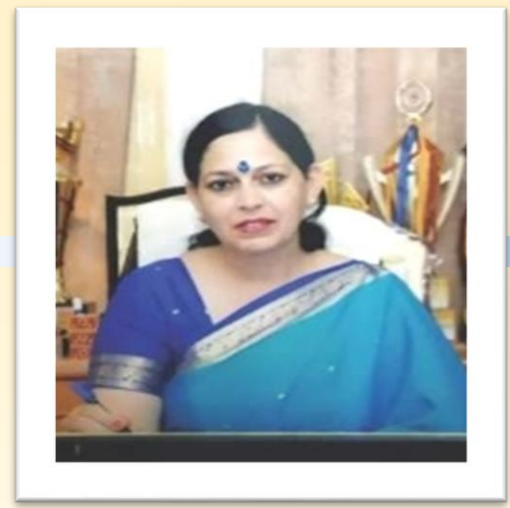


Dr. Khushboo
Editor



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



INSTALLATION OF CENTRAL ASSOCIATION



The Central Association of the college hosted a formal investiture ceremony to induct the newly appointed representatives and executives for the academic session 2025–26. The event was graced by Dr.(Mrs.) Neelam Sethi, former Principal of the college and currently serving as the Director of Education, GRD Educational Trust, Phagwara as the Chief Guest. During the ceremony, colourful sashes were ceremonially presented to the Class Representatives (CRs), streamwise, with each stream assigned a distinct colour, symbolizing the college's spirit of unity in diversity. The executives of the Central Association were honoured with dark pink sashes, signifying their elevated roles and responsibilities in the college. Newly Appointed Central Association 2025–26 are:

1. Head Girl – Pallvi, B.Sc. (Economics), 3rd Year
2. Vice Head Girl – Vanshita, B.Sc. (Economics), 3rd Year
3. Finance Secretary – Anshika, B.A., 3rd Year
4. Swachhta Ambassador – Sonia, B.Sc. (Computer Science), 3rd Year
5. Discipline Ambassador – Mehak, B.Sc. (Non-Medical), 3rd Year
6. Media Ambassador – Pinky, M.A. (Punjabi), 1st Year
7. Report Writing In-charge – Bandisha, BCA, 3rd Year

As a token of gratitude and respect, CA Incharges also presented the Chief Guest and the College Principal with 'Best Mentor' sashes. In her address, Dr. Neelam Sethi congratulated the newly inducted members and inspired them to work with dedication, discipline, and a strong sense of purpose. Dr. (Mrs.) Neeru Sharma, College Principal also addressed the gathering. She encouraged the newly appointed team to lead with enthusiasm and commitment, fostering a collaborative spirit among students. She further acknowledged and appreciated the efforts of CA Incharges Ms. Samita Khajuria, Mrs. Rajni, Mrs. Gagandeep Kaur, Ms. Manbir and Mrs. Eti for conducting a successful and memorable investiture ceremony.



HINDI PAKHWADA CELEBRATIONS



As part of the Hindi Pakhwada celebrations, the Department of Hindi, in collaboration with Nehru Yuva Kendra, organized a series of engaging activities, including inter-departmental slogan writing and signature writing competitions, along with an enlightening guest lecture. The highlight of the event was a compelling lecture delivered by Dr. Neelam Sethi, former Principal of this college and currently Director of Education, GRD Educational Trust, Phagwara, on the topic 'The Global Expansion and Significance of Hindi.' Dr. Sethi emphasized Hindi's growing global presence, its profound literary contributions, and its recognition as a regional language in several countries. She also shared her original poetic compositions, leaving a lasting impression on the audience. As a gesture of goodwill, she presented her published books to the Principal of the college, and Mrs. Punita Sehgal, Head of the Hindi Department. In her address, Principal Dr. Neeru Sharma expressed heartfelt appreciation for Dr. Sethi's insightful talk, describing Hindi as the 'language of emotions' that preserves cultural heritage and promotes unity among diverse communities. She also acknowledged her contribution in the upliftment of this college. The event concluded with a felicitation ceremony, where winners of the competitions were honoured, and a token of appreciation was presented to the Chief guest for her valuable contribution to the celebration.



