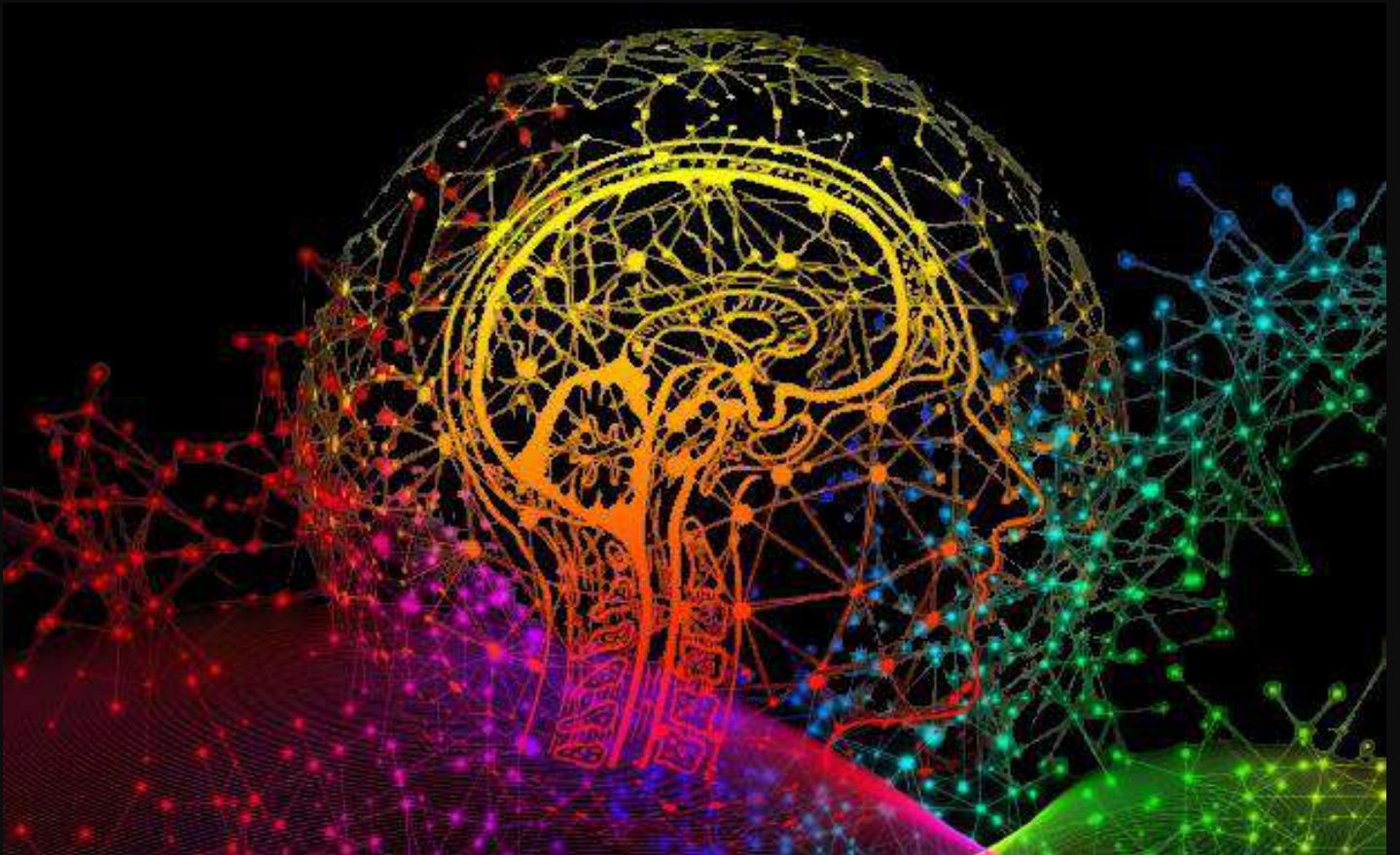


# INSIGHT

## THE BRAINSTORM

### EDITION – I VOLUME – 2



SINDHI PU COLLEGE



वक्रतुण्ड महाकाय सूर्यकोटि समप्रभ।  
निर्विघ्नं कुरु मे देव सर्वकार्येषु सर्वदा ॥

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# INSIGHT

## THE BRAINSTORM

BI-MONTHLY NEWSLETTER

YEAR : 2023 - 24

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“A” Grade College

(Recognized Dept. of PUE, Govt. of Karnataka)

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### VISION

Enriching lives &  
fulfilling dreams

To educate & train the  
student to be efficient,  
empathetic, and Socially  
Responsible Individuals

### MISSION

To promote Education  
that will be liberal and  
progressive which  
contributes to the  
new dimensions of  
education.

### VALUES

Student Focused  
Locally & Globally  
connected  
Respectful & Inclusive  
Committed to Excellence  
Innovative



# From The Principal's Desk

**Dear Students,  
Greetings From Sindhi PU College!  
Hare Krishna!**

I am delighted to extend my warmest greetings to each one of you on the occasion of the release of "Insight Ed.1, Vol.2." This publication is not just a collection of words; it is a testament to your creativity, intellect, and unwavering dedication to the pursuit of knowledge.

As the principal of this esteemed Institution, I cannot emphasize enough the importance of reading.



Reading opens the doors to worlds unexplored, it fuels our imagination, and it empowers us with knowledge. In this digital age, where information is at our fingertips, the act of picking up a book, a magazine, or a journal is a conscious choice to invest in your personal growth. So, I implore you all to not just skim through the pages of Insight Ed.1, Vol.2, but to truly immerse yourselves in the content, to engage with the ideas and stories within, and to allow your minds to expand and evolve.

Moreover, I want to encourage each one of you to become not just readers but also writers. Writing is a potent tool that allows you to express your thoughts, ideas, and experiences. It is through writing that you can leave a lasting impact on the world, sharing your unique perspectives and contributing to the collective wisdom of humanity. Let the pages of Insight Ed.1, Vol.2, serve as an inspiration for your own creative endeavours. Let the voices within these pages motivate you to pick up your pens and laptops and start writing your own stories, essays, and poems.

In the realm of education, it is essential to remember that it is not merely a process of acquiring facts and figures. True education is about cultivating a curious and open mind, fostering a spirit of inquiry, and nurturing the values of empathy, compassion, and resilience. Education is a journey, not a destination, and it extends far beyond the boundaries of the classroom. It is about embracing lifelong learning, understanding that mistakes are stepping stones to success, and recognizing that knowledge is a powerful force for positive change.

So, my dear students, as you embark on this literary journey with Insight Ed.1, Vol.2, I want you to reflect on what education means to you. What are your aspirations, and how will you contribute to the betterment of society through your knowledge and wisdom? Remember, education is not about filling empty vessels; it's about lighting the fire of curiosity and empowering you to illuminate the path ahead. Let this publication be a catalyst for your intellectual growth and a reminder of the incredible potential that lies within each one of you.

Wishing you all a rewarding and enlightening experience with Insight Ed.1, Vol.2.

With warm regards,

Prof. Pallavi,  
Principal  
MBA, M.Phil., MA, B.Ed.

# Letter from the Editorial Board

**Dear Readers,**

We are thrilled to announce the release of INSIGHT Edition 1, Volume 2. This edition marks another milestone in our commitment to providing you with thought-provoking content and meaningful insights.

In this volume, we have curated a diverse range of articles, essays, and thought pieces that delve into various aspects of our ever-changing world. From in-depth analyses of current global events to explorations of emerging technologies, our contributors have passionately shared their knowledge and perspectives.

We want to express our gratitude to our dedicated team of writers, editors, and designers who have worked tirelessly to bring this edition to life. Their dedication and creativity have been instrumental in shaping INSIGHT into the publication it is today.

As we continue to grow and evolve, we are always eager to hear from you, our readers. Your feedback and suggestions are invaluable to us as we strive to improve and deliver content that resonates with your interests and concerns.

INSIGHT Edition 1, Volume 2 is a testament to the power of knowledge and the importance of fostering thoughtful discourse. We hope you find inspiration, enlightenment, and enjoyment within these pages.

Thank you for your continued support, and we look forward to embarking on this intellectual journey with you.

Sincerely,

The Editorial Board of INSIGHT

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# A Journey of Discovery and Growth

## Navigating College Life

**College life** is a journey marked by a myriad of joys, challenges, and transformative moments. This pivotal phase in one's life not only signifies the pursuit of higher education but also the growth, self-discovery, and the creation of lasting memories. Throughout this essay, we will explore the various dimensions of college life, from the exhilarating highs to the daunting lows, that shape individuals into the adults they become. One of the most remarkable aspects of college life is the freedom it offers. For many, this newfound independence is liberating, allowing students to explore their passions and interests in a more self-directed manner. **The joy of choosing courses that align with one's academic pursuits, delving deep into subjects that ignite curiosity, and engaging in extracurricular activities that foster personal growth cannot be overstated.** College provides an environment where one can cultivate new friendships, learn about diverse cultures, and broaden horizons through exposure to different viewpoints. These experiences often lead to lifelong friendships and networks that extend far beyond the campus years. However, the college journey is not without its challenges. The academic rigors can sometimes be overwhelming, pushing students to their limits. Late-night study sessions, looming deadlines, and challenging exams can induce stress and anxiety. Balancing academics with social life and part-time jobs can be a juggling act that tests time management and prioritization skills. Moreover, homesickness can strike, reminding students of the comfort of their families and the familiarity of their hometowns. Overcoming these challenges requires resilience, adaptability, and seeking support from peers, professors, and campus resources. In the midst of both joys and challenges, college life has the power to bring about transformative moments. These moments often stem from experiences that push individuals out of their comfort zones. Participating in internships, research projects, or studying abroad can foster personal and intellectual growth, allowing students to apply classroom knowledge to real-world scenarios. Engaging in community service and leadership roles can ignite a sense of responsibility and empathy, shaping individuals into socially conscious citizens. These transformative experiences contribute to the holistic development of students, preparing them not just for a career, but for a purposeful life. Perhaps one of the most profound joys of college life is the process of self-discovery. As students explore various subjects, engage in conversations with peers and professors, and navigate the complexities of life away from home, they gradually unearth their passions, values, and aspirations. This period of introspection paves the way for making informed decisions about future careers and life paths. College life acts as a crucible where identities are forged and redefined, enabling individuals to emerge with a clearer sense of self and direction.

**In conclusion,** college life is a multi-faceted journey that encompasses moments of joy, challenges, and transformation. The pursuit of education, freedom of choice, and exposure to diverse experiences contribute to the joyful aspects of this phase. Simultaneously, the academic pressures, personal struggles, and homesickness present challenges that test one's resilience. Through it all, college life acts as a crucible for personal growth and self-discovery, nurturing individuals into well-rounded adults. As students navigate the highs and lows of college life, they pave the way for a future that is not only intellectually fulfilling but also emotionally enriching.

**Gurjas Singh Sehmbe, 1<sup>st</sup> PCMC**

# Embracing Cultural Diversity

## Personal Experiences and Stories that Illuminate Unity.

**Cultural diversity** is a tapestry of traditions, languages, beliefs, and customs that enrich our world with a vibrant mosaic of experiences. In this essay, we will explore personal anecdotes and stories that highlight the beauty of embracing cultural diversity, showcasing how these interactions contribute to unity and a more inclusive society.

**An International Friendship:** One of the most transformative encounters with cultural diversity occurred during my college years when I formed an unexpected friendship with an international student. Our backgrounds couldn't have been more different, hailing from opposite sides of the globe with distinct languages and traditions. However, as we shared stories, exchanged recipes, and celebrated each other's festivals, a bond formed that transcended our differences. Our friendship epitomized the power of cultural exchange to bridge gaps and cultivate understanding.

**Festivals that Unite:** Cultural diversity comes to life most vividly during festivals, where traditions and celebrations are proudly showcased. Attending a Diwali celebration introduced me to the splendour of Indian culture. The sight of vibrant garments, the aroma of fragrant cuisine, and the sound of music reverberating through the air created an immersive experience. Witnessing people from various backgrounds join in the festivities underscored the capacity of cultural events to unite communities, fostering a sense of shared celebration.

**Language as a Connector:** Language is a bridge that connects people across cultures. I recall an enlightening conversation with an elderly neighbour who was teaching her grandchildren her native language. Despite not sharing the same linguistic background, her anecdotes about the importance of heritage and preserving linguistic roots resonated deeply. This interaction highlighted how language is not only a tool for communication but also a vessel for passing down cultural legacies.

**Culinary Adventures:** Culinary experiences offer a delectable gateway to cultural exploration. Participating in a cooking class focused on traditional Korean dishes unveiled a world of flavors and techniques previously unfamiliar to me. Through hands-on preparation and shared meals, the class not only expanded my gastronomic horizons but also deepened my appreciation for the cultural significance of food. This experience reinforced the notion that breaking bread together can foster connections that transcend borders.

**Art as a Universal Language:** Art is a universal language that transcends linguistic barriers, communicating emotions and narratives that resonate across cultures. Attending a cross-cultural art exhibition opened my eyes to the way artists from diverse backgrounds use their creative expressions to address shared human experiences. The artworks served as catalysts for meaningful conversations, highlighting the universality of emotions and aspirations that bind humanity together.

**In conclusion,** personal experiences and stories that celebrate cultural diversity underscore the transformative impact of embracing differences. As we continue to celebrate cultural diversity, we contribute to a more inclusive and harmonious world where our differences are celebrated as assets that collectively shape the tapestry of humanity.

**Md. Zubair K Ahmed, 1<sup>st</sup> PCMC**

# Empowering Engagement

## The Transformative Influence of Public-Friendly Freebies

In an era where marketing strategies are as diverse as they are innovative, the allure of freebies remains a powerful tool to capture public attention. These public-friendly giveaways, ranging from promotional items to trial offers, have a profound impact on both society and the economy.

**Influence on Consumer Behaviour:** Freebies possess a unique psychological pull that can alter consumer behaviour in significant ways. The mere promise of receiving something for free triggers a sense of excitement and anticipation. This phenomenon, known as the "freebie effect," can lead individuals to make purchases they might not have considered otherwise. Businesses strategically employ freebies as a means to introduce new products, increase brand loyalty, and create a positive association with their offerings. This influence on consumer behaviour extends beyond immediate transactions, often leading to long-term patronage.

