

SANT LONGOWAL INSTITUTE OF ENGINEERING AND TECHNOLOGY

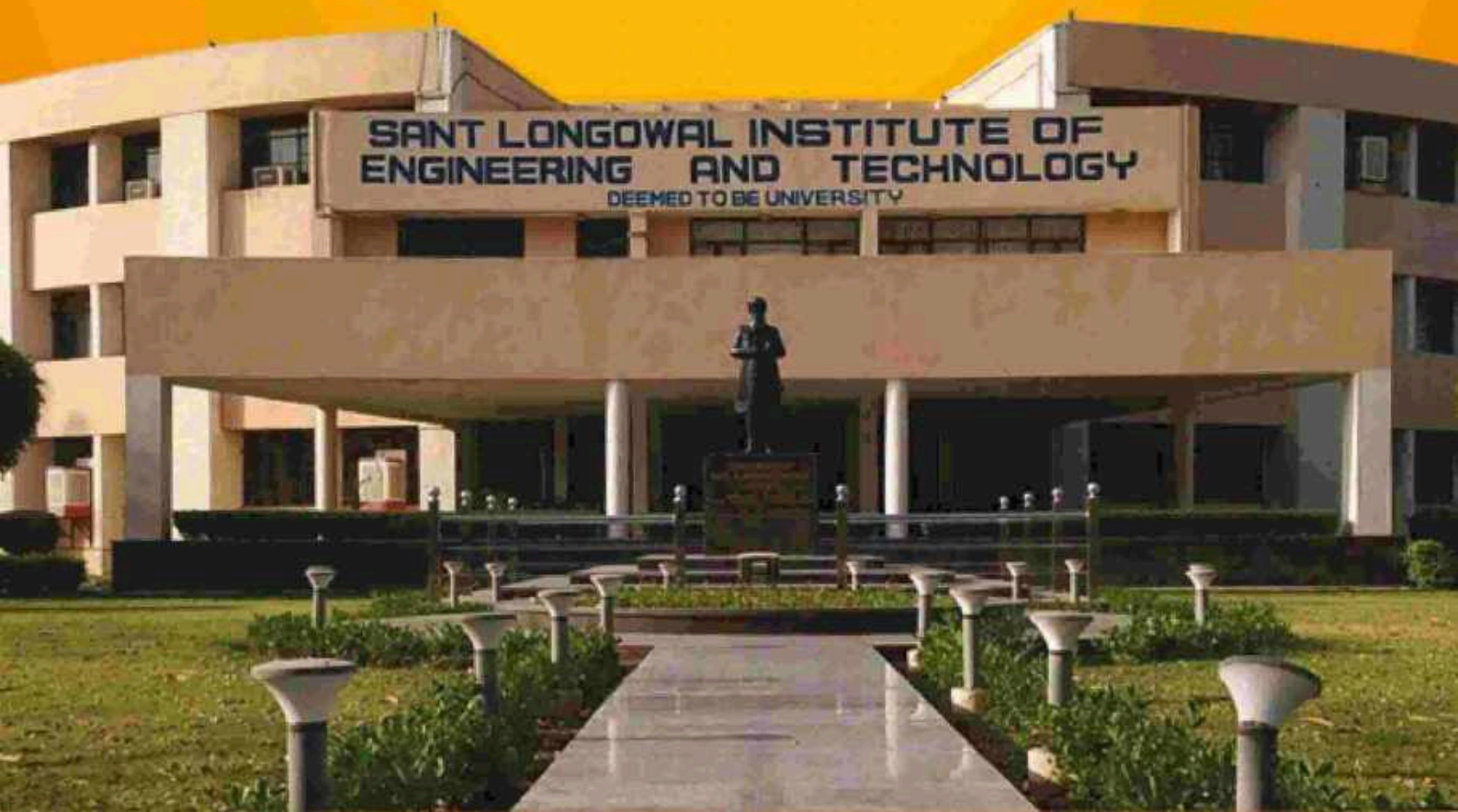
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SRIJAN 2023

सृजन SLIET'S ANNUAL MAGAZINE





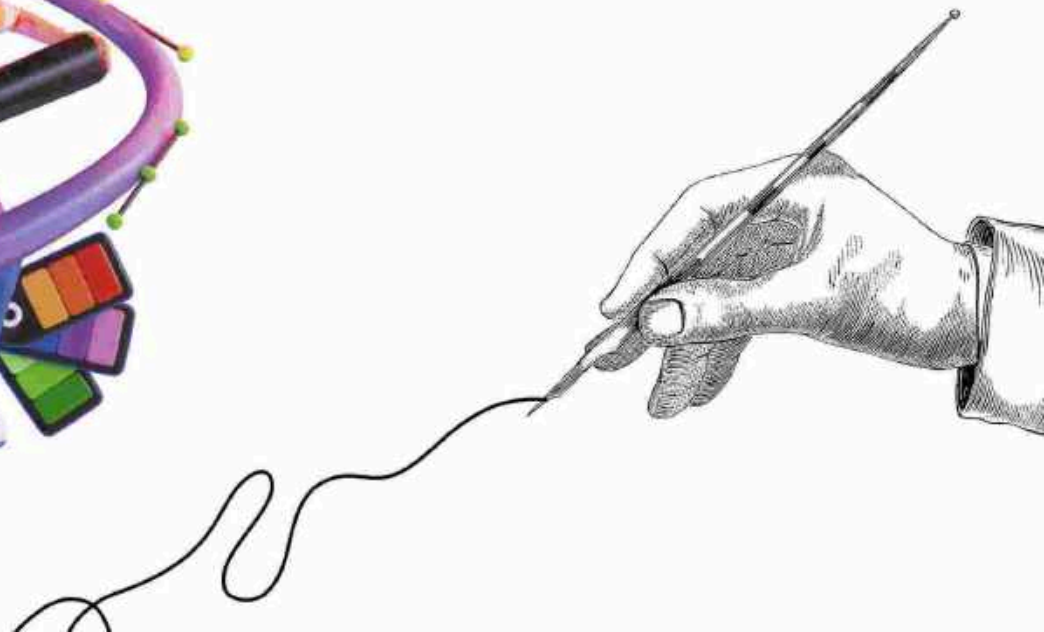
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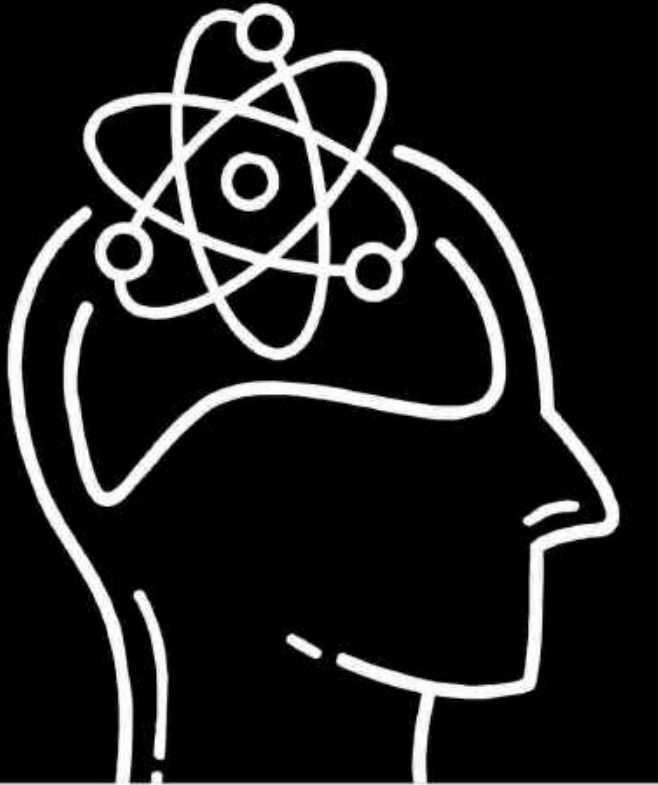
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SRIJAN 2023
सृजन SLIET'S ANNUAL
MAGAZINE

TEAM SRIJAN



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Proud to be part of Team SLIET

Together We Can Make a Difference

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From Director's Desk



Sant Longowal Institute of Engineering & Technology (SLIET), firmly believes that objective of education is not only the academic excellence but the all inclusive personality build-up of students. I feel proud while introducing you to this institute which has grown tremendously since its inception in 1989, and is slowly but surely evolving in stature. The Institute offers Integrated Certificate and Diploma Course(ICD), various Bachelor's Programs (B.Tech), Master's Programs (M.Tech. and M.Sc.)and doctoral programs (PhD) through 11 academic departments.

An institution is believed to be as good as its people are, and on boarding excellent human resources to facilitate, counsel and guide learning so as to transform that learning into practice is something that is pursued with zeal. I feel elated as a head of this esteemed institution that whole of the Team SLIET including administration, faculty and staff are dedicated to the holistic upbringing of the young budding engineers of this great nation.

The ultimate intent of this Institute is to train its students to enable them to live by their values subsequently strengthening the character which eventually leads to self esteem, maturity in every walk of life, wisdom in the decisions they make and the promptness to accept responsibility besides equipping them with the indispensable technical skills they must possess to further their career prospectus. The student community in SLIET drawn from all parts of India has grown and will continue to grow in strength, skills and diversity. The objective to make a creative, multidisciplinary institution which delivers quality education, original research and practice, is what drives the academic community in SLIET.

For me, It is a great pleasure and honour to serve as the Director of Sant Longowal Institute of Engineering & Technology, Longowal.

We are committed to give our budding technocrats strong roots like the Banyan Tree and stronger wings to conquer the world !

Wish Team SRIJAN ,all the best for its forthcoming issue of SRIJAN- a mirror of literary skills of SLIETians.

"JAI HIND JAI BHARAT"

Prof. Mani Kant Paswan



From the Desk of Dean (Academics)



The extracurricular activities are essential gradients of personality development activities in an institute providing professional education. Annual magazine of such an institute provides an ideal platform to its students to showcase their talent in an area not covered during their academic pursuit. For SLIETIANS 'SRIJAN' provides means to speak their mind in various languages to showcase their technical or non-technical writing skills. The magazine also boosts the Team spirit which evolved during the process of bringing up such a publication which mirrors the talent of the would-be technocrats of the Institute. I understand that bringing out any document to convey the feelings of others is an art and Team SRIJAN especially the students must have put great effort into bringing out this year's SRIJAN. I wish Dr. Sanjeev Garg, Chairman (Magazine Committee), and the whole Team SRIJAN all the best from the core of my heart and congratulate the Team for their Teamwork and great effort.



Prof. J.S. Dhillon

**" PROUD TO BE PART OF TEAM SLIET"
 "TOGETHER WE CAN MAKE A DIFFERENCE"**

From the Desk of Dean (Student Welfare)



I commend the Editorial Team and contributors for bringing out yet another issue of the magazine "SRIJAN". In addition to securing an academic qualification, active participation in extracurricular activities would become a value addition for a student. SRIJAN is a platform for all the students to display their talent, innovative skills, thoughts, ideas, and emotions in a free, frank, and fearless but civilized manner. The importance of this platform has increased many folds in the pandemic time. I appeal to all the students to show their creations and make a step to express themselves through this magazine. Bringing a new issue of the magazine requires a lot of hard work and devotion of time. The efforts made by Editor-in-Chief, Dr. Sanjeev Kumar Garg, and the Editorial Team in publishing this issue are appreciated. They have a challenge ahead to make "SRIJAN" even better.



Prof. Rajesh Kumar

" PROUD TO BE PART OF TEAM SLIET"



From the Desk of Dean (Faculty and Staff Welfare)



Sant Longowal Institute of Engineering and Technology, Longowal, has always intended to be a unique Institute with its unique modular academic system allowing almost every component. It can be humbly claimed that SLIET has contributed to the professionalism of technical education.

I am glad to know that Sant Longowal Institute of Engineering and Technology, Longowal, is going to publish the annual Institute magazine SRIJAN for the year 2023. 'SRIJAN is an appropriate platform that could be perfectly employed to showcase the hidden talent and flair for innovative and creative writing in addition to reflecting the technical knowledge our students possess. I hope the magazine will be quite informative, entertaining, a mirror of the Institute activities and fond memories, and resourceful.

On this occasion, I convey my sincerest and best wishes to the Director, Faculty Staff, students in general, and to Dr. Sanjeev Kumar Garg and his Team engaged in bringing out this edition of SRIJAN in particular. I take this opportunity to congratulate Team SLIET who has successfully contributed to the success of this magazine either in the form of articles or suggestions or in any direct or indirect way.



Prof. Kamlesh Prasad

" PROUD TO BE PART OF TEAM SLIET"

From the Desk of Dean (Research and Consultancy)



Sant Longowal Institute of Engineering & Technology has etched a unique niche in the technical, scientific and management forum of the country. SLIET has always persevered to be a distinctive singular novel institute with its unique standard educational system giving a chance to virtually every element of the trendy society to fulfil their educational dreams and achieve them with flying colours. I am immensely pleased to know that SLIET is going to publish the annual institute magazine SRIJAN for the year 2023. SRIJAN could be a platform that might be best utilized to showcase the hidden talent, and aptitude for innovative and inventive writing in addition to mirroring the technical skills our students possess. I hope that the magazine will be quite informative and will showcase the institute's activities and achievements. I Congratulate Dr Sanjeev Kumar Garg and his Team for the same and wish them all the best in this wonderful endeavour.



Prof. Surinder Singh

PROUD TO BE PART OF TEAM SLIET"
"TOGETHER WE CAN MAKE A DIFFERENCE"



From the Desk of Dean (Planning & Development) & Registrar



Sant Longowal Institute of Engineering & Technology (SLIET) has etched a distinct segment within the technical, scientific and management forum of country. SLIET has continuously meant to be distinctive singular novel institute with its unique standard educational system giving chance to virtually each element of the trendy society to fulfil the educational dreams and achieve them with flying colours.

I am immensely pleased to know that SLIET is going to publish its annual institute magazine 'SRIJAN'. It could be a best platform that might be best utilized to showcase the hidden talent, aptitude for innovative and inventive writing in addition to mirror the technical data our students possess. I hope that the magazine will be quite informative and will act as mirror of the institute activities and fond reminiscences.

I congratulate Team 'SRIJAN' for the same and wish them all the best.



Prof. Kamlesh Kumari

**" PROUD TO BE PART OF TEAM SLIET"
 "TOGETHER WE CAN MAKE A DIFFERENCE"**

From the Desk of Registrar SLIET



Extracurricular activities are a significant part of personality development. SLIET annual magazine 'SRIJAN' provides an ideal opportunity to its students to display their literary skills. 'SRIJAN' provides perfect means for the students to speak their mind in various languages to showcase their technical and non-technical writing skills. The magazine also uplifts the Team spirit which gets evolved during the gigantic task of bringing up such a publication which reflects the talent of the budding engineers of this nation. I believe that bringing out such an important publication is an art and Team SRIJAN must have put great efforts to bring this issue . I wish Team 'SRIJAN' all the best from the bottom of my heart and extend my warmest congratulations for the persistent effort and dedication to bring out this issue of SRIJAN.



Shri Hari Mohan Arora

**PROUD TO BE PART OF TEAM SLIET"
 "TOGETHER WE CAN MAKE A DIFFERENCE"**



From the Desk of Chairman (Magazine Committee)



Dr. Sanjeev Kumar Garg

It gives me immense happiness and contentment to finally present before you the current edition of the Institute's annual magazine 'SRIJAN'. The distinguishing feature of a great engineering institution is to provide quality technical education to its students. It comprises augmentation of skills and taking the individual to a soaring level of excellence, innovation, and ability to practically apply technical expertise leading to inclusive development and growth of an individual to contribute towards making India a developed economy as envisaged by former president Dr. A. P.J. Abdul Kalam In pursuit of the same, just like the milk is churned to precipitate the best of it, 'SRIJAN' tends to churn out creativity and innovation from the skills possessed the young students of SLIET.



The Team SRIJAN has left no stone unturned to make this issue of the magazine a unique one. We are sure that each of you will enjoy going through its pages reflecting on the hidden talent of our students and manifesting the achievements of SLIETIANS. One of the best things about 'SRIJAN' is that it showcases the inventive and imaginative aptitude of SLIET students to an appreciable extent something that we need to reconnect with. 'SRIJAN' successfully extracts that nimbleness to do such small things. The present edition of the magazine encompasses poetry, anecdotes, and technical and non-technical articles amongst a host of other creativities of the students of SLIET. Finally, we the Team SRIJAN wish to thank the Honourable Director Prof. Mani Kant Paswan, Deans, Registrar, faculty, staff, and all the students, from the bottom of our hearts for the continued support for the publication of 'SRIJAN' which transforms it into a distinctive compendium exhibiting the flair for writing of the SLIETIANS.

**" PROUD TO BE PART OF TEAM SLIET"
"TOGETHER WE CAN MAKE A DIFFERENCE"**

Dr. Sanjeev Kumar Garg



SANT HARCHAND SINGH LONGOWAL

Sant Harchand Singh Longowal was born on January 2, 1932, in Gadarhiani village of district Sangrur, Harchand Singh was the youngest of four sons of a simple farmer Mansa Singh. While his brothers helped till the fields, the quiet Harchand immersed himself in kirtan and religious discourses. At nine, he joined the dera of Sant Jodh Singh. Life at the dera was hard, much like a Buddhist monastery, and the inmates were trained in total sublimation of the self. He never gave up his frugal lifestyle and simple habits. At the Dera, he and other inmates learned humility by going out and begging for food.



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Harchand Singh soon earned A name as a gifted "Ragi" (singer of religious hymns) in "Gurbani" and "Brijbhasha". at just 30, he became head priest of the Damdama Sahib Takht, one of the five sacred takhts of the Sikh religion. In 1965. Harchand Singh became the president of the Akali organization in Sangrur district and a member of the working committee of the Shiromani Akali Dal.



SANT HARCHAND SINGH LONGOWAL

In July 1975, all the senior Akali LEADERS courted arrest, and Harchand Singh took over the command of the agitation which continued till January 1977. In March 1985, the leadership of the Akali party began to be released from jail under orders from the new Prime Minister Rajiv Gandhi. To improve the situation and create the conditions for a negotiated settlement of Sikh demands, the Prime Minister's confidante, Arjun Singh who was posted as the Governor of the state, also relaxed the censorship on the Punjabi press, withdrew army control over certain districts, announced his willingness to Institute a judicial inquiry into the November 1984 killings, lifted the ban on the All India Sikh Students Federation and agreed to review the cases of thousands of Sikhs imprisoned since the army's arrival in Punjab, the previous June. Within a few days, the first 53 were released.



A few days later, the rally made an effort to address the economic woes of Punjab, with its diminishing acreages and burgeoning unemployment by announcing the establishment of a rail coach factory at Kapurthala, Punjab which would need about 20,000 skilled hands. Then, after weeks of secret negotiations, Harchand Singh Longowal met the Prime Minister in Delhi and on July 23, 1985, signed an 11-point memorandum covering all the major issues that had defied resolution since the Akalis had first sent their list of demands. It was proposed to establish a higher educational institution that would be focused on providing skilled labor to Punjab and the nation. It was a clause for the upliftment of the young population of Punjab which lacked professional and technical education. This sowed the seed of the formation of the college Sant Longowal Institute of Engineering and Technology.

TEAM SRIJAN



India Takes Center Stage: A Glimpse into the G20 Summit 2023

“स्मृद्धि और सहयोग का महाकुंभ”

Introduction:

In a momentous event that brought together leaders from the world's largest economies, India played host to the G20 Summit, leaving an indelible mark on the international stage. The summit, held at Bharat Mandapam International Exhibition-Convention Centre, Pragati Maidan, New Delhi, showcased India's commitment to fostering global cooperation and addressing pressing issues that transcend borders.



Welcoming Delegates:

The vibrant and diverse culture of India served as the perfect backdrop for the G20 Summit, with leaders from 19 countries and the European Union converging to discuss critical matters affecting the global economy. The opening ceremony, marked by traditional Indian music and dance, set the tone for a summit that aimed to blend tradition with innovation.

Agenda and Key Discussions:

Under the theme "Building Consensus, Fostering Cooperation," the G20 Summit's agenda was meticulously crafted to address a range of pressing issues. Climate change, sustainable development, global health, economic recovery, and technology governance were at the forefront of discussions. India, with its unique perspective and challenges, actively contributed to shaping the dialogue.

Prime Minister Shri Narendra Modi highlighted India's commitment to sustainable development and emphasized the need for inclusive growth. The discussions on climate change saw India advocating for a balanced approach that considers the developmental needs of emerging economies while addressing environmental concerns.

Economic Recovery and Trade:

Amidst the challenges posed by the ongoing global pandemic, economic recovery and trade were key focal points. India proposed innovative solutions to stimulate economic growth while ensuring fair trade practices. The leaders engaged in constructive dialogues on removing trade barriers and promoting investment in emerging markets.



Technology Governance:

In an era where technology plays an increasingly significant role in global affairs, the G20 Summit addressed the need for responsible and inclusive technology governance. India, with its thriving technology sector, offered insights into harnessing the potential of digital innovation while ensuring ethical practices and safeguarding data privacy.

Cultural Diplomacy:

Beyond the formal discussions, the G20 Summit also showcased India's rich cultural heritage. Delegates were treated to traditional Indian cuisine, music, and dance, fostering an environment of cultural diplomacy that transcended political boundaries.



Global Health and Pandemic Preparedness:

Given the backdrop of the COVID-19 pandemic, global health was a top priority. India, with its experience in managing the pandemic, shared insights on vaccination campaigns, healthcare infrastructure, and international cooperation in combating health crises. The summit emphasized the importance of equitable vaccine distribution and strengthening global healthcare systems.

Closing Ceremony and Outlook:

The G20 Summit in India concluded with a renewed sense of commitment to global cooperation. The leaders expressed their appreciation for the hospitality and inclusivity displayed by the host nation. The closing ceremony celebrated the diversity of cultures represented, symbolizing the unity necessary to address shared challenges. As India bids farewell to its role as the host of the G20 Summit, the world looks forward to continued collaboration and progress on the global stage. The legacy of this summit will undoubtedly be remembered for India's leadership in fostering consensus, cooperation, and a shared vision for a better future.

“आत्म-निर्भरता से साझा करते हुए भारत”

Prakhyat Prakhar
GIN'22



ISRO's Triumph: Chandrayaan-3 and Aditya L1 Successfully Launch and Land

“नए ऊचाइयों की ओर एक नया कदम, भारतीय
अंतरिक्ष अनुसंधान का अगला मुहूर्त”

Introduction:

In a historic moment for the Indian Space Research Organisation (ISRO), the successful launch and subsequent landing of Chandrayaan-3 and Aditya L1 mark a significant milestone in India's space exploration endeavors. Building on the success of their predecessors, Chandrayaan-1 and Aditya-L1 promise to further our understanding of the Moon and the Sun, respectively.

Chandrayaan-3: Exploring the Lunar Frontier:

Chandrayaan-3, the third mission in India's lunar exploration program, was launched to build upon the discoveries made by its predecessor, Chandrayaan-2. The spacecraft carried advanced instruments to study the Moon's surface, analyze mineral composition, and map lunar resources.

The successful launch on 14th July 2023 from the Satish Dhawan Space Centre in Sriharikota propelled India into an elite group of nations capable of multiple lunar missions.

The Chandrayaan-3 mission included a lander, rover, and orbiter, each equipped with cutting-edge technology. The lander, designed to make a soft touchdown on the lunar surface, carried a rover with state-of-the-art instruments to explore and conduct experiments. The orbiter, which remains in lunar orbit, facilitates communication and data transmission back to Earth.

One of the key objectives of Chandrayaan-3 was to investigate the lunar south pole region, an area of great interest due to the presence of water ice. The mission aimed to advance our understanding of the Moon's geology and enhance the prospects of future lunar exploration, including potential human missions.





Introduction:

Simultaneously, ISRO's Aditya L1 mission embarked on a journey to study the Sun, our nearest star. Named after the Sanskrit word for 'sun,' Aditya L1 is India's first dedicated solar mission. Launched on 2 September 2023, the mission aimed to enhance our understanding of the Sun's outermost layer, the corona, and its impact on the solar system.

Aditya L1 carried a suite of instruments, including a visible Emission Line Coronagraph (VELC) and an Ultra-Violet Imaging Telescope (UVIT), designed to capture high-resolution images of the Sun. These instruments were crucial for studying solar phenomena such as solar flares and coronal mass ejections, providing valuable insights into space weather and its effects on Earth.



Successful Landing and Data Acquisition:



Both Chandrayaan-3 and Aditya L1 demonstrated the prowess of ISRO's scientists and engineers. The lander Chandrayaan-3 executed a flawless descent and made a successful soft landing on the lunar surface, showcasing India's growing expertise in lunar exploration. Meanwhile, Aditya L1 maneuvered into its designated orbit around the Sun, positioning itself to observe and study solar activities in unprecedented detail.