INTERACTIVE PROGRAMME WEEK (IPW) 2025



The Department of Computer Science organized the much-anticipated Interactive Programme Week (IPW) – 2025, aimed at fostering technical skills, creativity, and a spirit of healthy competition among students. Every year this event is held regularly by C.S department. The two-day event featured a diverse lineup of activities including PowerPoint Presentations, Quiz, Poster Making, Fast Message Typing, Videography, and the vibrant Admad Show. A total of 118 students participated with great enthusiasm, making the event a resounding success. Participants demonstrated their knowledge of emerging technologies, showcased design and presentation skills through posters and videos, and engaged in fast-paced thinking in quizzes and typing competitions. The Videography and Admad Show segments brought a refreshing blend of innovation and entertainment to the event. Winners were felicitated by Principal Dr. (Mrs.) Neeru Sharma, who congratulated all participants and encouraged them to continue honing their technical expertise and creative potential. She also commended Mrs. Poonam Seth, Head of the Department of Computer Science, along with Mrs. Sandeep Goraya, Mrs. Surkhab Shelly, Mrs. Rajni, Ms. Radhika, Ms. Pallavi and Mr. Ashwani for their commendable efforts in



IQAC NEWSLETTER SPARK



The Internal Quality Assurance Cell (IQAC) of the college released its newsletter Spark, showcasing the institution's key initiatives, recent academic and co-curricular activities, and highlights from the NAAC Peer Team Visit. The newsletter was formally unveiled by management members, who reaffirmed the college's commitment to academic excellence, innovation, and the holistic development of students. To foster awareness and engagement, copies of the newsletter were also distributed among students, encouraging them to stay informed and inspired by the college's quality enhancement efforts. College principal Dr. Neeru Sharma congratulated IQAC Coordinator Dr. Rama Gandotra, along with Assistant Coordinators Mrs. Poonam Seth and Mrs. Sandeep Kaur Goraya and all the criteria incharges Mrs. Jyoti Saini, Mrs. Seema Mahajan, Mrs. Money, Mrs. Surkhab, Dr. Khushboo, Dr. Dinesh, Mrs. Gurdeep and Ms. Sakshi for their dedicated efforts in making IQAC Spark a valuable resource and a source of inspiration for the college community. This newsletter was epitome of team work showcased by SD family in getting 'A' grade.



AWARENESS PROGRAM ON HIV



An awareness program on HIV-AIDS was jointly organized by the Red Ribbon Club and the Department of Sociology under the guidance of the Assistant Director, Youth Services, Gurdaspur. The program commenced with an informative seminar led by Dr. Rama Gandotra, Head of the Department of Sociology. In her session, Dr. Gandotra educated students about the modes of HIV transmission and emphasized key preventive measures to curb the spread of the virus. To reinforce the message, a documentary on HIV-AIDS was screened, offering students deeper insights into the realities of the disease and its impact on individuals and communities. Following this, an oath-taking ceremony was held where students pledged to spread awareness and take collective responsibility in fighting the stigma associated with HIV-AIDS. The event concluded with a rally organized within and around the campus, aiming to sensitize students and the community about the issue and encourage active social responsibility. College principal appreciated the efforts of sociology department.



FREE MEDICAL CAMP



The NSS Unit and Red Ribbon Club, in collaboration with the Bharat Vikas Parishad (BVP), Gurdaspur, organized a Free Medical Camp to provide much-needed assistance to flood-affected families. The camp was conducted by a team of doctors led by Dr. Amit Jarewal, Rural Medical Officer and Skin Specialist, alongside committed volunteers. Nearly 200 individuals received medical check-ups and were provided with free medicines to address their health concerns. The event was honoured by the presence of Mr. Hiramani Aggarwal, Local Chairman of the College Managing Committee, along with key representatives from Bharat Vikas Parishad, including Mr. Ashok Puri (President), Mr. Ashwani Chatrath (Project Manager), and S. Inderjit Singh Bajwa (Golden Member). From the college, the camp saw active participation from NSS Programme Officer Dr. Sukhwinder Kaur, Mrs. Samita Khajuria, and Red Ribbon Club Incharges Mrs. Gurdeep Kaur and Dr. Rajwant Kaur, supported by dedicated students Raman, Navdeep Kaur, Saloni, and Jiya. Principal Dr. Sharma expressed her heartfelt appreciation for the unwavering dedication, teamwork, and compassion demonstrated by the faculty members and students, commending their commitment to serving the community in times of need.



HONORING OF TEACHERS



Rotary Club, Gurdaspur Celebrated Teacher's Day. The celebration was graced by Chief Guest Rtn. PP Vinod Gupta and Special Guest Dr. (Mrs.) Neeru Sharma, Principal of Pt. Mohan Lal SD College for Women, Rotary Club President Rtn. Dr. J.B.S. Riar, Secretary Rtn. Capt. Rakeshwar Kondal and Project Chairman Rtn. PP Arvind Hastir. On this occasion, the Rotary Club honoured College Principal Dr. (Mrs.) Neeru Sharma and faculty members Dr. Ravneet Kaur, Dr. Khushboo Aggarwal, Dr. Dinesh Sharma and Mrs. Harsha Sharma with Nation Builder Award 2025. Each awardee was felicitated for their dedication, guidance and valuable contribution to the academic and personal growth of students. College Principal Dr. (Mrs.) Neeru Sharma expressed pride in her faculty members and motivated students to uphold the values imparted by their mentors.