**Societal Perceptions and Brand Image:** The distribution of public-friendly freebies not only shapes consumer choices but also influences societal perceptions of brands and companies. When organizations prioritize giving back to the public through free samples, charitable donations, or community events, they foster a positive image. These actions are seen as demonstrations of corporate social responsibility and a genuine commitment to societal well-being. Such initiatives not only enhance a brand's reputation but also align it with values that resonate with consumers, leading to increased trust and loyalty.

**Economic Dynamics and Market Penetration:** Freebies have a notable impact on economic dynamics, particularly in terms of market penetration and competition. For businesses, offering free samples allows potential customers to experience products firsthand, breaking down barriers to entry. This practice enables companies to capture market share, as consumers are more likely to choose products they have already tested and found favourable. In highly competitive industries, freebies can be a game-changer, helping businesses carve a niche and gain a foothold in the market.

**Stimulating Demand and Consumption:** Freebies play a role in stimulating demand and consumption, often driving individuals to try products or services they might not have considered otherwise. This effect is particularly pronounced in the digital realm, where free trials of subscription-based services have become commonplace. The temporary access to premium features encourages users to explore the full range of offerings, potentially leading to conversions into paying customers. This strategy also taps into the psychology of reciprocity, where individuals feel compelled to reciprocate a favour, even if it means making a purchase.

**Economic Implications:** From an economic standpoint, the distribution of freebies can have both positive and negative implications. While freebies can spur short-term sales and brand loyalty, they can also impact profitability, especially if not strategically managed. Additionally, the widespread distribution of freebies may influence price perceptions, potentially devaluing products in the eyes of consumers. Balancing the benefits of freebies with their economic consequences requires careful consideration by businesses.

**In conclusion,** public-friendly freebies wield a considerable influence on both society and the economy. They shape consumer behaviour, create positive brand perceptions, facilitate market penetration, stimulate demand, and contribute to economic dynamics. These giveaways can yield substantial benefits, businesses must approach their use with a strategic mindset to ensure long-term sustainability and success. As consumers continue to enjoy the perks of freebies, the impact on society and the economy remains a dynamic interplay between marketing strategies and public engagement.

**Samiksha Pattar, 2<sup>nd</sup> PCMB**



# Navigating Individuality Amidst College Life's Currents

## Peer Pressure

**College life**, a vibrant tapestry of experiences, often exposes individuals to the currents of peer pressure. As students embark on this journey of self-discovery and growth, mastering the art of staying true to oneself while navigating the tides of influence becomes a critical skill.

**Staying True to Oneself:** Amid the excitement of new friendships and diverse social interactions, it's easy to find oneself influenced by the opinions and behaviours of peers. However, the essence of college lies in uncovering one's identity and values. Embracing individuality while respecting the diversity around is a delicate balance. It's essential to recognize that being different is a strength, not a weakness. The courage to hold onto personal beliefs and preferences amid peer pressure fosters self-respect and authenticity.

**Making Informed Choices:** Peer pressure often presents itself as a catalyst for experimentation and boundary-pushing. While stepping outside one's comfort zone can be enriching, it's vital to make informed choices. Engaging in activities that align with personal values and long-term goals ensures that decisions are driven by self-awareness rather than external influences. Thoughtful consideration of the potential consequences and benefits helps in maintaining autonomy over one's choices.

**Open Communication and Assertiveness:** Effectively navigating peer pressure necessitates open communication and assertiveness. Expressing one's viewpoints, boundaries, and limitations to peers fosters an environment of mutual respect. Clear communication allows for healthy discussions and encourages friends to understand each other's perspectives. Moreover, cultivating assertiveness empowers individuals to stand up for their beliefs without resorting to conflict or compromise.

**Seeking Supportive Circles:** Surrounding oneself with a supportive circle of friends who respect individual choices can act as a buffer against negative peer pressure. Friends who encourage personal growth, celebrate achievements, and provide a safe space to voice concerns contribute to a positive college experience. A strong network bolsters confidence and provides a counterbalance to external pressures.

**Embracing Responsibility:** College life is a phase of transition into adulthood, marked by increased responsibility and accountability. Recognizing the repercussions of succumbing to peer pressure and embracing the ownership of one's decisions empowers individuals to make choices aligned with their long-term well-being. Understanding that the pursuit of instant gratification might undermine future goals reinforces the importance of resilience against peer pressure.

**In conclusion**, peer pressure is an intricate facet of college life that tests an individual's character, values, and decision-making prowess. The journey of navigating these pressures involves a delicate dance between embracing individuality, making informed choices, open communication, seeking supportive circles, and embracing responsibility. By developing a strong sense of self and a keen understanding of personal boundaries, individuals can successfully ride the currents of peer pressure while maintaining their authenticity and steering their own course toward a fulfilling college experience.

**Suhas Muduwadi, 1<sup>st</sup> PCMB**

# Youth at Crossroads

## Battling the Surge of Eating Disorders

We all have had moments in our life, where we have faced issues related to our weight and body. But when these thoughts turn into hyper fixating on one's body, the way it looks, and the weight, it results in an eating disorder, this if not treated in the right time, may be fatal.

So, far what is an eating disorder?

According to APA (American Psychiatry Association) it is the “behavioural conditions characterized by severe and persistent disturbance in eating behaviours and associated distressing thoughts and emotion.” In simple words, when one starts hyper fixating on their self-image, starts to obsessively try to measure their food intake, purge after overeating, and perform unrealistic diets in order to maintain their weight, it eventually leads to an eating disorder.

### Two Facets of the Challenge: Anorexia and Bulimia

- **Anorexia Nervosa:** It is a disorder where a person is abnormally thin, with an intense fear of gaining weight and have a distorted perception of weight. To prevent weight anorexics severely restrict the foods they eat, they also control their calorie by puking, taking laxatives etc. No matter how much weight is lost, they continue to have the fear of gaining more. Anorexia isn't really about food, it's an extremely unhealthy way to cope with emotional problems, where thinness or being skinny, defines your self-worth.
- **Bulimia Nervosa:** People with bulimia might binge eat large amounts of food and then purge, trying to get rid of calories gained in an unhealthy way. People may misuse laxatives, weight loss supplements, and may do self-induced vomiting. Bulimia leads to a negative and a harsh self-image judgement.

**Unmasking Influences:** Societal Pressure and Media, there aren't specific causes to eating disorder, but in today's world it can be boiled down to the intense wave of “perfectionism” the media portrays. The internet, as we know, influences a lot of youths, it projects unrealistic beauty standards of a thin waist, skinny stature, and beautiful skin, which is shown as the new normal in today's world. But the reality isn't the same, all body types are different. One must not be skinny to be healthy. Media, fashion industry has made us believe that only if we are of a certain body type, we can be beautiful, so the youths start to feel insecure, and with the burning urge for validation and to fit in, they use these unhealthy methods to meet up these unfeasible methods to feel beautiful. Modern western world allocates success and worth to being thin.

**Guiding towards Recovery:** A Collective Effort, eating disorders are sadly increasing in adolescents, especially girls, as they chase unrealistic beauty ideals. Timely intervention is vital. Seeking professional help and reshaping societal norms can lead to recovery—a journey marked by health, acceptance, and self-love.

**Kashvi Malay Munshi, 2<sup>nd</sup> ESPPsy**

### **Computer Science Dept. @ SPUC**

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### **Commerce Dept. @ SPUC**

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# Bridging the future with Innovation

## HUMANOID ROBOTS

**A humanoid robot** is a robot built in the shape of a human being, which does programmed assignments. It does what human beings do but with high speed and efficiency. Used in research or industrial purposes but have also been increasingly used in entertainment and military applications. This type of robot has human-like features. Some of today's humanoid robots can even interact like humans too.



**“Father of robotics” in India goes to Dabbala Rajagopal, often known as Raj Reddy, a professor, and researcher.** Historians found out Da Vinci's notes which gave detail on how he developed a mechanical knight, which was a **humanoid robot**. It was one of his hundreds of innovations and imagination that people never understood at that ancient period. He developed the humanoid around 1495 and showcased the working of this magnificent invention at a festival facilitated by Ludovico Sforza at the court of Milan in 1495.

The concept of artificial humans predates recorded history, but the modern term "robot" derives from the Czech word **robota**, used in Karel Čapek's play R.U.R. (1920). Herbert Televox was the first known **Humanoid Robot**. Ron Wensley invented it in 1927, which could do a simple process like lifting the phone to answer the call, etc. Herbert Televox was the initial point of the **Humanoid Robot**. Later based on Herbert Televox, **Humanoid Robots** evolved into many types of robots.

But many consider 'Elektro the Moto-Man' in 1937 as the absolute first **humanoid robot**. Joseph Barnett, an engineer built the 'Elektro the Moto-Man' in 1937 with aluminium and steel. It was 210 cm tall, weighed over 120kg, and performed 26 different routines, including walking, talking, counting, and smoking.

Waseda University initiated the WABOT project in 1967, and in 1972 completed the WABOT-1, the world's first full-scale humanoid intelligent robot.

AcYut, known to be India's first indigenous robot, was developed by undergraduate students at the Birla Institute of Technology and Science (BITS), Pilani, India.



**MANAV:** Manav, the first three-dimensional (3D) humanoid robot in India, was created by the A-SET Training and Research Institute in Delhi.

**MITRA:** The humanoid robot was launched by Prime minister Narendra Modi and Ivanka Trump, Daughter of U.S. President Donald Trump. Developed by Bengaluru-based robotics start-up Invento Robotics. Mitra was also showcased at an annual technology conference Slush 17 in Helsinki, Finland.

**Sophia** is a social robot developed by Hong Kong based company Hanson Robotics.

Sophia was activated on April 19, 2015. She is able to display more than 62 facial expressions.

In October 2017, Sophia became a Saudi Arabian citizen, the first robot to receive citizenship in any country.

An advanced humanoid robot categorized as **Android** has human-like-behaviour. It can talk like a human being in a computerized voice, run, jump or even climb stairs in a very similar way as a human being does.

### **Future Advancements in Robotics:**

- **Aviation Industry:** By 2026, we will have crewless aerial vehicles in both commercial and military sectors.
- **Medical Industry:** Recent scenarios like the COVID-19 pandemic have shaken the industry in ways we never imagined. Technology experts have said that we will have humanoids in hospitals as nurses and doctors, who will take care of patients in hazardous situations in the future. Also, due to higher efficiency, it will ensure to check more patients at one time.
- **Agriculture:** With the increase in population, agriculture needs to be robust and efficient. It is said that soon, humanoids will help in milking, farming, etc.
- **Transportation:** We already have vehicles that don't need any drivers to drive around. Soon, we will have humanoids deployed in cab services, freight shipment, etc.
- **Military sector:** Humanoids will soon be deployed to work in harsh places that are difficult to be accessed by human soldiers. Also, these humanoids will help in accessing challenging situations accurately, which will help to strategize plans accordingly.

There has been a boom in the demand of these humanoids as they make the human task or effort even simpler, works can now be done within limited time thus saving human effort. The robotics industry is experiencing exponential growth world-wide and stands poised to become one of the most exciting and expansive markets for technology in the twenty-first century. Humanoids will soon be everywhere, in our home and at work. They will change the way we live.

**Prof. V Lavanya, HOD Computer Science**

## **Safeguarding the Digital Frontier**

### **Engineering in Cyber Security**

Cyber security is the security given online to the users and the computer systems. In Internet it is not easy for everyone to protect themselves as they do in their real world, scammers gain your information without your knowledge. It is a dangerous place without anyone's help. So, you need some specialist's help.

Cyber security is important because it protects your sensitive information's, your personal data and banking details from being stolen by the hackers.

There are many threats in internet like phishing, malware and ransomware. Phishing tricks people and get their sensitive information. Malware is a harmful software. Ransomware forces people to pay ransom. We can use strong passwords, update software regularly, do not click on suspicious links. This way we can protect ourselves from cyber threats.

As we find ways to protect ourselves, cyber threats also grow at an alarming pace. Cyber criminals use advanced techniques. So, it is a necessity to develop more adaptive strategies.

We can follow proactive defence mechanisms. By adapting technologies like AI, predictive analytics and blockchain. We can neutralize and anticipate threats before they cause harm. For this we need to study cyber security engineering.

It involves creating and managing hardware and software, even security policies for the protection of systems, networks and data. A bachelor's degree in cybersecurity or computer science can provide a solid foundation along with electrical engineering. Cyber security engineer's salary in India ranges between ₹3 lakhs to ₹18 lakhs per annum.

In conclusion cyber security is a vital aspect of our digital existence. Its importance, challenges and future prospects underline the need for continuous research, development and education in this field.

**A. Haleema, 2<sup>nd</sup> CEBA**



# Exploring Artificial Intelligence

## A New Era of Smart Machines

Artificial Intelligence, often abbreviated as AI, is an exciting field of technology that involves making computers and machines smart enough to perform tasks that typically require human intelligence. Just like you learn from your experiences, AI helps computers learn from data and improve their performance over time. It's like teaching a computer to think and make decisions like a person!

**Understanding AI:** Imagine you have a pet robot that can do more than just follow your commands. It can actually learn from what it sees and hears. For instance, if you show it pictures of different animals and tell it their names, the robot can start recognizing those animals in new pictures even if you don't tell it specifically. That's what AI does – it lets computers recognize patterns and make sense of things on their own.

**Types of AI:** There are two main types of AI: Narrow AI and General AI. Narrow AI is designed to do a specific task really well, like telling you the weather or playing your favourite songs. It's like having a super-smart helper for one thing. On the other hand, General AI is like having a robot friend that can do many things just as well as you can. But we're not there yet – right now, most of the AI we see is Narrow AI.

**Cool Things AI Can Do:** You might have heard about self-driving cars – that's AI at work! These cars use AI to see the road, understand traffic signs, and make decisions like a human driver. AI is also behind those suggestions you get on streaming platforms, like when they recommend movies or songs you might like based on what you've watched or listened to before. AI even helps doctors analyse medical images to find problems early, which can save lives!