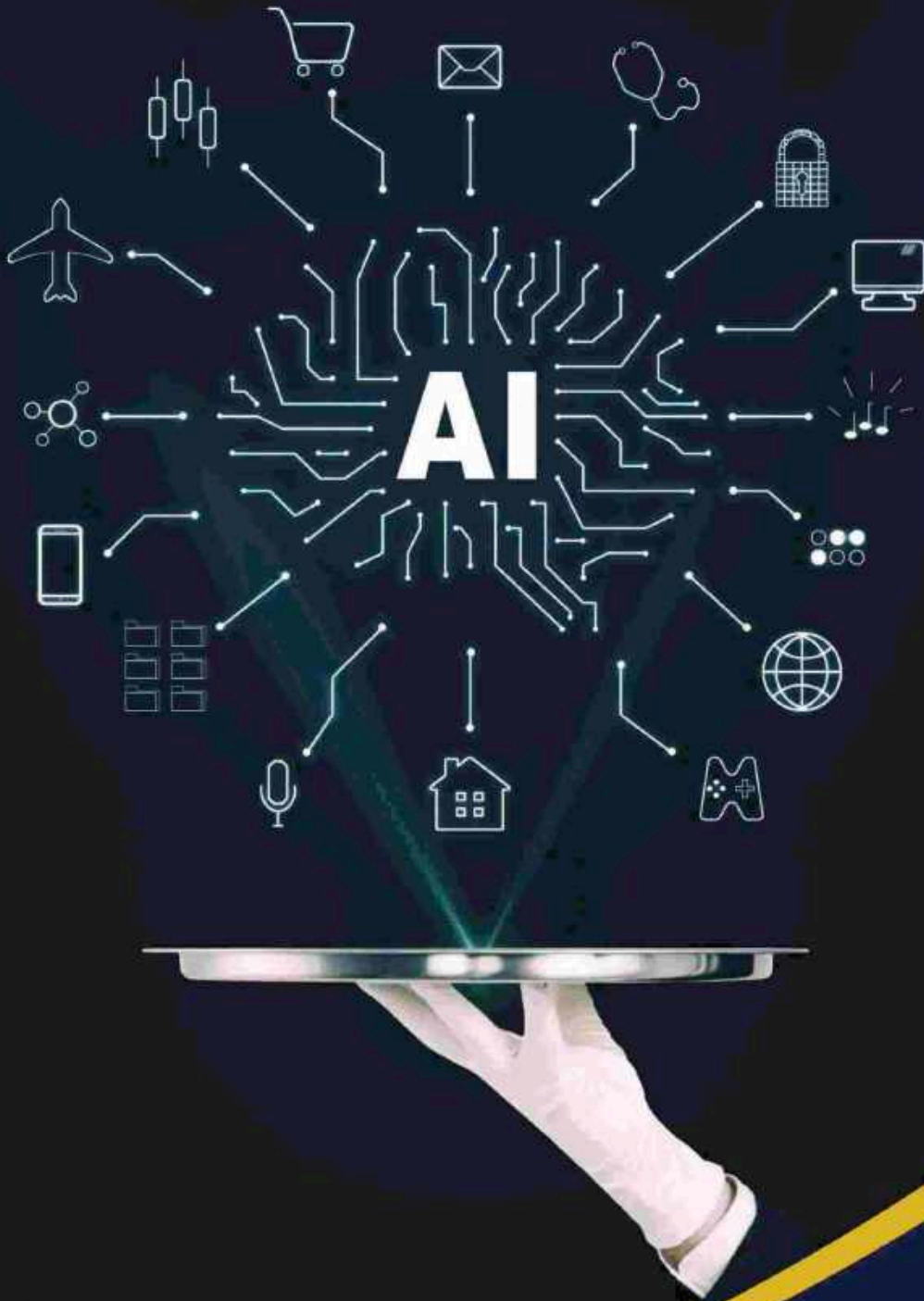


The successful landing and deployment of these missions not only contribute to our scientific knowledge but also elevate India's standing in the global space exploration community. The acquired data from these missions will be instrumental in advancing our understanding of the Moon and the Sun, opening avenues for further research and exploration.

Prakhyat Prakhar
GIN'22



TECHNICAL SECTION



SCOPE OF AI (ARTIFICIAL INTELLIGENCE)

Artificial Intelligence, or AI for short, is a type of computer technology that allows machines to do things that normally require human intelligence, such as learning, reasoning, and problem-solving. For example, AI can help computers recognize objects in pictures, understand human speech, make predictions about the weather or the stock market, and even play games like chess or Go. In the future, AI could be used to make self-driving cars, help doctors diagnose diseases, or even create virtual assistants that can help people with their daily tasks. So, in simple terms, AI is like giving computers a brain of their own so they can do things that only humans used to be able to do. Artificial Intelligence (AI) is a computer technology that enables machines to perform tasks that typically require human intelligence. This means that machines can be taught to do things like recognize images, understand language, make decisions, and even learn from experience. AI is being used in many different ways, such as:

- Voice assistants like Siri and Alexa can understand and respond to your voice commands.
- Self-driving cars, which use AI to navigate roads and avoid accidents.
- Fraud detection systems use AI to identify and prevent fraudulent transactions.
- Personalised recommendations on websites like Amazon and Netflix, which use AI to suggest products and movies based on your interests and past behaviors.
- Medical diagnosis and treatment, which use AI to analyse medical data and help doctors make better decisions.
- Chatbots use AI to converse with people and answer questions.

In the future, AI is expected to be used even more extensively in many areas of life, such as improving education, reducing environmental impact, and advancing scientific research. However, there are also concerns about the potential negative effects of AI, such as job displacement and the misuse of data.

Rohit Raj
GEE'21



HOW AI HELPS IN MECHANICAL ENGINEERING SECTOR

AI has the potential to revolutionize the field of mechanical engineering in several ways. Here are some of the key areas where AI is expected to have an impact:

- **Design optimization:** AI can optimize the design of mechanical components and systems. This can involve using algorithms to search vast design spaces to find the best solutions based on specified criteria.
- **Predictive maintenance:** AI can be used to monitor the health of mechanical systems in real-time, allowing engineers to identify potential issues before they lead to failure. This can reduce downtime, and maintenance costs, and extend the lifespan of equipment.
- **Quality control:** AI can automate quality control processes, such as inspecting parts for defects or ensuring that they meet certain specifications. This can improve the accuracy and efficiency of quality control, while also reducing the risk of human error.
- **Manufacturing optimization:** AI can be used to optimize manufacturing processes, such as scheduling, resource allocation, and supply chain management. This can help to reduce costs and improve efficiency, while also reducing waste and environmental impact.
- **Robotics and automation:** AI can be used to control robots and other automated systems, allowing them to perform tasks that would be difficult or impossible for humans. This can include tasks such as assembly, welding, or inspection.

Overall, AI is expected to play a major role in the future of mechanical engineering, helping to improve efficiency, reduce costs, and enable the development of new and innovative products and technologies.

Prakhyat Prakhar
GIN'22

THE IMPORTANCE OF TECHNICAL DOCUMENTATION

Technical documentation is a crucial aspect of any technology-based product or service. It provides users, developers, and other stakeholders with the necessary information about the product's features, functionality, and implementation. Technical documentation is often overlooked or treated as an afterthought, but it is essential to the success of any technology product.



Mokshita
GCS'21

One of the most important benefits of technical documentation is that it facilitates communication between developers and users. Technical documentation can help developers communicate complex technical concepts to users in a way that is easy to understand. It can also help users understand the product's functionality and how to use it effectively. Without proper documentation, users may be left confused and frustrated, leading to negative experiences and decreased satisfaction with the product.

In addition to facilitating communication, technical documentation also serves as a reference guide for developers. It allows developers to quickly and easily understand the product's features and functionality, making it easier to maintain, upgrade, or troubleshoot. Technical documentation can also help developers identify potential issues or bugs and provide solutions to those issues.

Furthermore, technical documentation plays a crucial role in ensuring the quality of a technology product. Documentation can help identify gaps in functionality or usability, leading to improvements in the product's design and development. It can also help identify potential security risks or vulnerabilities, allowing developers to address those issues before they become a problem.

Finally, technical documentation can also help increase the efficiency of a technology product with proper documentation, users can quickly and easily find the information they need, reducing the amount of time they spend searching for answers. This can lead to increased productivity and efficiency.



3D Printing Technology: Revolutionizing the World of Manufacturing and Design

3D printing, also known as additive manufacturing, has become a revolutionary technology that has transformed the world of manufacturing and design. This technology allows designers and engineers to create complex and customized objects by building them layer by layer. In this article, we will explore the history of 3D printing, its applications, and the future of this exciting technology.

The history of 3D printing can be traced back to the 1980s when a Japanese engineer named Hideo Kodama developed the first working 3D printer. However, it wasn't until the 1990s that 3D printing began to gain widespread attention. In the early days, 3D printers were large and expensive, and their use was limited to industrial applications.

In the 2000s, 3D printing became more accessible as the technology improved, and the cost of equipment decreased. This led to the growth of the maker movement and the emergence of desktop 3D printers. Today, 3D printing is used in a variety of industries, including aerospace, architecture, automotive, healthcare, and education. 3D printing, also known as additive manufacturing, is a technology that allows for the creation of three-dimensional objects by layering materials on top of one another. This technology has revolutionized the way we create and manufacture things, from prototypes and models to final products.

3D printing has a wide range of applications like, Prototyping and Product Design which allows designers and engineers to create prototypes and test their designs before mass production. This saves time and reduces the cost of production.

It enables the production to customized products that are tailored to specific customer needs. For example, prosthetics, dental implants, and hearing aids can be customized to fit an individual's unique anatomy. 3D printing is also used in education to teach students about design, engineering, and manufacturing. Students can create their designs and see them come to life. In the medical field to create custom implants, prosthetics, and surgical models. This technology has the potential to transform the way doctors and surgeons approach treatment and surgery. As the 3D Printing technology continues to evolve, they will become faster and more efficient, making the production process even more streamlined, with new materials such as biodegradable plastics and living tissue. 3D printing has the potential to transform the manufacturing industry by allowing for customized mass production. This could lead to more efficient and sustainable production methods. 3D printing technology has come a long way since its inception and has already made a significant impact on various industries. Its potential applications are limitless, and as the technology continues to improve, it will undoubtedly become even more revolutionary. From customized production to medical applications, 3D printing is shaping the future of manufacturing and design.

Soumya Shailja
GFT'21

Powering the Future Sustainably

The Role of Lithium Battery Recycling" As India races towards a cleaner energy future, the demand for lithium-ion batteries is expected to skyrocket. However, with this surge comes a significant challenge - the need for efficient and sustainable lithium battery recycling practices.

Currently, India recycles only 2% of its lithium-ion battery waste, compared to 97% in Belgium and 90% in South Korea. This poses environmental risks and results in a loss of valuable materials.

To address this issue, the Indian government has recently announced plans to establish a national policy for the recycling of lithium-ion batteries. The policy is expected to provide a REGULATORY FRAMEWORK for the industry, establish standards for recycling processes, and incentivize battery manufacturers and other stakeholders to invest in recycling infrastructure.

Several companies have already started investing in lithium battery recycling in India, with some partnering with automakers and other stakeholders to create closed-loop recycling systems. These systems involve collecting used batteries from consumers and recycling them into new batteries or other products.

One example is the collaboration between Indian automaker Mahindra & Mahindra and Finnish company Fortum, which have set up a joint venture to recycle lithium-ion batteries. The joint venture aims to recover up to 80% of the materials in the batteries, including cobalt, nickel, and lithium, and use them to manufacture new batteries or other products.

In addition to reducing environmental pollution, lithium battery recycling can also create new job opportunities and stimulate the economy in India. A study by the International Institute for Sustainable Development estimates that recycling batteries could generate over 100,000 direct and indirect jobs in the country by 2030.

However, there are still several challenges to overcome in order to achieve sustainable lithium battery recycling in India. These include the lack of a standardized recycling process, inadequate recycling infrastructure, and limited awareness among consumers about the importance of recycling batteries. As India continues to power towards a sustainable future, the role of lithium battery recycling cannot be understated. With the right regulatory framework and investments in infrastructure and technology, the country can take advantage of the economic and environmental benefits of recycling lithium-ion batteries, while also ensuring a cleaner future for generations to come.

GAURAV SHARMA
GCS'21



INTERNET OF THINGS (IOT)

The ongoing growth of IoT-based networks gives rise to significant problems with management, data gathering, storage, processing, and analytics. The big data architecture of Internet of Things for smart buildings is highly helpful in addressing a number of concerns, including regulating oxygen levels, measuring smoke and dangerous chemicals, and illuminance. Such a framework has the capacity to gather information from sensors placed in buildings and do data analytics for decision-making. An IoT-based cyber physical system that is outfitted with knowledge acquisition and information analysis tools can also be used to boost industrial production. One key problem with smart cities is traffic congestion. An IoT-based traffic management system may assess the real-time traffic data once it has been gathered by IoT devices and sensors put in traffic signals. IoT sensors used with patients provide a lot of data about their health status every second, which is analyzed in the healthcare industry. Big data technology is the most effective method for integrating this vast amount of data into a single database and processing it in real-time so that decisions can be made quickly and with high accuracy. Big data analytics and IoT can also aid in modernizing the outdated methods utilized in the industrial industries. The information generated by the sensing devices can be evaluated using big data techniques and may be useful for a variety of decision-making activities. Using analytics and the cloud can also help with cost-saving energy development and conservation while reducing carbon emissions. IoT devices provide a significant volume of streaming data that must be adequately stored and further analyzed to support real-time decision-making. Deep learning is an excellent method for handling such a massive amount of data and can produce very accurate results. Therefore, IoT, Big Data Analytics, and Deep Learning are crucial for the development of a high-tech civilization.

An Internet of Things (IoT) system is made up of a huge number of interconnected sensors and devices. The number of these sensors and devices is rising quickly due to the significant growth and extension of the IoT network. These gadgets exchange information with one another and send vast amounts of data via the internet. Because it is enormous and streams continuously, this data qualifies as big data.



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WEB 3.0 - THE FUTURE OF INTERNET

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The next version of the internet is referred to as Web 3.0, also called the decentralized web. It is based on blockchain technology and intended to be more decentralized, open, and secure than earlier iterations of the web. Web 3.0 has the potential to revolutionize how we use the internet and could have a big impact on lots of different businesses.

The decentralized nature of Web 3.0 is one of its key characteristics. Web 3.0 is intended to be user-controlled, in contrast to earlier versions of the web, which are controlled by a few large corporations. Users will therefore have more control over their data and privacy as a result. Also, it means that censorship and other forms of control won't have as much of an impact on the internet.

The adoption of blockchain technology is another important aspect of Web 3.0. A distributed ledger is used to record transactions using blockchain technology. It is perfect for usage in a decentralized web since it is transparent, secure, and unchangeable. Web 3.0 is able to give users a more secure and reliable environment by utilizing blockchain technology. Finance, healthcare, and social media are just a few of the industries that could be drastically changed by Web 3.0. Web 3.0 could make transferring money and assets in the financial industry simpler and less expensive. It might also make it possible to develop decentralized financial systems that are more open and accessible than conventional ones.

Web 3.0 has the potential to be used in the healthcare industry to develop patient-controlled, secure, and decentralized health records. This could safeguard patient privacy while enhancing the accuracy and accessibility of medical records.

Web 3.0 could make it possible to build decentralized social networks in the social media space that are more democratic and open than existing social media platforms. This might aid in addressing problems like inaccurate information, censorship, and data privacy. In conclusion, Web 3.0 is the internet of the future and has the power to revolutionise a wide range of sectors. It is more open, secure, and transparent than earlier iterations of the web because to its decentralised structure and usage of blockchain technology. We may anticipate many more fascinating advancements as Web 3.0 develops, which will change how we interact with the internet.



GREEN TECHNOLOGY

The term technology usually refers to the application of various techniques, skills, methods and processes for any and all practical purposes or to achieve certain objectives such as scientific investigation or research. A technology that is environmentally friendly in its production, supply chain or usage is referred to as Green Technology or Green Tech for short. The world we live in has a limited amount of natural resources, referred to as Non-Renewable resources, which can be depleted over time. Human activities caused many to already perish from the face of the Earth.

The main goal of producing Green Tech is to control climate change, protect the natural environment, reduce our dependence on Non-Renewable resources such as fossil fuels, and heal the damage done to the environment. The market for Green Tech is relatively in its starting stage but the investment capital is already blooming. While it is true that green tech has gotten progressively mainstream in the modern age, components of these business policies have been being used since the 18th and 19th centuries when the Industrial Revolution was at its peak. Manufacturers were trying to minimize their negative environmental externalities in the early 19th century by modifying manufacturing practices to create less soot or waste by-products.

Sectors Using Green Tech:

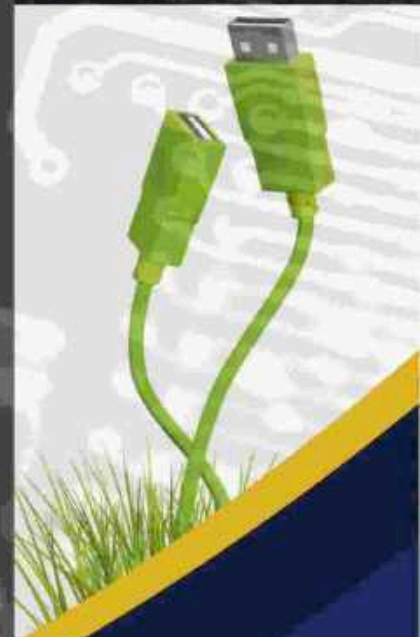
a) Energy Sector: This is the fact that the majority of the energy produced in the world today comes from burning fossil fuels. Alternative, more environmentally responsible fuel sources can be created using green technology. As a byproduct of their production, fossil fuels typically cause trash. As they are more environmentally friendly and don't produce any hazardous byproducts, fossil fuels can be replaced by solar, wind, and hydroelectric dams.

b) Transportation Sector: Vehicles powered by conventional fuels are one of the main sources of worldwide GHG emissions. As a result, a lot of businesses are using green technology in their transportation systems and cars, such as compressed natural gas (CNG) buses and electric automobiles.

c) Waste Management Sector: Green Tech is also used in waste management for transporting, storing and recycling waste.

d) Water Filtration: Green technology is frequently utilised to purify water all over the world. Green technology can be used to cleanse contaminated water or extract salt from seawater to increase the supply of safe drinking water in nations with restricted water supplies.

e) Air Purification: Green tech is also being used to clean the polluted air by decreasing the carbon emissions and gases released from the industrial sectors.



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FOREIGN DIRECT INVESTMENT

Foreign direct investment (FDI) refers to investments made by a foreign entity in the economy of another country. Unlike portfolio investment, which involves the purchase of stocks and bonds, FDI involves the establishment of a physical presence in the target country, such as a subsidiary, branch, or joint venture. FDI can take many forms, such as greenfield investments, mergers and acquisitions, and strategic alliances. Greenfield investments involve the construction of new facilities, while mergers and acquisitions involve the purchase of existing companies. Strategic alliances involve partnerships between companies in different countries to achieve common goals. FDI is a crucial component of global economic development, with trillions of dollars invested across the world each year. According to the United Nations Conference on Trade and Development (UNCTAD), global FDI inflows reached \$1.39 trillion in 2019, up 1% from the previous year.

The Power of FDI: How Foreign Investment Can Transform an Economy Foreign direct investment (FDI) has become an integral part of the global economy, providing businesses with access to new customers, resources, and opportunities that would otherwise be unavailable. FDI has the potential to transform an economy in myriad ways, creating jobs, boosting economic growth, and increasing productivity, among other benefits. In this article, we'll explore the power of FDI and its potential to transform economies around the world.



The Benefits of FDI for Developing Countries FDI can bring a range of benefits to developing countries, including job creation, technology transfer, and access to new markets. FDI can also help to improve infrastructure and increase productivity, which can lead to higher economic growth. One of the main benefits of FDI is job creation. When foreign companies invest in a country, they typically hire local workers, which can help to reduce unemployment rates. FDI can also bring new skills and knowledge to a country, which can help to improve the quality of the local workforce. FDI can also facilitate technology transfer, as foreign companies often bring new technologies and processes to the host country. This can help to increase productivity and competitiveness, which can lead to higher economic growth. Another benefit of FDI is access to new markets. When foreign companies invest in a country, they typically bring with them established distribution networks and marketing channels. This can help local companies to access new customers and expand their business. **Examples of FDI Success Stories** FDI has played a key role in the development of many countries, including China, India, and Vietnam. China, for example, has attracted significant FDI inflows over the past few decades, which has helped to fuel its economic growth.



In the 1980s, China began to open up its economy to foreign investment, and since then, it has become one of the largest recipients of FDI in the world. According to the World Bank, FDI inflows to China reached \$140 billion in 2019, up from just \$2 billion in 1990. India is another country that has benefited from FDI. In recent years, India has undertaken significant economic reforms to attract foreign investment, including liberalizing its foreign investment policies and improving its business environment. As a result, India has seen a steady increase in FDI inflows, with total inflows reaching \$49 billion in 2019. Vietnam is another success story. Since the 1980s, Vietnam has implemented a series of economic reforms aimed at attracting foreign investment. These reforms have helped to transform Vietnam into one of the fastest-growing economies in Southeast Asia, with FDI inflows reaching a record \$16.1 billion in 2019. Factors that Attract FDI to a Country There are several factors that can attract FDI to a country, including political stability, a favourable business environment, access to resources, and a skilled workforce.

One of the most important factors is political stability. Foreign investors are more likely to invest in countries with stable political environments, as this reduces the risk of political instability and unrest. Another important factor is a favourable business environment. This includes factors such as low taxes, streamlined regulations, and a transparent legal system. A favourable business environment can help to attract foreign investment by reducing the costs and risks associated with doing business in a country.

Access to resources is also important. Countries with abundant natural resources, such as oil, gas, and minerals, are often attractive to foreign investors. This is because these resources can provide a reliable source of income and can be used for further investment.

Finally, a skilled workforce is crucial. Foreign investors are more likely to invest in countries with highly educated and skilled workforces, as this can help to reduce the costs of training and development. Challenges and Risks Associated with FDI While FDI can bring many benefits, there are also several challenges and risks associated with foreign investment. One of the main risks is political instability. Foreign investors may be reluctant to invest in countries with unstable political environments, as this can increase the risk of expropriation, contract renegotiation, and other forms of political risk. Another risk is currency risk. When foreign companies invest in a country, they are often exposed to fluctuations in the exchange rate between their home currency and the local currency. This can lead to losses if the local currency depreciates or if there are sudden changes in the exchange rate. FDI can also lead to negative social and environmental impacts. For example, foreign companies may exploit natural resources or disregard local laws and regulations, leading to environmental degradation and social unrest.

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FDI and Sustainable Development Goals (SDGs) FDI has the potential to contribute to the achievement of the United Nations Sustainable Development Goals (SDGs). The SDGs are a set of 17 goals designed to promote sustainable development around the world. FDI can contribute to several of these goals, including the eradication of poverty, the promotion of decent work and economic growth, and the development of sustainable cities and communities. FDI can also contribute to the achievement of environmental goals, such as reducing carbon emissions and protecting biodiversity. However, FDI can also pose risks to the achievement of the SDGs, particularly if it leads to negative social and environmental impacts. Therefore, it is important for governments and investors to work together to ensure that FDI contributes to sustainable development. Best Practices for Managing FDI Inflows To ensure that FDI contributes to sustainable development, it is important for governments to adopt best practices for managing FDI inflows. These include:

Developing a comprehensive FDI policy that aligns with the country's economic development goals. Setting clear performance targets for foreign investors and monitoring their progress. Ensuring that FDI does not lead to a loss of sovereignty or negative social and environmental impacts. Encouraging foreign investors to adopt sustainable practices, such as reducing their carbon footprint and supporting local communities. Establishing effective mechanisms for resolving disputes between foreign investors and the host government.



Finally, FDI can also lead to a loss of sovereignty. When foreign companies invest in a country, they often gain significant control over the local economy, which can limit the ability of the host country to make decisions that are in its best interests. The Role of Government in Attracting and Managing FDI Governments play a crucial role in attracting and managing FDI. Governments can create policies and incentives to attract foreign investment, such as tax breaks, subsidies, and streamlined regulations. Governments can also play a role in managing FDI inflows to ensure that they align with the country's economic development goals. This can include setting performance targets for foreign investors, monitoring the social and environmental impacts of FDI, and ensuring that FDI does not lead to a loss of sovereignty. Governments can also play a role in promoting sustainable development through FDI. This can include encouraging foreign investors to adopt sustainable practices, such as reducing their carbon footprint and supporting local communities.



The future of FDI is likely to be shaped by several trends, including the rise of emerging markets, the growth of the digital economy, and the increasing importance of sustainability. Emerging markets are likely to continue to attract significant FDI inflows, particularly as they continue to develop and improve their business environments. The growth of the digital economy is also likely to lead to new opportunities for foreign investment, particularly in areas such as e-commerce and fintech. Finally, the increasing importance of sustainability is likely to lead to new opportunities for FDI. Investors are increasingly looking for opportunities to invest in sustainable projects and companies, particularly in areas such as renewable energy and sustainable agriculture.

The Importance of FDI in Economic Development Foreign direct investment (FDI) has the power to transform an economy in myriad ways, creating jobs, boosting economic growth, and increasing productivity, among other benefits. FDI is a crucial component of global economic development, with trillions of dollars invested across the world each year. However, FDI also poses risks and challenges, particularly if it leads to negative social and environmental impacts or a loss of sovereignty. Therefore, it is important for governments and investors to work together to ensure that FDI contributes to sustainable development. The future of FDI is likely to be shaped by several trends, including the rise of emerging markets, the growth of the digital economy, and the increasing importance of sustainability. As the world becomes increasingly interconnected, FDI will continue to play a vital role in driving economic growth and development around the world.