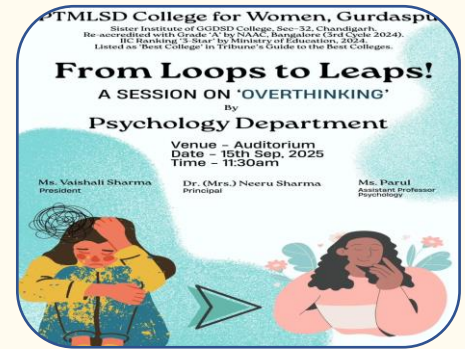
TEACHERS DAY CELEBRATION



The Central Association celebrated Teacher's Day with immense respect, enthusiasm, and heartfelt gratitude, paying tribute to the invaluable contributions of the teaching community. To mark the occasion, students beautifully decorated the office of the College Principal and expressed their reverence through a warm Tilak Vandana, the offering of sweets, and the presentation of a handmade bouquet as tokens of love and appreciation. In her address, Principal Dr. (Mrs.) Neeru Sharma paid a heartfelt tribute to the college's true guiding forces — Founding Chairman Pt. Mohan Lal ji and former President Shri Upkar Krishan Sharma ji, acknowledging their visionary leadership and lasting legacy. A special Tilak Vandana ceremony was then conducted for both teaching and non-teaching staff, inspired by the ideals of Dr. S. Radhakrishnan, who believed that “teachers are the true nation-builders, and education must go beyond books to shape character and values.” The celebration reflected a deep sense of respect, appreciation, and emotional connection, honoring the teachers who continue to inspire, guide, and shape generations.



SESSION ON 'OVERTHINKING – FROM LOOPS TO LEAPS'



The Department of Psychology of the college organized an engaging and thought-provoking session titled “Overthinking – From Loops to Leaps.” The session was conducted by Ms. Parul, Assistant Professor in Psychology. In her talk, Ms. Parul explored the science behind overthinking, offering insights into how repetitive thought patterns develop and affect mental well-being. She also shared practical strategies to break free from negative thought loops and shift toward positive, goal-oriented action. The session was well-received by students, who actively participated in discussions and reflections.

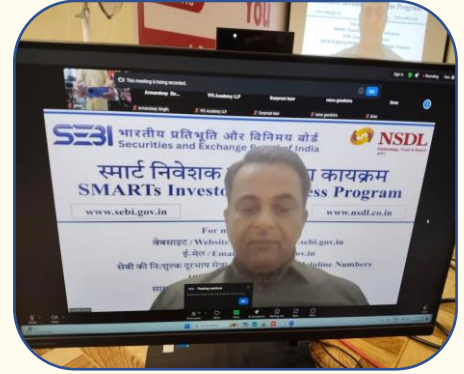
DEBATE ON 'IS AI A THREAT TO HUMAN CREATIVITY?'



The Department of English organized a stimulating debate on the topic ‘Is AI a Threat to Human Creativity?’, encouraging critical thinking and dialogue on one of today’s most relevant issues. A total of ten students participated, presenting diverse perspectives on the impact of artificial intelligence on human innovation and originality. Sonia and Prabhnoor were awarded Best Speaker, while Sukhpreet secured Second Position and Sonali took Third Place. Principal Dr. (Mrs.) Neeru Sharma applauded the participants and organizers, commending the event as an excellent platform for enhancing public speaking, critical analysis, and confidence-building skills among students.



WEBINAR ON 'EMPOWERING WOMEN THROUGH FINANCIAL LITERACY'



A webinar on 'Empowering Women through Financial Literacy' was organized on the college campus, under the aegis of the Internal Quality Assurance Cell (IQAC) and jointly hosted by the Departments of Sociology and Commerce. The session was led by Ms. Ritu Bala, a financial expert from SV Wealth Partners, Mumbai. The objective of the webinar was to educate and empower women with essential knowledge and practical skills in financial planning, enabling them to make informed and confident financial decisions. The session provided valuable insights into budgeting, saving, investing, and financial independence, aligning with the broader goal of promoting economic empowerment among women.

WALL MAGAZINE SHOWCASED BY SOCIAL SCIENCES DEPARTMENT



The Department of Social Sciences showcased a Wall Magazine on the theme 'Society and Change,' providing a creative platform for students to express their thoughts on evolving social dynamics. Students from the Humanities stream actively contributed articles, poems, artwork, and thought-provoking content, reflecting their perspectives on societal transformation. The display highlighted not only their academic insight but also their artistic flair and critical thinking.