**How AI Learns:** AI learns through a process called "machine learning." It's like training a puppy – you show it pictures of cats and dogs, and when it guesses right, you give it a treat. The more pictures it sees, the better it becomes at telling cats from dogs. Similarly, AI looks at lots of examples to learn and improve. It uses these examples to create rules for making decisions, just like you learn to ride a bike by practicing and getting better.

**Challenges and Benefits:** While AI is super cool, there are some things we need to be careful about. Sometimes, AI can make mistakes because it learns from the data it's given, and if that data is biased or incorrect, the AI can act in weird ways. Also, some people worry that AI might take away jobs that humans do. But AI also has many benefits – it can help us solve complex problems, make tasks easier, and even discover new things that humans might miss.

**Conclusion:** Artificial Intelligence is like having a brainy buddy for computers. It helps them do things that were once considered only human abilities. From recognizing faces in photos to helping doctors diagnose diseases, AI is changing the way we live and work. As technology keeps improving, who knows what incredible things AI will help us achieve in the future!

SALONE, 2<sup>nd</sup> CEBA

## A Psychological Perspective

### The Mind of a Hacker

**What does the world think about hacking?** It's the 21st century, we've come a long way on the basis of technological development throughout the world. Standing at this point of technological advancement and by achieving so much, there are people out there who still think hacking is pretty much all about 'breaking-in to bank accounts of billionaires' or 'typing at an impressively

fast speed to do something illegal'. It is also considered "cool" by some, especially the illegal part of it.

**What is hacking actually about?** Just like how the world is a spectrum of good and bad things, hacking too is a spectrum. There is something called as 'ethical hacking' or in simple words if I must say "Using hacking for ethical or legal reasons". On the other hand, we have "malicious hacking" where cybercriminals break into a computer network to steal information illegally.

Ever tried to hack into your neighbours wi-fi password? Does it come under ethical hacking? Technically, no it does not come under ethical hacking. Here, we are trying to get access to unauthorized data through unauthorized means.

From general view points, its harmless. It's not very pretty if your neighbours show up with bills to your house.

**What goes on in the mind of a hacker?** If you are someone who thinks that hackers only tend to think about their programs, numbers and calculations, then you are misinformed. That is just what we see on the TV, the basic stuff. Realistically, apart from having excellent computer skills, hackers also need to have great abstract knowledge. Emotions relating to their work. There have been researches conducted in order to understand the personality traits of hackers. If we overly generalize hackers, this is a basic

#### **Outlook inside the minds of Hackers:**

On an abstract outlook, malicious hackers use tactics like manipulation, narcissism, and tend to have slight psychopathy views. Social engineering, a very common tactic to manipulate their victims by exploiting the initiate desire and establishing trust. For example, the "anchoring effect" can make people rely heavily on the first piece of information they receive, which hackers can exploit by providing misleading data. Ethical hackers are not quite distinct from malicious hackers. One of the major roles an ethical hacker has to play while hacking is to think like a malicious hacker which makes it easier to find ways to breach security. They mainly focus on thinking like a malicious hacker to stop malicious hackers from accessing sensitive information. The work of ethical hackers falls under concern and moral principles.

**Skilfully are ethical hackers better than malicious hackers?** Even though malicious hackers (also known as crackers) maybe highly skilled in breaching systems, professional hackers can restore the security or the breached systems and catch the crackers with their skills and competency. However, crackers possess great skills and comparatively advance technological knowledge of creating software and tools that are powerful enough to completely damage systems. They have high end skills to not leave their mark behind and carefully executing their malicious activities. From a broader perspective, hacking, ethical or not requires a high skillset and advance knowledge and can only be performed by having the deep understanding of both computer hardware and software.

**Anjali Gupta, 2nd CEBA**

## **Shaping Tomorrow's World**

### **Emerging IT Trend's**

Technology is ever-changing and those wanting to remain at the helm of innovation must adapt. The consumer journey is charting a new course as customers and companies alike embrace emerging technologies. As tech trends such as artificial intelligence (AI) and robotic process automation (RPA) become more pervasive, the world will look to brands who can deliver with accuracy and real-time efficiency.

**What are the Emerging Trends in Technology?** To help meet the demands of a technology-enabled consumer base, solution providers must embrace digital transformation to realize their

full potential. But, where to begin? These are the top 15 emerging technologies that businesses need to keep an eye on in 2023.

- **AI: Artificial intelligence** – is poised as a tool of choice for businesses and solution providers. As is often seen with social media, AI, combined with machine learning, deep learning and neural networks, can be a powerful combination. Businesses can use AI to achieve cost-saving benefits, streamline business processes, improve the customer experience, enable more efficient communications through chatbots, increase customer satisfaction and provide insight into purchasing behaviour to inform decision-making.

Additionally, machine learning can analyse large datasets and provide scaled insight. We are currently just scratching the surface of how machine learning and AI can work together to enable businesses. In fact, the global AI market is projected to grow at a CAGR of 36.2% to reach \$407 billion by 2027. Current applications provide huge growth potential for solution providers who can fully understand the capabilities and functionality of AI to tailor solutions to meet business demands in the digital world.

- **Blockchain:** Past discussions of blockchain often hinged on cryptocurrency, but the real power lies in the immutability and transparency of a blockchain. Blockchains use distributed ledger technology resulting in a fixed and highly visible record of activity with high potential for business applications. The blockchain is an information system that holds promise for supply chain management, enabling transparency into the journey of materials from origin to product. Blockchain technology will also allow for better record management, providing a snapshot of any record from its origination. This could be used to verify orders, purchases, returns, receipt of product—you name it.

Smart contracts are another blockchain application that ensures delivery of conditions. Smart contracts release data when both participants have met the criteria of an agreement. They offer endless capabilities for ensuring frameworks are carried out and therefore can help position you as a trusted solution provider.

- **Cybersecurity Mesh:** Cybersecurity no longer operates as an addendum in the world of information technology. As companies made the move to remote working models during the pandemic, a few pressing issues came to light. Not only is cybersecurity an absolutely critical element of business operations, but traditional approaches are not flexible enough, or don't have the bandwidth, to accommodate for a large-scale remote workforce. Cybersecurity mesh is a completely different approach to digital security. Cybersecurity mesh allows companies to create security measures based on the identity of a device, rather than proximity to secure connections. It's a distributed approach rather than defining a perimeter based on network reach. In addition, cybersecurity mesh also allows for easy scalability across a distributed workforce.

- **Digital Health:** If COVID-19 left a legacy that will remain, it's digital health. As patients became unable to visit doctor's offices and hospitals, digital health rose to fill the gap. But now that hurting or sick individuals have realized there are opportunities for receiving appropriate healthcare from their providers without in-person visitation, they are taking advantage of that opportunity. This fad

is certainly here to stay and in the coming years will likely give rise to associated new technologies that leverage innovations such as biometrics to produce smart or connected medical equipment that will enable continued distanced medical examinations.

- **IoB (Internet of Behaviours):** As the world becomes more digitized, informed business is the key to success and the internet of behaviours or IoB provides greater clarity into consumer behaviour. For those companies wanting to keep a competitive advantage, the IoB is offering opportunities in the form of data collection and analysis regarding consumer interactions, preferences and purchasing behaviour. Similar to the internet of things (IoT), IoB provides substantially greater insight into how consumers are participating in the purchasing journey, analysing data collected from IoT and online sources with a psychological perspective. Ultimately, this technology is designed to help businesses improve the user experience and engage with consumers in a more meaningful way.
- **Quantum Computing:** Quantum computing offers unique opportunities for predictive analysis that extend beyond the capacity of conventional computing. Quantum computers leverage the principles of superposition and entanglement to process information on an exponential scale. While Google came on the scene in 2017 with a promise of the largest quantum computer, IBM has actually made it possible for businesses to leverage this technology. Quantum computing offers businesses a powerful tool for predictive analytics and big data analytics. As we encounter new problems, quantum computing will help predict viable solutions.
- **Robotic Process Automation (RPA):** Robotic process automation is a term that is gaining ground recently. The name is something of a misnomer however, as there are no physical robots involved in these tasks. RPA involves automation of tasks using bots that previously required human labour and follow a repetitive pattern to accomplish more of these computer-based tasks with enhanced efficiency. Many businesses are embracing RPA to help achieve more efficient workflows for rule-based tasks.

**5G in Everyday Life:** The connectivity speeds accomplished with 5G greatly outpace those seen with previous networks. 5G networks offer the supporting foundation that businesses can leverage to embrace many upcoming disruptive technologies. But in recent times, 5G technology hasn't gained the momentum that was anticipated. It's projected that infrastructure will finally reach a viable point and devices will become affordable enough so we can actually leverage the power of 5G.

**Information Technology Trends:** There was a time when cloud computing, app development, data centres and even eCommerce were considered emerging technologies. Now, as we look toward the age of the metaverse, looking at new top technology trends is reaching a state of necessity. Business models must innovate if they want to continue reaching new heights in the coming years.

**Kshitiz Kumar Singh, 1<sup>st</sup> PCMC**

### **Humanities Dept. @ SPUC**

From Left to Right (1<sup>st</sup> Row): Prof. Gayathri S, Prof. Pavithra Shetty, Prof. Pallavi, Prof. Rachna Gulati, Prof. Archana G

From Left to Right (2<sup>nd</sup> Row): Prof. Anantha Kr, Dr. Vijaykumar Suryavanshi, Mr. Kiran- Lecturer



### **Language Dept. @ SPUC**

From Left to Right: Dr. Vijaykumar Suryavanshi, Prof. Anantha KR, Prof. Gayathri S, Mr. Kiran



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From Left to Right (1<sup>st</sup> Row): Mr. Visweswara VS, Prof. Pallavi, Ms. Sumangala, Ms. Deepa

From Left to Right (2<sup>nd</sup> Row): Ms. Lakshmi, Mr Madhusudan KP, Mr. Mahesh DV, Mr. Nagaraj HS, Mr. Shivakumar DC





# The Department of Science

The Department of Science plays a crucial role in society, serving a multitude of purposes and objectives that contribute to the betterment of human knowledge, technological advancements, and the overall well-being of society.

## ➤ Importance of the Department of Science:

Science is the foundation of our understanding of the natural world. The department facilitates research and exploration, leading to new discoveries and insights that expand the frontiers of human knowledge.

Scientific research forms the basis for technological advancements. It plays a pivotal role in developing new technologies, products, and services that improve our quality of life, boost economies, and enhance global competitiveness.

The department contributes to medical breakthroughs, drug development, and healthcare advancements. It plays a pivotal role in combating diseases, extending life expectancy, and improving public health.

Scientific research helps in understanding and addressing environmental challenges such as climate change, pollution, and biodiversity loss. It informs policies and strategies for sustainable development and the preservation of our planet.

## ➤ Objectives of the Department of Science:

To continuously expand the body of scientific knowledge through research and exploration.

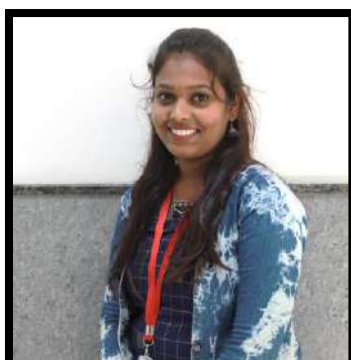
To foster innovation by translating scientific discoveries into practical applications and technologies.

To educate the next generation of scientists, ensuring a skilled workforce for the future.

To address pressing societal challenges, from healthcare and energy to the environment and beyond.



Prof. Divya M  
Dept. of Chemistry



Prof. Rani S  
Dept. of Chemistry



Prof. Meghana S J  
Dept. of Biology



Prof. Sridhar D A  
Dept. of Physics



Prof. Girish Kumar G  
Dept. of Physics



Prof. Asha Akki  
Dept. Of Biology



Prof. Chaithra G R  
Dept. of Mathematics

**Prof. Minal Gupta, Prof. Pallavi along with 1<sup>st</sup> PU science toppers,**

From Left to right: Chetan SK- PCMB, Nalluri Sindhuja- PCMC, Aarna P- PCMB,  
Tania Robby- PCMC



# Unmasking Silent Killers

## Women's Health Matters

**Women can fall prey to silent diseases that do not show any symptoms in the beginning.**

Women owing to their busy schedules – where they often have to strike a balance between work, motherhood and endless household duties – end up ignoring their health and fail to listen to their bodies. However, doing this can put them at risk of complications from many diseases like cardiac issues, hypertension, diabetes, liver diseases among many others that leave a silent impact on the body. These diseases do not have any symptoms initially and at a later stage, they may be difficult to manage or treat. Lifestyle issues are at the root of these health issues and the fact that many women are not able to pay attention to their overall wellness can often result in development of deadly diseases.

International Women's Day is celebrated every year on March 8 to celebrate the achievements of women and seeking gender equality. The campaign theme of Women's Day this year is #Embrace Equity whereas the United Nations' theme is 'DigitALL: Innovation and technology for gender equality'.

On this occasion an expert elaborated the top 5 diseases that are silent killer for women.

**"Silent killer illnesses are diseases that have little, or no symptoms yet can lead to death if left untreated."** Heart disease, hypertension, and diabetes are the leading silent killers.

Some lesser-known silent illnesses include mentioning a few, primary amyloidosis, renal cell carcinoma, pancreatic cancer, and hepatitis B or C infection," says Dr Shalini Vijay, Senior Consultant Obstetrician & Gynaecologist, Motherhood Hospitals, Lullanagar.

Dr Shalini says the number one silent killer illness is heart disease.

**"Hypertension, smoking, a sedentary lifestyle, and high cholesterol are the key risk factors that contribute to this elevated risk".**

Let's take a look at the five potentially deadly diseases and how to recognise their subtle signs as explained by Dr Shalini.

### ➤ **Cancer of the Ovaries:**

This dangerous condition affects one in every 75 women. What's frightening is that many women have the condition without ever realising it. The five-year survival rate is only 46%, and it might drop much lower if the cancer is not detected early. The signs of this 'silent killer' are sometimes so minor that even physicians miss them.



### ➤ **Cardiovascular Diseases:**

Women, in particular, have significantly more modest symptoms such as shortness of breath, nausea, and exhaustion. If you have a history of cardiovascular disease in your family, you are at a higher risk and should pay special attention to these symptoms.