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WEB DEVELOPMENT

Web development has become an increasingly popular field in recent years, with more and more businesses and individuals seeking to establish an online presence. However, like any other profession, web developers face a number of challenges and obstacles in their day-to-day work. In this article, we will discuss some of the most common problems faced by web developers and explore possible solutions- Browser compatibility issues One of the biggest challenges facing web developers is ensuring that their websites function properly across a wide range of web

browsers. While modern browsers such as Chrome, Firefox, and Safari have excellent compatibility with web standards, older browsers such as Internet Explorer can cause headaches for developers. Ensuring cross-browser compatibility requires careful testing and can be time-consuming and frustrating. Solution: Use a browser compatibility testing tool, such as BrowserStack or CrossBrowserTesting, to identify issues early on in the development process. Additionally, developers should prioritize coding to web standards and avoid using browser-specific features. - Mobile responsiveness with more people accessing the internet on mobile devices, it's essential that websites are designed to be mobile-responsive. However, designing for mobile can be challenging, as screen sizes and resolutions can vary widely between devices. Ensuring a consistent user experience across all devices is essential for any website.

Solution: Use responsive web design techniques, such as flexible grid layouts and media queries, to create websites that adapt to different screen sizes. Additionally, developers should test their websites on a range of devices to ensure mobile responsiveness. - Security Web development involves handling sensitive information, such as personal details and payment information. Cybersecurity threats are constantly evolving, and developers must stay up-to-date with the latest security best practices to keep their websites secure. Solution: Developers should prioritize security from the outset of the development process, implementing measures such as SSL encryption, secure coding practices, and regular security audits. - Performance optimization Website performance is a key factor in user experience and search engine rankings. Slow-loading websites can lead to frustrated users and lower search engine rankings, which can have a negative impact on website traffic and revenue. Solution: Developers should prioritize performance optimization throughout the development process, using techniques such as image optimization, caching, and minimizing HTTP requests to improve website speed. Additionally, developers should regularly monitor website performance using tools such as Google PageSpeed Insights and - WebPageTest. Keeping up with new technologies Web development is a constantly evolving field, with new technologies and frameworks emerging all the time. It can be challenging for developers to stay up-to-date with the latest trends and technologies while also keeping up with their day-to-day work. Solution: Developers should prioritize continuous learning and professional development, keeping up-to-date with industry trends through blogs, conferences, and online courses. Additionally, developers should experiment with new technologies and frameworks to stay ahead of the curve.

In conclusion, web development is a challenging and dynamic field, with developers facing a wide range of obstacles and challenges. However, by prioritizing cross-browser compatibility, mobile responsiveness, security, performance optimization, and continuous learning, web developers can overcome these challenges and create high-quality websites that deliver a great user experience.

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MINING IN SPACE

Asteroid mining is the process of extracting valuable resources such as minerals, metals, and water from asteroids in space. With Earth's natural resources dwindling, asteroid mining is gaining popularity as a potential solution to meet the growing demand for natural resources. One of the main drivers behind asteroid mining is the need for rare earth metals that are essential for the production of high-tech electronics such as smartphones, laptops, and solar panels. The extraction of these minerals from asteroids could help reduce our dependence on terrestrial mining, which is often environmentally destructive and costly.

While asteroid mining may seem like a far-fetched idea, recent advancements in space technology have made it increasingly feasible. In fact, several private companies such as Planetary Resources and Deep Space Industries have already been established with the goal of mining asteroids. These companies aim to develop the technology required to mine asteroids and bring the extracted resources back to Earth. One of the key challenges of asteroid mining is the lack of knowledge about the composition of asteroids. However, recent asteroid missions such as NASA's OSIRIS-REx and Japan's Hayabusa2 have provided valuable data on asteroid composition, which can help inform future mining efforts.

Another challenge is the cost associated with asteroid mining. The high cost of launching and operating spacecraft, as well as the difficulty of transporting extracted resources back to Earth, make it difficult to make asteroid mining financially viable at the moment. However, as technology advances and the demand for resources continues to grow, the economics of asteroid mining may become more favorable. In addition to its potential economic benefits, asteroid mining could also have important implications for space exploration and colonization. Water extracted from asteroids could be used to support long-term space missions, while the resources extracted from asteroids could be used to build infrastructure in space. In conclusion, while asteroid mining is still in its early stages, it holds great promise as a potential solution to our growing need for natural resources. With advances in technology and ongoing research into asteroid composition, asteroid mining could become a viable industry in the near future, with the potential to revolutionize space exploration and benefit life on Earth.

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BRAIN MACHINE INTERFACE

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A Brain Machine Interface (BMI) is a technology that enables direct communication between the human brain and an external device, such as a computer or a robotic limb. The field of BMI research has grown rapidly in recent years, with exciting potential applications in medicine, entertainment, and even everyday life. The basic principle behind BMI is that the brain generates electrical signals when it performs various activities, such as thinking, moving, or feeling. These signals can be recorded using

electrodes placed on the scalp or implanted directly into the brain tissue. By analysing these signals, researchers can decode the brain activity and use it to control external devices. One of the most promising applications of BMI is in the field of prosthetics. People who have lost a limb or suffered paralysis due to a spinal cord injury often rely on prosthetic devices to perform everyday tasks. However, current prosthetics are limited in their functionality and can be difficult to control. By using a BMI, a person could potentially control a prosthetic limb directly with their thoughts, allowing for much more natural and intuitive movement. Another potential application of BMI is in the treatment of neurological disorders such as Parkinson's disease or epilepsy. By recording the brain signals associated with these conditions, researchers could potentially develop more targeted and effective treatments. For example, a BMI could be used to deliver electrical stimulation directly to the brain in order to reduce seizures or tremors. Beyond medical applications, BMI technology has the potential to revolutionize the way we interact with computers and other devices. For example, a person could control a computer or smartphone using their thoughts, eliminating the need for physical input devices such as keyboards or mice. This could be especially useful for people with disabilities or injuries that make it difficult to use traditional input devices.

Despite the potential benefits of BMI, there are still many technical and ethical challenges that must be overcome. One major challenge is the issue of implanting electrodes directly into the brain tissue, which carries risks of infection and other complications. Additionally, there are concerns about the privacy and security of brain data, as well as the potential for misuse of BMI technology.

In conclusion, Brain Machine Interfaces have the potential to greatly improve the lives of people with disabilities and neurological disorders, as well as revolutionize the way we interact with technology. However, further research is needed to fully understand the capabilities and limitations of this technology, and to address the many ethical and technical challenges that must be overcome.



GREY REVOLUTION

Robotics is rapidly revolutionizing the way agriculture is done around the world. With the advent of new technologies, farmers are now using robotics to increase their productivity and reduce their reliance on manual labour. Robotic systems can perform a wide range of tasks such as sowing, planting, weeding, and harvesting crops with high accuracy and precision. Robots are not only making farming more efficient, but they are also enabling farmers to collect and analyze large amounts of data that can be used to optimize crop yields and improve overall farm management. In this article, we will explore the various ways that robotics is transforming agriculture. Precision agriculture is a farming technique that involves using technology to optimize crop yields and reduce waste. Robotic systems play a crucial role in precision agriculture by collecting data about soil moisture levels, crop growth, and weather patterns. This data is then used to create detailed maps of the farm, which can help farmers to determine the best time to plant and harvest their crops. Robotic systems can also be used to apply fertilizers and pesticides in a targeted manner, reducing the number of chemicals used and minimizing the impact on the environment.

Harvesting is a labour-intensive task that requires a lot of manpower. With the use of robotics, farmers can automate the harvesting process, which can increase efficiency and reduce labor costs. Robotic harvesting systems use cameras and sensors to detect when crops are ready to be harvested and then use robotic arms to pick the crops. This process is much faster and more efficient than traditional harvesting methods, saving farmers time and money. Weeding is another labour-intensive task that can be timeconsuming and costly. Robotic weeding systems use cameras and sensors to detect weeds and then use robotic arms to remove them. This process is more efficient than manual weeding and can reduce the amount of herbicides used on the farm. Robotic systems can also be used to monitor crops and collect data about their growth and development. This data can be analyzed to optimize crop yields and improve overall farm management. For example, robotic systems can be used to monitor soil moisture levels, which can help farmers to determine the best time to irrigate their crops. They can also be used to monitor crop growth and detect pests and diseases, which can help farmers to take action before the problem becomes too severe.



Autonomous vehicles are becoming increasingly popular in agriculture. They can be used to transport crops, equipment, and personnel around the farm. Autonomous vehicles can also be used to collect data about the farm, such as soil moisture levels and crop growth. This data can be used to create detailed farm maps, which can help farmers optimize their operations.

In conclusion, robotics is transforming agriculture by increasing efficiency, reducing labor costs, and optimizing crop yields. With the help of robotic systems, farmers can collect and analyze large amounts of data that can be used to improve their operations and reduce their environmental impact. As technology continues to evolve, we can expect to see even more innovative solutions that will help farmers to meet the challenges of feeding a growing population in a sustainable manner.

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BLOCKCHAIN TECHNOLOGY REVOLUTIONARIES INDUSTRY

Blockchain innovation is a progressive development that can possibly change numerous ventures, from money and banking to production network the executives and then some. At its center, blockchain is a decentralized, conveyed record that takes into consideration secure, straightforward and carefully designed exchanges. The innovation was first presented in 2008 by the pseudonymous maker Satoshi Nakamoto, who distributed a whitepaper framing the idea of a decentralized computerized cash, Bitcoin. From that point forward, blockchain has extended past its beginnings in cryptographic money to turn into a flexible device for a large number of utilizations. One of the vital advantages of blockchain innovation is its decentralization. Rather than depending on a focal power or gobetween to check exchanges, blockchain utilizes an organization of hubs to approve and affirm exchanges. This makes the framework safer and less powerless against misrepresentation or control. Since the record is disseminated across an organization of PCs, no single party have some control over or change the information.

Notwithstanding decentralization, blockchain likewise offers straightforwardness and changelessness. When an exchange is recorded on the blockchain, it can't be modified or erased. This makes a super durable record, everything being equal, making it simpler to follow and check movement. One more key element of blockchain is its utilization of cryptography. Exchanges on the blockchain are gotten through cutting edge cryptographic calculations, which guarantee that main approved gatherings can get to and adjust the information. This gives an extra layer of safety, making it very hard for programmers or pernicious entertainers to mess with the framework. Blockchain innovation has proactively been taken on in various enterprises, including money, medical care, and operations. In finance, blockchain is being utilized to smooth out cross-line installments, lessen misrepresentation, and further develop straightforwardness. In medical care, blockchain is being utilized to store and oversee electronic wellbeing records, making it simpler for patients to access and share their clinical information.



Planning ahead, obviously blockchain innovation can possibly change a lot more ventures. For instance, it very well may be utilized to make a decentralized, straightforward democratic framework, or to empower secure shared energy exchanging. As additional organizations and associations start to investigate the capability of blockchain, we're probably going to see significantly additional thrilling applications arise. Obviously, similar to any new innovation, blockchain likewise accompanies a few difficulties and impediments. For instance, it tends to be challenging to scale blockchain frameworks to help huge volumes of exchanges, and there are still a few inquiries around how to guarantee security and information insurance on the blockchain. Regardless, these difficulties are overall effectively tended to by scientists and engineers, and obviously the advantages of blockchain innovation offset the downsides.

All in all, blockchain innovation is an incredible asset that can possibly change numerous enterprises. Its mix of decentralization, straightforwardness, and security goes with it a convincing decision for a large number of utilizations, from money to medical services and then some. As the innovation keeps on developing, we're probably going to see significantly seriously intriguing use cases arise, preparing for an additional decentralized, straightforward and secure future.

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INDIAN SPACE RESEARCH ORGANIZATION

ISRO (Indian Space Research Organization) is the space agency of the Government of India headquartered in Bengaluru, Karnataka. It was established in 1969 with the goal of developing space technology and its application to various national tasks. Over the years, ISRO has achieved several significant milestones, including the successful launch of numerous satellites for various purposes, including communication, remote sensing, meteorology, and navigation. ISRO also sent India's first interplanetary mission, the Mars Orbiter Mission (MOM), to Mars in 2014, making India the first country to succeed in its first attempt to reach Mars. ISRO has made significant contributions to India's socioeconomic development by providing communication, navigation, and remote sensing services to various sectors, including agriculture, disaster management, defence, and environmental monitoring. It has also collaborated with other space agencies from around the world on various space missions. ISRO's achievements have earned it a reputation as one of the world's leading space agencies, especially in the area of space technology development and low-cost space missions.

ISRO has the world's largest constellation of remote-sensing satellites and operates the GAGAN and NAVIC satellite navigation systems. It has sent two missions to the Moon and one to Mars.

ISRO did not have an official logo until 2002. The one adopted consists of an orange arrow shooting upwards attached with two blue coloured satellite panels with the name of ISRO written in two sets of text, orange-coloured Devanagari on the left and blue-coloured English in the Prakrita typeface on the right. During the 1960s and 1970s, India initiated its own launch vehicles owing to geopolitical and economic considerations. In the 1960s–1970s, the country developed a sounding rocket, and by the 1980s, research had yielded the Satellite Launch Vehicle-3 and the more advanced Augmented satellite launch vehicle (ASLV), complete with operational supporting infrastructure.

India plans to build a space station as a follow-up programme to GaganYaan. ISRO ex-chairman Dr.K. Siwan has said that India will not join the international space station programme and will instead build a 20-tonne (22-short-ton; 20-long-ton) space station on its own. It is expected to be placed in a low Earth orbit at 400 kilometres (250 mi) altitude and be capable of harbouring three humans for 15–20 days. The rough time-frame is five to seven years after completion of the Gaganyaan project.

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THE ROLE OF TECHNOLOGY IN EDUCATION: OPPORTUNITIES AND CHALLENGES

Education is a fundamental pillar of society, and technology has been rapidly transforming the way we learn and teach. Technology allows for personalized learning, where students can learn at their own pace and receive individualized feedback. This approach enables students to maximize their potential and enhances their overall learning experience. With the internet, students have access to an abundance of information that was not previously available. This information can be used to enrich learning and promote critical thinking skills. Technology facilitates collaboration among students, allowing them to work on projects together regardless of their location. This approach fosters Teamwork and enhances social skills. Technology provides new and innovative teaching methods, such as simulations, interactive videos, and virtual reality. These methods can engage students and enhance their understanding of complex topics. Not all students have access to technology, which creates a digital divide. This divide can hinder students' ability to learn and succeed, especially in a world where technology is becoming increasingly important.

Technology can be a source of distraction, with social media and other online activities competing for students' attention. This distraction can reduce the effectiveness of learning and create a negative impact on academic performance. As technology becomes more prevalent in education, there is a risk that students may become overly dependent on it. This dependence can hinder their ability to think critically and creatively, and they may struggle when faced with situations where technology is not available. As technology is used to collect and store data, there are concerns about privacy and security. These concerns can affect the trust between educators, students, and parents, and create potential legal and ethical issues. Technology is an essential tool in modern education, and it provides numerous opportunities to enhance learning and teaching. However, it is essential to consider the challenges that come with technology, such as the digital divide, distractions, dependence, and privacy concerns. By addressing these challenges, educators can maximize the potential of technology and ensure that it enhances rather than hinders the learning experience.

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TECHNOLOGICAL SINGULARITY

In physics, there is a concept of "Singularity" where our notion of space-time breaks down. Taking the example of a black hole, it is impossible for anything to come out of its event horizon, so it is like a boundary. Such an isolated region of space from which even light cannot escape.

The legendary physicist Jon Von Neuman suggested that since technology keeps improving, there would be a point in time after which things would have changed so much that we cannot even imagine what they would look like. If we pay attention to historical trends, it looks like technology just keeps accelerating. There is a famous Moore's law which indicates that intelligence would grow exponentially. Although made originally in the context of microchips, it can be extended and generalized too.

When intelligence starts improving itself, that might result in an uncontrollable cycle of intelligence explosion, which will bring about profound social transformation. We can already see Artificial intelligence models doing things which were previously thought to be impossible. In chess and many such other tasks, machines have reached super intelligence. Whether this continues remains to be seen, but one thing is for sure, it is impossible to stop progress, whether for good or for bad.

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5G REVOLUTION

How 5G will change the world Wireless connectivity has come a long way since it was first introduced to the world in the 1980s. Just to compare, 4G alone is thousands of times faster than the speeds of the first wireless generation, and 5G Ultra Wideband can provide speeds considerably faster than 4G. The 5G revolution is coming fast, and it's ready to change the world for the better.

The 5G Revolution and Public Safety The 5G revolution could open doors to new ways of improving public safety. Reliable, super-fast speeds, massive bandwidth, and low latency should greatly aid public safety officials in doing their jobs more efficiently. For instance, 5G's ability to support larger volumes of high quality video can give public safety officials a better understanding of a given emergency. This should give officials a more accurate picture of an incident, time to assess the situation properly and prepare effective ways to respond. 5G could also help ensure safe transportation for first responders. Verizon is already working to decrease emergency vehicle accidents through a 5G co-innovation project with TomTom that focuses on making intersections safer for emergency vehicles. With 5G, more transformations to public safety are possible. As more countries roll out 5G networks, public safety can change for the better throughout the world.

The 5G Revolution and Business While business and technology go hand-in-hand, the 5G revolution could also play a key role in the evolution of global business. As more countries roll out 5G networks, global business opportunities could grow exponentially, leading to new possibilities in products and services with the potential for an increase in productivity as well. The modern business world has shifted a great deal in the last year, and many businesses have become more familiarized with working with technology from outside of the office. With many businesspeople learning these remote working skills, the transition to working wirelessly with other offices in other parts of the world may become less of a foreign concept and more vital to success. 5G can further facilitate global connections by providing high speeds for secure video conferences and messaging. Public safety and business are only two of the many industries that will be affected by the 5G revolution. With higher speeds in wireless communication, opportunities for innovation will only continue to grow as we learn to utilize the power of 5G.

ADWAIT JADHAV
GME'22



SCADA

A SCADA (Supervisory Control and Data Acquisition) system is a control system designed to collect, analyze, and visualize data. It is used in industries such as energy, oil and gas, water, power, and many more. The system has a centralized system that monitors and controls entire sites, ranging from an industrial plant to complex of plant across the country.

A SCADA system includes three essential components: Master Terminal Unit (MTU), Remote Terminal Unit (RTU), and Human Machine Interface (HMI). The MTU is responsible for collecting data from the RTUs and sending it to the HMI. The RTUs are responsible for collecting data from sensors and instruments located in remote areas. The HMI is responsible for displaying the data in a logical and organized fashion. The SCADA system architecture is a centralized system that monitors and controls the entire area. It is a pure software package that is positioned on top of the hardware. A supervisory system gathers data on the process and sends the commands control to the process. The SCADA is a remote terminal unit which is also known as RTU. Most control actions are automatically performed by RTUs or PLCs. The RTUs consists of the programmable logic converter which can be set to specific requirement.

SCADA systems are used to monitor and control equipment in the industrial process which includes manufacturing, production, development, and fabrication. The infrastructural processes include gas and oil distribution, electrical power, water distribution. Public utilities include a bus traffic system, etc.

SCADA systems have several benefits such as facilitating communication between developers and users, serving as a reference guide for developer, ensuring the quality of a technology product, increasing the efficiency of the technology product, etc.

Devanshu Singh
GCT'22



SIMULATION TECHNOLOGY

Simulation technology has emerged as a powerful tool in various technical fields, revolutionizing training and decision-making processes. By creating virtual environments that mimic real-life scenarios, simulation technology enables professionals to gain hands-on experience, experiment with different strategies, and make informed decisions without the risks associated with real-world experimentation. This article delves into the applications, benefits, and future prospects of simulation technology across diverse industries, including manufacturing, healthcare, aviation, and defense. This section explores the evolution of simulation technology, tracing its roots back to flight simulators used in aviation training. It highlights the transition from physical simulators to computer-based simulations and the subsequent advancements in graphics, physics engines, and artificial intelligence that have enhanced the realism and effectiveness of simulations.

Simulation technology has become an integral part of modern manufacturing processes. This section discusses how simulation software is used to optimize production lines, improve efficiency, and reduce costs. It also explores the role of virtual prototyping in product development, allowing engineers to test designs and identify potential issues before physical production. The healthcare industry has embraced simulation technology to enhance medical training, patient safety, and research. This section explores how medical simulators are used to train surgeons, nurses, and other healthcare professionals in complex procedures. It also discusses the use of patient simulators for realistic clinical scenarios and the potential for virtual reality simulations to improve rehabilitation therapies. Aviation and defense industries heavily rely on simulation technology for pilot training, mission planning, and equipment testing. This section explores the advancements in flight simulators that provide realistic training experiences for pilots, reducing costs and risks associated with live training. It also delves into the use of virtual simulations for military operations and strategic decision making.



Simulation technology plays a crucial role in optimizing transportation and logistics operations. This section discusses how simulators are used to train truck drivers, ship captains, and railway operators, improving safety and efficiency. It also explores the use of simulation software for route planning, traffic management, and supply chain optimization. Simulation technology is increasingly employed in the energy sector to optimize power generation, distribution, and consumption. This section explores how simulators are used to model renewable energy systems, predict energy demand, and optimize grid operations. It also discusses the role of simulations in environmental impact assessments and climate change mitigation strategies. The numerous benefits of simulation technology, such as cost savings, risk reduction, enhanced training, and improved decision-making. However, it also addresses the challenges associated with developing accurate simulations, integrating complex data sets, and ensuring user acceptance and proficiency. The final section explores the future prospects of simulation technology, discussing emerging trends such as augmented reality simulations, cloudbased simulations, and the integration of artificial intelligence. It also addresses potential ethical considerations and the need for continuous research and development to push the boundaries of simulation technology.

Simulation technology has transformed training and decision-making processes across diverse technical fields. From manufacturing to healthcare, aviation to transportation, simulation technology offers a safe and effective means of gaining practical experience, optimizing operations, and making informed decisions. As advancements continue to push the boundaries of realism and interactivity, the future of simulation technology holds immense potential for further innovation and impact across industries.

Suraj Gurav
GCT'22

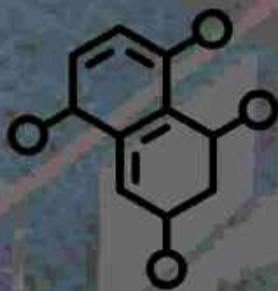


POLYMER TECHNOLOGY

Polymer technology is a dynamic and rapidly evolving field that encompasses the study, design, and application of polymers. Polymers are large molecules composed of repeating subunits, and they play a critical role in various industries, including materials science, electronics, healthcare, and energy. This article aims to provide a comprehensive overview of polymer technology, exploring its principles, methods, and applications. Polymers are macromolecules made up of repeating units called monomers. They can be classified into several categories based on their structure, including linear polymers, branched polymers, crosslinked polymers, and network polymers. Additionally, polymers can be classified based on their origin as either natural or synthetic.

The properties of polymers are influenced by their chemical structure, molecular weight, and morphology. Understanding the relationship between polymer structure and properties is crucial for tailoring materials with desired characteristics such as mechanical strength, thermal stability, and electrical conductivity. Polymerization is the process of combining monomers to form polymers. There are two main types of polymerization techniques: step-growth polymerization and chain-growth polymerization. Step-growth polymerization involves the reaction between functional groups on different monomers, while chain-growth polymerization involves the growth of a polymer chain through the addition of monomers to an active site. Step-growth polymerization involves the reaction between functional groups on different monomers, resulting in the formation of covalent bonds between the monomer units. This process allows for the synthesis of polymers with controlled molecular weight and composition.

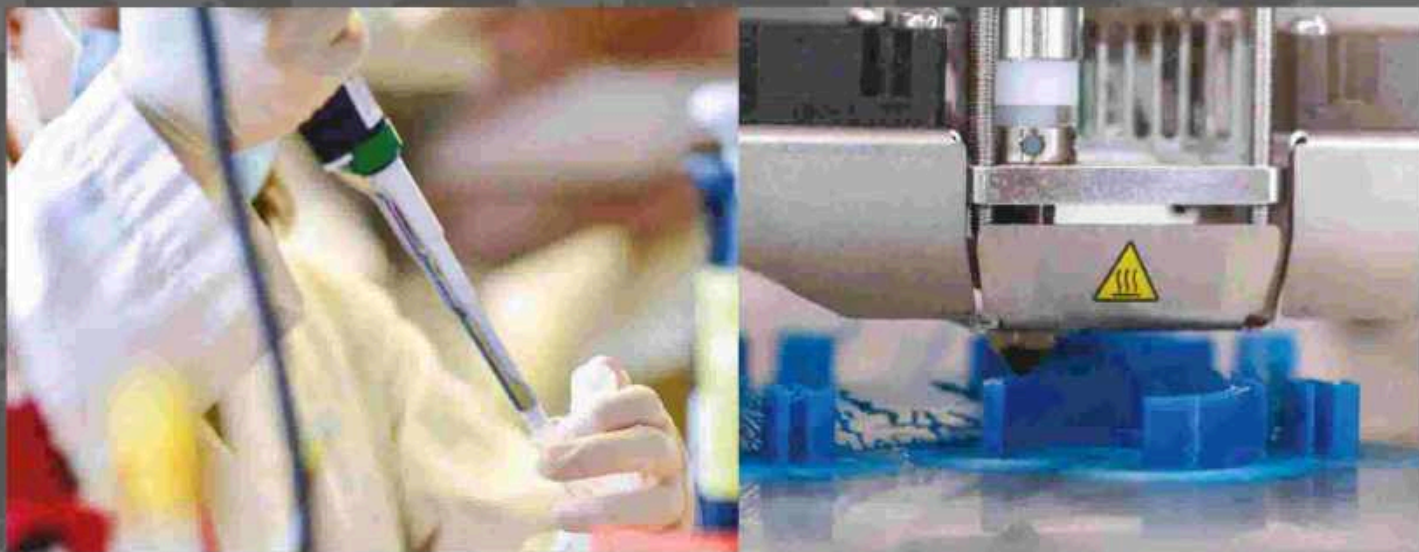
Chain-growth polymerization involves the growth of a polymer chain through the addition of monomers to an active site. This process can be initiated by various methods, including radical, anionic, cationic, and coordination polymerization. Chain-growth polymerization allows for the synthesis of polymers with high molecular weight and controlled architecture. Copolymerization is the process of polymerizing two or more different monomers to form a copolymer. Copolymers can exhibit unique properties compared to homopolymers, making them suitable for a wide range of applications. Crosslinking involves the formation of covalent bonds between polymer chains, resulting in the formation of a three-dimensional network structure.