STUDENTS ACHIEVEMENTS



The Ministry of Youth Affairs and Sports, Government of India, organized an online quiz under the Viksit Bharat Young Leaders Dialogue (VBLYD) 2026 through the MYBharat platform. Volunteers actively participated in this initiative with great enthusiasm and dedication. Participants who successfully completed the quiz were awarded certificates of participation. The program aimed to encourage youth engagement, leadership awareness and contribution towards building a developed India (Viksit Bharat).

PLANT OF THE MONTH



The Grapefruit (Chagotra) was declared as the Plant of the Month, recognizing its seasonal and nutritional importance. To mark the occasion, the Eco-Club in collaboration with the Department of Home Science organized and celebrated 'Healthy Salad Day.' The event was aimed at spreading awareness among students about the value of consuming fresh, seasonal, and wholesome food for maintaining good health.



SPORTS ACHIEVEMENTS



- Our student Manjit Kaur got Silver medal in Senior State Gatka Championship held at Shri Fatehgarh Sahib from 29th August to 31st August, 2025.
- Our Basketball team got Second position in an event Held at Govt. Sen. Sec. School Gurdaspur organised by Baba Shri Chand Youth club under Mera Yuva Bharat National Sports Day on 6th Sept, 2025. Ms. Komal from our college team was awarded as best player of the tournament. On this occasion, Basketball Coach Ms. Aruna was given an appreciation award for her guidance.



GREEN TECHNOLOGY: A PATH TOWARD SUSTAINABLE DEVELOPMENT

1. Introduction

Green Technology, also known as clean technology or environmental technology, encompasses a wide range of practices and innovations designed to reduce environmental harm, promote resource efficiency, and create a sustainable balance between human activity and nature. It integrates environmental science, engineering, and sustainable design to minimize pollution, conserve natural resources, and promote renewable energy use. As global warming, resource depletion, and waste generation continue to threaten the planet, green technology offers viable solutions for sustainable living and economic development.

2. Concept and Importance of Green Technology

The concept of green technology revolves around sustainability — meeting present needs without compromising the ability of future generations to meet their own. It aims to reduce greenhouse gas emissions, encourage recycling and waste management, and improve energy efficiency. The importance of green technology lies in its capacity to:

- Combat climate change by reducing carbon emissions.
- Promote renewable and clean energy alternatives.
- Reduce pollution and improve air and water quality.
- Conserve biodiversity through sustainable industrial and agricultural practices.

According to the United Nations Environment Programme (UNEP, 2022), adopting green technology is fundamental to achieving the United Nations' Sustainable Development Goals (SDGs), particularly goals related to clean energy, responsible consumption, and climate action.

3. Major Areas of Green Technology

3.1 Renewable Energy

Renewable energy is the cornerstone of green technology. It harnesses natural resources—such as sunlight, wind, water, and geothermal heat—to generate power. Unlike fossil fuels, renewable energy sources produce little or no greenhouse gas emissions.

Solar Power: Photovoltaic panels convert sunlight directly into electricity. The cost of solar installations has decreased significantly in recent years, making it more accessible worldwide (International Energy Agency, 2023).

Wind Energy: Wind turbines capture kinetic energy from the wind and convert it into electricity. Offshore and onshore wind farms are becoming common in many countries.

Hydropower and Geothermal Energy: These provide continuous energy sources with minimal environmental impact when managed properly.

3.2 Green Buildings

Green building technology involves designing and constructing buildings that are environmentally responsible and resource-efficient. These buildings use energy-efficient lighting, solar panels, natural ventilation, and rainwater harvesting systems. According to UNEP (2022), green buildings can reduce energy consumption by up to 40% and water use by nearly 30%. They also promote healthier living conditions by using non-toxic materials and improving indoor air quality.

3.3 Sustainable Agriculture

Agriculture significantly impacts the environment through deforestation, soil degradation, and pesticide use. Green technology introduces precision farming, organic cultivation, and vertical farming, which use data analytics, sensors, and hydroponic systems to minimize waste and maximize yield. The Food and Agriculture Organization (FAO, 2022) emphasizes that adopting green technology in agriculture reduces water usage, enhances soil fertility, and minimizes chemical pollution.

3.4 Waste Management and Recycling

Effective waste management is a vital component of green technology. Modern techniques such as waste-to-energy conversion, biodegradable plastics, and recycling technologies help reduce landfill waste and transform waste materials into useful products. Many cities worldwide are implementing smart waste systems that use sensors to monitor waste levels and optimize collection routes, thereby saving fuel and reducing emissions.