➤ **Lupus:**

Lupus is 'a chronic, autoimmune illness that can harm any area of the body (skin, joints, and organs inside the body)'. A 'butterfly rash' may occur on the nose or cheeks, joints may become uncomfortable and weary, and breathing may become difficult; other typical symptoms include hair loss, stomach discomfort, and migraines.

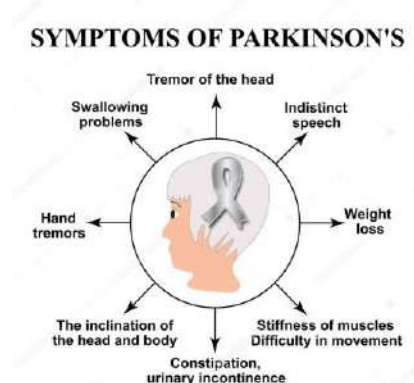


➤ **Diabetes:**

With so much information available about the hazards of diabetes, it's nearly impossible for it to go untreated. Yet, the symptoms of diabetes, particularly type 2 diabetes, can be so subtle and seemingly innocuous that problems can develop without people realising they have the condition.

➤ **Parkinson's Disease:**

Motor Neuron Disease is a neurological illness in which nerve cells degrade to the point that they are irreversibly destroyed. Patients lose all muscular capacity and eventually die as the disease progresses.



**Ayman Shariff, 2nd PCMB**

# Weight Matters

## Understanding the Difference Between Overweight and Obesity

Obesity is a growing global health concern, but how do we differentiate between being overweight and being obese? The answer lies in a simple yet significant metric – the Body Mass Index (BMI). In this article, we'll explore the distinctions and facts about these two categories of excess body weight.

➤ **Body Mass Index (BMI):** BMI is a numerical value calculated by dividing a person's weight in kilograms by the square of their height in meters. It provides a rough estimate of body fat and helps classify individuals into different weight categories.

➤ **Overweight vs. Obesity:**

1. Overweight: Individuals with a BMI between 25 and 29.9 are considered overweight. This signifies excess body weight but not to the extent that it qualifies as obesity.

2. Obesity: When a person's BMI reaches 30 or higher, they fall into the category of obesity. Obesity is further divided into Class I (BMI 30–34.9), Class II (BMI 35–39.9), and Class III (BMI 40 or higher), indicating varying degrees of severity.

➤ **Health Implications:**

1. Overweight: Being overweight can increase the risk of various health problems, including heart disease, diabetes, and joint issues. However, the risks are generally lower than those associated with obesity.

2. Obesity: Obesity significantly raises the risk of serious health conditions, such as cardiovascular disease, type 2 diabetes, certain cancers, and respiratory disorders. It can also lead to reduced life expectancy.

➤ **Factors to Consider:** BMI is a valuable tool, but it has limitations. It doesn't account for factors like muscle mass, bone density, or distribution of fat in the body. Therefore, it's essential to consider other indicators of health, such as waist circumference and overall lifestyle.

**Conclusion:** Understanding the distinction between being overweight and being obese is crucial for assessing one's health risks. While BMI provides a useful guideline, it's essential to consult with a healthcare professional for a comprehensive evaluation and personalized advice on maintaining a healthy weight.



# Navigating Life's Highs and Lows

## Understanding Bipolar Disorder: Causes, Symptoms, and Treatment

Bipolar disorder, formerly known as manic depression, is a complex and chronic mental health condition that affects millions of people worldwide. It is characterized by extreme shifts in mood, energy levels, and behaviour, making it a challenging condition to manage. In this article, we will delve into the causes, symptoms, and treatment options for bipolar disorder.

**Causes of Bipolar Disorder:** The exact cause of bipolar disorder is not fully understood, but it is believed to be the result of a combination of genetic, environmental, and neurological factors. Here are some key contributing factors:

- **Genetics:** Individuals with a family history of bipolar disorder are at a higher risk of developing the condition. Specific genes may play a role in its development.
- **Neurochemical Imbalance:** An imbalance in brain chemicals, particularly neurotransmitters like serotonin and dopamine, can contribute to mood fluctuations in bipolar disorder.
- **Stressful Life Events:** Traumatic events, major life changes, or chronic stress can trigger the onset of bipolar disorder in susceptible individuals.

### Symptoms of Bipolar Disorder:

Bipolar disorder is characterized by distinct mood episodes that can be categorized into two main phases:

- **Manic Episodes:** During manic episodes, individuals experience an elevated or irritable mood, increased energy, racing thoughts, and impulsive behaviours. They may engage in risky activities, have a decreased need for sleep, and exhibit poor judgment.
- **Depressive Episodes:** Depressive episodes are marked by persistent sadness, loss of interest in activities, fatigue, changes in appetite or sleep patterns, feelings of guilt or worthlessness, and even thoughts of suicide.

### Treatment for Bipolar Disorder:

Bipolar disorder is a lifelong condition, but with the right treatment, individuals can manage their symptoms effectively. Treatment typically involves a combination of the following approaches:

- **Medication:** Mood stabilizers like lithium, antipsychotics, and antidepressants may be prescribed to manage mood swings and stabilize emotions.
- **Psychotherapy:** Cognitive-behavioural therapy (CBT), dialectical-behaviour therapy (DBT), and psychoeducation can help individuals learn coping strategies, identify triggers, and manage their condition.
- **Lifestyle Changes:** Regular exercise, a balanced diet, adequate sleep, and stress management techniques are crucial for managing bipolar disorder.
- **Support System:** A strong support system of family and friends, along with support groups, can provide emotional assistance and encouragement.
- **Hospitalization:** In severe cases, hospitalization may be necessary to ensure safety during manic or depressive episodes.

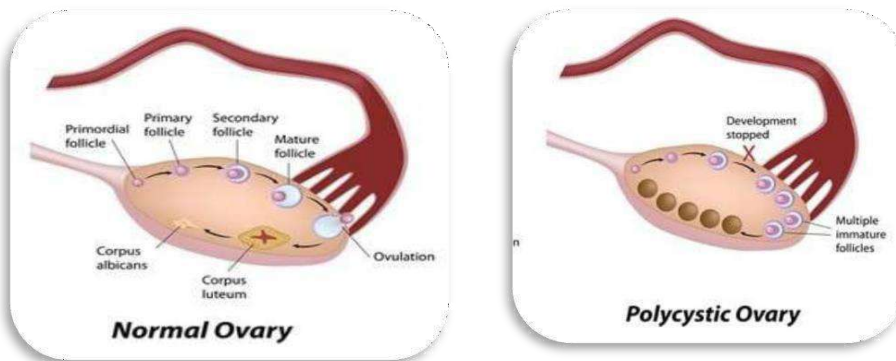
### Conclusion:

Bipolar disorder is a complex mental health condition that can significantly impact a person's life. While it is not curable, it is highly treatable. Seeking professional help, adhering to treatment plans, and maintaining a healthy lifestyle can enable individuals with bipolar disorder to lead fulfilling lives and manage their condition effectively. If you or someone you know is struggling with bipolar disorder, don't hesitate to seek help from a mental health professional.

# Empowering Women's Health

## Awareness for a Brighter Future

**Polycystic Ovary Syndrome (PCOS)** – is caused due to the hormonal disbalance in the women of the reproductive age. It is the condition where the Ovaries of the women may become enlarged and they may develop numerous harmless fluid filled sac (Follicles). These Follicles are underdeveloped sac which are meant for developing eggs. When you have PCOS, these follicles fail to release the matured egg.



### ➤ **Symptoms:**

Irregular periods or no periods at all.

Difficulty in conceiving

Excessive weight gain

Pain in Pelvic area.

Inappropriate male Features.

### ➤ **Prevention:**

Eating a healthy and balanced diet.

Daily Exercise.

Avoiding smoking and alcohol.

### ➤ **Treatment:**

Hormonal supplements and other medication

**Endometriosis** – Is a condition that most commonly impacts women between the ages of 25 to 40. It can also happen to younger people during their teenage years. Endometrium is the inner lining of the uterus. Normally, the Endometrium regenerate itself with each menstrual cycle. When this tissue grows outside the Uterus and Adheres to Pelvic Organs such as Ovaries, Fallopian tube, outside and back of your uterus, rectum and other Pelvic Organ, it can develop into painful condition known as Endometriosis.

➤ **Symptoms:**

- Causes Painful Periods.
- Pain during Bowel Movement.
- Excessive Bleeding.
- Lower Abdominal pain.
- Pain during urination.
- Infertility.

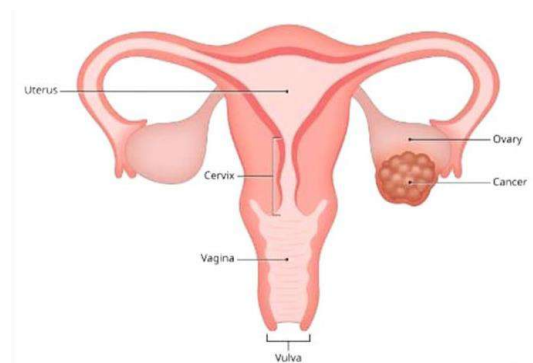


➤ **Treatment:**

By Surgical method.

**Ovarian Cancer** – Ovarian cancer is a growth of cells that forms in the ovaries. The cells multiply quickly and can invade and destroy healthy body tissue.

The female reproductive system contains two ovaries, one on each side of the uterus. The ovaries – each about the size of an almond – produce eggs (ova) as well as the hormones estrogen and progesterone.



➤ **Symptoms:**

- Discomfort in the Pelvic Area.
- Fatigue
- Weight Loss.
- Changes in the bowel habits, such as constipation.

➤ **Treatment:**

By Chemotherapy and surgical method.

**“A Healthy Lifestyle Not Only Changes Your Body,  
It Changes Your Mind, Your Attitude and Your Mood.”**

**Shaziya Banu K, 2nd PCMB**

# Healthy Heart, Healthy You /Heart strong, Live Long

## Rare Heart Diseases

As the central part of the circulatory system, the heart is responsible for pumping blood, supplying oxygen and nutrients, and removing metabolic waste such as carbon dioxide from all the tissues in the body. The heart and a network of arteries and veins comprise the cardiovascular system. The heart is a vital organ of the body; therefore, minute dysfunctions or abnormalities in the heart may have drastic consequences on human health.

Cardiology is the study of the heart. Cardiology is a branch of medicine that deals with disorders of the heart and the cardiovascular system. The field includes medical diagnosis and treatment of congenital heart defects, coronary artery disease, heart failure, valvular heart disease, and electrophysiology.



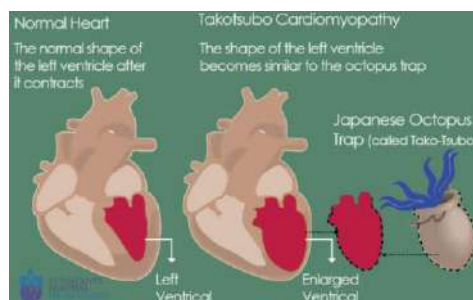
Rare heart conditions you might not have heard of:

### **Takotsubo Cardiomyopathy:**

First described in 1990 in Japan, Takotsubo cardiomyopathy is a temporary heart condition that develops in response to an intense emotional or physical experience. It's also known as stress cardiomyopathy or broken heart syndrome.

In this condition, the heart's main pumping chamber changes shape, affecting the heart's ability to pump blood effectively.

The heart's chamber looks similar to a Tako -Tsubo pot, which is a Japanese fishing pot used to catch octopus.



- **Symptoms:** The main symptoms are sudden chest pain, shortness of breath or fainting – usually after feeling severe stress. These symptoms are similar to those of a heart attack.

➤ **Following are the possible tests to diagnose disorder:**

ECG, Blood test, Echocardiogram and Coronary angiogram.

Medication is the most common treatment and the good news is that the heart muscle usually heals within 2-4 weeks, and most people fully recover within two months. You may need regular follow-ups with echocardiograms to check your heart's recovery.

**Kawasaki disease:**

Kawasaki disease causes swelling (inflammation) in children in the walls of small to medium-sized blood vessels that carry blood throughout the body. Kawasaki disease commonly leads to inflammation of the coronary arteries, which supply oxygen-rich blood to the heart.

Kawasaki disease was previously called mucocutaneous lymph node syndrome because it also causes swelling in glands (lymph nodes) and mucous membranes inside the mouth, nose, eyes and throat.



- **Symptoms:** It is mostly seen in children and the typical symptoms of this disease are high fever, swollen hands, red eyes and peeling skin. It is also called mucocutaneous lymph node syndrome because in this disease the lymph nodes swell. A swollen lymph node, usually in the neck.

➤ **Following are the possible tests to diagnose disorder:**

There is no specific test for Kawasaki disease. One challenge in diagnosing Kawasaki disease is distinguishing it from other childhood diseases with similar symptoms. To be diagnosed with classic Kawasaki disease, a child must have a high fever for at least five days, as well as four of the five classic symptoms.

It results in a high incidence of cardio-vascular damage if not treated promptly. The diagnosis should always be considered in the young child with an unexplained and persistent fever, despite the absence of full diagnostic criteria.

**Restrictive cardiomyopathy:**

Restrictive cardiomyopathy occurs when muscles in your heart's ventricles become rigid. The ventricles can't fill with blood. Your heart must work too hard to pump blood, causing heart failure.

➤ **Symptoms:**

Bloating or nausea.

Chest pain (at rest or with exercise).



Dizziness or fainting.

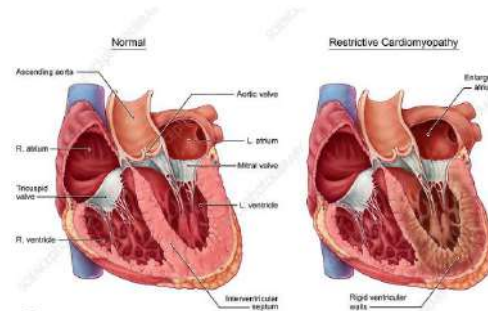
Oedema in your feet and legs.

Fatigue.

Heart palpitations.

Shortness of breath (dyspnoea).

Weight gain.