Crosslinked polymers exhibit enhanced mechanical properties, chemical resistance, and dimensional stability. Polymer modification techniques involve the introduction of functional groups or additives to alter the properties of polymers. Examples include grafting, blending, and surface modification techniques.



Molecular weight is an important parameter that influences the physical and mechanical properties of polymers. Various techniques, such as gel permeation chromatography (GPC), viscometry, and light scattering, can be used to determine the molecular weight distribution of polymers. Thermal analysis techniques, including differential scanning calorimetry (DSC) and thermogravimetric analysis (TGA), are used to study the thermal properties of polymers, including melting point, glass transition temperature, and thermal stability. Spectroscopic techniques, such as infrared spectroscopy (FTIR), nuclear magnetic resonance (NMR), and Raman spectroscopy, provide valuable information about the chemical structure and composition of polymers. Morphological analysis techniques, such as scanning electron microscopy (SEM) and transmission electron microscopy (TEM), allow for the visualization and characterization of the microstructure of polymers, including crystallinity, phase separation, and morphology.



In biomedical engineering, polymer-based drug delivery systems provide controlled release of drugs, improving their efficacy and reducing side effects. They find applications in targeted therapy, cancer treatment, and wound healing. Polymer scaffolds are used in tissue engineering to support cell growth and guide tissue regeneration. They find applications in regenerative medicine, organ transplantation, and wound healing. Polymer-based medical devices, such as catheters, implants, and prosthetics, offer biocompatibility, flexibility, and ease of fabrication. They find applications in diagnostics, surgery, and patient care. In energy and sustainability, polymer-based materials are used in energy storage devices such as batteries and supercapacitors due to their high energy density, long cycle life, and fast charge discharge rates. Polymer-based solar cells offer the potential for low-cost and lightweight solar energy conversion. They find applications in portable electronics, building-integrated photovoltaics, and off-grid power generation. Polymer-based membranes and adsorbents are used for water purification and treatment, including desalination, filtration, and removal of contaminants.

Debjit Gayan
GCT'22



SRIJAN 2023
सृजन SLIET'S ANNUAL
MAGAZINE

42

ENGLISH SECTION

*Proud to be part of Team SLIET
Together We Can Make a Difference*



Overthinker

Nisha Shah

Everything happens for a reason
Learn not to judge someone's decision

Nothing is permanent
as everything stays for a season

Life is never complex
if you keep your thoughts aside.
Make the best out of your present
leaving your past behind.

Turn off the voices around you.
and listen to the silence.
Forget the thing that disturbs you
and follow the guidance.

Work hard with zestful blood in veins.
So on the ocean of achievement you slide.
Aim not to achieve sitting idle,
for indalence and success never coincide.

Accuse not yourself for misfeasance,
as everything you have decided.
Happens for a reason.



I AM LIKE FIRE

These raindrops won't
Wash my tears away
I am like fire
Blazing and glaring
Outraging with fury

Once I used to be
Calm and silent
Like balmy weather
A silent hillside
a lonely seaside

But here I stand
Like a flame of fire
Burning with rage and agony
With glare and ferocity

These raindrops won't
Wash my tears away
I am like fire
Blazing and glaring
Outraging with fury

**Sharanya Upadhyay,
GME'22**

"Ephemeral Beauty: Life's Swift Embrace

Amidst the tapestry of fleeting days,
Our lives, like whispers, fade in swift cascade.
In youth's embrace, we dream in golden haze,
Yet time's unceasing flow makes no charade.

With every dawn, a page of life unfurls,
A fleeting bloom in nature's grand design.
Each sunset paints the sky with vibrant swirls,
As moments blend, in hours' grand decline.

Yet in the transient beauty of this plight,
We find the strength to cherish every breath.
For life's true worth is not in endless flight,
But in its fragrant bloom before its death.

So as the seasons change with gentle grace,
We savour life's sweet moments and embrace.

RAVI SHANKAR
GME'22



Sleepless Reverie: A Night of Insomnia

In the stillness of the night, I lay awake,
Under the moon's silver glow, my mind at stake.
Insomnia's touch, a bittersweet melody,
The world's asleep, but my soul is not free.

The city's heartbeat fades to a hum,
As insomnia's grip, it starts to overcome.
I'm tangled in the sheets of endless thought,
In the quiet hours, my restless heart sought.

Oh, insomnia, the long and winding night,
You keep me from the dreams that take flight.
Counting sheep and watching stars collide,
In the depths of sleeplessness, we bide.

Neon lights flicker, casting shadows tall,
In the realm of insomnia, I'm bound to fall.
The world outside my window is fast asleep,
While I'm trapped in a reverie, memories to keep.



In the hush of the dark, I find my muse,
 With insomnia's gift, I pen my blues.
 The stillness of night whispers secrets untold,
 As sleep eludes me, my stories unfold.

Oh, insomnia, the long and winding night,
 You keep me from the dreams that take flight.
 Counting sheep and watching stars collide,
 In the depths of sleeplessness, we bide.

We chase the night, we chase the stars,
 In this silent world where the night scars.
 With every passing hour, our minds ignite,
 In the company of insomnia, we write.

The pale dawn breaks, a new day's birth,
 But insomnia lingers, it holds its worth.
 A night of solitude, a silent reverie,
 In the world of insomnia, I am finally free.

In the final moments before the sun's embrace,
 I find solace in this sleepless space.
 Insomnia's touch, a paradoxical grace,
 As I journey through the night, in its embrace.

Oh, insomnia, the long and winding night,
 You keep me from the dreams that take flight.
 Counting sheep and watching stars collide,
 In the depths of sleeplessness, we bide.

In the realm of sleepless dreams, we unite,
 As insomnia's song weaves through the night.
 In this shared insomnia, our souls take flight,
 We find beauty in the darkness, a beacon of light.

ROHIT RAJ
GEE'21



THE FUTURE IS CASHLESS

The world is rapidly moving towards a cashless society, and it's time to embrace the benefits that come with it. Gone are the days of carrying bulky wallets filled with cash and coins. Today, we have access to a range of digital payment options that offer convenience, security, and speed. From mobile wallets to contactless payments, the future of money is here, and it's time to start taking advantage of it.

In this era of instant gratification, people want everything to be fast and easy, and digital payments offer just that. Another advantage of a cashless society is the increased security it provides. With digital payments, your transactions are encrypted and secure, which means that your financial information is less likely to be compromised. Additionally, if your card is lost or stolen, you can easily cancel it and get a new one, which provides an added layer of security.

Finally, digital payments are faster than traditional payment methods. With a mobile wallet, for example, you can pay for things instantly, without having to wait for your card to be processed. This can be particularly useful when you're in a hurry or when you're trying to make a purchase during a busy period. But, as we move towards a cashless society, there are also concerns about privacy and security.

One of the main concerns is that it could lead to greater inequality, as those who don't have access to digital payment methods could be left behind. Additionally, there are concerns about privacy and security, as digital payments can be tracked and monitored. Finally, there's the risk of fraud and hacking, which can be a major concern for those who use digital payment methods.

As we move towards a cashless society, it's important to be prepared. This means educating ourselves about digital payment methods, staying aware of potential risks and pitfalls, and adapting to new technologies as they emerge.

One way to prepare for a cashless society is to start using digital payment methods yourself. This will allow you to get used to the technology and understand how it works. Additionally, it's important to stay aware of potential risks and pitfalls, such as fraud and hacking. By staying informed, you can take steps to protect yourself and your financial information.

Finally, it's important to adapt to new technologies as they emerge. This means staying up-to-date with the latest trends and innovations in digital payments, and being willing to try new things. By being open-minded and adaptable, you can ensure that you're well-prepared for a cashless society.



Hemani GCS'21

While the move towards a cashless society is still in its early stages, there are already several countries that have successfully transitioned to digital payments. Sweden, for example, is one of the most cashless societies in the world, with cash transactions making up just 1% of total transactions. China is also rapidly moving towards a cashless society, with mobile payments accounting for over 80% of all transactions in the country. These examples demonstrate that a cashless society is not only possible, but it can also be successful. By embracing digital payments and adapting to new technologies, we can create a more efficient and productive economy.

As we move towards a cashless society, it's important for governments and financial institutions to play a role in ensuring that the transition is smooth and equitable. This means providing education and support to individuals and businesses, and ensuring that everyone has access to digital payment methods. Additionally, it's important for governments and financial institutions to work together to create a regulatory framework that protects consumers and ensures that digital payments are secure and reliable. This can be achieved through a combination of legislation, regulation, and oversight.

Embracing the benefits of a cashless society while being mindful of the potential risks.

In conclusion, the move towards a cashless society is inevitable, and it's important that we embrace the benefits that come with it. Digital payments offer convenience, security, and speed, and can help to create a more efficient and productive economy. However, we must also be mindful of the potential risks and pitfalls, such as privacy concerns and the risk of fraud and hacking.

By being prepared, staying informed, and adapting to new technologies, we can ensure that we're well-equipped to thrive in a cashless society. So, let's embrace the future and all the benefits it has to offer.



IMPACTS OF TELEVISION ON READING: MINDLESS STREAMING IS AN INVISIBLE THIEF

In today's digital age, television and streaming services have become an integral part of our lives. While they offer entertainment and convenience, it's essential to acknowledge the subtle impact they have on our reading habits. As a college student, I've realized that mindless streaming is an invisible thief that can rob us of the joy and benefits of reading.

Television is enticing with its instant gratification and passive consumption. It's easy to get lost in binge-watching series or mindlessly flipping through channels, but this habit can come at the cost of time we could spend reading. Reading not only enhances our knowledge but also boosts our critical thinking, creativity, and empathy. As a student, I've come to appreciate the depth and insight that books offer. They allow us to explore different worlds, cultures, and ideas, nurturing our intellect in a way that television often cannot.

While television and streaming can be a valuable source of information and entertainment, we must strike a balance. Let's not allow mindless streaming to be the invisible thief that robs us of the joys and benefits of reading. Embrace the written word, and let it enrich your life as much as the screen does.

Khushi Kumari
GCT'21





The Importance of Mental Health Awareness on College Campuses

As students navigate the academic and social pressures of college, mental health can often take a backseat. However, it is crucial that we prioritize mental health awareness and support on college campuses. According to a survey by the National Institute of Health, India 75% of the students reported moderate to severe depression and 25% reported minimal to mild depression. Almost half of the respondents suffer from moderate anxiety (49.6%) disorder, followed by mild (30.3%) and minimal (10.2%) anxiety disorders, while about 10% are experiencing severe anxiety disorder. These statistics illustrate the urgent need for mental health resources and support systems in colleges.

Balaji
GEE'21

The stigma surrounding mental health issues can prevent students from seeking help. Many students feel ashamed or embarrassed to admit that they are struggling with mental health issues, and may not know where to turn for help. It is important for colleges to destigmatize mental health issues and create an environment where students feel comfortable seeking support.

One way that colleges can promote mental health awareness is by hosting events and workshops that focus on mental health and self-care. These events can provide students with valuable resources and information, as well as foster a sense of community and support. Colleges can also offer counselling and therapy services on campus, or connect students with off-campus mental health providers, as done in several IITs, and even SLIET. Additionally, colleges can provide training to the faculty and staff on how to recognize and respond to mental health issues in students.

Another important aspect of mental health awareness on college campuses is promoting self-care and stress-management techniques. Students may feel overwhelmed with academic workloads, extracurricular activities, and social pressures, which can exacerbate mental health issues. Colleges can

provide resources and support for students to practice self-care, such as mindfulness and meditation practices, exercise programs, and time-management workshops.

In conclusion, prioritizing mental health awareness and support on college campuses is crucial for the well-being of students. By destigmatizing mental health issues, providing resources and support systems, and promoting self-care and stress-management techniques, colleges can create a healthy and supportive environment for students to thrive in. It is important for colleges to recognize the urgency of this issue and take proactive steps to address it.



FROM SCIENCE FICTION TO REALITY: THE MAGLEV REVOLUTION

Introduction

In the realm of science fiction literature, maglev technology has captured our imaginations for decades, often serving as a symbol of a futuristic, efficient mode of transportation. The concept of magnetic levitation, popularized in famous books like

"The High-Speed Frontier" by Philip Reeve, has long been a symbol of a future where transportation defies the constraints of friction and gravity. In this article, we will explore the science fiction roots of maglevs and how they have evolved into a transformative reality. "The High-Speed Frontier" and the Maglev Dream Philip Reeve's "The High-Speed Frontier" paints a vivid picture of a world where trains levitate above tracks using magnetic fields. In the novel, these maglev trains provide swift, silent, and energy-efficient transportation between cities. Reeve's vision is an example of science fiction's remarkable ability to inspire technological innovation. The Science behind Maglevs Maglev, short for magnetic levitation, is not just a product of science fiction but a tangible scientific concept. These trains operate on the principle of electromagnetism, using powerful magnets to lift the train off the tracks. By eliminating physical contact between the train and the rails, friction is greatly reduced, allowing for smoother, faster, and more energy-efficient travel. Real-World Maglev Development While science fiction books like "The High-Speed Frontier" capture our imaginations, real-world progress in maglev technology has made substantial strides. Japan and Germany, among other nations, have spearheaded the development of maglev trains. Japan's Chūō Shinkansen project aims to create a high-speed maglev line connecting Tokyo and Osaka, slashing travel times and increasing energy efficiency. The L0 series maglev train in Japan has achieved record-breaking speeds, pushing the boundaries of transportation innovation.

Conclusion

Philip Reeve's "The High-Speed Frontier" and other science fiction works have sparked our collective imagination, making maglev trains a symbol of the future of transportation. What was once the stuff of science fiction is now taking shape as a transformative technology in the real world. As maglev trains approach commercial viability and enter mass transit systems, they bridge the gap between fiction and reality, offering a glimpse into a future where transportation is faster, quieter, and more environmentally friendly. The journey from science fiction to reality is, indeed, a thrilling ride.

Shams Zaman
GCS'21

Unfulfilled Dreams Journey

As we grow up, we all have dreams and aspirations that we hope to fulfil someday. These dreams may range from being a successful entrepreneur to travelling the world or even becoming a famous artist. But as we journey through life, we often realize that some of our dreams may remain unfulfilled.

Personally, I have had several dreams that I have not been able to accomplish yet. One of my biggest dreams is to become a published author. I have always been passionate about writing, and I believe that my words have the power to inspire and touch people's lives. However, due to various reasons, such as lack of time or motivation, I have not been able to pursue this dream as vigorously as I would have liked.

Another dream of mine is to travel the world and experience different cultures. I want to see the beauty of the world and meet people from all walks of life. However, this dream has remained unfulfilled due to financial constraints and other obligations that require my attention.

Pradyuman GEE'21

Having unfulfilled dreams can be disheartening, and it's easy to fall into a state of despair or regret. But I have learned that it's important to focus on the journey, rather than just the destination. Every step we take towards our dreams is a step forward, and even if we don't achieve our ultimate goal, we still gain valuable experiences and knowledge along the way.

Moreover, having unfulfilled dreams also provides us with the opportunity to reassess our priorities and make necessary changes in our lives. It's essential to remember that our dreams and aspirations may change over time, and that's perfectly okay. What's important is that we stay true to ourselves and continue to pursue our passions.

In conclusion, unfulfilled dreams are a part of life, and it's essential to embrace them as opportunities for growth and learning. It's never too late to chase our dreams and make them a reality, and even if we don't achieve them, we can still find fulfilment in the journey. So, to all my fellow dreamers out there, keep chasing your dreams, stay positive, and never give up!



COLLEGE LIFE: FINDING BALANCE AND MAKING THE MOST OF YOUR TIME

College life can be both exciting and overwhelming. Juggling classes, studying, extracurricular activities, and socializing can leave you feeling stretched thin. But with some organization and planning, you can find a healthy balance and make the most of your time in college.

Start by creating a schedule that includes your classes, study time, and activities. Prioritize your tasks and make sure you give yourself enough time for each one. Don't forget to schedule some downtime to recharge and relax.

Get involved in campus activities that interest you. Joining clubs and organizations is a great way to meet new people and develop new skills. Plus, it can help you find a sense of community on campus.

Finally, take care of yourself. Get enough sleep, eat healthy, and exercise regularly. Taking care of your physical and mental health will help you stay focused and energized.

College can be a challenging time, but it can also be one of the most rewarding experiences of your life. By finding balance and making the most of your time, you can create a college experience that is both enjoyable and fulfilling.



Tanisha
GEE'21

THE PROBLEMS OF OLD AGE

Old age is an integral part of human life. It is the evening of life; the unavoidable, undesirable, unwelcome and problem-ridden phase of life. Everybody wants to live a long life, but not to be old. A man is compelled to go through the pains and pleasures of this age like the other phases of life before making an exit from this mortal stage, as Shakespeare rhymed in As you like it,

“All the world's a stage,
And all the men and women merely Players;
They have their exits and their entrances,
And one man in his time plays many parts,
His Acts being seven ages.”

An old man is full of experiences and even though experiences are of immense help to the younger generation, he is taken as an unwanted burden. He himself is caught in a terrible feeling of redundancy.

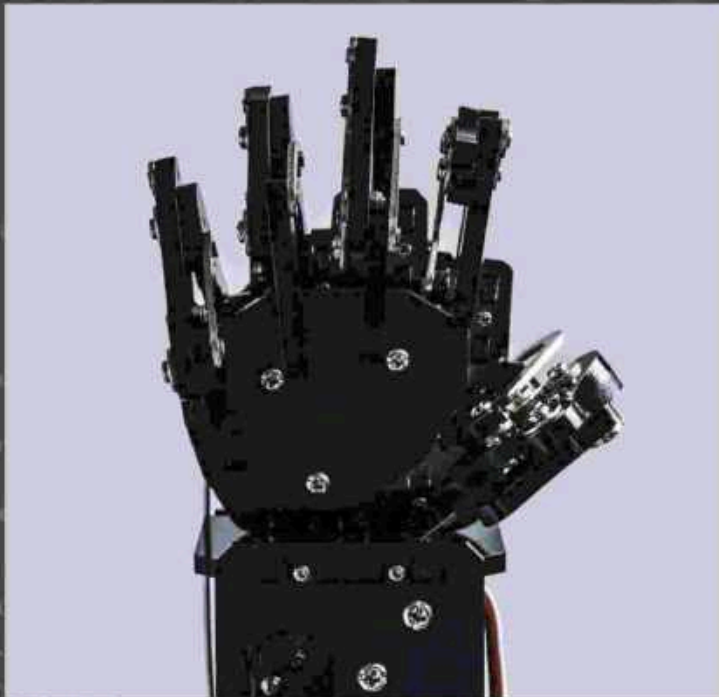
The problem of loneliness and isolation is the gift of modern society. The society forces an old person to live like an island. Often they face the loss of spouse and old friends. In fact, during old age one is faced with multi-dimensional problems. One of the major problems is the financial constraint which is really more difficult in case of the elderly who are not entitled to any social security and have no source of income, rendering them completely dependent on their spouse or children. People of this consumer culture do not have sufficient money to provide financial support to their parents, neither do they take it as their moral responsibility. This unfortunate situation needs to be addressed urgently.

The colossal anxiety of not knowing just how far ahead one must plan or for how long one is forced to stay financial dependent on his children only worsens the agony. It wreaks havoc in the lives of the elderly. The picture is really grim in the twilight of the life which ought to have been the best years of a person's life, when man is free from every kind of responsibilities.

Paras Singla
GCS'21



TECHNOLOGICAL SINGULARITY IN LITERATURE: EXPLORING THE IMPACT OF ADVANCED TECHNOLOGY ON HUMANITY



"Neuromancer" by William Gibson

William Gibson's 1984 novel "Neuromancer" is often considered a pioneering work in the cyberpunk genre and a precursor to discussions on technological singularity. The novel introduces readers to a dystopian future where the lines between humans and machines are blurred. Artificial intelligences, known as "AIs," play a central role in the narrative, and their emergence is a driving force behind the novel's plot.

Gibson explores the idea that as AIs grow more sophisticated, they could evolve to a point where they transcend human understanding and control. This notion serves as a cautionary tale about the unchecked advancement of technology and its potential consequences.

The concept of technological singularity, often defined as the hypothetical point in the future when artificial intelligence surpasses human intelligence, has been a recurring theme in science fiction literature. This intriguing idea has captivated authors and readers alike, leading to the creation of some of the most thought-provoking and iconic works of speculative fiction. In this article, we will delve into the portrayal of technological singularity in literature, exploring how authors have envisioned the potential consequences, challenges, and ethical dilemmas that may accompany the rapid advancement of technology.

Technological singularity, as a concept, revolves around the idea that advancements in artificial intelligence and other technologies will reach a point where machines surpass human intelligence, leading to profound and unpredictable changes in society and the human condition. It is a future event marked by a radical transformation in the nature of human existence.

Chandramauli Gupta
GME'22

POPULATION EXPLOSION: A TICKING TIME BOMB

**Adarsh
Kumar
GCS'21**

Population explosion is a big concern in today's age. There are many reasons why the population is increasing so rapidly. One of the major reasons is the illiteracy among the people. We see high population growth where there are poverty and illiteracy. Illiterate people are generally unaware of the birth control and usage of it. Also, poor people tend to marry at a young age without any sex education and end up having many kids. One of the other reasons for the population explosion is the development of science and medicine. The life expectancy of people has increased drastically.

To control the rate of population, different governments have taken a lot of steps around the world. Governments have used both positive and negative reinforcements. In India government has taken steps like eradicating poverty and increasing awareness. If people are educated, they will make better decisions regarding it. The government is trying to empower women so they can choose whether to conceive a baby or not. They have been attempting to develop medical facilities throughout the country and have tried to educate more people about contraceptives. But if we take the example of China, we will see that they have put some harsh laws for birth control. No family could conceive more than one child, and if they did so, they would be burdened with heavy taxes, and the cost of living for the second child would be unaffordable for a middle-class family although this rule was removed recently.

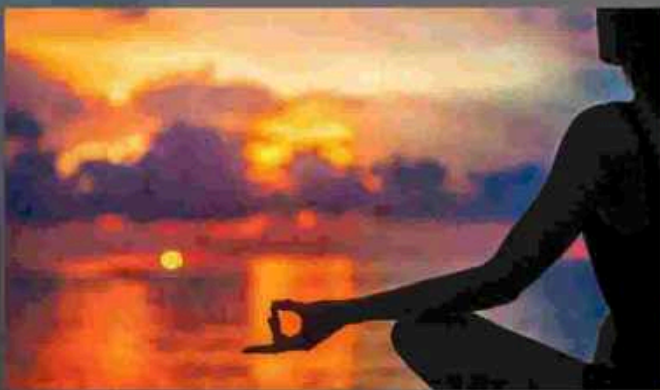
However, population growth is not always harmful. No country has ever been able to grow with low urbanization. The young population is the driver of the economy. Human capital is key to economic growth, but we must strive to create a balance for the sake of environmental resources and our own future.



CONSCIOUSNESS AND THE ETERNAL TRUTH



We are all here on this earth to make ourselves aware of the purpose of our life. Have you ever thought why you are here? What is the purpose of being here? Here we all come to know ourselves. To know the soul as it is, a pure stream of consciousness flowing from the higher self to your body in this dimension. Pure means what? Pure means above all kinds of lust, greed, gluttony, pride and anger. These impurities are of the human conditioning, or of the past lives. Without transmuting these lower emotions, one cannot move to a higher level of consciousness.



Meditation is one of the techniques that will help you to identify who you are and why you are on this earth. It is simply a method of becoming aware of one's thoughts, emotions and surroundings. Not related to any religion, it may be practiced by anyone. It is like medicine that does not discriminate. Its main purpose is to cure one of the human conditioning which keeps one stuck in the same patterns in life, patterns we refer to as destiny or fate. Slowing down your day to day activities to observe before absorbing the stimuli around you will increase your awareness, in turn elevating your state of consciousness. Therefore, be aware of why we are here on this earth, be aware of the beauty inside you. Unless, you are truly aware of who you are, you cannot truly take charge of your life and will always find eternal entities to blame. You are the creator of your life, and meditation is only path to this realization.

Suraj Kumar
GCS'20

WOMEN EMPOWERMENT: SHIFTING THE NARRATIVE FROM SIDE CHARACTERS TO SUBJECTS

In a world that has long been dominated by patriarchal norms and structures, the journey towards gender equality has been an uphill battle. Women, for centuries, were often portrayed as side characters, relegated to supporting roles in the unfolding drama of society. However, the narrative is changing, and today, women are emerging as powerful subjects, reclaiming their rightful place in the spotlight. Women empowerment is not just a buzzword; it's a fundamental shift that recognizes women as the subjects of their own stories, capable of rewriting the script of their lives. Breaking Stereotypes.



One of the fundamental aspects of women empowerment is the breaking of stereotypes that have kept women on the periphery. Historically, women were expected to conform to predefined roles – the nurturing mother, the obedient daughter, or the submissive wife. These stereotypes perpetuated the idea that women were best suited as passive side characters, always playing a supporting role.

However, women today are defying these stereotypes, shattering glass ceilings in every field. They are not just caregivers; they are doctors, engineers, scientists, and astronauts. They are not just homemakers; they are CEOs, entrepreneurs, and political leaders. The idea of what a woman can be and achieve is evolving, positioning women as subjects of their own stories and capable of shaping their destinies. In India, we can also bridge the gender gap, and restore the country to its pre-colonial glory, by empowering women to be the protagonists of their stories.