3.5 Green Transportation

The transportation sector contributes significantly to global carbon emissions. Green technology has revolutionized this field through electric vehicles (EVs), hybrid cars, biofuels, and hydrogen fuel cells. According to the IEA (2023), the global adoption of EVs has doubled in the last three years, helping reduce dependence on fossil fuels and improving urban air quality.

4. Advantages of Green Technology

Environmental Protection: Reduces pollution and conserves ecosystems.

- **Economic Benefits:** Promotes innovation, creates green jobs, and reduces long-term energy costs.
- **Health Improvement:** Cleaner air and water result in fewer health problems.
- **Energy Independence:** Encourages nations to rely on renewable energy sources rather than imported fossil fuels.
- **Sustainable Growth:** Ensures balanced progress that benefits both the economy and the environment.

5. Challenges in Implementing Green Technology

Despite its advantages, the adoption of green technology faces several barriers:

- **High Initial Costs:** Installation of renewable energy systems and eco-friendly infrastructure requires significant investment.
- **Lack of Awareness:** Many individuals and businesses remain unaware of the long-term benefits of green technologies.
- **Technological Limitations:** Inadequate infrastructure for energy storage and recycling systems hinders large-scale implementation.
- **Policy and Regulatory Barriers:** Weak policy frameworks and inconsistent government incentives slow progress, particularly in developing countries.

6. Future Prospects

The future of green technology is promising. Innovations in artificial intelligence (AI) and Internet of Things (IoT) are being integrated with green technologies to create smart systems for energy monitoring, precision farming, and sustainable manufacturing. Global initiatives like the Paris Climate Agreement and COP28 emphasize transitioning to low-carbon economies. Furthermore, governments and private sectors are investing heavily in research and development to make green solutions more affordable and scalable.

7. Conclusion

Green technology is no longer an option—it is a necessity for survival in the modern age. It offers practical solutions to global environmental challenges while supporting economic development. By adopting renewable energy, sustainable agriculture, green buildings, and eco-friendly transport systems, societies can achieve long-term sustainability and resilience. The success of green technology depends on collective effort—through policy reforms, public awareness, and technological innovation—to build a cleaner, greener, and more sustainable future.

References

- Food and Agriculture Organization (FAO). (2022). Sustainable Agriculture and Green Innovation. Retrieved from <https://www.fao.org>

- International Energy Agency (IEA). (2023). Renewable Energy Market Update 2023. Retrieved from <https://www.iea.org>
- United Nations Environment Programme (UNEP). (2022). Green Buildings and Sustainable Cities. Retrieved from <https://www.unep.org>
- World Economic Forum (2023). How Green Technology is Powering the Future of Sustainability. Retrieved from <https://www.weforum.org>
- United Nations (2024). Sustainable Development Goals Report 2024. Retrieved from <https://www.un.org/sustainabledevelopment>.

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HOME SCIENCE: THE SMART SCIENCE OF EVERYDAY LIVING

When people hear the term *“Home Science,”* the images that often come to mind are a kitchen, a sewing machine, or perhaps a few interior design sketches scattered on a table. But Home Science is far more than that it’s the science of daily life, a discipline that touches every aspect of human living and wellbeing. It’s not just about homes; it’s about humanity.

In an age dominated by STEM fields and business degrees, Home Science has often remained in the background misunderstood, underrated, and underestimated. Yet, beneath its modest image lies one of the most versatile, practical, and future-forward disciplines that prepares individuals not only for careers but also for life itself.

Home Science is an interdisciplinary field that blends nutrition, human development, resource management, textiles, fashion, communication, health sciences, and psychology all aimed at improving the quality of life, both at the personal and societal level. It brings together science, creativity, and compassion, offering solutions to modern-day challenges that technology alone cannot solve.

Why Home Science Matters in Today's World

We live in an era of fast food, fast fashion, and fast living. With rising lifestyle diseases, mental health challenges, disintegrating family structures, and growing environmental concerns, the lessons of Home Science have never been more relevant. It teaches balance in an unbalanced world.

1. Nutrition and Health Awareness

Home Science builds deep understanding about how food influences our body, mind, and longevity. In a world where processed food and instant meals dominate, the science of nutrition empowers individuals to make informed choices. Students learn the principles of diet planning, therapeutic nutrition, and food safety skills that can prevent diseases, promote wellness, and even save lives.

2. Child and Human Development

From infancy to old age, Home Science explores the journey of human growth. It nurtures understanding of child psychology, emotional intelligence, parenting education, and elderly care. These lessons promote empathy an increasingly rare quality in today's competitive world. Understanding human behavior also makes Home Science graduates strong communicators, educators, and leaders.

3. Family Resource and Life Management

Home Science goes beyond the household it's about managing life with efficiency and purpose. It teaches time management, financial literacy, consumer education, conflict resolution, and sustainable resource use. These skills are universal, preparing individuals to handle real-world responsibilities with confidence and foresight.