➤ **Following are the possible tests to diagnose disorder:**

Cardiac catheterization, coronary angiography, Chest CT scan, Chest x-ray and Echocardiogram. Changes in lifestyle can make a difference, as can medications. In some cases, surgery is required to treat restrictive cardiomyopathy. Follow a low sodium diet: This can help with restrictive cardiomyopathy symptoms such as shortness of breath, fatigue, weight gain and swelling.

**Noor Fathima, 2<sup>nd</sup> PCMB**

## **Insights into Animal Psychology**

### **Deciphering the Complex World of Animal Minds**

Our pets, the creatures of the wild, and even the farm animals we encounter daily have minds that are both intriguing and deeply connected to our own. In this article, we delve into the fascinating realm of animal psychology, uncovering the secrets behind their behaviour and emotions.

#### **Understanding Animal Psychology: A Glimpse into a Hidden World**

Animals, with their diverse behaviour and mysterious actions, have always captivated our curiosity. From the loyal dog by our side to the enigmatic expressions of wild creatures, there is more to animals' minds than meets the eye. This article is a journey into the realm of animal psychology, where we seek to decode the intricate workings of their brains and the emotions they experience.

**The Multifaceted Nature of Animal Emotions:** At its core, animal psychology revolves around the recognition and understanding of emotions in our non-human counterparts. Much like humans, animals experience a wide range of emotions, including joy, fear, anger, and even love. Recent scientific studies have provided compelling evidence that animals exhibit emotions not too dissimilar from our own.

One striking example is the emotional intelligence of elephants. These majestic creatures are known to mourn their dead, forming funeral-like gatherings around the deceased and even shedding tears. Such behaviour indicates a level of emotional depth that challenges conventional notions of animal cognition.

**The Cognitive Abilities of Our Animal Companions:** Beyond emotions, animals possess cognitive abilities that continue to astonish researchers. Dolphins, for instance, exhibit problem-solving skills that rival those of some primates. They can understand abstract concepts and even recognize themselves in mirrors, a cognitive feat that was once believed to be exclusive to humans and great apes.

Crows, too, have earned their reputation as avian Einstein's. They demonstrate a remarkable ability to use tools, solve complex puzzles, and plan for the future. These feats highlight the vast untapped potential of animal cognition.

**Communication Beyond Words:** Animals communicate with each other and with us through various means. The intricate dance of honeybees, the songs of whales, and the body language of our pets are all forms of communication that reveal glimpses of their psychological worlds.

In our own homes, dogs provide a poignant example of communication. They read our body language, tone of voice, and facial expressions to discern our feelings. This intuitive understanding goes beyond mere training; it reflects their capacity to connect with us emotionally.

**The Impact of Environment and Domestication:** Animal psychology is not solely about inherent traits. The environment plays a significant role in shaping an animal's behaviour and psychological well-being. Domestication, for instance, has moulded dogs into the loving and loyal companions we cherish today. Yet, the wild instincts of their ancestors still linger, influencing their reactions and responses.

**Ethical Implications and Conservation:** Understanding animal psychology carries ethical implications. As we gain insights into the emotional lives of animals, questions arise about our responsibilities toward them. It fuels discussions on animal rights, welfare, and conservation efforts. In the wild, a deeper understanding of animal psychology can aid conservationists in creating more effective strategies to protect endangered species. Recognizing the intelligence and emotions of these creatures compels us to protect their habitats and ensure their survival.

### **Conclusion: Bridging the Gap**

Animal psychology bridges the gap between the human and animal worlds. It reveals that, beneath the fur, feathers, and scales, there are intricate minds filled with emotions, thoughts, and intelligence. Understanding and respecting the psychological experiences of animals can lead to a more compassionate and harmonious coexistence between humans and the diverse species that share our planet. As we explore the hidden depths of their minds, we ultimately discover more about ourselves and the shared connections that bind us to the animal kingdom.

**Joel Thomas Mario, 2nd PCMB**

# Explore, Discover, Understand

## India's Lunar Exploration: Chandrayaan-3

Chandrayaan-3 is India's successful moon mission conducted by the Indian Space Research Organisation (ISRO). It was launched on July 14th 2023, from Satish Dhawan Space Centre in Srihari Kota, Andhra Pradesh and landed on August 23rd 2023. It is a follow-up of Chandrayaan-2 which failed to make a soft landing and crashed during touch down.

So far, only three countries- the USA, Russia and China have successfully soft landed on the moon. India becomes the 4th Country to achieve a soft landing and the 1st space mission to land near the South Pole.

**Chandrayaan-3 Mission architecture:** Chandrayaan-3 mission architecture consists of a lander, a rover and a propulsion module. The lander and the rover are propelled by the propulsion module up until lunar orbit. The lander is called Vikram, which performs soft landing is equipped with tools for in-depth analysis. Propulsion module carries the lander and the rover configuration, provides propulsion and attitude control for the entire mission.

The rover is called Pragyan, consists of cameras, spectrometers and a drill. The rover will explore the lunar surface, travelling 500 metres over the course of one lunar day transmitting data to the earth.

**Goals of Chandrayaan-3 mission:** Three primary goals have been established by ISRO for Chandrayaan-3 mission.

1. The first goal is to achieve a soft and safe lunar surface landing.
2. It also aims to show off the rover's flexibility on the lunar surface.
3. The mission's final objective is to conduct in-situ scientific observations of the moon's natural and chemical components, including its soil, water and other elements.

India's space programme has advanced significantly with Chandrayaan-3, showcasing the country's technological prowess. The mission is well-positioned to offer important new information about the make-up of the lunar surface, the existence of water-ice, the history of lunar impacts, and the development of the Moon's atmosphere.

Successful launch of Chandrayaan-3 represents a significant turning point in India's ascent to space exploration. The mission is anticipated to significantly contribute to our understanding of the moon's composition and advance our scientific understanding of earth's satellite as ISRO continues to make studies in lunar exploration.

### How did Chandrayaan-3 prevail over obstacles encountered in the previous mission?

- i. Chandrayaan-3 successful landing came after the setback of Chandrayaan-2 mission landing failure in 2019.
- ii. The Vikram lander of Chandrayaan-2 had lost control and communication during descent, leading to a crash on the lunar surface.
- iii. Lessons from Chandrayaan-2 mission were applied to Chandrayaan-3, focusing on a 'failure-based' design approach to anticipate and mitigate potential issues.
- iv. Critical changes included strengthening the lander's legs, increasing fuel reserves and enhancing landing site flexibility.

### **Why did Chandrayaan-3 choose moon's near side for landing?**

- i. Chandrayaan-3 aimed to investigate 'permanently shadowed region' near the South Pole for potential water-ice and resources.
- ii. The Vikram lander-controlled descent achieved one of the closest approaches to the moon's south pole.
- iii. While a notable achievement Vikram's landing occurred on the moon's near side, unlike China's Chang'e 4 on the far side.
- iv. The near side visible from the earth due to synchronous rotation, covers 60% of the moon.
- v. The far side, though not always in darkness remained hidden until the Soviet Space Craft Luna3 captured images in 1959.
- vi. Astronauts aboard the Apollo8 mission in 1968 became the first humans to observe the far side directly.
- vii. The near side boasts smoother surface and numerous 'maria' (large volcanic plains), while the far side features massive craters from asteroid impacts.
- viii. The lunar crust on the near side is thinner, causing volcanic lava to flow and fill craters over time. Creating flat terrains.
- ix. The decision to land on the near side was driven by the mission's primary goal of a controlled soft landing.
- x. Landing on the far side would require a relay for communication due to the lack of direct line-of-sight with earth.

### **What are the intended actions for Chandrayaan-3 after its landing?**

- i. Chandrayaan-3 is expected to operate for at least one lunar day (14 earth days) on the lunar surface.
- ii. The Pragyan rover will move around the landing site within a radius of 500 meters conducting experiments and sending data and images to the lander. The Vikram lander will relay the data and images to the orbiter, which will transmit them to the earth.
- iii. These instruments are designed to conduct comprehensive investigations into diverse facets of lunar characteristics, encompassing terrain analysis, mineralogical composition, surface chemistry, atmospheric attributes and crucially the exploration for water and potential resource reservoirs.
- iv. The propulsion module has a Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload to study the spectral and polarimetric measurements of earth from the lunar orbit.

### **Chandrayaan-3 Scientist:**

The major names associated with planning and development of Chandrayaan-3 are:

**S Somnath- ISRO Chairman, P Veeramuthu Vel- Project Director of Chandrayaan-3, S Unnikrishnan Nair- Director of Vikram Sarabhai Space Centre, A Raja Rajan- Chairman of launch authorisation board and M Shankar- Director of U R Rao Satellite Centre.**

**Anshuman K Murthy, 2nd PCMC**

# To Infinity and Beyond

## The infinite wonders of space

When we look at the sky, we see different kinds of natural bodies like the sun, the stars, the moon, and so on. The natural bodies in the sky are called celestial bodies or heavenly bodies. They are part of our universe. The universe is a huge space which contains everything that exists. The celestial bodies that we see are just a small fraction of the bodies that exist in the universe. One of the reasons why we do not see more of them is that they are very, very far away.

The universe is **all of space and time and their contents**, including planets, stars, galaxies, and all other forms of matter and energy. Did you know that **our star, the Sun**, is just one of hundreds of billions of stars swirling within an enormous cosmic place called **the Milky Way Galaxy? Our Solar System belongs to the Milky Way galaxy**. Our planetary system is located in an outer spiral arm of the Milky Way galaxy. Our solar system consists of our star, the Sun, and everything bound to it by gravity – the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as Pluto; dozens of moons; and millions of asteroids, comets, and meteoroids. Beyond our own solar system, we have discovered thousands of planetary systems orbiting other stars in the Milky Way.

**Let us look at some mysterious facts about our space.**

➤ **Space is completely silent.**

Sound waves need a medium to travel through. Since there is no atmosphere in the vacuum of space, the realm between stars will always be eerily silent.

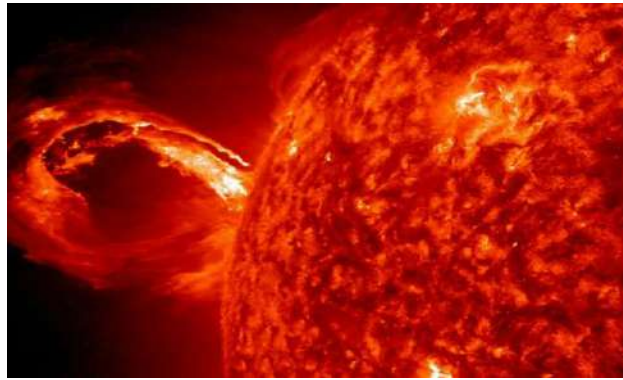
NASA uses a technique called data sonification to take signals from radio waves, plasma waves, and magnetic fields and convert them into audio tracks to "hear" what's happening in space. The sounds range from ambulance-like screeches to beeps reminiscent of an alien spaceship making its approach.



➤ **99% of our solar system's mass is in the sun.**

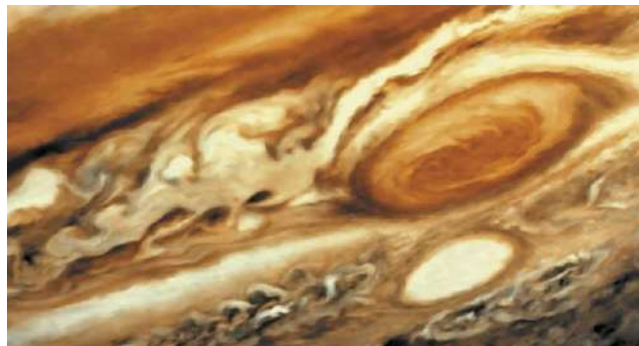
Our star, the sun, is so dense that it accounts for a whopping 99 % of the mass of our entire solar system. That's what allows it to dominate all of the planets gravitationally. When the sun dies, it will become a red giant and envelop the Earth and everything on it. But don't worry: That won't happen for another 5 billion years.





➤ **Jupiter's Red Spot is Shrinking.**

Jupiter's famous Red Spot has been shrinking over the past few decades. This spot on the planet is a giant spinning storm that used to be able to fit about three Earths. Now, only one earth can fit inside the spot. Interestingly enough, as the storm is shrinking in width, it's actually growing taller in length.



➤ **Sunsets on Mars are Blue.**

The Curiosity Mars rover's first colour photograph of a sunset in 2015 revealed a surprising twist – sunsets on Mars are blue.

NASA said this is because "dust in the Martian atmosphere has fine particles that permit blue light to penetrate the atmosphere more efficiently than longer-wavelength colours" like yellow, orange, and red.



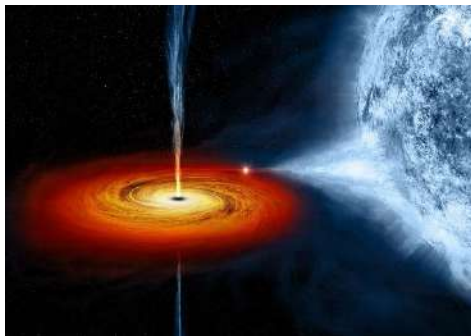
# Journey into the Abyss of Black Holes

## Black Holes Unveiled

Black holes are some of the most mysterious and intriguing phenomena in the universe. These cosmic enigmas have captured the imagination of scientists and the public alike. Here we will delve into the nature of black holes, what lies within them, how they are formed, whether they pose a danger, and the key figures in the study of black holes.

**What is a Black Hole?** A black hole is a region in space where the gravitational pull is so immense that nothing, not even light, can escape from it. This phenomenon is a result of the collapse of massive stars, leaving behind a point in space with infinite density known as a singularity, surrounded by an event horizon, which is a boundary beyond which nothing can return.

**What is Inside a Black Hole?** Inside a black hole lies a singularity, a point where gravity becomes infinitely strong and space-time itself is distorted beyond our current understanding. The laws of physics, as we know them, break down at this point, making it impossible to predict what happens inside a singularity. The extreme conditions within a black hole remain one of the greatest mysteries in astrophysics.



**How are Black Holes Created?** Black holes are formed through a process called gravitational collapse. When massive stars exhaust their nuclear fuel, they can no longer support their own gravitational pull. The star's core collapses under its own weight, leading to the formation of a black hole. Another way black holes can form is through the collision and merger of smaller black holes, resulting in larger ones.