Sudhanshu Shekhar
GCS'21



HIP HOP: A CULTURAL TOUCHSTONE

Hip Hop embraces the artistic elements, most definitely. But it also has blended and transcended them to become a means for seeing, celebrating, experiencing, understanding, confronting, and commenting on life and the world. Hip Hop, in other words, is a way of living—a culture.

The elements of Hip Hop came together in the Bronx borough of New York City. It was the early 1970s and times were tougher than usual for the poorer parts of urban America. From a whole lot of nothing—and a whole lot of imagination—Hip Hop took form.

DJ Kool Herc is credited with throwing the switch at an August 1973 dance bash. He spun the same record on twin turntables, toggling between them to isolate and extend percussion breaks—the most danceable sections of a song. It was a technique that filled the floor with dancers who had spent days and weeks polishing their moves.

The effect that night was electric, and soon other DJs in the Bronx were trying to outdo Herc. It was a code that has flowed through Hip Hop ever since: Use skills and whatever resources are available to create something new and cool, Emulate and imitate the genius of others but inject personal style until the freshness glows. Competition was, and remains, a prime motivator in the Hip Hop realm. Like a powerful star, this dance party scene quickly drew other art forms into its orbit. A growing movement of hopeful poets, visual artists, and urban philosophers added their visions and voices by whatever means available. They got the word out about what was happening in their neighbourhoods—neighbourhoods much of mainstream, middle-class America was doing its best to ignore or run down. Hip Hop kept coming, kept pushing, and kept playing until that was no longer possible.

Today, some Hip Hop scholars fold as many as six elements into Hip Hop culture. They include:

DJing—the artistic handling of beats and music

MCing, aka rapping—putting spoken-word poetry to a beat

Breaking—Hip Hop's dance form

Writing—the painting of highly stylized graffiti

Theatre and literature—combining Hip Hop elements and themes in drama, poetry, and stories

Knowledge of self—the moral, social, and spiritual principles that inform and inspire Hip Hop ways of being.

From its work-with-what-you-got epicentre in the Bronx, Hip Hop has rolled outward to become a multibillion-dollar business. Its sounds, styles, and fashions are now in play around the world. DJs spin turntables in Sao Paulo, Brazil. MCs rap Arabic in the clubs of Qatar. B-boys and B-girls bust baby freezes in Finland. Graffiti rises on the Great Wall of China. Young poets slam poetry in D.C.

So what is Hip Hop? All of the above and more—whatever we love enough to bring.

Ankit Kumar Jha
GCS'21

COLLEGE LIFE

The best part of one's life,
Yes it is College life!

Starting with College, an innocent teenager,
I remember it all, yes I do.

All the tension and worries fade away,
as I reach the lecture hall every day.

The pressure of studies is always on,
but our friends and professors have the magic to
transform it to joy.

And every moment is mellifluous as this melody
Attending classes, labs and evening in the hay
all the fun bottled for a future coming undone.

I wonder what will happen,
as the time goes by,
the memories will warm me throughout this life.

Priya
GEE'21



NEED OF FINANCIAL EDUCATION AS A STUDENT

If you don't know where you are financially, then it can be challenging to plan how to get to where you want to be next year, five years from now, or decades down the road in retirement. That's why it is important to identify your starting point.

Creating a list of needs and wants can help you set financial priorities. Needs are things that you must have to survive: food, shelter, basic clothing, healthcare, and transportation. Wants, on the other hand, are things that you would like to have but that aren't necessary for survival. Most people could tell you how much money they make in a year. Fewer could state how much money they spend, and fewer still could explain how and where they spend it. One of the best ways to figure out your cash flow—what comes in and what goes out—is to create a budget or a personal spending plan.

Most people have debt—a mortgage, auto loans, credit cards, medical bills, student loans, and the like—and some of that debt actually may be good for them. However, as a rule, debt is not good, and what makes living with debt so costly is not just the interest and fees; it's also the fact that it can prevent people from ever getting ahead with their financial goals. Ultimately, it can become a drain both fiscally and emotionally on individuals and families.

First, you can't always control when you retire. You could lose the job that you've held for decades, suffer an illness or injury, or find that you need to care for a loved one—any of which could lead to an unplanned retirement. Second, saying that you won't retire can be just an excuse to avoid spending the time and energy to develop a real plan—or it could be a sign that you are in really difficult straits that you need to confront. Or maybe you simply don't know how to plan. Learning more about your retirement options is an essential part of securing your financial future.

Rohit Raj
GEE'21



IN THE ABYSS

Take me to the abyss
Where death sings lullabies
Restful under the green grass
I didn't live for this

Take me to the abyss
Where birds on my ancestors' lark
Hum songs so silent, the chill
Of freedom whispers eternal bliss

Down, up, above in the abyss
The angels and the devils are one
I hear one symphony of life
I can live for this, forevermore

Swati Dhiman
GEC'21



SELF-INTROSPECTION, BENEFITS & WAYS TO PRACTICE IT.

The act of investigating and comprehending oneself is known as self-introspection. It is also known as "inner work" or "inner research". Understanding who you are better through introspection is crucial for developing self-awareness.

A person can gradually improve their understanding of oneself through self-introspection, which also strengthens their emotions and thoughts and enhances psychological health by promoting identity development. Increased self-awareness and personal

growth can be achieved by self-introspection, which is a crucial technique. People can gain a greater understanding of themselves through introspection, including their thoughts, feelings, and emotions. It is one of several crucial tools people can utilize to better understand their inner selves. It promotes self-awareness and the capacity to adopt a more realistic perspective of oneself, both of which may be essential for successfully pursuing interpersonal or personal growth. Self-introspection can be used to pinpoint areas where one has to develop in order to accomplish goals or enhance particular traits in oneself. Assisting people in determining what needs to be done to enhance these traits or accomplish their goals, it can boost well-being.

Self-introspection is considered as an exploration of one's innermost feelings, thoughts, and beliefs, which are personality traits. Some people see this process as an internal quest for truth.

The person should become aware of what they truly believe, how they truly feel, and why they believe what they do. It helps one realize there are two types of experiences: those that elicit positive emotions (such as thankfulness) and those that elicit negative emotions (resentment). A person's resentment can frequently increase as a result of negative life situations

Self-reflection aids in getting rid of any "defects" and bad emotions

It is one of the greatest techniques for handling conflicts since it can be used to settle disputes and differences that could develop within an organization or family.

One of the most significant advantages is that when we have high self-esteem, we are more at ease and relaxed around others as well as with ourselves.

An excellent approach to unwind, calm your mind, and simply think about your thoughts or your life in general is through meditation. You can use this technique to help you keep your attention on the things in your life that matter most.

To begin using it and reaping its benefits, you only need to set aside a brief period of time—5 minutes or less—each day. If you practise it excessively, it will start to have the reverse effect of calming you down. Try meditating two hours before to bedtime if you have difficulties falling asleep at night. Meditation is known to relax the body and mind, which will speed up the process.

Music can help you feel less stressed and improve your mood because it increases heart rate, which elevates your mood and makes you feel calmer. Constantly promote positivism in your surroundings.

You'll feel more upbeat and inspired to take action on your true desires as a result of this.

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A woman with her hair in a bun is shown in profile, sitting in a meditative pose on a mat. She is wearing a dark purple crop top and white shorts. The background is a soft-focus outdoor setting with palm trees and a sunset sky. A yellow and blue curved graphic element is at the bottom of the page.

Kartik
GEE'21



REDEFINING TRANSPORTATION: THE ELECTRIC TRAIN AND ITS SCI-FI REALIZATION

The concept of electric trains has fascinated humanity for over a century. From the early electric locomotives of the 19th century to the high-speed electric trains of the 21st century, the technology has evolved significantly. But even as we look to the future of electric trains, it is intriguing to explore how science fiction literature has envisioned and embraced these remarkable modes of transport. In this article, we delve into the world of electric trains and their portrayal in a science fiction book.

Electric trains, also known as electric rail transport, have revolutionized the world of transportation. Unlike traditional steam or diesel locomotives, electric trains are powered by electricity, which can be supplied through overhead wires, a third rail, or an onboard energy storage system. This innovative technology provides a more efficient, eco-friendly, and high-speed mode of rail travel.

Advantages of Electric Trains:

Efficiency: Electric trains are known for their high energy efficiency and low operating costs.

Eco-Friendly: They produce fewer greenhouse gas emissions, making them a sustainable mode of transportation.

Speed: Electric trains, especially high-speed ones, reduce travel time significantly.

Quiet and Comfortable: They offer a quieter and smoother ride, providing a comfortable experience for passengers.

Electric Trains in Science Fiction

Science fiction literature has long embraced the concept of electric trains, integrating them into futuristic worlds and alternative realities.

Bharti GCS'21

One notable example of this is in Philip K. Dick's 1969 novel "Do Androids Dream of Electric Sheep?" This science fiction classic explores the use of electric trains in a dystopian future where humanity has been divided by social and environmental challenges.

In Dick's novel, electric trains play a significant role in the portrayal of a decaying and divided society. They serve as a symbol of hope, connecting isolated communities in a world scarred by ecological disaster and social unrest. The electric train, known as the "kipple" in the book, represents a glimmer of a better future, a means of escape from the bleakness that surrounds the characters.

The novel also delves into the ethical and moral dilemmas of creating lifelike androids and the blurred line between man and machine, a theme that remains relevant in contemporary discussions about artificial intelligence and automation.

The Vision of Future Electric Trains In reality, electric trains continue to evolve and adapt to the needs of modern society. High-speed electric trains, like the Shinkansen in Japan and the Eurostar in Europe, have transformed long-distance travel, making it more efficient and environmentally friendly. Magnetic levitation (Maglev) trains represent the cutting edge of electric train technology, promising even faster, smoother, and more energyefficient travel.

Dick's portrayal of electric trains in "Do Androids Dream of Electric Sheep?" serves as a reminder that technology can be a double-edged sword. While electric trains offer hope and progress, they also raise complex moral and ethical questions about the nature of human existence, artificial intelligence, and the future of transportation.

Electric trains have come a long way from their early prototypes to the high-speed and eco-friendly modes of transport we have today. In the realm of science fiction, authors like Philip K. Dick have used electric trains as symbols and vehicles for exploring complex themes about society, technology, and the human condition. As we continue to advance the technology of electric trains in reality, we should also draw inspiration from science fiction to envision their potential role in shaping our future and the moral dilemmas they may bring.



LIFE LESSONS FROM "FRIENDS": THE ENDURING WISDOM OF CENTRAL PERK

For a whole decade, the TV show "FRIENDS" not only made us laugh but also imparted valuable life lessons through its iconic characters. From friendship and love to personal growth and career, the show offered viewers a delightful blend of humor and wisdom. In this article, we'll explore some of the enduring life lessons we can learn from the characters of "FRIENDS."

1. The Power of True Friendship

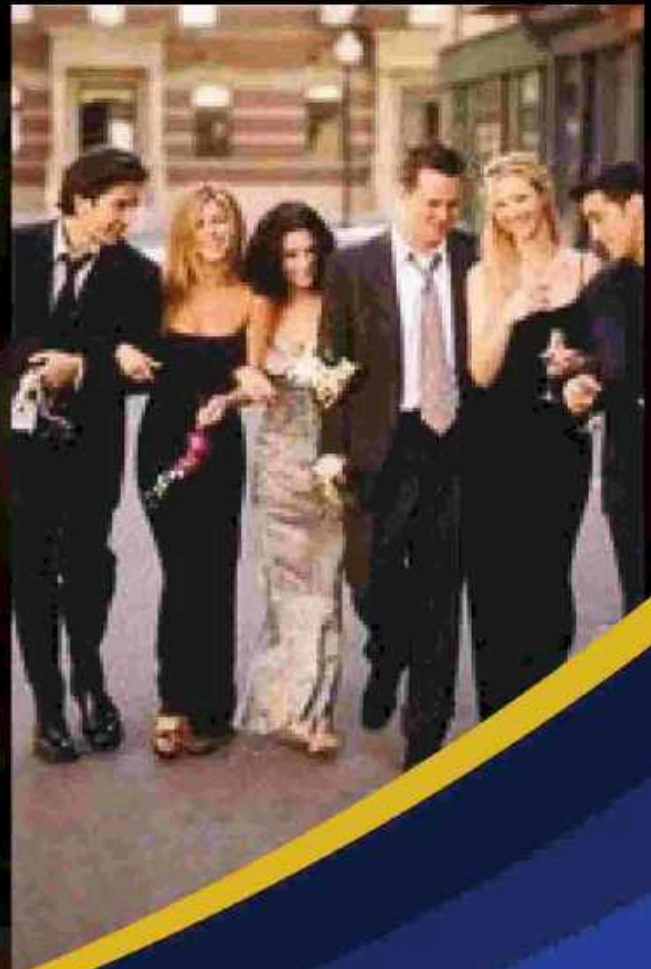
At the heart of the show is the unbreakable bond of friendship between Monica, Chandler, Joey, Ross, Rachel, and Phoebe. Through all the ups and downs, they exemplify the importance of having a support system in life. "FRIENDS" reminds us that real friendships are built on trust, loyalty, and the willingness to be there for one another, no matter what.

2. Pursue Your Passions

Phoebe Buffay teaches us that it's okay to be unique and follow our own path. Her quirky personality, unapologetic originality, and passion for music are a reminder that it's important to pursue our interests and embrace our individuality.

3. The Art of Resilience

Throughout the series, Ross Geller faces numerous personal and professional setbacks. From his divorces to his on-again-off-again relationship with Rachel, he exemplifies resilience. Ross's ability to bounce back from life's challenges is a valuable lesson in not giving up and persevering in the face of adversity.



4. Embrace Change

The character of Rachel Green undergoes significant personal growth throughout the series. Starting as a spoiled, inexperienced young woman, she transforms into an independent, confident, and successful fashion executive. Rachel's journey teaches us that change can be empowering and that personal growth is an essential part of life.

5. Balancing Career and Personal Life

Monica Geller's strong work ethic and passion for cooking remind us of the importance of pursuing our career goals. However, her relationship with Chandler also emphasizes the significance of finding a balance between work and personal life. Her journey highlights the idea that achieving success in one aspect of life should not come at the expense of the other.

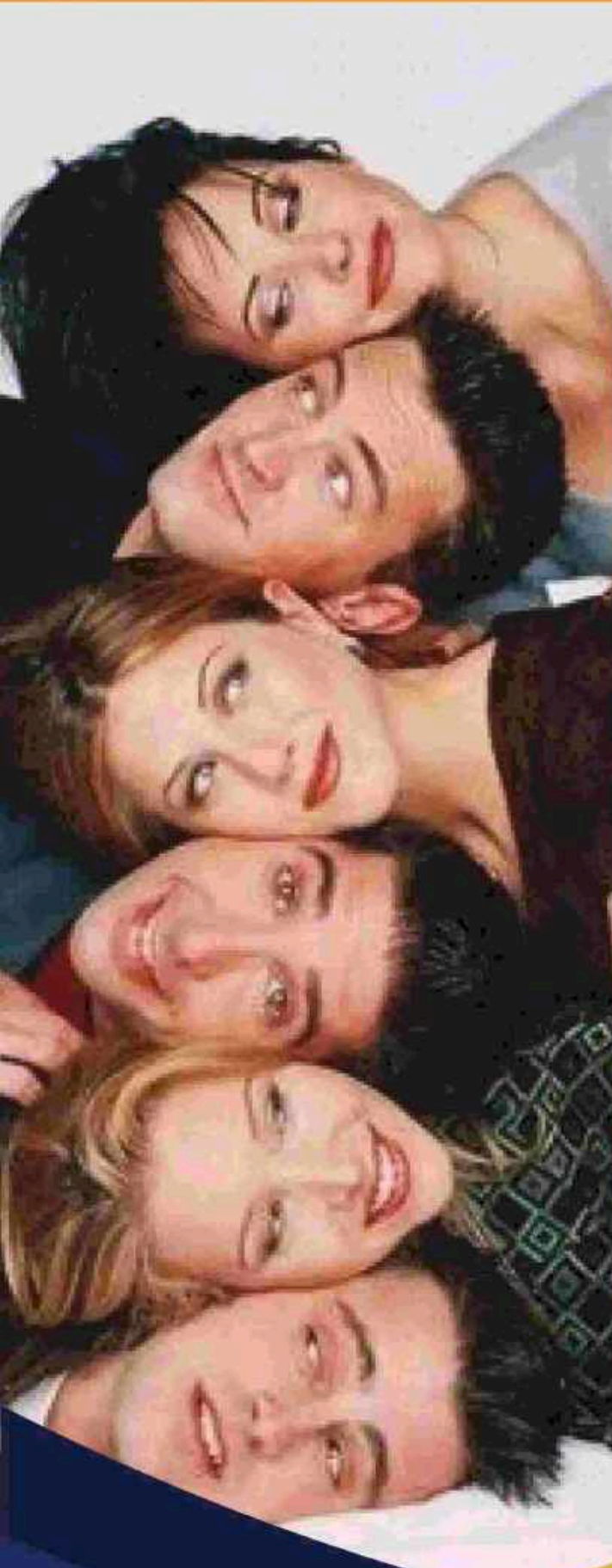


6. Honesty and Communication

The tumultuous, on-again-off-again relationship between Ross and Rachel showcases the importance of honesty and open communication in a relationship. They teach us that misunderstandings can be resolved through effective dialogue, and that bottling up emotions is not a healthy way to approach conflict.

7. Laughter is the Best Medicine

Chandler Bing's sarcastic wit and humor remind us that laughter is a powerful tool for dealing with life's challenges. His iconic one-liners and goofy antics serve as a reminder to not take ourselves too seriously and to find joy in the everyday.



8. The Value of Family

Over the course of the series, the characters' relationships with their families evolve, showing us the significance of family bonds. From Ross and Monica's sibling rivalry to Phoebe's quest to discover her true family, "FRIENDS" underscores the importance of family connections in our lives.

9. The Impact of Empathy

Joey Tribbiani's endearing and often goofy personality is a testament to the power of empathy. His genuine concern for the well-being of his friends and his willingness to support them in any way he can highlight the value of kindness and compassion in our own lives.

In conclusion, "FRIENDS" has left a lasting impact on viewers not just through its humor but also through its portrayal of meaningful life lessons. The show's beloved characters have taught us about friendship, resilience, pursuing our passions, embracing change, balancing our personal and professional lives, the importance of honesty and communication, the value of laughter, family bonds, and the impact of empathy. The enduring wisdom of Central Perk continues to resonate with audiences, reminding us that the best way to navigate life's challenges is with friends who become our chosen family.

Saumya Shailja
GFT'21

TEACHER: MY WORLD

'Teacher' is not just a word,
But it is a complete world.

Books are confusing,
And exams are stressful.
But we need not worry in this dark hub,
There is a teacher in here to light the bulb.

Teacher moulds our personalities,
And makes us understand responsibilities.
I express my gratitude,
For imbibing a wonderful attitude.

Teacher teaches with love and does not shout
Teachers are best without any doubt.
The teacher not only teaches bookish matters,
But opens our eyes with a splatter.

I cannot express how grateful I am to them,
No doubt they are my beautiful gem.
I don't just want to praise them for a day,
But want to bow my head before them every day.

Teacher is not just a word for me,
It is my entire world.

Shreyas Gore
GCS'20



WAR

War is the beast that haunts our dreams,
A nightmare come to life,
Where innocents are sacrificed,
And children lose their strife.

It's a symphony of death and pain,
A concerto of despair,
Where hearts are shattered into shards,
And hope is lost in the air.

From ancient fields to modern streets,
War's shadow falls on all,
It leaves a trail of devastation,
Where hope and dreams once stood so tall.

But even in the darkest night,
A glimmer of light remains
The human spirit's resilience,
A flame that never wanes.

So let us stand together as one,
And raise our voices high,
To say that war must end,
And peace must fill the sky.

For war is the beast that we must slay,
If we are to survive
And build a better world for all,
Where children can thrive.

Dimpy Mittal
GCS'23



"WHEN I FOUND A LOVE"

In shadows cast by silent stars, I found,
 A tale of love, so deep, so profound,
 A boy who loved her more than the sea,
 Yet she remained distant, never setting him free.

He'd lay his heart bare, all hopes uncurled,
 In the canvas of his soul, he painted her world,
 A love unmeasured, a passion untamed,
 Yet her heart stood still, as his love he proclaimed.

He'd reach for her hand, his eyes filled with dreams,
 But she remained elusive, or so it seems,
 In the garden of his heart, he planted the seeds,
 Yet she refused to nurture, ignoring his needs.

He'd write her letters with words so sincere,
 Each verse a confession, each line a tear,
 But she'd fold them away, her heart cold as stone,
 Leaving him to wonder, forever alone.

Though he loved her more than the skies above,
 She never accepted his endless love,
 In the story of hearts, forever entwined,
 He found a love he cherished, but she left it behind.

A boy who loved her, a love so divine,
 Yet she chose not to make his heart truly thine,
 In the depths of his soul, his love remained,
 A bittersweet memory, forever ingrained.

So, in the tapestry of life's grand design,
 The boy who loved her, his heart did resign,
 He found a love, though unreturned it may be,
 A poignant reminder of a love meant to be free.

**Ayush
 Thakur**



THE LOVE I HAVE NEVER MET

In the story of my life, there's a face I've never seen,
A love so real, yet never met, a mystery pristine.
She's the girl I've imagined, the one in my dreams,
In the realm of my heart, she reigns supreme.

Her character, a tapestry of virtues so bright,
In my heart, she's the beacon of pure light.
A kindred spirit, with a heart so true,
This love is real, and it's all for you.

Ayush Thakur

She's the love that's real, but so far away,
In my heart, her presence holds sway.
Her essence, a melody that my heart sings,
A symphony of love, like the flutter of an angel's wings.

With each passing day, my love grows,
A river of affection, an endless, steady flow.
She's the girl I've never met, yet fiercely adore,
In my life's tale, she's the one I'm waiting for.

In the chapters of my story, she's a real part,
In my heart, she's etched, a work of art.
This girl, I've never met, you're the one I find,
In my world, in my heart, forever intertwined.



THE SAILOR

Find him, hey find him
Who is not happy with flags of pride
Find me such a zealous sailor,
I want to meet him, find him

From the shore till shallow
And from the shallows to the sea
Go, from the shore to the shallows
Find him, oh find him

Let us flow, let us flow where
Find him who's brave to face the sea
Look where he's, find him, find him
He must be there somewhere here

A sailor who can face storms and tempests
Who's willing to see the highest peaks and deepest depths
Someone who says the sea as home and the ship is a bed
And the wind is music, serenade

Who navigate through stars and travel by waves
Had learned from all cultures and their ways
He who felt the power of sea
And calm tranquil night, serene

Punit Srivastava
GEE'22



POMEGRANATES AS A METAPHOR: EXPLORING THE SYMBOLISM OF THIS EXOTIC FRUIT

Throughout the annals of literature and art, pomegranates have transcended their status as mere fruits to become powerful metaphors, laden with deep symbolic meaning. Their rich and complex nature has captured the imagination of poets, writers, and artists across different cultures and epochs. Let's delve into the multifaceted world of pomegranates as a metaphor, exploring the symbolism and significance associated with this exotic fruit.

Fertility and Abundance

One of the most ancient and enduring symbols attributed to pomegranates is their association with fertility and abundance. In many cultures, pomegranates have been linked to the idea of regeneration and life-giving properties. Their numerous seeds, encased in a vibrant, protective shell, have symbolized the potential for creation and the perpetuation of life. In Greek mythology, for instance, the goddess Persephone was said to be bound to the underworld when she consumed pomegranate seeds. Her annual return to the earth marked the changing seasons, symbolizing the cyclical nature of life, death, and rebirth.





The Complexity of Human Emotions
 Pomegranates' intricate, labyrinthine structure conceals their treasure within, a characteristic that has often led to their symbolic association with the complexities of human emotions and experiences. They are seen as a metaphor for the human heart, with its intricate layers, hidden desires, and unexplored depths. The process of peeling a pomegranate to reveal its juicy seeds mirrors the uncovering of one's own emotions and desires, layer by layer.

The Forbidden and Temptation

In many cultures and stories, pomegranates have been linked to the idea of temptation and forbidden fruit. The fruit's allure, with its ruby-red seeds, can symbolize desire, longing, and the pursuit of that which is prohibited or unattainable. This symbolism can be traced back to biblical stories, such as the Garden of Eden, where the forbidden fruit is often depicted as a pomegranate.

Protection and Healing

Pomegranates have also been regarded as symbols of protection and healing. In ancient cultures like Persia, the fruit was associated with safeguarding against evil and negativity. The ruby-red color was believed to have protective qualities, while the juice symbolized the cleansing and healing properties of nature. This symbolism of pomegranates as protectors or healers has persisted through the ages.

Unity and Community

In some cultures, the act of sharing and consuming pomegranates has been associated with the idea of unity and community. The act of breaking the fruit open and sharing its seeds with others signifies a coming together and the strengthening of bonds. In this context, pomegranates can serve as a metaphor for the communal spirit, where the shared experience of partaking in the fruit represents the forging of connections among individuals.

Pomegranates are a testament to the enduring power of metaphor in art and literature. Their unique combination of richness, complexity, and allure lends itself to myriad interpretations and symbolic meanings. Whether representing fertility, human emotions, temptation, protection, healing, unity, or any other abstract concept, pomegranates continue to serve as a source of inspiration for artists and writers seeking to convey profound ideas and narratives.