4. Gender-Neutral Empowerment

Gone are the days when Home Science was seen as a “girl’s subject.” Today, it promotes equality and inclusiveness. Boys and girls alike study cooking, budgeting, design, and caregiving—skills that every human being benefits from. In fact, many leading chefs, designers, and nutritionists around the world are men who began with Home Science as their foundation.

5. Sustainability and Environmental Awareness

Home Science also plays a major role in shaping eco-conscious lifestyles. From promoting zero-waste cooking to sustainable textiles and energy-efficient home management, it fosters environmental responsibility something our planet urgently needs.

A Launchpad for Dynamic Careers

Home Science opens doors to a vast range of career opportunities. It’s a springboard for professions that combine creativity, service, and science.

- **Nutritionist / Dietician:** Work in hospitals, wellness centres, or as an independent consultant.
- **Fashion Designer / Textile Expert:** Blend art with science to design sustainable and stylish clothing.
- **Early Childhood Educator:** Shape young minds and contribute to foundational learning.
- **Interior Designer:** Create spaces that are functional, aesthetic, and human-centered.
- **Social Worker / Counsellor:** Support families and communities through education and outreach.

- **Entrepreneur:** Launch ventures in food, fashion, or wellness based on practical knowledge and social needs.
- **Researcher / Academic:** Contribute to studies on nutrition, human development, and social well-being.

In short, Home Science is not just a subject it's a passport to purposeful professions.

The Art of Life — Home Science

**In every thread, a story we weave,
Of care, of balance, in what we believe.
From food on the plate to hearts we heal,
Home Science teaches what's truly real.
It's science with soul, with wisdom so wide,
A journey of life we take with pride.
Not just a subject—but a gentle guide,
To live with purpose, and love by our side.**

The Subject with a Soul

Education today often focuses on productivity, competition, and profit. But Home Science restores the *soul* of education it's about nurturing the human being behind the degree. It cultivates compassion, mindfulness, creativity, and practical intelligence. These are not just academic skills they are life skills that build strong families, resilient communities, and ethical professionals.

As the world moves toward automation and artificial intelligence, what will always remain essential are *human* values empathy, care, adaptability, and communication. And that's exactly what Home Science teaches.

Let's Talk Respect

It's time to give Home Science the respect it deserves. It is not a "soft" subject it is a smart subject. It equips students with the power to think critically, act

responsibly, and live meaningfully. Whether you become a CEO, a chef, a teacher, or a policymaker, the lessons of Home Science accompany you every step of the way. So, next time someone dismisses Home Science, remind them: It's not just about managing a home it's about managing life.

References

1. Sethi, M. & Lakshmi, V. (2001). *A Textbook of Home Science*. New Delhi: CBS Publishers & Distributors.
2. Rangwala, S. (2016). *Fundamentals of Home Science*. Himalaya Publishing House.
3. Indian Council of Home Science. (2020). *Home Science for Sustainable Development*.
4. National Council of Educational Research and Training (NCERT). *Home Science Textbooks for Classes XI & XII*. Retrieved from <http://ncert.nic.in>
5. UNESCO. (2019). *Education for Sustainable Development Goals: Learning Objectives*. Retrieved from <https://unesdoc.unesco.org>

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THE METAVERSE: REDEFINING VIRTUAL INTERACTION

1. Introduction

The Metaverse has emerged as one of the most transformative concepts in the digital era, redefining how people interact, work, learn, and socialize in virtual spaces. Coined by Neal Stephenson in his 1992 novel *Snow Crash*, the term “metaverse” refers to a collective, persistent, and shared virtual environment created through the convergence of physical and digital realities. In recent years, advancements in technologies such as Virtual Reality (VR), Augmented Reality (AR), Artificial Intelligence (AI), and Blockchain have accelerated the realization of the metaverse concept (Mystakidis, 2022). Major technology companies like Meta (formerly Facebook), Microsoft, and Google are investing heavily in developing immersive platforms that promise a new dimension of human connectivity.

2. Understanding the Metaverse

The Metaverse is not a single platform but an interconnected digital ecosystem that merges multiple 3D virtual environments. It allows users, represented by avatars, to interact in real time through digital devices and VR/AR headsets. Unlike traditional internet platforms, the metaverse offers an immersive and persistent experience, meaning users can engage in activities such as attending meetings, concerts, shopping, or even education within a shared virtual world (Lee et al., 2021). According to Gartner (2023), the metaverse can be described as “a collective virtual shared space that combines virtually enhanced physical reality with interactive digital environments.”