**Is Black Hole a Danger?** Black holes themselves are not a direct danger to us, as they are typically located far away in space. However, if a black hole were to come close to our solar system, it could disrupt the orbits of planets and other celestial bodies. Fortunately, such scenarios are extremely rare.

**Founders of Black Hole Theory:** The study of black holes has a rich history, with many contributors. Albert Einstein's theory of general relativity laid the foundation for our understanding of gravity and the existence of black holes. Physicist John Michell was one of the earliest thinkers to propose the concept of "dark stars" in the 18th century, which can be considered a precursor to black holes. Karl Schwarzschild's solution to Einstein's equations in 1916 described the geometry of a non-rotating black hole. Subsequently, the work of scientists like Stephen Hawking, Roger Penrose, and many others advanced our knowledge of black holes.

**Conclusion:** Black holes are captivating cosmic phenomena, shrouded in mystery. They are regions of intense gravity where the laws of physics as we know them break down, leaving us with more questions than answers. While not a direct threat to us, their existence and properties continue to be a source of fascination and exploration for scientists and astronomers, driving us to better understand the deepest and darkest corners of the universe.

**Pooja Seervi, 2<sup>nd</sup> PCMB**

# From Cosmic Conception to Universal Evolution

## Exploring the Big Bang Theory

The Big Bang Theory stands as one of the most profound and widely accepted scientific theories in modern physics. It encapsulates the story of the universe's birth, evolution, and ultimate fate. In this concise essay, we will delve into all aspects of the Big Bang Theory, from its inception to its implications for the future of our cosmos.



- **The Birth of the Universe:** The Big Bang Theory proposes that the universe began as an infinitely dense and hot point, often referred to as a singularity. Approximately 13.8 billion years ago, a tremendous explosion marked the birth of the cosmos. This momentous event initiated the expansion of space and time.
- **Cosmic Expansion:** The expansion of the universe, a key tenet of the theory, is supported by various pieces of evidence, including the redshift of distant galaxies observed by astronomers. As space expands, galaxies move away from each other, painting a picture of a universe in constant flux.
- **Cosmic Microwave Background Radiation:** One of the most significant pieces of evidence supporting the Big Bang Theory is the detection of the Cosmic Microwave Background Radiation (CMB). This faint, uniform radiation permeating the cosmos is a relic of the early universe and provides a snapshot of its infancy.
- **Formation of Matter and Structure:** Following the initial explosion, the universe cooled, allowing the formation of subatomic particles, atoms, and eventually stars and galaxies. The gravitational forces acting on matter led to the creation of intricate cosmic structures.
- **The Big Bang Nucleosynthesis:** The theory explains the creation of light elements, such as hydrogen and helium, during the first minutes after the Big Bang. This process laid the foundation for the formation of galaxies and stars.
- **Dark Matter and Dark Energy:** The existence of mysterious entities, dark matter and dark energy, is a puzzle within the Big Bang Theory. While dark matter's gravitational influence helps bind galaxies together, dark energy appears to accelerate the universe's expansion.
- **The Fate of the Universe:** The Big Bang Theory offers several potential scenarios for the universe's future. Depending on the balance between dark energy and gravity, it may continue to expand indefinitely or eventually contract in a "Big Crunch."

**Conclusion:**

The Big Bang Theory not only explains the origin of our universe but also sheds light on its evolution and ultimate destiny. Through scientific exploration and observation, humanity has unravelled the mysteries of the cosmos, revealing a story of cosmic birth, growth, and perhaps, an unknown future. The Big Bang Theory remains a testament to human curiosity and our relentless pursuit of understanding the universe in which we reside.

**Karthik Ganesh, 1<sup>st</sup> PCMC**

## **Ink and Whimsy**

**Where imagination flows freely onto the page**

**Cherishing College Days**

In the halls of learning, friendships bloom,  
College days, a treasure-filled room.  
From lectures to late-night chats,  
Cherished moments, like delicate spats.  
Gathering wisdom, forging bonds strong,  
College life's melody, a heartfelt song.  
Experiences diverse, memories dear,  
In the tapestry of life, forever clear.  
Through laughter and tears, we find our way,  
Cherishing college days, come what may.  
A chapter of growth, joy, and grace,  
In our hearts, these memories embrace.

**- Mubarak H – 1<sup>st</sup> PCMC**

**Women**

With strength that's fierce, hearts that glow,  
Women stride with purpose, making their mark flow.  
In every role, they stand tall and strong,  
A symphony of resilience, a triumphant song.  
Nurturers, leaders, warriors of might,  
Women shine with determination's light.  
Breaking barriers, defying the odds,  
They carve paths where none trod.  
In every story, history they write,  
Empowering the world with their radiant might.  
Unveiling potential, inspiring each face,  
Women, embodiments of grace and embrace.

**- Aananya N, 2<sup>nd</sup> PCMB**

## **Destiny**

In the drapery of life, a pattern unseen,  
Destiny's threads weave a journey serene.  
Guiding us through twists and turns unknown,  
A path uniquely ours, steadily shown.  
Fate's whispers guide us, both near and far,  
Leading us to places, like a distant star.  
Through highs and lows, we find our way,  
Destiny's hand orchestrating night and day.  
Embrace the journey, with heart open wide,  
Destiny's dance, in every stride.  
In the grand design of life's grand scheme,  
We find our purpose, like a cherished dream.  
It whispers courage, holds our hand,  
Helping us to understand.  
With faith as our compass, we stride,  
Even when the path is hard to decide.  
A beacon of trust, forever true,  
In faith's embrace, we renew.

- **Abhijna R Shetty, 2<sup>nd</sup> PCMB**

## **Faith**

In shadows deep, when hope feels lost,  
Faith emerges, no matter the cost.  
A flame within, a steadfast guide,  
Through darkest nights, it will abide.  
Unseen, yet potent, a force so strong,  
In times of trial, it keeps us strong.

- **Vadivel K, 1st PCMC**

## **Inspiration**

A spark that lights the path unknown,  
Inspiration's fire, a force that's grown.  
It whispers dreams to hopeful hearts,  
Guiding us to where our journey starts.  
Through challenges faced and mountains climbed,  
Inspiration fuels courage, transcending time.  
A beacon in the night, a guiding star,  
It shows us who we truly are!  
In stories told and art's embrace,  
Inspiration's magic leaves its trace.  
It lifts us up on wings unseen,  
Igniting passions, fulfilling dreams.

- **Gagan Gowda K L, 2<sup>nd</sup> PCMB**

## **Indian Freedom Struggle**

Amidst the echoes of struggle, voices rose,  
India's freedom's tale, in history it glows.  
A resolute march against colonial reign,  
Courage ignited, breaking every chain.  
From Gandhi's peaceful marches to fiery speeches bold,  
Unity in diversity, a story untold.  
Heroes emerged, women and men,  
Their bravery echoing through time's pen.  
With nonviolence as the shield, they stood,  
Defying oppression, for the greater good.  
Indian freedom struggle, a testament to might,  
In unity and sacrifice, a beacon of light.

- **Aarna P, 2<sup>nd</sup> PCMB**

## **Family**

In the embrace of kin, we find our home,  
A haven of love where hearts freely roam.  
Through joys and trials, together we stand,  
Bound by a connection, hand in hand.  
Laughter shared, memories woven tight,  
In the tapestry of life, shining bright.  
A refuge of comfort, a shelter so true,  
Family's embrace, a love that grew.  
From generation to generation, we pass the flame,  
In family's love, we find our name.  
A sanctuary of warmth, where we belong,  
Family, a symphony of hearts, a lifelong song.

- **Reethuik V, 2<sup>nd</sup> PCMC**

## **The Stepping Stones to Progress**

In the shadows of defeat, I found my light,  
For failures but a canvas, awaiting colours bright.  
With each stumble and fall, I learned to rise,  
A phoenix from the ashes, toward the endless skies.  
Mistakes, my faithful teachers, on this winding road,  
They shaped my soul, my character they bestowed.  
Through trials and tribulations, I found my way,  
With every misstep, closer to the light of day.  
So, let us not be daunted by errors on our quest,  
But see them as the footsteps leading to our best.  
For progress blooms in soil of lessons learned,  
In the face of failure, our true selves are earned.

- **Divya R, 2<sup>nd</sup> PCMB**



## **Education**

In classrooms where knowledge blooms,  
Education's light brightly looms.  
A journey of discovery, profound,  
In its embrace, wisdom is found.  
With every page, a world unfolds,  
Inquiring minds, stories untold.  
From ancient texts to modern lore,  
Education's treasures galore.  
Teachers guide with passion's fire,  
Igniting dreams, aspirations higher.  
Inquiring hearts, young and bold,  
In pursuit of truths yet untold.  
From arithmetic's logic to language's grace,  
Education's embrace leaves its trace.  
Empowering minds to question, to seek,  
The world's mysteries, they dare to peek.  
In laboratories and halls of thought,  
Education's canvas is finely wrought.  
A symphony of ideas, a dance of thought,  
A journey of growth, lessons are taught.  
So let us cherish this beacon's light,  
Education's gift, pure and bright.  
Igniting futures, dispelling the night,  
Guiding us toward knowledge's height.

- **Gowri Nandana S, 2<sup>nd</sup> PCMB**

## **Soldiers**

Amidst the battlefield's sombre grace,  
Soldiers stand strong, their hearts a sacred space.  
A noble calling, selfless and true,  
Defenders of nations, a valiant crew.  
In uniforms of courage, they march ahead,  
With unwavering spirit, no fear to dread.  
Braving storms of chaos, they hold the line,  
For freedom's cause, their lives they intertwine.  
Away from home, their families wait,  
Their love and support, an eternal gate.  
Through sacrifices immense, they persist,  
Soldiers' bravery in the heart's annals exist.  
In far-flung lands, they bear the weight,  
Of duty's call, their purpose innate.  
With every step, they sow seeds of peace,  
Soldiers' dedication, never to cease.  
Each day they rise, a testament to grace,  
Guiding us through darkness, a steadfast embrace.  
Soldiers, heroes of heart, beyond measure,  
Their valor and sacrifice, a timeless treasure.

- **Greetal Pawar, 2<sup>nd</sup> PCMB**

## My Mom

In the tapestry of life, a guiding star,  
My favourite person, both near and far.  
A beacon of love, my rock and my guide,  
In the stormiest seas, you're right by my side.  
With hands that comfort and words that heal,  
You taught me how to hope, how to feel.  
Through laughter and tears, you're always there,  
A steadfast presence, beyond compare.  
Your wisdom a treasure, your kindness pure,  
In your embrace, all troubles find their cure.  
From childhood to now, your love has grown,  
A bond unbreakable, a love like a throne.  
With gratitude deep and a heart full of grace,  
I cherish each moment, each smile on your face.  
My favourite person, my mom, so dear,  
In your love's embrace, I have no fear.

- Alethea Jacob, 2<sup>nd</sup> PCMB

## SGC MEMBERS

**From left to right:** Dhatri Raj G - 2nd SEBA, Mohammed Tabsheer - 2nd CEBA, Poojitha K - 2nd SMBA, Ayush Alingal Vinod - 2nd SMBA, Rakshith V - 2nd CEBA, Reva Edala - 2nd HEPS



# Department of Mathematics

## The Enigmatic World of Mathematics

**Prof. Savitha P**

Dept. of Mathematics

The Mathematics Department within educational institutions stands as a sanctuary for the inquisitive souls who find solace amidst numbers, equations, and the enchanting realm of mathematical concepts. In this exploration, we delve into the intricate inner workings of a typical Mathematics Department, shedding light on its pivotal role in education, groundbreaking research, and profound influence on the broader academic community.

**The Educational Pillar:** The Mathematics Department serves as the very cornerstone of any institution's educational framework. Here, students embark on a transformative mathematical journey, from foundational courses to the heights of advanced studies in calculus, algebra, and statistics. These courses not only equip students with indispensable mathematical skills but also nurture critical thinking, problem-solving, and analytical prowess, virtues that prove invaluable across diverse academic disciplines.

**Diverse Faculty Expertise:** Behind the classroom doors, one encounters a remarkable spectrum of faculty members, each distinguished in their respective branches of mathematics. From devoted proponents of pure mathematics, delving into abstract concepts, to applied mathematicians who apply their expertise to unravel real-world dilemmas in fields such as physics, engineering, and economics, the diversity of academic prowess is truly striking. These passionate educators play an instrumental role in igniting the flame of mathematical curiosity within their students.

**Collaboration and Outreach:** Mathematics transcends the boundaries of mere classroom or laboratory confines. Mathematics Departments often cultivate symbiotic relationships with other disciplines, promoting interdisciplinary research that paves the way for groundbreaking discoveries. Moreover, outreach initiatives such as math clubs, workshops, and community engagement programs strive to democratize the beauty of mathematics, making it accessible and enjoyable for a wider audience.

**Conclusion:** In essence, a Mathematics Department transcends the stereotype of a mere number-crunching hub. It is an epicentre of innovation, a crucible for discovery, and an oasis of education. It moulds the mathematical visionaries of tomorrow, catalyses the progression of human knowledge, and exerts a profound influence across a multitude of academic domains. As we navigate the labyrinthine world of numbers, it becomes evident that the Mathematics Department resides at the very heart of it all.

# Forging a Brighter Financial Future

## BRICS' Vision for a New Currency

**BRICS**, comprising **Brazil, Russia, India, China, and South Africa**, is on the verge of a significant step towards financial independence by introducing a novel currency, signalling their commitment to reducing reliance on the US dollar and Euro – a movement known as "**De-dollarization**." This initiative aims to rebalance global currencies.

Russian lawmaker Alexander Babakov disclosed plans for this new payment medium, emphasizing its departure from reliance on the dollar and euro. Although these claims await confirmation from other member nations, they come as South Africa engages in discussions with Russia about recalibrating the global order, coinciding with its hosting of a BRICS summit. The potential impact of this currency extends to reducing global dependency on the US dollar and Euro. It signals a shift in the financial landscape, emphasizing sovereignty in currency exchanges. Russia's commitment to bolster its strategic partnership with India remains steadfast, emphasizing increased trade, investment, and technological collaboration between the two nations.