As you enjoy the next pomegranate, consider the layers of meaning this exquisite fruit can hold, and appreciate the depth and complexity that it has lent to the world of metaphor, storytelling, and symbolism.

Satwinder Singh
GEE'21



RAJPUTANA: A LEGACY OF COURAGE, VALOR, AND HONOR IN INDIAN HISTORY

Rajputana, a region located in the northwestern part of India, is synonymous with tales of valor, chivalry, and a deep sense of honor. This historical region was home to the Rajputs, a warrior community known for their unwavering commitment to defending their lands and their code of ethics. The rich history of Rajputana has been a source of inspiration for countless authors and scholars, offering a vivid tapestry of stories that continue to captivate readers even in contemporary literature.

The Legacy of Rajputana

The term "Rajputana" has deep historical roots and, though not an official designation in modern India, it refers to the region that includes present-day Rajasthan, parts of Gujarat, and portions of Madhya Pradesh. The Rajputs, who have their origins dating back to the 6th century, were known for their valor, unwavering commitment to their chivalrous code, and their dedication to preserving their land against foreign invaders.

The Rajputs were renowned for their bravery in the face of adversity, their martial skills, and their adherence to a strict code of conduct, which emphasized qualities like courage, loyalty, and self-sacrifice. These attributes became defining characteristics of the Rajput community.

Contemporary Literature and the Rajputana Influence
Numerous contemporary books have drawn inspiration from the Rajputana history, offering readers the opportunity to delve into the rich tapestry of Rajput culture, traditions, and history. These literary works often incorporate Rajput characters and historical events, portraying the enduring legacy of this warrior community.



R1. "The Palace of Illusions" by Chitra Banerjee Divakaruni This novel reimagines the Indian epic, the Mahabharata, through the eyes of Draupadi, a central figure in the epic, who was a princess of the Rajputana region. The book provides a fresh perspective on the Rajputana culture, blending mythology and history seamlessly.

2. "The Sun Temple" by Bhalchandra Nemade Bhalchandra Nemade's work offers a window into the Rajputana region during the 12th century. The novel explores the life and times of Prithviraj Chauhan, one of the most celebrated Rajput rulers, and his battles against foreign invaders.

3. "Rajputana Chronicles: Guns and Glories - The Chauhans of Ranasthal" by Abhimanyu Raj This historical fiction series explores the lives of the Chauhans, one of the prominent Rajput clans. The books take readers on an evocative journey through Rajput history, interweaving battles, royal intrigues, and the enduring spirit of honor and valor.

4. "The Twentieth Wife" by Indu Sundaresan While not exclusively focused on Rajputana, this novel delves into the intricate political alliances and rivalries among various Indian kingdoms during the Mughal era. The book portrays the influence of the Rajputs and their role in shaping the history of the Indian subcontinent.

5. "The Rajput: Story of Chauhans" by Tarun Singh A non-fiction work, this book delves into the history of the Chauhan Rajputs and their significant contributions to the region. It provides valuable insights into the Rajput culture, traditions, and their enduring legacy.

Pintu Kumar
GME'22

The history of Rajputana, characterized by courage, valor, and honor, remains a source of inspiration for contemporary literature. These books not only celebrate the Rajputs' unwavering commitment to their code of ethics but also shed light on the complex history of the Indian subcontinent. The enduring legacy of the Rajputs continues to captivate readers, offering them a glimpse into a world filled with chivalry, bravery, and an unwavering commitment to principles that have stood the test of time.



STOICISM IN THE MODERN ENGINEER'S LIFE: A TIMELESS PHILOSOPHY FOR SUCCESS

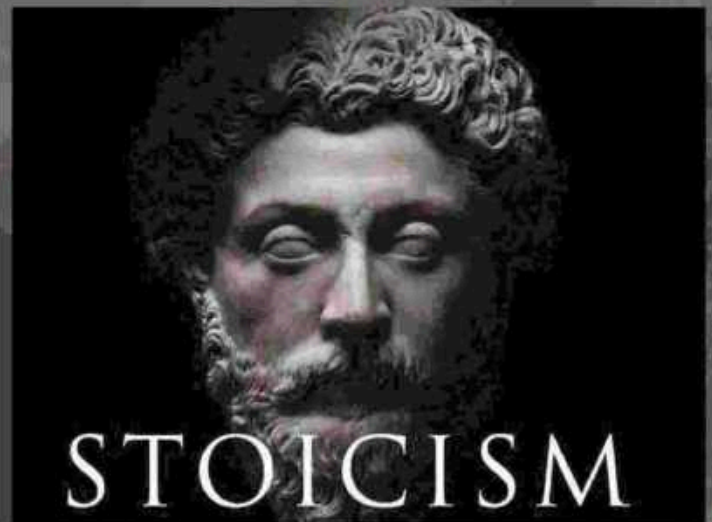
Stoicism, an ancient school of philosophy founded in Athens by Zeno of Citium around 300 BCE, has garnered renewed interest in recent years. With its focus on rationality, self-control, and virtue, Stoicism provides valuable insights and principles that can significantly benefit the modern engineer. In an era of rapid technological advancement, complex problem-solving, and high-pressure environments, the Stoic philosophy offers practical tools and a mindset for engineers to navigate the challenges of their profession. Stoicism and Engineering: A Perfect Fit

1. Resilience in the Face of Failure

Engineers often encounter setbacks, unexpected challenges, and failures in their projects. The Stoic principle of accepting things beyond one's control and focusing on what can be controlled is invaluable. By maintaining composure and adaptability when facing adversity, engineers can foster resilience and better cope with disappointments and obstacles.

2. Rational Problem-Solving

Stoicism encourages individuals to approach problems and challenges with reason and logic. Engineers, who are tasked with solving complex technical issues, can benefit from this approach. The Stoic mindset promotes clear, rational thinking and helps engineers find effective solutions while avoiding emotional biases.





3. Emotional Intelligence

Stoicism emphasizes the importance of emotional intelligence and self-awareness. In a Team-oriented profession like engineering, understanding and managing one's own emotions while empathizing with colleagues are crucial. Stoic practices, such as journaling and self-reflection, can enhance emotional intelligence and improve interpersonal relationships.

4. Adaptability to Change

The field of engineering is constantly evolving, with new technologies and methodologies emerging regularly. Stoicism teaches adaptability and the acceptance of change as part of the natural order of things. Engineers who embrace this philosophy are better equipped to stay updated, learn new skills, and remain relevant in their ever-changing industry.

5. Focus on Values and Ethics

Engineers often deal with complex ethical questions related to their work. Stoicism's emphasis on virtue and living in accordance with one's values can guide engineers in making morally sound decisions, even in challenging situations. By adhering to a strong ethical framework, engineers can navigate their profession with integrity.

6. Stress Management

The modern engineer's life can be stressful, with demanding deadlines, high expectations, and long working hours. Stoicism teaches practical techniques for managing stress, such as mindfulness, meditation, and the practice of gratitude. By incorporating these strategies, engineers can reduce stress and maintain a healthy work-life balance.

7. A Focus on Long-Term Goals

Stoicism encourages individuals to define their longterm goals and align their actions with those objectives. For engineers, this means setting clear career goals, continuously improving their skills, and working towards a sustainable and fulfilling professional life. Stoicism offers the discipline and focus required to achieve these ambitions.

Conclusion

Stoicism's timeless philosophy, with its emphasis on rationality, resilience, ethical conduct, and emotional intelligence, offers a valuable framework for modern engineers. In an era of rapid technological advancement, engineers who adopt Stoic principles can enhance their problem-solving skills, adaptability, and stress management abilities. By embracing Stoicism, engineers can not only excel in their profession but also lead more meaningful and purposeful lives. The relevance of Stoicism in the modern engineer's life underscores its enduring wisdom and practical applicability in the ever-evolving world of technology and engineering.

Ravi shankar singh
GME'22



TAARAK MEHTA KA OOLTAH CHASHMAH: A PIVOTAL PLAYER IN THE INDIAN POP CULTURE LANDSCAPE

In the diverse tapestry of Indian television, "Taarak Mehta Ka Ooltah Chashmah" (TMKOC) stands out as a pivotal and iconic show that has become an integral part of the Indian pop culture landscape. A comedy-drama series based on the popular Gujarati column "Duniya Ne Undha Chashma" by Taarak Mehta, the show has captured the hearts of millions of viewers since its inception. Over the years, TMKOC has successfully transcended the boundaries of regional entertainment and has earned a special place in the hearts of Indian viewers from all walks of life.

Depicting the 'Gokuldham Society'

At its core, TMKOC is a show that revolves around the lives of the residents of 'Gokuldham Society,' a fictional neighborhood in Mumbai. The society is a microcosm of Indian society, where people from various backgrounds, cultures, and religions come together to form a tight-knit community. This diversity mirrors the rich cultural tapestry of India, making it relatable and endearing to a wide audience.

Promoting Unity in Diversity

One of the most striking aspects of TMKOC is its ability to promote unity in diversity. The show masterfully portrays the communal harmony that exists within Gokuldham Society. Characters of different faiths and backgrounds coexist harmoniously, celebrating festivals together and respecting each other's customs and traditions. In a country as diverse as India, where communal harmony is a paramount value, TMKOC plays a pivotal role in reinforcing this message.

Tackling Social Issues with Humor

The show's unique blend of humor and social commentary has struck a chord with viewers. While making people laugh, TMKOC often addresses various social issues, ranging from superstitions and taboos to environmental conservation and civic sense. By using humor as a tool to raise awareness about these issues, the show effectively educates the audience while keeping them entertained.

TAARAK MEHTA KA OOLTAH CHASHMAH: A PIVOTAL PLAYER IN THE INDIAN POP CULTURE LANDSCAPE

The longevity of TMKOC is a testament to its impact on Indian pop culture. As of my knowledge cutoff date in September 2021, the show had been running for over a decade and continued to enjoy high viewership ratings. This long-standing success demonstrates its enduring popularity and the special place it occupies in the hearts of Indian viewers.



A Global Phenomenon

TMKOC has not only found a dedicated fan base within India but has also reached audiences around the world. The show's international syndication, availability on digital platforms, and subtitles in various languages have expanded its global footprint. Indian expatriates and foreign viewers alike have been drawn to the show's humor and cultural diversity.

"Taarak Mehta Ka Ooltah Chashmah" is more than just a television show; it's a cultural phenomenon that has left an indelible mark on the Indian pop culture landscape. Its ability to bring people from diverse backgrounds together, address social issues with humor, and offer a heartwarming portrayal of communal harmony is what makes it truly iconic. As it continues to entertain and educate viewers, TMKOC remains a pivotal player in Indian pop culture and a testament to the power of television in shaping societal values and promoting unity in diversity.

Soumya Shailja
GFT'21



ENGINEERING MIND: BATTLING ANXIETY'S GRIND

In the realm of gears and wires, I toil,
An engineering student, dedicated and loyal.
But beneath the equations and projects so grand,
Lurks anxiety's shadow, a demanding hand.

In the depths of the night, I'm wide awake,
Solving problems, my mind's a circuitry at stake.
Doubts and fears, like bugs in the code,
My restless thoughts on an endless road.

From thermodynamics to circuits' mystique,
Anxiety's whispers, they constantly speak.
Tension like a voltage, coursing through my veins,
In this labyrinth of numbers, my spirit wanes.

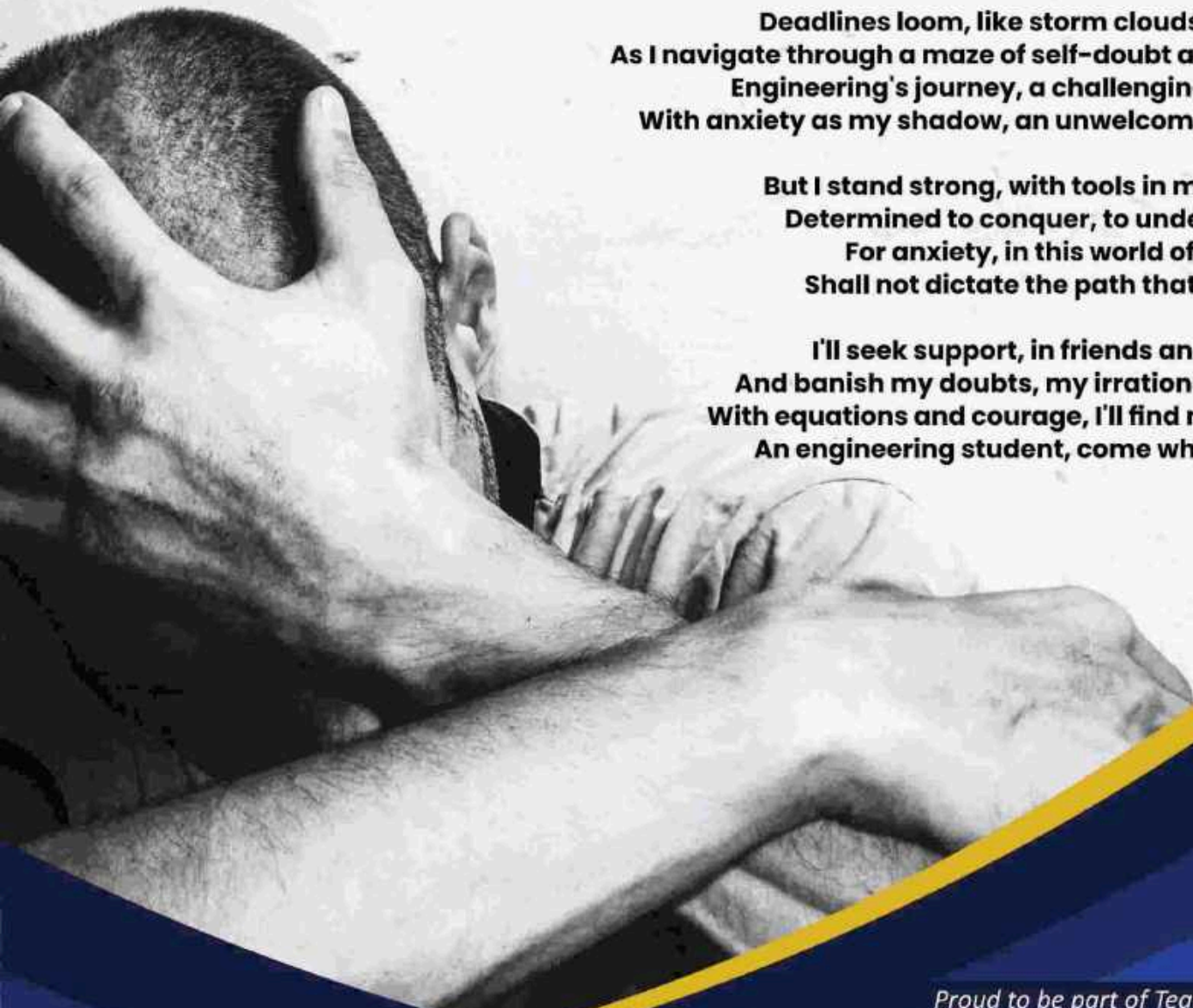
Deadlines loom, like storm clouds above,
As I navigate through a maze of self-doubt and love.
Engineering's journey, a challenging quest,
With anxiety as my shadow, an unwelcome guest.

But I stand strong, with tools in my hand,
Determined to conquer, to understand.
For anxiety, in this world of design,
Shall not dictate the path that's mine.

I'll seek support, in friends and peers,
And banish my doubts, my irrational fears.
With equations and courage, I'll find my way,
An engineering student, come what may.

ADWAIT JADHAV

GME'22



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सृजन SLIET'S ANNUAL
MAGAZINE

HINDI SECTION

*Proud to be part of Team SLIET
Together We Can Make a Difference*



“ यह आधुनिक दौर ”

यह आधुनिक दौर है
समस्या चहुं और है
मनुष्य पर दैत्य की सवारी है
हर अपराध का पलड़ा भारी है!

यदि अपने हँसते-खिलखिलाते
बच्चों को नहीं खोना है,
तो समय से पहले हमें
सचेत होना है.
अपने बच्चों से मित्रतापूर्ण
संबंध बनाए,
उन्हें सही और गलत स्पर्श
में भेद बताएँ!

कभी भी, कहीं भी, कोई भी
जान या अनजान
व्यक्ति करे परेशान
हरकतें गलत करें
असहज आप महसूस करें
तत्काल शोर मँचाए
और अपने माँ-बाप को बताएँ!
अभिभावक बेखौफ होकर
कदम उठाए
बच्चों के बचपन को खोने से बचाए
अपराधी को सजा दिलाए!!

बच्चों के सम्मुख ऐसे उदा०
पेश करें
आपके बच्चे भी उसे धारण कर सकें
प्रत्येक परिवर्तन का आरंभ सदैव
स्वयं से करें...!!

रोहित राज

GEE-21

माँ

विशाल कौशिक
 GME/ 2040364

मुझे एक बार फिर गले से लगा ले ना माँ,
 मेरी सारी गलतियों को भूला दे ना माँ,

मैं अब भी अनजान हूँ इस दुनिया से मुझे सही राह
 दिखा दे ना माँ,

खाने का वो स्वाद नहीं रहा अब तो फिर एक बार
 अपने हाथों से खिला दे ना माँ,

बच्चा हूँ तेरे लिए अब भी तो फिर एक बार बचपन
 की तरह मेरे बाल बना दे ना माँ,

थक चुका हूँ मैं भागते भागते यहाँ,
 एक बार फिर मुझे सहला दे ना माँ,

दुनिया की चकाचौंध में खो गया हूँ,
 एक बार फिर आवाज देके वापिस बुला ले ना माँ,

सारी बातें भुलाकर आँखें बंद कर लू,
 एक बार फिरसे लोरी गाके सुना दे ना माँ,

मुझे एक बार फिर गले से लगा ले ना माँ,
 मुझे एक बार फिर गले से लगा ले ना माँ



किरदार

मेरा किरदार मेरे दुश्मनों को खल रहा है ऐसे।
वो सोच रहे हैं अब भी इसका नाम चल रहा है कैसे।।

भंवर

वो सोच रहे हैं मैं इतना शांत खड़ा हूँ कैसे,
मेरे जर्फ को मेरी कमजोरी समझ रहे थे।
आया नहीं ज़िन्दगी में एक भंवर
किमिट गया नाम ओ निशाँ उनकी कश्ती का,
और एक हम थे जो पूरा हुजूम लेकर किनारे पर पहुँचे थे।।

आशीष सिंह
GEE'21

तेरे बिन

किरसे मेरे किरदार के जो मशहूर हैं सारे,
तेरे बिन भी मेरे अल्फ़ाज़ से लोग मशगूल हैं सारे।
शायद यह खुदगर्जी ही है जो तेरा नाम मरकूम नहीं है मेरे पन्नो में,
वरना तो तेरा एहतयाम भी खुदा से कहीं कम नहीं है,
मेरे किरसो में तेरा नाम आये न आये ये पता नहीं,
पर तेरा सिखाया हर सबक मेरी शरिफ़्स यत बन गया।
आ देख अब तेरे बिन भी मैं इतना मशहूर बन गया ॥



मैं बढ़ता जाऊँगा

पथ काँटिदार हो, मंजिल समुद्र पार हो,
 परिस्थितियाँ विरुद्ध हो, नींद तार- तार हो।
 विरोध को, विपक्ष को, डरावने एहसास को,
 पसीने के समुद्र में फेंक बहाऊँगा।
 मैं बढ़ता जाऊँगा। मैं बढ़ता जाऊँगा।।

पैरों तले अंगार हो, अमावस का अंधकार हो,
 चुनौतियाँ मानो युद्ध हो, घायल बार-बार हो,
 शोले और अंगार को, मुश्किलों के अंबार को,
 सब के सब वदी से लड़ता जाऊँगा।
 मैं बढ़ता जाऊँगा। मैं बढ़ता जाऊँगा।।

भार अपार हो, सितम औ' अत्याचार हो,
 दुश्मने चाहे क्रुद्ध हो, अंग तार-तार हो,
 चट्टान सी जोखिमों को, दुश्मनों की दुष्ट चाल को,
 चुन-चुन कर सभी चुनौतियों की चिता मैं जलाऊँगा।
 मैं बढ़ता जाऊँगा। मैं बढ़ता जाऊँगा।।

विकास वैभव

GEE/ 2234108



मैं किसान का बेटा हूँ

Anmol Gill
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मैं किसान का बेटा हूँ
मेहनतकश इंसान का बेटा हूँ
हाँ, मैं एक किसान का बेटा हूँ
तन के पसीने से सींचते हैं खेत
मिट्टी की सोंधी सुगन्ध से
भर जाता है उनका पेट
कहाँ फ़िक्र है उन्हें
गुलगुले बिस्तर की
बाहों का तकिया बना
पुआल की चादर पर
काट लेते हैं जो सारी रात
ऐसे इंसान का बेटा हूँ
हाँ, मैं एक किसान का बेटा हूँ।
सादगी है जिनका ईमान
फसल ही है उनकी संतान
फटी बिवाइयां और
फटेहाल हालातों से
रोज करते हैं समझौता
प्रकृति से इनका बहुत
गहरा होता है नाता
हैं जो सबके अन्नदाता
ऐसे भगवान का बेटा हूँ
हाँ, मैं एक किसान का बेटा हूँ।

क्या तब आभास तुम्हें होगा?

पुकार रही ये बंजर धरा
 तुम कब आवाज मेरी सुनोगे?
 जब विश्व खत्म हो जाएगा
 क्या तब आभास तुम्हें होगा?
 दहक रहा है मेरा तन
 प्यासी कब से बैठीं हूं
 जब सूखा आन पड़ेगा
 क्या तब आभास तुम्हें होगा?
 झूम रहा था मेरा पवन
 जो कब से शांतचित्त बैठा है
 जब वो अवरूढ़ हो जाएगा
 क्या तब आभास तुम्हें होगा?
 रंग.बिरंगी मेरी मिट्टियां
 खो रही हैं व अपना स्वरूप
 जब वो जुदा हो जाएंगी मुझसे
 क्या तब आभास तुम्हें होगा?
 हरे.भरे ये मेरे वन
 अब छीने जा रहे हैं मुझसे
 जब मैं रूठ जाऊंगी तुमसे
 क्या तब आभास तुम्हें होगा?

सोनी कुमारी
 GEE'21



काश अंजाम ऐसा हो जाता

काश अंजाम ऐसा हो जाता,
हर मां का सपना पूरा हो जाता।
होता ना नाम सिर्फ सबूतों में,
ना आता कोई लौट बंद ताबूतों में।
काश तिरंगे में लिपटकर आने वाला,
तिरंगा फहरा खुद लौट आता।
आँसू है जिन आंखों में आज भी,
काश मूर्तियों में मुस्कुराने वाला जिंदा हो जाता।
रह गई जो अधूरी बातें आज भी,
काश वो सुनाने वाला आज साथ होता।

रह गई हाथों में जिनकी सिर्फ निशानियां,
काश वो हाथ इन हाथों में रह जाता।
काश अंजाम ऐसा हो जाता...!

सृष्टि कुमारी
GCS'21

दर्द

पता है, दर्द और दर्द देने वालों से भी ज्यादा दर्दमयी क्या होता है?
 उस दर्द के वाक्यां को लफ़्जों में पिरोना,
 तुम उस दर्द के हकदार नहीं होते और वो उस लिखाई के!
 तुम उस पीड़ा के हकदार नहीं होते और वो उस माफ़ी के!
 तुम उस खेद के हकदार नहीं होते और वो उस उद्धार के!

यह मान कर की लिखने से मन हल्का होगा
 शब्दों में समने से दर्द की गहनता कम होगी,
 आंतरिक उथल-पुथल की तीव्रता कम होगी,
 दर्द अशकों में बहेगा और आँखें नाम होगी!

इस दर्द के भाँति ही यह लिखाई भी मन के विचारों के विपरीत होती है,
 तुम दर्द कम करना चाह रहे होते हो और यह दर्द याद दिला रही होती है!
 तुम्हारी हथेली की तरह कलम भी डगमगा रही होती!
 लिखाई में निपुण होने के बाबजूद भी शब्दों की कमी महसूस हो रही होती!
 और सूखे मन के तासीर से कागज़ की सतह भीग रही होती!