3. Technologies Powering the Metaverse

Virtual Reality (VR) and Augmented Reality (AR) immerse users in computer-generated environments, while AI enhances realism and interactivity through automation and personalization. Blockchain ensures secure transactions and ownership of digital assets via NFTs (Park & Kim, 2022). Internet of Things (IoT) connects real-world data with virtual environments, bridging physical and digital spaces (Kye et al., 2021).

4. Applications of the Metaverse

The metaverse is revolutionizing various fields:

- Social Interaction: Platforms like Horizon Worlds and VRChat enhance virtual communication.
- Education: Virtual classrooms improve engagement and experiential learning (Mystakidis, 2022).
- Business: Companies use virtual offices for collaboration (Microsoft Mesh).
- Gaming: Games like Roblox and Fortnite exemplify early metaverse models.
- Healthcare: VR-based therapies assist in mental health and rehabilitation (Riva et al., 2023).

5. Economic and Societal Implications

The metaverse supports a global virtual economy involving NFTs, cryptocurrencies, and digital assets. McKinsey & Company (2023) estimates the metaverse economy may reach \$5 trillion by 2030. However, issues like data privacy, digital addiction, and ethical governance remain challenges.

6. Challenges in Adopting the Metaverse

Key challenges include technological limitations, high equipment costs, lack of interoperability, data security risks, and unequal access to advanced infrastructure (Ning et al., 2023).

7. Future Prospects

The metaverse will influence Industry 5.0, merging human creativity with artificial intelligence. It will reshape education, governance, commerce, and healthcare through immersive digitalecosystems.

8. Conclusion

The Metaverse represents a paradigm shift in digital interaction, offering limitless potential for innovation, education, and economic growth. However, responsible governance and equitable access are essential to ensure that this new digital frontier benefits all of humanity.

References

- Dwivedi, Y. K., Hughes, D. L., Baabdullah, A. M., et al. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66, 102542.
- Gartner. (2023). Emerging Technologies: The Metaverse Explained. Retrieved from <https://www.gartner.com>
- Kye, B., Han, N., Kim, E., Park, Y., & Jo, S. (2021). Educational applications of metaverse: Possibilities and limitations. *Journal of Educational Evaluation for Health Professions*, 18(32).

- Lee, L. H., Braud, T., Zhou, P., et al. (2021). All one needs to know about metaverse: A complete survey on technological singularity, virtual ecosystem, and research agenda. arXiv preprint arXiv:2110.05352.
- McKinsey & Company. (2023). Value creation in the metaverse: The real business of the virtual world. Retrieved from <https://www.mckinsey.com>
- Mystakidis, S. (2022). Metaverse. Encyclopedia, 2(1), 486–497.
- Ning, H., Wang, H., Lin, Y., et al. (2023). A survey on metaverse: The state-of-the-art, technologies, applications, and challenges. IEEE Internet of Things Journal, 10(2), 1424–1449.
- Park, S. M., & Kim, Y. G. (2022). A metaverse: Taxonomy, components, applications, and open challenges. IEEE Access, 10, 4209–4251.
- Riva, G., Wiederhold, B. K., & Mantovani, F. (2023). From virtual reality to the metaverse: Therapeutic implications. Cyberpsychology, Behavior, and Social Networking, 26(3), 173–180.

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EINSTEIN'S VIOLIN: THE INTERPLAY OF ART AND SCIENCE

“If I were not a physicist, I would probably be a musician.” — Albert Einstein (White, 2022)

Einstein's Dual Passions

World-famous theoretical physicist Albert Einstein is best known for his revolutionary theory of relativity, which demonstrated the elegant waltz of space and time, and laid down the foundation for Quantum Theory. He was honoured with the Nobel Prize in Physics in 1921 for his unequivocally valuable input into world progress.

One would naturally infer from his myriad accomplishments that Einstein was an agent of man's hunt for reality— on a path to distinguish truth from fiction, however ruthless it may be to the Romantics. Why, then, did he pick up the violin for a moment's respite? What solace did he discover in Mozart's sonatas and Bach's concertos? What inspiration struck him when he looked upon El Greco's *'The Burial of the Count of Orgaz'*— a painting he described as the most profound he had ever encountered?

From Curiosity to Clarity

Men of science have long probed the past, present, and future, anticipating stumbling across unalloyed lucidity— drifting through deserts and oceans, to find a grain of truth— too intent on believing it is occult. But what if it lounges as naked as Giorgione's *Venus*, demanding appreciation, if not comprehension?