### **The BRICS strategy to lower the value of the Dollar includes:**

- **Collaborating with national banks for trade:** Member countries will manage trade transactions through their respective national banks, storing funds as liabilities to facilitate future trade.

**Example:** X and Y countries are trading with each other when X imports goods from Y now X pays money to its national bank where the banks keep it as the liability payable to Y later when Y is importing good from X the amount in the X's national bank will be paid back to X

- **Trading with their own national currencies:** Countries will engage in international trade using their national currencies, fostering economic independence.

**Example:** Both A and B countries trading with each other with their own currency for exchange of good and travel etc.

**In conclusion,** BRICS nations are poised to introduce a new currency or utilize their national currencies for international trade, leveraging their national banks. Such a move could significantly impact the global currency landscape, potentially decreasing the dominance of the US dollar and leading to substantial worldwide economic changes.

**Poojitha K, 2<sup>nd</sup> SMBA**

# Unlocking the Power of Matrices

## From Identity to Multiplication, a Comprehensive Guide

A matrix is a fundamental mathematical concept used in various fields such as linear algebra, computer graphics, statistics, and more. It is a two-dimensional array of numbers or symbols arranged in rows and columns. Each element in a matrix is called an entry or element.

### Types of Matrices:

- **Row Matrix:** A matrix with a single row and multiple columns is called a row matrix.
- **Column Matrix:** A matrix with a single column and multiple rows is called a column matrix.
- **Scalar Matrix:** A square matrix where all the diagonal elements are the same, and all other elements are zero.
- **Identity Matrix:** A special scalar matrix where all diagonal elements are 1 and all other elements are 0.
- **Zero Matrix:** A matrix where all elements are zero.
- **Square Matrix:** A matrix with the same number of rows and columns.
- **Rectangular Matrix:** A matrix with a different number of rows and columns.
- **Symmetric Matrix:** A square matrix where the elements are symmetric with respect to the main diagonal.
- **Skew-Symmetric Matrix:** A square matrix where the transpose of the matrix is equal to its negative.
- **Orthogonal Matrix:** A square matrix whose transpose is equal to its inverse.
- **Diagonal Matrix:** A square matrix where all non-diagonal elements are zero.
- **Sparse Matrix:** A matrix in which most of the elements are zero.

Matrices play a significant role in various aspects of our daily life, often behind the scenes, helping us solve problems and make decisions more efficiently.

### Here are some common uses of matrices in everyday life:

- **Computer Graphics:** Matrices are used extensively in computer graphics to represent transformations, such as translation, rotation, and scaling of images and objects. This is vital in video games, animation, and graphic design.
- **Image Processing:** Matrices are employed for image manipulation and processing, from resizing and filtering photos to facial recognition and medical image analysis.
- **Financial Planning:** Matrix mathematics is used in financial modelling, portfolio optimization, risk assessment, and other aspects of investment and finance to make informed decisions.
- **Transportation and Logistics:** Matrices are used in optimizing transportation routes, scheduling deliveries, and managing supply chains to minimize costs and improve efficiency.
- **Cryptography:** Matrix operations are essential in encryption algorithms, ensuring the security of online transactions and communications.
- **Statistics and Data Analysis:** Matrices are used to store and manipulate data in statistical software like R and Python's NumPy. They are crucial for techniques like linear regression, principal component analysis, and more.
- **Engineering:** In various engineering disciplines, matrices are used for structural analysis, electrical circuit modelling, control systems design, and signal processing.
- **Natural Language Processing:** Matrices are used in language models, like the one you're interacting with, for text processing, sentiment analysis, and machine translation.
- **Weather Forecasting:** Meteorologists use matrices to simulate and predict weather patterns, making it possible to generate accurate forecasts.

- **Social Networks:** Social media platforms utilize matrices for recommendation systems, identifying connections, and analysing user behaviour.
- **Medicine:** Matrices are used in medical imaging, such as MRI and CT scans, to process and reconstruct images for diagnosis and treatment planning.
- **Internet Search Engines:** Search engines like Google use matrices to index and rank web pages, providing relevant search results.
- **Audio Processing:** In music and sound engineering, matrices are used for tasks like equalization, audio compression, and creating surround sound.
- **Machine Learning:** Matrices are foundational in machine learning algorithms, including neural networks, deep learning, and clustering, enabling pattern recognition and predictive modelling.
- **Robotics:** Matrices are used in robot kinematics and control, helping robots navigate and manipulate objects accurately.

These are just a few examples of how matrices are applied in our daily lives. Their versatility and ability to represent complex relationships make them indispensable tools in a wide range of fields and applications.

### Algebra of Matrices:

Matrix algebra involves various operations that can be performed on matrices, including:

- **Matrix Addition:** Adding two matrices of the same dimensions by adding corresponding elements.
- **Matrix Subtraction:** Subtracting one matrix from another of the same dimensions by subtracting corresponding elements.
- **Scalar Multiplication:** Multiplying a matrix by a scalar (single number), which multiplies each element of the matrix by that scalar.
- **Matrix Multiplication:** Multiplying two matrices to produce a new matrix. This operation is defined if the number of columns in the first matrix is equal to the number of rows in the second matrix.
- **Matrix Transposition:** Creating a new matrix by switching rows and columns in the original matrix.
- **Matrix Inversion:** Finding the inverse of a square matrix (if it exists) such that when multiplied by the original matrix, it results in the identity matrix.
- **Determinant of a Matrix:** A scalar value that can be calculated for a square matrix, often used to determine if a matrix is invertible.

Matrix algebra is essential in solving systems of linear equations, transformations in computer graphics, data analysis, and many other mathematical and scientific applications. It provides a powerful toolset for working with structured data and transformations.

Huda Syed, 1st SMBA

## Mathematics is Everywhere!

Mathematics has been around us from the beginning of the time and it enters in our lives as soon as we enter in this world, for instance, we get our date of birth first and also get a mandatory Aadhaar Card with a number having a dozen digits. Since our birth, we have lived surrounded by numbers and wherever there are numbers, there is Mathematics and numbers. To support it let's recall Galileo Galilei's quote that **Mathematics is the language in which God has written the universe**. The planets go around the sun in a precise orbit and sun goes around the universe in a precise orbit. Days becomes nights and nights becomes days in a precise order of time. Is Mathematics being used only by people who have eyesight? No, of course not. Let me share with you my own experience, during my college days my chess captain who was visually impaired



used to identify chess pieces by touching and distinguishing them geometrically within seconds. In fact, chess game involves Mathematics at every move of its pieces and chessboard is an  $8 \times 8$  matrix with 64 squares. Chess originated in India in the 6th century by none other than Mathematician Sessa who gave the very famous series problem to Mathematically unaware king "The wheat and chessboard problem" which states that if a chessboard is to have wheat placed upon each square such that one grain is placed on the first square A1, double on the second square A2, four on the third square A3 and all the way to  $2^{63}$  on last square H8. How many grains of wheat would there be on the chessboard at the end? In fact, no sports can be imagined or played without the help of Mathematics.

Coming back to especially abled, did you ever think about how we communicate with our deaf friends, yes with the orientation of fingers which is not possible without the help of Mathematics. Therefore, Mathematics plays a vital role in communication for deaf people as their language. Also, if you notice, an ordinary person walks keeping the Cartesian Coordinate into the mind as he can see and knows the exact location but on the other side a specially-abled who cannot see walks keeping Polar Coordinate into the mind where he always keeps direction and distance in his mind at every step with his hand stick.

It is Mathematics only which gives sense of comparing or sense to distinguish and it is not only in human being but it can be noticed even among animals, for example suppose in a forest an animal has five children and suddenly one of them is missing, then do not you think the mother will start searching for the child? Does it mean the mother knows counting? No of course not but certainly she has the sense to distinguish. Animals also have the sense of distance and numbers, suppose in a forest there is a lion and a bunch of deer, then lion may not hunt deer but if there is only a deer, then lion must run towards deer so understanding Mathematics is the difference between life and death! Similarly, if you ever closely look at a sequence of ants, they walk in perfect harmony with equidistant. So, if animals were to have any language, then it would be Mathematics only!

Mathematicians do amazing things. They discover hidden beauty in the natural world. Mathematics can also be seen in nature; we like flowers so much and Mathematics can be seen around them as we know through polar transformation the number of petals. In Mathematics Fibonacci sequence is one of the most famous and useful sequences of integers. Fibonacci Spiral is the spiral when in polar coordinate both angle and radial distance vary simultaneously. Now question worth asking is do we find Fibonacci Spiral in nature, yes in the sunflower, the display of its florets is always in a perfect spiral of 55, 34 and 21. The fruit lips of the pineapple make the same. Next time when you visit the ocean and if current moves through it and the tide rolling to the shore, then you can visualize that the waves that bring in the dyed turn into a Fibonacci Spiral only.

**In this digital era**, internet banking is becoming more and more common but there is a chaos with regard of safe transactions and there we fully depend on Cryptology, the study of protecting our information using the codes. The reality of instant loan would not have been possible without Mathematics enabled mobile apps. These mobile apps quickly analyse our Aadhaar number with pan card number and bank statement. Therefore, reducing time and effort and delivering public service quickly. We all have mobile and every day we love to take pictures but do you know your picture is nothing but your homomorphic image whereas if there is an identical twin of you then it is going to be your isomorphic image.

GPS has become very important in our lives as it tells us routes with the exact location which is just possible due to the geometry of relativity with help of four satellites. We easily get to know about weather report of the world at home through TV with the use of level curves.

Mathematics helps a lot in policy formulation. The government collects data about its citizens and statisticians analyse it to formulate the right policy. Right calculation can lead to positive results like job creation and growth rate in our GDP but a wrong calculation can result in negative. Similarly, a good knowledge of prime numbers can equip a Mathematician for hacking. So,

Mathematics is like a double-edged sword. It can cut both ways. Therefore, we need "Well Defined" Mathematicians in policy-making team everywhere.

Have you ever imagined that what would be life like without Mathematics? It is going to be impossible and unimaginable, in fact without it life is not going to be systematic and it is going to be full of chaos. So, it makes our life easier by preventing chaos. Mathematics in life is as important as music to songs or internet facility to digital India. It is needed at every step of life and without it, we cannot move even an inch be it be knowing that how many alphabets are there in the word "Mathematics" itself. Everyone needs Mathematics in their day-to-day life without realizing it, be it an astronaut, a farmer, an army man, a sportsman, a shopkeeper or tea vendor, an economist or was it the architect Walter Sykes George who designed the beautiful red bricks buildings of the two colleges Miranda House and St. Stephen's College which had a collaboration till Stephen's became coed in 1928. Whenever Stephen's would need women actors, they would get them from Miranda House, whenever MH would need male actors, they would come from Stephen's. It means relationship was "Symmetric". Could Walter George imagine this beautiful structure of Miranda House without the use of symmetry or can we feel even today the beauty of building without having the symmetry in its pillars or stairs? Life without Mathematics would be like the building of Miranda House without students!

**"I see it but I don't believe it" – Georg Cantor**

**Rafiq Ahmed, 1st SMBA**

## **When Maths Turns Golden**

### **The Fibonacci Sequence**

The Fibonacci sequence is a fascinating mathematical concept that has intrigued mathematicians, scientists, and nature enthusiasts for centuries. Named after the Italian mathematician Leonardo of Pisa, who is also known as '**Fibonacci**', this sequence has far-reaching applications and can be found in various aspects of nature and mathematics.

What is the Fibonacci Sequence?

**The Fibonacci sequence is a series of numbers where each number is the sum of the two preceding ones, usually starting with 0 and 1. Therefore, the sequence begins: 0, 1, 1, 2, 3, 5, 8, 13, 21, and so on, extending indefinitely.** The sequence can be represented by the formula:

$$F(n) = F(n-1) + F(n-2)$$

Here, **F(n)** represents the **nth Fibonacci number**, and **F(n-1)** and **F(n-2)** are the two previous numbers in the sequence.

#### **The Beginnings of Fibonacci**

**Leonardo of Pisa, or Fibonacci, introduced the Fibonacci sequence to the Western world in his 1202 book "Liber Abaci" (The Book of Calculation). However, the sequence had been previously described in Indian mathematics.**

The Fibonacci sequence, although seemingly abstract, has several practical applications in our daily lives. Here are some ways it is used:

- **Financial Planning:** The Fibonacci sequence is used in financial analysis to predict potential price reversal points in stock markets, currencies, and commodities. Traders and investors use Fibonacci retracement levels to make decisions about buying or selling assets.
- **Computer Algorithms:** Fibonacci numbers are used in computer science and algorithms. They can be applied in data structures, such as Fibonacci heaps, which optimize certain operations in computer programs.

- **Data Compression:** Fibonacci coding is a variable-length data compression technique that assigns shorter codes to more frequently occurring data values. It is used in data storage and transmission.
- **Project Management:** The Fibonacci sequence is sometimes used in agile project management techniques like Fibonacci estimating. It helps teams estimate the relative sizes and complexities of tasks during sprint planning.
- **Population Growth Modelling:** Fibonacci numbers are used in modelling population growth and predicting future population sizes in biology and ecology. This is especially useful in studies of animal populations.
- **Art and Design:** Artists and designers often use the Fibonacci sequence and the associated golden ratio to create aesthetically pleasing compositions. This can be seen in the layout of magazines, websites, and product designs.
- **Music and Rhythm:** Musicians have incorporated Fibonacci numbers into their compositions and rhythms, creating unique and appealing musical patterns.
- **Architecture:** Architects sometimes use the Fibonacci sequence and golden ratio to design buildings and spaces that are visually harmonious and pleasing to the eye.
- **Engineering:** In structural engineering, the Fibonacci sequence can be applied to optimize the distribution of loads in structures like bridges and buildings.
- **Natural Phenomena Analysis:** Scientists and researchers use Fibonacci patterns to analyse and understand various natural phenomena, such as the arrangement of leaves on a plant, the growth patterns of animals, and the structure of galaxies.

While these applications might not always be obvious in our daily routines, they demonstrate the versatility and relevance of the Fibonacci sequence across various fields and disciplines.