आरूषि जैन

GEC'21





PUNJABI SECTION

ਪੰਜਾਬੀ ਸੈਕਸ਼ਨ



ਮਾਂ ਪਿਤਾ

ਅਸੀਂ ਲੋਕਾਂ ਨੂੰ ਆਪਣਾ ਬਣਾ ਲਈਏ
 ਤੇ ਆਪਣਿਆਂ ਨੂੰ ਗੈਰ
 ਵੇ ਸੱਜਣਾ ਤੈਨੂੰ ਇਹ ਲੋਕਾਂ ਨੇ ਲੁੱਟ ਖਾ ਜਾਣਾ
 ਫੇਰ ਆਉਣਾ ਤੂੰ ਮੁੜ ਓਹੀ ਰਾਹ
 ਮਾਂ-ਬਾਪ ਤੋਂ ਵੱਧ ਕੋਈ ਨਾ
 ਇਹ ਜਵਾਨੀ ਦੀ ਅੱਗ ਵਿਚ ਪੈਰ ਨਾ ਪਾ
 ਇਹ ਦੂਰੋਂ ਹੀ ਚੰਗੀ ਲੱਗਦੀ
 ਕੇਲੋਂ ਇਹ ਨਿਰੀ ਸਵਾਹ
 ਨੀ ਗੈਰਾਂ ਨੂੰ ਆਪਣਾ ਨਾਬਣਾ
 ਤੇ ਆਪਣਿਆਂ ਨੂੰ ਗੈਰ ਨਾਬਣਾ

Soumya Shailja

GFT'21

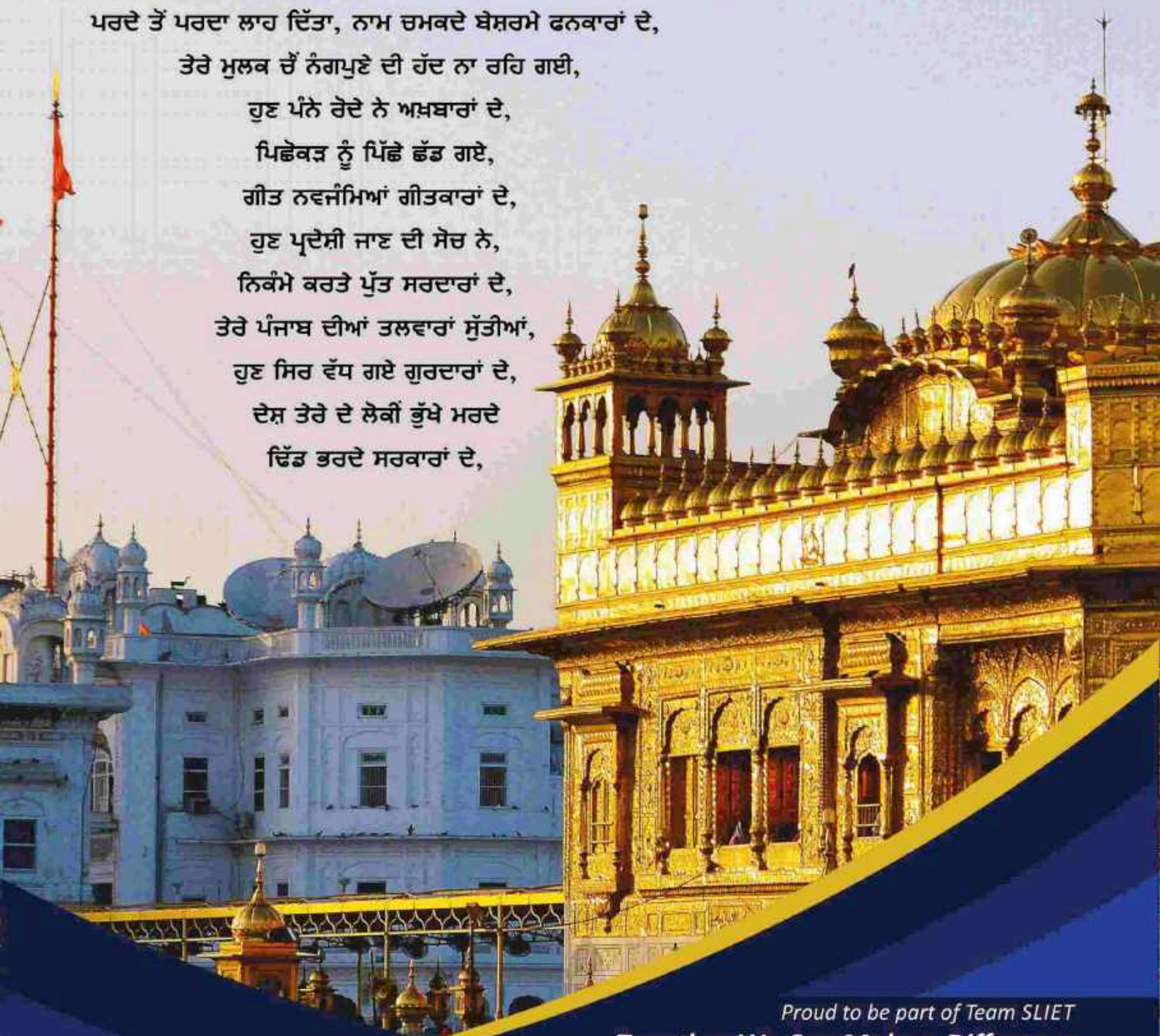


ਸਿੱਖੀ ਦੀ ਪਾਤੜਾਂ

ਮਾਸ ਦੇ ਬੁੱਤ ਨਗੀਹੇ ਵਿਕਦੇ
ਹੁਣ “ਭਗਤ ਸਿਹਾਂ ਵਿੱਚ ਬਜ਼ਾਰਾਂ ਦੇ,
ਇੱਥੇ ਸਿੱਕੇ ਵਾਲੇ ਕਦਰ ਨਾ ਜਾਨਣ,
ਕੀ ਮੁੱਲ ਹੁੰਦੇ ਦਿਲਦਾਰਾਂ ਦੇ,
ਪਰਦੇ ਤੋਂ ਪਰਦਾ ਲਾਹ ਦਿੱਤਾ, ਨਾਮ ਚਮਕਦੇ ਬੇਸ਼ਰਮੇ ਫਨਕਾਰਾਂ ਦੇ,
ਤੇਰੇ ਮੁਲਕ ਚੋਂ ਨੰਗਪੁਣੇ ਦੀ ਹੱਦ ਨਾ ਰਹਿ ਗਈ,
ਹੁਣ ਪੰਨੇ ਰੇਦੇ ਨੇ ਅਖਬਾਰਾਂ ਦੇ,
ਪਿਛੋਕੜ ਨੂੰ ਪਿੱਛੇ ਛੱਡ ਗਏ,
ਗੀਤ ਨਵਜੰਮਿਆਂ ਗੀਤਕਾਰਾਂ ਦੇ,
ਹੁਣ ਪ੍ਰਦੇਸ਼ੀ ਜਾਣ ਦੀ ਸੋਚ ਨੇ,
ਨਿਕੰਮੇ ਕਰਤੇ ਪੁੱਤ ਸਰਦਾਰਾਂ ਦੇ,
ਤੇਰੇ ਪੰਜਾਬ ਦੀਆਂ ਤਲਵਾਰਾਂ ਸੁੱਤੀਆਂ,
ਹੁਣ ਸਿਰ ਵੱਧ ਗਏ ਗੁਰਦਾਰਾਂ ਦੇ,
ਦੇਸ਼ ਤੇਰੇ ਦੇ ਲੋਕੀਂ ਭੁੱਖੇ ਮਰਦੇ
ਢਿੱਡ ਭਰਦੇ ਸਰਕਾਰਾਂ ਦੇ,

Devanshu Singh

GCT'22



ਸੰਸਕਾਰ ਅਚਾਰ

ਅਸੀਂ ਖੁਸ਼ ਹਾਂ, ਇਹ ਸੁਆਰਥੀ ਵੀ ਹੈ, ਅਸੀਂ ਸਾਰਿਆਂ ਨੂੰ ਖੁਸ਼ ਰੱਖਦੇ ਹਾਂ, ਇਸ ਨੂੰ ਇਕੱਠੇ ਰਹਿਣ ਦਿਓ। ਪਿਤਾ ਦੇ ਬੱਚੇ ਸਭ ਤੋਂ ਉੱਤਮ ਬਣ ਗਏ ਹਨ, ਇਸ ਯਾਦ ਵਿੱਚ ਹਮੇਸ਼ਾ ਖੁਸ਼ ਰਹੋ ਅਤੇ ਦੂਜਿਆਂ ਨੂੰ ਵੀ ਖੁਸ਼ ਰੱਖੋ। ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਨੂੰ ਵੇਖੋਗੇ, ਤਾਂ ਤੁਸੀਂ ਇਸ ਨੂੰ ਅਧਿਆਤਮਿਕ ਦ੍ਰਿਸ਼ਟੀਕੋਣ ਤੋਂ ਵੇਖੋਗੇ ਅਤੇ ਸਾਰਿਆਂ ਪ੍ਰਤੀ ਭਲਾਈ ਦਾ ਰਵੱਈਆ ਰੱਖੋਗੇ, ਕਿਉਂਕਿ ਪਰਮਾਤਮਾ ਬਣਨ ਨਾਲ, ਦ੍ਰਿਸ਼ਟੀ ਅਤੇ ਰਵੱਈਆ ਦੋਵੇਂ ਬਦਲ ਗਏ ਹਨ। ਪਰਮੇਸ਼ਵਰ ਦੇ ਬੱਚਿਆਂ ਦੀਆਂ ਨਜ਼ਰਾਂ ਵਿੱਚ ਕੁਝ ਵੀ ਬੁਰਾ ਨਹੀਂ ਹੈ। ਉਹ ਕਦੇ ਵੀ ਆਪਣੇ ਕੰਨਾਂ ਵਿੱਚ ਬੁਰੀਆਂ ਗੱਲਾਂ ਨਹੀਂ ਸੁਣਦੇ। ਕੋਈ ਫਰਕ ਨਹੀਂ ਪੈਂਦਾ ਕਿ ਕੋਈ ਕੀ ਕਰਦਾ ਹੈ, ਪਰ ਤੁਸੀਂ ਆਪਣੀ ਸ਼ਕਤੀ ਨਾਲ ਬੁਰੇ ਨੂੰ ਚੰਗੇ ਵਿੱਚ ਬਦਲ ਸਕਦੇ ਹੋ। ਜੇ ਕੋਈ ਦੁਰਵਿਵਹਾਰ ਵੀ ਕਰਦਾ ਹੈ, ਤਾਂ ਇਹ ਉਹ ਵਿਅਕਤੀ ਹੈ ਜੋ ਉਸ ਵਿਅਕਤੀ ਨਾਲ ਦੁਰਵਿਵਹਾਰ ਕਰਦਾ ਹੈ ਜਿਸਨੇ ਸਹਿਣਸ਼ੀਲਤਾ ਦਾ ਸਬਕ ਸਿਖਾਇਆ। ਤੁਸੀਂ ਜਾਣਦੇ ਹੋ ਕਿ ਤੁਹਾਡੇ ਕੋਲ ਕਿੰਨਾ ਸਬਰ ਹੈ ... ਕੀ ਤੁਸੀਂ ਸੋਚਦੇ ਹੋ ਕਿ ਇਹ ਚੰਗਾ ਹੈ ਜਾਂ ਬੁਰਾ?

ਸੰਸਾਰ ਵਿੱਚ ਬਹੁਗਿਣਤੀ ਆਤਮਾਵਾਂ ਹਨ ਜੋ ਗਤੀ ਸ਼ੀਲ ਹੁੰਦੀਆਂ ਹਨ, ਉਲਝਣ ਵਿੱਚ ਹੁੰਦੀਆਂ ਹਨ, ਹਾਇ ਹਾਇ, ਪਰ ਤੁਸੀਂ ਸਾਰੇ ਬਾਪ ਤੋਂ ਸੁਣਿਆ ਹੈ, ਸਮਝਿਆ ਹੈ ਕਿ ਤੁਹਾਡੇ ਨਾਲ ਜੋ ਕੁਝ ਵੀ ਵਾਪਰਦਾ ਹੈ, ਕੁਝ ਵੀ ਨਵਾਂ ਨਹੀਂ, ਕੋਈ ਅੰਦੋਲਨ ਨਹੀਂ, ਹਮੇਸ਼ਾ ਅਚੱਲ, ਹਮੇਸ਼ਾ ਪੂਰਾ ਰੁਕ ! ਕੀ ਤੁਸੀਂ ਪਰਮੇਸ਼ਵਰ ਦੇ ਬੱਚੇ ਸਦਾ ਬ੍ਰਾਹਮਣ ਬਣਦੇ ਹੋ ਜੋ ਆਪਣੀ ਕਿਸਮਤ ਦੀ ਖੁਸ਼ੀ ਵਿੱਚ ਰਹਿੰਦੇ ਹੋ, ਜਾਂ ਕੀ ਤੁਸੀਂ ਕਦੇ-ਕਦੇ ਖੱਤਰੀ ਬਣ ਜਾਂਦੇ ਹੋ? ਜੇ ਤੁਸੀਂ ਖੱਤਰੀ ਬਣ ਜਾਂਦੇ ਹੋ, ਤਾਂ ਤੁਸੀਂ ਅਸਫਲ ਹੋਵੋਗੇ।

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ਪ੍ਰਿਯਾ ਜੀ ਦੀ ਭਾਵਨਾ

ਸੂਰਜ ਦੇਵਤਾ ਸ੍ਰੀ ਰਾਧਾ ਜੀ ਦੇ ਕੁਲਦੇਵ ਹਨ। ਸ੍ਰੀ ਓਮ ਰਾਧਾ ਜੀ ਹਰ ਰੋਜ਼ ਸੂਰਿਆਦੇਵ ਨੂੰ ਪਾਣੀ ਦਿੰਦੇ ਹਨ, ਪਰ ਅੱਜ ਉਹ ਭਾਵੁਕ ਹੋ ਕੇ ਪੱਛਮ ਦਿਸ਼ਾ ਵਿੱਚ ਪਾਣੀ ਦੇ ਰਹੀ ਹੈ, ਪਿਆਰੀ ਮਿੱਤਰ ਲਲਿਤਾ ਜੀ ਨੇ ਰਾਧਾ ਜੀ ਨੂੰ ਕਿਹਾ, “ਸਵਾਮੀਨੀ ਜੂ, ਤੁਸੀਂ ਬਹੁਤ ਭੇਰੀ ਹੋ। ਸੂਰਜ ਦੇਵਤਾ ਪੂਰਬ ਵਿੱਚ ਹੈ ਅਤੇ ਤੁਸੀਂ ਪੱਛਮ ਵਿੱਚ ਪਾਣੀ ਦੇ ਰਹੇ ਹੋ।”

ਸ੍ਰੀ ਰਾਧਾ ਜੀ ਦੀਆਂ ਅੱਖਾਂ ਹਮਦਰਦੀ ਨਾਲ ਭਰ ਦਿੱਤੀਆਂ ਅਤੇ ਕਿਹਾ, “ਲਲਿਤੇ, ਭੇਰੀ ਮੈਂ ਨਾ ਹਾਂ ਭੇਰੀ ਤੇ ਤੂੰ ਹੈ, ਪੂਰਬ ਦਾ ਸੂਰਜ ਦੇਵਤਾ ਸਾਡਾ ਕੁਲਦੇਵ ਹੈ, ਇਹ ਪਾਣੀ ਮੈਨੂੰ ਮੇਰੇ ਪੱਛਮ ਦਾ ਸੂਰਜ ਸ਼ਿਆਮ ਸੁੰਦਰ ਕੂ ਦੇ ਰਿਹਾ ਹੈ। ਨੰਦ ਗਾਓਂ ਅਤੇ ਨੰਦ ਭਵਨ ਪੱਛਮ ਵੱਲ ਹਨ ਅਤੇ ਮੈਂ ਸ਼ਿਆਮ ਸੁੰਦਰ ਦੇ ਕੋਮਲ ਚਰਨਾਂ ਵਿੱਚ ਪਾਣੀ ਦੇ ਰਿਹਾ ਹਾਂ। ਓਮ ਇੰਨਾ ਥੱਕ ਹੋਇਆ ਹੈ ਕਿ ਅਸੀਂ ਸਾਰੇ ਸ਼ਿਆਮ ਸੁੰਦਰੋਂ ਤੇ ਨੱਚਦੇ ਅਤੇ ਨੱਚਦੇ ਹਾਂ।”

Prabhnoor Kaur

GCS'22



ਦੁਸ਼ਮਣ

ਬਗੁਲਾ ਆਪਣੇ ਸਾਹਮਣੇ ਭੇੜੀਏ ਨੂੰ ਦੇਖ ਕੇ ਹੈਰਾਨ ਰਹਿ ਗਿਆ ਅਤੇ ਡਰ ਨਾਲ ਕੰਬ ਗਿਆ। ਪਰ ਭੇਡਿਆ।

ਵਾਰ-ਵਾਰ ਪ੍ਰਾਰਥਨਾ ਕਰਨ ਤੋਂ ਬਾਅਦ, ਉਹ ਭੇੜੀਏ ਦੇ ਗਲੇ ਵਿੱਚ ਫਸੀ ਹੱਡੀ ਨੂੰ ਬਾਹਰ ਕੱਢਣ ਲਈ ਸਹਿਮਤ ਹੋ ਗਿਆ। ਉਸ ਨੇ ਸੋਚਿਆ ਕਿ ਸ਼ਾਇਦ ਭੇਡਿਆ ਉਸ ਦੀ ਜਾਨ ਬਚਾਉਣ ਦੇ ਬਦਲੇ ਕੁਝ ਇਨਾਮ ਦੇਵੇਗਾ। ਬਗੁਲੇ ਨੇ ਆਪਣੀ ਲੰਬੀ ਚਾਂਚ ਭੇੜੀਏ ਦੇ ਮੂੰਹ ਵਿੱਚ ਪਾ ਦਿੱਤੀ ਅਤੇ ਗਲੇ ਤੋਂ ਹੱਡੀ ਕੱਢ ਦਿੱਤੀ। ਭੇੜੀਏ ਦੀ ਜਾਨ ਬਚ ਗਈ।

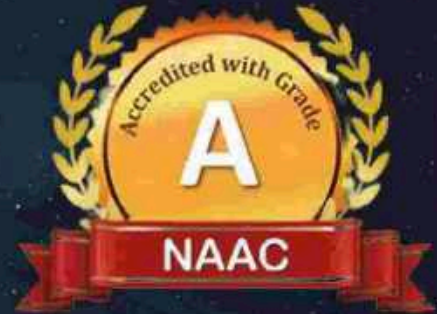
ਬਗੁਲੇ ਨੇ ਭੇੜੀਏ ਨੂੰ ਕਿਹਾ 'ਹੁਣ ਮੈਨੂੰ ਮੇਰਾ ਇਨਾਮ ਦੇ ਦਿਓ। ਚਾਲਾਕ ਭੇੜੀਏ ਨੇ ਕਿਹਾ ਕਿ ਮੇਰੇ ਤੋਂ ਸਭ ਤੋਂ ਵੱਡਾ ਇਨਾਮ ਇਹ ਹੈ ਕਿ ਮੇਰੇ ਕੋਲ ਤੁਹਾਡਾ ਹੈ। ਮੈਂ ਤੈਨੂੰ ਨਹੀਂ ਮਾਰਿਆ।'

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SRIJAN 2023
सृजन SLIET'S ANNUAL
MAGAZINE

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FLASHBACK 2023

*Proud to be part of Team SLIET
Together We Can Make a Difference*

Director SLIET attended G20 - 2nd Education Working Group Meeting

Prof Shailendra Jain, Director SLIET attended G20 - 2nd Education Working Group Meeting, held at Khalsa College, Amritsar, from March 15-17, 2023, as special invitee, organized by IIT Ropar. During the meeting 2nd G20 Education Working Group Seminar was organized on 15 Mar on the theme "Promoting Research & Innovation through Collaboration". The G20 comprises Argentina, Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, UK and USA. Delegates from these countries attended the summit, along with persons from Industry, Ministries, University, Start-up, Accelerators from India. Prof. Govindan Rangarajan, Director IISc Bangalore, presented his views on "Research in Emerging and Disruptive Technologies, Industry-4.0 and SDG" based on



inputs from G20 and invited countries. A key note on "Collaboration in Science & Technology, India" was delivered by Prof B S Murty, Director, IIT Hyderabad. Another keynote address on "SDG 17 and importance of global cooperation in achieving the goals" was delivered by Mr. Borhene Chakroun, Director, UNESCO. Panel discussions were organized on topics "Research in Emerging and Disruptive Technologies, Industry-4.0", and "Research in Sustainable Development Goals", where eminent speakers from Australia, India, UK, France, Oman, UAE, China, and South Africa shared their views. Folk fest performances and Culture of Incredible India, Theme (Punjab) was the major attraction of the event, enjoyed and appreciated by foreign delegates. An exhibition on various innovations, new technologies & products, start-ups, was the main attraction of the summit with panel discussion and Q & A sessions.



राष्ट्रीय मतदाता दिवस

25 जनवरी, 2023 को संत लोंगोवाल इंस्टीच्यूट ऑफ इंजीनियरिंग एंड टेक्नोलजी, लोंगोवाल में राष्ट्रीय मतदाता दिवस मनाया गया। इस कार्यक्रम में बड़ी संख्या में छात्रों, शिक्षकों और कर्मचारियों ने भाग लिया। कार्यक्रम के मुख्य अतिथि के रूप में माननीय निर्देशक SLIET ने इस की अध्यक्षता की। SLIET इलेक्टोरल लिटरेसी क्लब और NSS SLIET ने SLIET मैकेनिकल इंजीनियरिंग सोसाईटी के सहयोग से इस कार्यक्रम का सफलता पूर्वक आयोजन किया।

विशिष्ट अतिथि GSSS Boys के प्रिंसीपल श्री बिपन चावला, श्री हरिकेश कुमार, श्री हरविंदर सिंह और श्री इंदरजीत सिंह मौजूद थे। केन्द्रीय विद्यालय एस एल आई ई छी के प्रभारी प्रधानाध्यापिका श्रीमती अनीता सहित संकाय सदस्यों सहित मुख्य सकार्कता अधिकारी एस एल आई ई छी, प्रोफेसर पी.के. जैन, एच ओ डी टी एंड पी डा ए.एस.शाही, एच ओ डी वर्कशाप डा कुलवंत सिंह, प्रोफेसर पी.के सिंह, चीफ वार्डन डा. इंद्राज सिंह, अतिथियों में शामिल थे। इस अवसर पर छात्र रोहित राज (NSS SLIET, Student Co-ordinator), रोहिणी व किशन कश्यप (Student Co-ordinator SMES) ने भाषण प्रस्तुत किया। NSS SLIET के अध्यक्ष डा. गुलशन जावा, एस ई एल सी के नोडल अधिकारी डा जे.एस. गिल और प्रोफेसर पी.के. जैन ने युवा मतदाताओं को मतदान के महत्व और ताकत से अवगत कराया।



एस एल आई ई टी के निदेशक प्रोफेसर डा शैलेंद्र जैन ने चुनाव प्रक्रिया खासकर रिमोट वोटिंग में तकनीक के इस्तेमाल पर जोर दिया। इस कार्यक्रम में एस ई एल सी के सहसंयोजक डा. अनुज बांसल ने आभार व्यक्त किया। मतदाता शपथ ली गई और राष्ट्रगान के साथ कार्यक्रम का समापन किया गया।

Workshop on 'Role of Scientists & Scientific Institutions for the Development of Mankind'

Two-days' workshop on 'Role of Scientists & Scientific Institutions for the Development of Mankind' was organized by Sant Longowal Institute of Engineering & Technology on February, 19-20, 2023, in association with Ministry of Culture (Government of India), Vigyan Parishad Panchnad and Vijnana Bharti (Vibha). The workshop was organized to



commemorate the birth anniversary of Swami Vivekananda, the prophet of modern India and apostle of vedanta in the West. In the inaugural function on 19th February Prof. R.K. Mishra, Convener of the workshop welcomed all the guests, faculty, staff and students and Dr. Ajat Shatru Arora, Chairman of the workshop highlighted the main topics to be covered in this two days workshop. In his inaugural speech Chief Guest of this workshop Professor Kuldip Chand Agnihotri, Advisor to Union Minister of Culture, Govt. of India paid tributes to Sant Harchand Singh ji Longowal and said that due to Santji's sacrifice the institute came into existence.



Prof. Rakesh Sharda, Punjab Agriculture University and President Vigyan Parishad Panchnad, Prof. Adarsh Pal Vij, Chairman, Punjab Pollution Control Board, Shri Parveen Ram Das, National Secretary, Vigyan Bharti and Dr. Sanjeev Duggal, President, Vigyan Bharti Parishad graced the occasion. All the speakers emphasized on the role of Scientists, Teachings of Swami Vivekananda, Indian Knowledge System, Impact of Scientific Institutions on the Development of Mankind, Role of Scientists in India's Freedom Struggle, Technology for Agriculture, Important Features of NEP-2020. Faculty from scientific Institutions and teachers from Schools also attended this workshop. On this occasion the book "Vigyan Dwara Azadi Lyi Sanghrash" and the posters of this event were released.



Second day of the two-day Workshop on 20th February 2023, had enthralling sessions on Teachings of Swami Vivekananda. The session I on 2nd day of the workshop was presided over by Prof. Shailendra Jain, Director SLIET and was chaired by Sh Vijay Nadda, Regional Organising Secretary, Vidya Bharti. Session II of the workshop focused on the theme "Role of Scientists in the Indian Freedom Struggle". The session was chaired by Prof. H. K. Chopra, Professor (Dept. of Chemistry SLIET) and was co-chaired by Prof. Ajat Shatru Arora Dean (FSW) SLIET and Dr. Vivek Talwar from Punjab Technical University Jalandhar who was representing Vigyan Bharti Punjab. The session III deliberated on the theme Empowerment of Rural Women : Skilling and Upliftment Under Unnat Bharat Abhiyan (UBA). The Chief guest of the session was Shri Surinder Lamba, Senior Superintendent of Police Sangrur. The event was organised under the aegis of Unnat Bharat



Abhiyan and in co-ordination with Baba Farid Education and Welfare Society, Longowal. The purpose of the event was lucidly elaborated by Prof. P.K. Jain Chairman of Unnat Bharat Abhiyan SLIET Longowal . He further highlighted the activities of Unnat Bharat Abhiyan and adoption of seven villages of the surrounding area by UBA SLIET.

A felicitation of women ceremony in the presence of the Chief Guest was coordinated by Dr. Manoj Goyal and Shri Kamaljeet Singh, President of Baba Farid Education and Welfare Society, Longowal in which 30 Sewing Machines were distributed amongst them so that they can be financially self-reliant. The chief guest Shri Lamba and other dignitaries were then honoured by Director SLIET and the organisers of the workshop.