Vision Beyond Science: Morse, Atkins, and Chekhov

Samuel Morse's scientific contributions accelerated the advancement of telecommunications through his invention of the telegraph and the Morse code (White, 2022). Having wrought the world ever smaller, and then, in time, bigger once more, he paved the way for the ambitious to foster interconnection. But

who will speak of the '*Gallery of the Louvre*' he painted with transatlantic dreams infused into the canvas? He longed for enrichment far beyond the capabilities of dots and dashes, and sought to share the mystique of *Mona Lisa's* smile and Correggio's gentle religiosity. Morse pocketed the gems of France in hopes of culturally augmenting his American kin with passionate vigour.

Had botanist Anna Atkins not photographed marine algae (White, 2022), precise documentation of them would have been a challenge for longer. If she had lacked the artistic initiative to incorporate cyanotypes of aquatic greenery in her research, scientists would have delayed the verisimilitude they sought—would have had to brook the precarity of illustrations and pressed herbarium specimens.

Anton Pavlovich Chekhov— a Russian physician who earned his degree from the prestigious Moscow State Medical University in 1884— went on to achieve worldwide acclaim as playwright, gifting us with humorous short stories and poignant plays such as *Uncle Vanya* and *The Cherry Orchard* (Hingley & Francis, 2025). The world might never have witnessed his creative genius had he not, in his own words, considered Medicine as his “lawful wife” and literature as his “mistress”.

Da Vinci: The Perfect Union of Art and Science

The crux of it boils down to how Da Vinci's *Vitruvian Man* (Jawwad, 2018) enlightens budding mathematicians and philosophers alike— entrancing both neophyte and virtuoso with visions of anatomy, geometry, and humanism. With ink as his conduit for empiricism, he proved the artist to be an instrument of science, instead of merely a captor of beauty. Leonardo's codices, even five hundred years later, continue to dismantle dogma; the *Vitruvian Man* being at the forefront of this Renaissance.

The point is better stated by Da Vinci when he proposed:

“To develop a complete mind: Study the science of art; Study the art of science. Learn how to see. Realize that everything connects to everything else.”
(Jawwad, 2018)

Balancing Objectivity and Expression

The scrutiny of time for ascertaining objectivity is indubitably pivotal for advancement's impetus; without it, amelioration of society is a lost cause. Science remedies ambiguity through unbiased investigation and in doing so, reminds us of limitations in our erudition as well. Along with coherence, it endows man with his share of humility— just as Darwin unveiled our simian transcendence toward civility.

Yet, it is art that dignifies the isolation of subjective experience, acknowledges the human struggle for identity, and validates individualistic commonality. It is art that lends credence to the rage of youth, confusion of maturity, and the echoing seclusion of senescence. More than that, art is what embodies the peculiar yet admirable effort of man to be immortal, as seen in enduring classics like the works of Shakespeare. Sentiment lives on whether through arresting pigment of a canvas or lead-debossed parchment, just as perpetual postulates do. In *the Merchant of Venice* (Chaudhuri & Shatarupa, 2025), Shylock's vengeful soliloquy, as he vowed to requite his tribe's unjust tribulations, and the spectator's consequent realization of his strife, is as anchoring as Newton's gravity that felled his apple.

Harmony of Art and Science

In essence, liberal arts have long paralleled pure sciences in each of their subtle intricacies. Where science shapes the physical world, arts and humanities grant form to mortal spirit: manifesting it in subjects ranging from metaphysical philosophy to empirical history. Humanistic disciplines strive to understand the idiosyncrasies of the collective human experience— exploring sundry facets of society, and formulating domains such as that of social sciences, literature, and performative and non-performative arts. When science fails to reconcile us to the factual reality, art soothes the dissonance through the dulcet congruence of musical suites, ocular indulgences of frescoes, and literary magna opera. Perhaps it was his grasp of the parallelisms of art and science that led Einstein to pick up his violin in search of respite, solace, and inspiration. Perhaps the viol sounded his brilliance as stars gleamed in recognition. Perhaps he would have become a musician had he not been a physicist.

REFERENCES:

- White, K. (2022, May 25). 7 scientific pioneers who were also artistic visionaries, from the inventor of the Morse code to the founder of neurobiology. *Art net News*. <https://news.artnet.com/art-world/artists-who-were-scientists-1821906>
- Jawwad. (2018, February 9). *Observing the journals of Leonardo da Vinci*. Journaling Habit. <https://www.journalinghabit.com/observing-journals-leonardo-da-vinci/>
- Hingley, & Francis, R. (2025, August 22). *Anton Chekhov | Biography, plays, short stories, & Facts*. Encyclopaedia Britannica. <https://www.britannica.com/biography/Anton-Chekhov>
- Chaudhuri, & Shatarupa. (2025, July 9). *Shylock | The Merchant of Venice, Jewish moneylender, character, villain, victim, antisemitism, & Shakespeare*. Encyclopaedia Britannica. <https://www.britannica.com/topic/Shylock>

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