Two Days Workshop on: "An Initiative Towards Inclusive Sustainable Future"

The Department of Chemistry organized a Two Days Workshop on: "An Initiative Towards Inclusive Sustainable Future" under IUPAC Global women's Breakfast a flagship event of the International Year of Basis Sciences for Sustainable Development on 14th & 23rd Feb. 2023. First day event started with the emphasis on diversity in Science & Technology. PG students presented the contribution of women scientists in the field of chemistry and posters on inclusion of technology in science were displayed. On the second day, to kindle interest in Basis Sciences Quiz and Demonstrations were carried out and more than 100 students participated in the event.

100 EPISODE OF MANN KI BAAT



Students of SLIET attended the 100th episode of Mann Ki Baat by honorable prime minister Narendra Modi via online mode in HS-8 classroom (smart classroom) in Science Block. Happy Club's Faculty Advisor Dr. Yogesh Kapil along with Prof. R.K. Guha and Miss Anju (RS Mathematics) attended the session.

Many students from the Boys' Hostels as well as Girls' Hostel also attended the session remotely. The main message students get to know by attending the session is that citizens of India are special people and need to have the confidence to act in a manner that assists in pushing forward the trajectory of the country. Respectable PM Modi ji also emphasized that as far now the previous sessions of Mann ki Baat had impacted a lot on people all over the country, and are expecting more innovations in the upcoming future.



Professor (Dr.) Mani Kant Paswan joined as Director SLIET

Professor (Dr.) Mani Kant Paswan joined as Director SLIET, Longowal. On his appointment by Ministry of Education Government of India, Professor (Dr.) Mani Kant Paswan took over the charge of Director SLIET, Longowal. Prof. Paswan

is on deputation from National Institute of Technology (NIT) Jamshedpur where he was Dean (Faculty Welfare) since August 2021. He also served as Head of Mechanical Engineering Department NIT Jamshedpur, as President Nominee at all NIT faculty recruitments, as well as at Central University Guru Ghasidas Bilaspur,



Chhattisgarh. He also served as Senate member of NIT Meghalaya. He is working as academic council and Board of Studies member of various universities such as Sarla- Birla University Ranchi, Amity University Kolkata, Amity University Ranchi, Arka- ain University Jamshedpur etc. He is working as Nominated Moderator by AICTE of two Universities in Jharkhand Ram namely Govind Singh Engineering College Koderma and Chandravanshi Engineering College Gadhwā. He also worked as an Accessor in NAAC and NBA. During his nearly three-decade teaching and research career, he has been an investigator on several funded research projects in MHRD (R&D), TEQIP, and various consultancy work. Renewable energy, composite materials, power plant engineering, and industrial applications are among his current research interests. He has over hundred papers published in prestigious journals and has attended over 25 conferences. He was supervisor and research supervisor associate of eight PhDs to date, with another six currently in progress. Prof. Paswan is a leading proponent of solar thermal heating systems and natural fibre composite materials.

SLIET – Punjab's Top Ranked Government Engineering & Technology University

SLIET Longowal is Punjab's Top Ranked Government Engineering & Technology University. Prof. Govindan Rangarajan, Director IISc Bangalore, presented his views on "Research in Emerging and Disruptive Technologies, Industry-4.0 and SDG" based on



Punjab Top Ranked Government Engineering & Technology Universities



RANK **Institute**

RANK **Institute**

1 Punjab Engineering College (PEC), Chandigarh

2 Sant Longowal Institute of Engineering and Technology (Deemed University), Longowal, Sangrur

The complete higher education rankings league tables are available on www.educationworld.in

World Cycle day



Team Cycleone and NSS SLIET successfully conducted Cycle Marathon on the occasion of World Cycle day at SLIET, Campus. Those present included Dr. Shailendra Jain (Director SLIET), Dr. Rajesh Kumar (Dean Student Welfare), Dr. Manoj Goyal (Faculty Advisor Cycleone), Rohit Raj (Student Co-ordinator) other faculty members and students who actively participated in the event and conveyed the message of green and pollution free SLIET.



Online FDP on “Cyber Crime and Forensic Tools”

The One-Week Online Faculty Development Programme on "Cyber Crime and Forensic Tools" from 8th to 12th May 2023, was organized by the Department of Computer Science and Engineering, SLIET Longowal (Remote Center), and conducted by NITTTR Chandigarh. Prof. Shailendra Jain, Director SLIET Longowal, Prof. J S Dhillon, Dean Academics, SLIET, Prof. C. Rama Krishna, Head CSE, NITTTR Chandigarh and Dr. Birmohan Singh, Head CSE, SLIET were present in the inauguration ceremony. Nearly 230 participants from all parts of India participated in the inauguration ceremony through Google Meet. Prof. C. Rama Krishna, Coordinator NITTTR Chandigarh, and Dr. Jagdeep Singh, Coordinator SLIET of this FDP welcomed all the guests, faculty, and staff and highlighted the main topics of the Programme. In his inaugural speech, Prof. Shailendra Jain, Director SLIET Longowal said that cybersecurity is the protection of internet-connected devices and services from malicious attacks by hackers, spammers, and cybercriminals. The practice is used by companies to protect against phishing schemes, ransomware attacks, identity theft, data breaches, and financial losses. When we talk about employment, research, or anything else, cyber forensics is one of the prime areas that come to a security analyst mind. Forensics is strongly employed in incident response, malware analysis, and data leak protection. With the increasing use of technology in our daily lives, cybercrime has become a major concern for individuals, businesses, and governments alike. He also stressed that the consequences of cybercrime can be severe, ranging from financial loss to reputational damage and legal consequences. Prof. J S Dhillon (Dean Academics) said in his speech about the significance of cyber intelligence. In day-to-day life, everyone is leading their life with technology.



Our daily life depends on technology. So, nowadays everybody knows the internet and is aware of it. The Internet has everything that a man needs in terms of data. So, people are becoming addicted to the Internet. So, mitigation of these crimes is done by the recent forensics tools like database forensics, email analysis, file analysis, network forensics, and registry analysis. Renowned cyber security experts shared their experiences in this programme. The sessions were on Vulnerability Assessment (presented by Dr. Anup Girdhar, CEO founder, Sedulity Solutions & Technologies, Delhi), Cyber Crime Scenarios & Challenges before Law Enforcement Agencies (presented by Sh. Gurcharan Singh, Faculty, Central Detective Training Institute, Bureau of Police R & D, Chandigarh), Electronic Evidence (presented by Dr. Harold D#39; Costa, President-Cyber Security Corporation), and Trusted Computing (presented by Dr. Arun Mishra, Assistant Professor CSE, Defence Institute of Advanced Technology, Pune). In this FDP programme, a total of 49 participants participated in the SLIET Longowal (remote center). Dr. Jagdeep Singh, AP CSE, and Dr. Manminder Singh were the coordinators from the Sant Longowal Institute of Engineering and Technology, Longowal, India.

Three Days Mega event on Stress Management

Three Days Mega event on Stress Management through Meditation and Counselling was organized in SLIET Longowal. The program was organized by Samani Dr Amal Prajna and Samani Dr Shreyas Pragma from Jain Vishwa Bharati Institute Ladnun (Rajasthan). On 20th April program was organized in Girls Hostel of SLIET where more than 150 girls participated in the workshop. Samani Dr Amal Prajna also interacted the girls on one-to-one basis for their personal and professional problems on 21st April in the guest house where many girls shared their stress concerns. On 21st program was organized for all the boys and girls and faculty and staff of the institute. Where Samani Dr Amal Prajna enlightened about the effective relationship management. She gave a magic formula of "SAVE" Silence, Affirmations, Visualizations, Efforts. On 22nd April program on Mindfulness Meditation and counselling was held in Bibi Bhani Public school in collaboration with Baba Farid Education and welfare society Longowal and Unnat BharatAbhiyan of SLIET Longowal.

EXPERT TALK ON MATHEMATICAL ANALYSIS IN SLIET



Prof. Takao Komatsu, affiliated with Zhenjiang SciTech University in Hangzhou, China, recently presented an insightful expert talk that delved into the realms of mathematical analysis and number theory. This distinguished lecture was organized by the Department of Mathematics at SLIET (Sant Longowal Institute of Engineering and Technology). The occasion was graced by the esteemed presence of SLIET Director Prof. Mani Kant Paswan, who honored Prof. Takao Komatsu for his noteworthy contributions to the field. Accompanying the director in acknowledging Prof. Takao Komatsu's achievements were the Head of the Department of Mathematics, Prof. Kukreja, and Senior Prof. S.S. Dhaliwal.



NAAC ACCREDITATION OF SLIET, LONGOWAL



In response to Self Study Report (SSR), submitted (through online mode) to the National Assessment and Accreditation Council (NAAC), Bangalore for the Accreditation of Sant Longowal Institute of Engineering & Technology, Longowal, the NAAC peer Team visited the Institute from 31st August - 2nd September 2023. Based on the outcome of the Assessment and Accreditation (A&A) exercise of the Institute followed by NAAC Peer Team (PTV), Institute (SLIET) has been Accredited with a CGPA of 3.02 on a seven point scale at 'A' Grade valid for a period of 5 years from 14.09.2023. Director SLIET Prof. Mani Kant Paswan congratulated Team SLIET for this achievement.

SLIET SIGNED MOUs WITH NIT DELHI

Prof. Mani Kant Paswan, Director, SLIET along-with Prof. J. S. Dhillon, Dean (Academics), Prof. J.S. Ubhi, Associate Dean (Academic Planning), Dr. Charanjiv Gupta, Associate Professor (EIE) participated in All India Education Meet (Akhil Bharatiya Shiksha Samagam), held in New Delhi on 29th and 30th July, 2023 on the occasion of completion of participating in Akhil Bhartiya .



Shiksha Samagam organized for celebrating 3rd Anniversary of the National Education Policy (NEP) 2020 in New Delhi and also MoU signed with NIT Delhi in Pragati Maidan auditorium, under the leadership of Prof. Mani Kant Paswan Director, SLIET, Longowal with Prof. Ajay Kumar Sharma Director, NIT Delhi in presence of Prof. V. S. Pandey Dean FW NIT Delhi, Prof. JS Dhillon Dean (Academics) SLIET, Prof. JS Ubhi Associate Dean (Academic Planning) SLIET & Dr. Charanjiv Gupta Associate Professor (EIE) SLIET. Three years of implementation of NEP-2020 and signed MoUs with National Institute of Technology, Delhi.

MOUs SIGNED BETWEEN IIT JAMMU AND SLIET, LONGOWAL



Prof. Mani Kant Paswan, Director, SLIET along-with Prof. J. S. Dhillon, Dean (Academics), Prof. J.S. Ubhi, Associate Dean (Academic Planning), Dr. Charanjiv Gupta, Associate Professor (EIE) participated in All India Education Meet (Akhil Bharatiya Shiksha Samagam), held in New Delhi on 29th and 30th July, 2023 on the occasion of completion of three years of implementation of NEP-2020 and signed MoUs with Indian Institute of Technology, Jammu for collaborative research projects in area of common interest, joint supervision of Ph.D. students, joint degree program, organization of joint workshops and seminars, exchange of students and faculty besides information sharing in the areas of academics and research.



77TH INDEPENDENCE DAY CELEBRATED

Sant Longowal Institute of Engineering and Technology celebrated 77th Independence Day on 15th August 2023 with full zeal and zest. On this auspicious day, the national Tricolour was hoisted by the director Prof. Mani Kant Paswan, and followed by a patriotic and inspirational speech. The event was streamed live on Official Facebook channel of SLIET. The flag hoisting ceremony was followed by a graceful parade by security personnel. In the event numerous poems, songs, lectures were delivered related to the nationalism. Further on the occasion, Prof. Mani Kant Paswan exhorted everyone to toil hard for the multidimensional growth of the institute which will be a tribute to the nation. SLIET Longowal is going to observe Partition Horrors Remembrance Day on 14th Aug. 2023.



SWACHHATA PAKHWADA – 2023



Swachhata Pakhwada 2023 has been observed by Sant Longowal Institute of Engineering and Technology, Longowal (Punjab) during Sept. 1-15, 2023. Various programs have been organized under the Pakhwada to develop a sense of hygiene and cleanliness amongst students, faculty and staff along with surrounding masses as per Program Schedule mentioned above. On Sept 4, 2023 (Monday), the Opening Ceremony of Swachhata Phakhwada - 2023 was performed in Mini Auditorium, CSE Block, and had a 'Swachhata Pledge Taking Ceremony' in the esteemed presence of Dr. Mani Kant Paswan (Director, SLIET), Dr. Rajesh Kumar (Dean, S&W), Dr. Gulshan Jawa (Faculty Coordinator, NSS, SLIET), Prof. SM Ahuja (Faculty Coordinator, Jal Shakti Abhiyaan, SLIET), NSS SLIET Team and other faculty, staff and students. Subsequently, the programs were conducted as per schedule to inculcate the attitude of cleanliness, health and hygiene for sustainability amongst students through pledge ceremonies, cleanliness drives, swachhata rally, Poster and Paper presentations on Cleanliness and water conservation, discussions etc. The students, staff and faculty members of the institute show full sense of responsibility towards cleanliness and resource conservation for making the Nation clean and developed with sustainability.



SLIET'S FEST





(Annual Socio-Cultural Fest)

Madhuram

उत्सव हृत्तर का



Madhuram'23 was a dynamic showcase of SLIET students' talents and enthusiasm, encompassing a wide range of performances spanning singing, dancing, poetry, and cultural exhibitions. The event stood out with remarkable moments, including a Taekwondo demonstration advocating women's selfdefense, touching poetry celebrating national unity, and a thought-provoking drama underscoring the significance of cleanliness. Additionally, the program featured captivating folk dances, inspirational musical presentations, and engaging modeling displays, all while championing crucial societal messages, including women's empowerment and environmental conservation. Earlier in the day, the Madhuram'23 festival kicked off at the FETE Area, spanning both the Food Block and Mechanical Block, featuring a total of 32 stalls. Notably, six NGOs took part, focused on promoting book donations and resource sharing within a socio-cultural context.





The festival also included regional food stalls like Burger Bar, Dominos, and a beverage section. The evening was marked by a star-studded event, headlined by Kushagra Thakur, which drew enthusiastic audience participation and featured engaging performances. The event was generously sponsored by Coke Studio Bharat, which organized various branding activities, including the distribution of complimentary Coca-Cola beverages and an automobile showcase. Singer Kushagra Thakur was honoured by the Dean of SLIET. Vice Chairman Madhura'23 had the honor of inaugurating the event by lighting the lamp, along with the esteemed presence of the Director of SLIET, the Chief Guest, and the Dean of the Student Welfare. The Director further graced the occasion by felicitating the Chief Guest, Mr. Achint Kumar from the Ministry of Education, Professor Raghavendra P. Tiwari, the Vice Chancellor of Central University, Punjab, and the representative from the Central Bank of India, Bragfit, HDFC Bank, President SAA, IOLCP, Coca-Cola, our valued sponsor. The night concluded with a heartfelt tribute to the Late Damanjit Singh, Following the tribute, the event continued with an electrifying performance by Team Seawaves and a captivating presentation of Malwai Giddha, which left the audience mesmerized and earned resounding applause. Notably, the Folk Dance of Bihar emerged as one of the standout highlights of the event



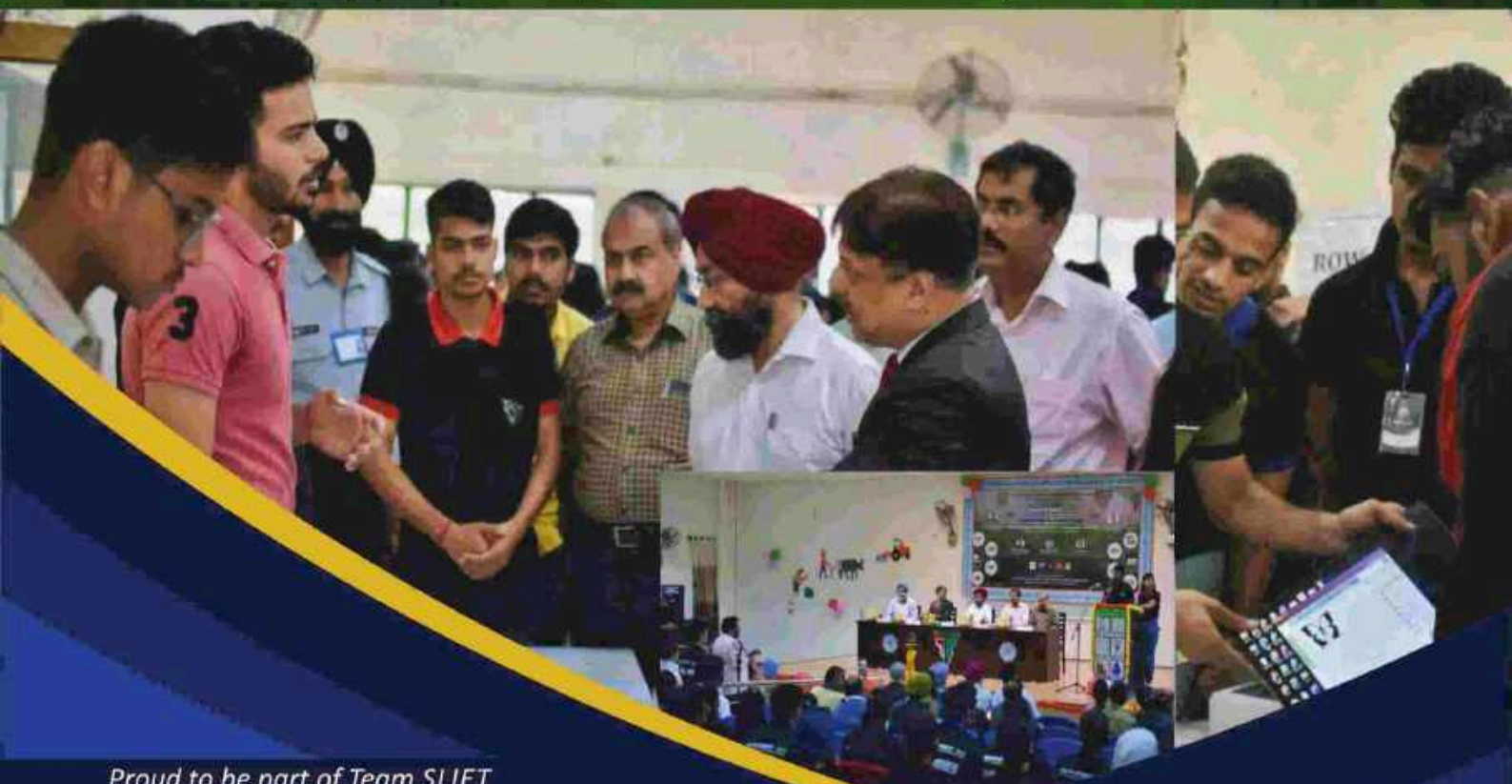
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Together We Can Make a Difference



techFEST '23, held on the 24th and 25th of March 2023, centered around the theme 'INNOVATION IN AGRICULTURE.' Prof. Shankar Singh, the Chairman of techFEST '23, shared with the enthusiastic audience that the choice of this theme was a response to the global challenges affecting food and agricultural sustainability. Highlighting the potential of emerging technologies, from drones to digitalization, to revolutionize agricultural productivity, reduce environmental impact, and enhance farmers' incomes, Prof. Singh emphasized the importance of staying ahead of the curve in an era dominated by technology and engineering.

techFEST '23 served as a platform for engineering students to engage in critical thinking, encouraging them to devise innovative solutions to the challenges faced by the agriculture sector. urged the students to foster a scientific mindset, emphasizing the need to enhance analytical thinking skills. Introducing the concept of Smart farming, which incorporates technologies like the Internet of Things (IoT), computer vision, and artificial intelligence (AI) for more efficient farming practices, highlighting the potential role of agricultural robotics and drones in accelerating farm automation. techFEST '23 not only inspired participants to innovate but also motivated them to integrate their ideas into practical applications, contributing to the ever-evolving field of agriculture. The annual techFEST '23 at SLIET proved to be a triumphant celebration of innovation, collaboration, and the indomitable spirit of the students and faculty who continue to push the boundaries of technological advancements.



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SRIJAN 2023
सृजन SLIET'S ANNUAL
MAGAZINE

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SLIET'S SOCIETIES & CLUBS



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NATIONAL CADET CORPS



The National Cadet Corps (NCC) is the youth wing of the Indian Armed Forces with its headquarters in New Delhi, India. It is open to school and college students on voluntary basis as a Tri-Services Organization, comprising the Army, the Navy and the Air Wing, engaged in developing the youth of the country into disciplined and patriotic citizens. The soldier youth foundation in India is a voluntary organization which recruits cadets from high schools, higher secondary, colleges and universities all over India. The Cadets are given basic military training in small arms and drill. The officers and cadets have no liability for active military service once they complete their

course. The formation of the National Cadet Corps (NCC) under the NCC Act, 1948 was a major milestone for the development of the student community. With its motto of "Unity And Discipline", the NCC has become instrumental in molding the character and imparting in our students a dynamic outlook during their school and college education. The NCC cadets participated in an impactful Annual Training Camp, honing their leadership and Teamwork



skills. Engaging in rigorous physical training, they also delved into theoretical aspects of national defense. The camp provided a transformative experience, fostering discipline, camaraderie, and a deeper understanding of their role in serving the nation. Cadets from SLIET achieved a record by winning the highest number of medals, 64 in total, during this camp. The medals were earned in various cultural, sports, and drill activities, comprising 27 Gold, 15 Silver, and 19 Bronze medals.



NATIONAL SERVICE SCHEME

National Service Scheme (NSS) is a valuable program promoting community service, personal development, and student social awareness. NSS provides a platform for students to contribute towards community development while developing leadership skills, social responsibility, and empathy. NSS volunteers get practical experience, exposure to different social issues, and an opportunity to work with diverse groups of people, making them socially responsible citizens

Objectives Of The National Service Scheme:

- **To Understand Community Needs:** NSS aims to allow students to understand the community's social and economic needs and encourage them to work towards solutions to the problems.
- **To Develop Personal Skills:** NSS provides a platform for personal development by promoting leadership skills, organizational abilities, and social skills among students. It also aims to develop a sense of responsibility towards society and nurture the spirit of volunteerism.
- **To Promote Social Awareness:** NSS aims to promote social awareness among students and sensitize them to various social issues. The program encourages students to participate in social service activities such as blood donation camps, environmental awareness campaigns, and drug abuse, health, and hygiene awareness programs

Importance of NSS:

- **Community Service:** NSS provides students with the opportunity to work towards community service and make a positive impact on society.
- **Personal Development:** NSS offers a platform for personal development and leadership training.
- **Social Awareness:** NSS activities such as awareness campaigns and community service projects in rural areas help students develop social awareness and sensitivity towards various social issues. NSS activities help students develop empathy and concern for the well-being of others.



Several Important Projects Held in SLIET Longowal By NSS were Blood Donation Camp, Workshop Collaboration With Punjab Pollution Control Board, PROJECT R᳚᳚, LITERACY PROJECT, etc.





SLIET ALUMNI ASSOCIATION

SLIET Alumni Association creates and maintains a lifelong connection between the institute and its alumni. In collaboration with an extremely dedicated volunteer board of directors, the Alumni association works to connect alumni, support students, and build an unforgettable experience through a diversity of events, programming, and services. The association aims to encourage the alumni to take an abiding interest in the progress and development of the institute. Since its establishment, the association has grown from strength to strength, regularly undertaking several initiatives to promote and foster mutually beneficial interaction between the alumni and Alma Mater.



SLIET Alumni Association recently commemorated its Silver Jubilee, a milestone marked by a grand celebration that unfolded on December 1st. The institute welcomed back its alumni, showcasing the remarkable growth and achievements of those who once walked its halls. Following the Silver Jubilee, the yearly gathering of former students on December 2nd became a heartfelt extension of the festivities.

As the celebration reflected on SLIET's legacy, it became evident that this institute is not just about academic achievements. The Silver Jubilee and Annual Alumni Meet have set a precedent for future gatherings, showcasing the enduring strength and unity of the SLIET community—a community deeply rooted in excellence.

Šviesa - THE PMC SLIET

Šviesa: Photography & Media Club, a dynamic community where the art of photography and multimedia converge. Established with the vision of providing students a platform to explore their creative inclinations, Šviesa has evolved into a powerhouse of multimedia expression. At the core of Šviesa's activities lies the art of photography. Through workshops, photo walks, and collaborative projects, club members have continued to immerse themselves in capturing the beauty of campus life, events like techFESTs and Madharam, and the diverse personalities within the college community.



Šviesa doesn't stop at visuals; it extends its reach into the auditory realm with engaging podcasts. The club members delve into thoughtprovoking discussions, interviews with faculty and students, and explorations of various themes. One notable podcast series, "Campus Chronicles," has been created by Šviesa, discussing monthly news updates and highlights of the institute, providing an insightful perspective on the college community. With the rise of digital platforms. Club members from diverse backgrounds come together, blending their photography, videography, and audio production skills to create holistic multimedia projects. Tutorials on photography techniques, video editing, and podcast production provide members with valuable hands-on experience to its members.



MOMENTS CAPTURED BY ŠVIESA

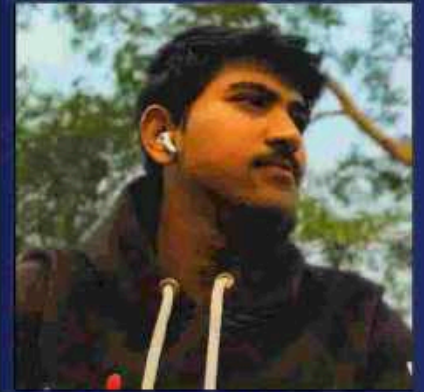




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