### Applications in Mathematics

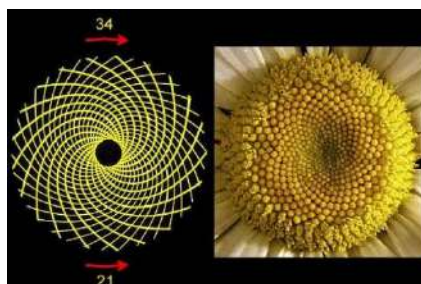
The Fibonacci sequence has numerous applications in various mathematical fields:

- **Number Theory:** Fibonacci numbers have intriguing properties related to divisibility and prime numbers. For example, every third Fibonacci number is even, and every fourth Fibonacci number is divisible by 3.
- **Golden Ratio:** As you progress through the Fibonacci sequence, the ratio of consecutive Fibonacci numbers converges to the golden ratio, approximately 1.6180339887. This ratio is prevalent in art, architecture, and nature.
- **Fibonacci Spiral:** By constructing squares with side lengths equal to consecutive Fibonacci numbers and connecting their corners with an arc, you create a Fibonacci spiral. This spiral appears frequently in nature, such as in the arrangement of seeds in sunflowers and the growth patterns of shells.

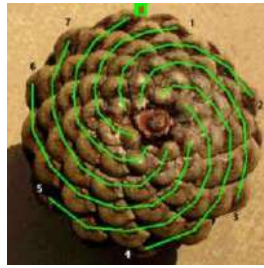
### Examples in Nature:

The Fibonacci sequence is not just a mathematical curiosity; it is prevalent in the natural world:

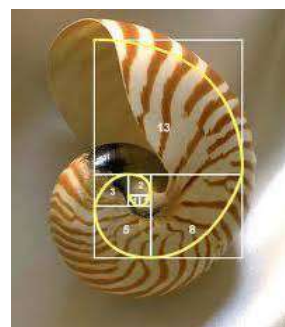
- **Flower Petals:** Many flowers have a number of petals that is a Fibonacci number. For example, lilies have three petals, buttercups have five, and daisies often have 21 or 34 petals.



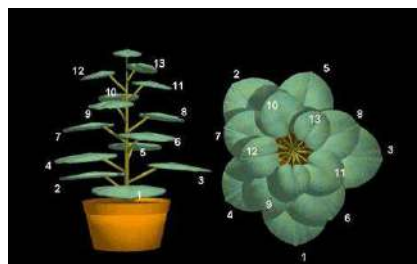
- **Pinecones and Pineapples:** The spirals on a pinecone or the segments of a pineapple typically follow Fibonacci numbers. This pattern allows for efficient packing of seeds.



- **Spiral Shells:** The logarithmic spiral in seashells, such as the nautilus, closely resembles the Fibonacci spiral.



- **Leaf Arrangement:** The way leaves are arranged on plant stems often follows a Fibonacci pattern. This arrangement maximizes exposure to sunlight.



### Art and Architecture

The golden ratio, derived from the Fibonacci sequence, has been used in art and architecture for centuries. It is believed to create aesthetically pleasing proportions. Famous examples include the Parthenon in Athens and Leonardo da Vinci's artwork.

Conclusion: The Fibonacci sequence is a captivating mathematical concept that transcends the world of numbers. Its presence in nature, art, and architecture highlights the profound connection between mathematics and the physical world. Whether you're an aspiring mathematician or simply an admirer of the beauty of nature, the Fibonacci sequence is a reminder of the elegance and wonder of mathematics in our lives.

**Aarush S Garg, 1st SMBA**

# Discover the Infinite Genius

## The Man Who Knew Infinity

This is the story of a mathematical prodigy and his proclivity towards the subject despite having a life of poverty and neglect. His amazing ability to understand messages and meaning lying in numbers and his genius and extraordinary brilliance in number theory and pattern of the number brought the focus of entire world towards India.

The effect that words have on a poet and emotions on a lyricist, was the same that the Principles of Mathematics had on S. Ramanujan. According to him–

**“Mathematics is not about numbers, equations, computation or algorithms: it is about understanding.”**

Let's begin the life story of this legendary being. S. Ramanujan was a largely self-taught pure Mathematician hindered by poverty and ill-health. His highly original work has considerably enriched number theory. December 22nd is celebrated as National Mathematics Day as he was born on that day in 1887. He lived a short life of only 32 years as he died on 26 April 1920.

We can't control everything that happens to us. But we can control how we respond to things that we can't control. He is recognized as one of the greatest Mathematicians of his time. However, S. Ramanujan had no formal training in Maths. He used to always write on a slate with chalk and when one of his friends asked him to write on paper. He replied–

“When food is the problem, how can I find money for paper? I may require four reams of paper every month.” He was the second Indian to be inducted as a fellow of the royal society, which is a fellowship of some of the world's most eminent scientist. For him education was not just a preparation of life, education is life itself.

It is said that the numbers 1-10,000 were his best “personal friends”. He could effortlessly tell their factors, divisors, how the number can be split & each part of number can be squared /cubed etc. to produce interesting numbers, and much more. One time, G.H. Hardy (professor of Mathematics at Cambridge University) was paying a visit to Ramanujan, who was ill and undergoing treatment. Hardy mentioned to him that he rode a taxi cab, whose number was 1729.



Hardy said to Ramanujan, “the number seems to me rather a dull one”. Ramanujan on this comment replied, “No Sir, this is the smallest number expressible as the sum of two cubes in two different ways–

$$1729 = 1^3 + 12^3 = 9^3 + 10^3$$

**Later, 1729 came to be known as RAMANUJAN NUMBER.**

**He discovered many other interesting facts. viz a viz, a**

**solution of infinite root equations and the sum of positive numbers is a negative number–**

$$1 + 2 + 3 + 4 + 5 + \dots = -1/12$$

It was his insight into algebraic formulae, the transformation of infinite series and so forth, that was amazing. In his short lifetime, he prepared almost 4000 proofs, identities, conjectures and equations in pure Mathematics. His theta function lies at the heart of string theory in physics. He used to say– **“An equation for me has no meaning unless it represents a thought of GOD”**

One more interesting thing about Ramanujan is–he discovered so much, and yet he left so much in his garden for other people to discover.

**‘SUCCESS IS NOT JUST A MEASURE OF HOW BIG YOU CAN DREAM. IT IS ALSO A MEASURE OF HOW MUCH YOU CAN DO’**

**Himani Prabhu, 2nd SMBA**

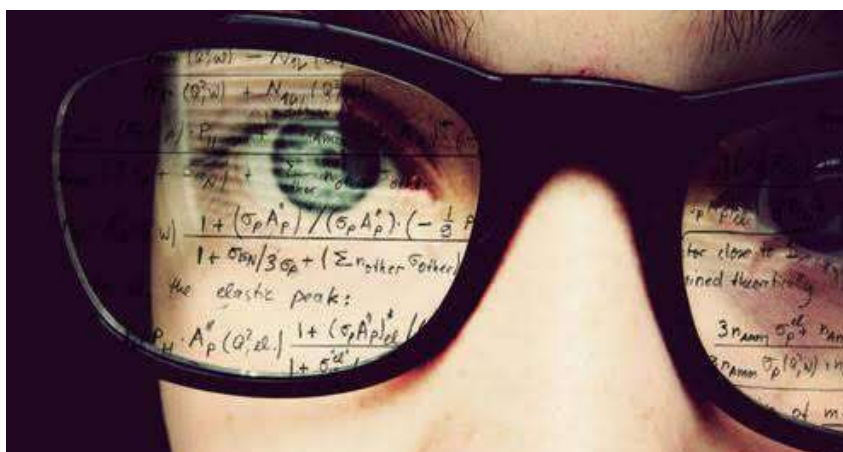


# Unlocking the Beauty of Reality Through Mathematical Lenses

## Life Through the Eyes of a Mathematician

Mathematics is in every aspect of our lives; from a mother-child relationship to a person's every needs. The emotional distance between a mother-child can be minimised, i.e., there exists a  $\Delta > 0$  for which we have  $\epsilon > 0$ . A mother always tends to a child, who is a limit to her.

Every person has  $\infty$  desires to fulfil despite knowing the fact that  $\infty$  is not a real number. Human beings generally behave like a modulus function as they react positively or negatively according to the circumstances or people around them; whenever a person is looking forward to a positive outcome from a situation, he takes the positive values otherwise he chooses to remain indifferent by taking the negative values.



Friends are like limitless functions separately but together they become a constant function.

College students resemble 'unlike terms' of algebra, that is, until the lunch break. The cafeteria then becomes their limit point of enjoyment as there exists a lot of points in that interval of time. A group of friends is like an integral domain because of the absence of zero divisors which implies there exists two friends such that (1st friend  $\times$  2nd friend)  $\neq 0$  as their love for each other makes them an identity together.

Teachers are synonymous with integration as they increase the capabilities of a constant student with their knowledge and magnify a student's capabilities.

The most important lesson Mathematics teaches us is the will to never give up as every problem has a solution.

**Aftab Nihal, 2<sup>nd</sup> SMBA**



# Where Tradition Meets Artistry, and Borders Unite in Dance

## Dancing Through Punjab's Heartland

In the summer of 2023, Srinidhi Vinod Saladi, a student of 2nd SEBA @ Sindhi Pre-University, had the privilege of participating in a remarkable dance exchange program held in Chandigarh and Amritsar, Punjab. This extraordinary journey took place from the 26th to the 30th of July, and it was a transformative experience. Initial focus was on immersing one selves in the rich traditions of Punjab's folk dances, particularly Giddha and Bhangra. She diligently learned the intricate steps of Giddha, a captivating traditional dance, and was guided in crafting a dance performance that incorporated these mesmerizing movements.



On the 27th of July, she had the honour of showcasing her talents in front of a discerning audience, including the press. Joining with her were foreign exchange students from countries like Bangladesh, Kazakhstan, and Russia, who were also part of this exchange program, facilitated by the prestigious Pracheen Kala Kendra institution. These international students were under the tutelage of accomplished gurus in the art of Kathak and presented a mesmerizing fusion of their native folk dances with their learnings in Kathak.

The ensemble performed a total of three dances. Commenced with a devotional tribute to Lord Ganesha, followed by an Alaripu performance that artfully embodied the graceful movements of a peacock. The climax of the presentation was a patriotic dance that stirred emotions and pride. A pivotal moment in her journey occurred on the 29th of July when she had the privilege of performing our patriotic dance once more, but this time at the hallowed grounds of the India-Pakistan border at the Attari-Wagah border post. This location symbolizes India's first line of defence, and the overwhelming sense of patriotism that pervaded the area moved our entire group to tears.

This opportunity to perform a patriotic dance on the frontlines of our nation's defence was undeniably a once-in-a-lifetime experience.

# Harmonizing Cultures, Enriching Souls

## The 7th International Nrithyanjali Festival in Sri Lanka

On the auspicious date of August 12, 2023, an illustrious International Cultural Exchange Program unfolded its vibrant tapestry in the heart of Sri Lanka at the prestigious Swami Vipulananda Institute of Aesthetic Studies (SVIAS), Eastern University, in collaboration with the esteemed "Sangamam Global Academy" from India. This grand event was none other than the "7th International Nrithyanjali Festival" hosted in Sri Lanka.

Our participation hailed from the distinguished "Shivapriya School of Dance," where we showcased four captivating group performances, each a homage to a divine deity: Ganesha, Muruga, Mathangi, and Shiva. The event transcended mere success; it became a reservoir of knowledge and cultural enlightenment.

In the spirit of cultural exchange, individuals from diverse backgrounds converged to immerse themselves in the kaleidoscope of different cultures. This enriching program bestowed upon us profound insights into the tapestry of international cultures. It proved instrumental in nurturing our confidence and enhancing our communication prowess. Moreover, it fostered an environment of cultural sensitivity and open-mindedness. Cultural exchange, after all, is the art of sharing ideas, traditions, and wisdom with those who hail from backgrounds entirely distinct from our own.



# Camp Experience: Discovering Independence and Cultural Harmony

## A Journey of Self-Discovery, Friendship, and Lifelong Lessons

<b>Cadet: Sharvan Kumar Choudhary</b>	<b>Camp Name: ARMY ATTACHMENT CAMP</b>
<b>Regimental Number: KA/22/SD/A/205911</b>	<b>Place: MEG &amp; CENTER, Bangalore</b>
<b>Bn: 8 KARNATAKA BATTALION NCC</b>	<b>Date: 8th august 2023 – 20th august 2023</b>
<b>Institution: Sindhi PU College</b>	<b>Total Camp strength: 268 cadets</b>
<b>Strength of 8 kar bn: 16 cadets</b>	

**Camp Routine:** The camp's daily schedule was a testament to our discipline and commitment to learning. Each day began with the Fall-in for PT parades, followed by a brisk 2-kilometer run to the PT ground.

The PT parades commenced, setting the energetic tone for the day, after which we gathered for the fall-in at the Thambi Drill Square Ground for drill sessions.

Post-drill, we delved into theory classes covering topics such as weapon training, map reading, first aid and mines detection.



After which we immersed ourselves in obstacle training and combat sessions from 14:30 hrs to 16:00 hrs. Then we engaged in game parade activities, we gathered at the parade ground for roll call and to receive the schedule for the next day.

### Major Camp Events:

**Opening Address:** On the 9th of August 2023, the camp commenced with an opening address in the auditorium of MEG & Center. The commanding officer of MEG & Center, Training Battalion 3, warmly welcomed us and provided vital information about the camp's schedule and the venue. A captivating video presentation highlighted the history of Madras Sappers and the achievements



of MEG & Center. We commemorated the occasion with a group photo session alongside cadets from Bangalore, Mysore, and Ballari groups, officers, and PI staff.

**Independence Day:** We celebrated Independence Day by participating in a tree planting event with the commanding officer and officers of MEG & Center, symbolizing our commitment to a greener future.

**Interaction with Cadets from Other Directorates:** Interacting with cadets from Dehradun, Roorkee, and Nainital was a delightful and enlightening experience. We embraced their cultures, learned about their unique dance forms, and exchanged languages. Teaching them Kannada and Konkani words was a source of joy, as they eagerly absorbed our linguistic nuances. This interaction fostered strong bonds and enriched our camp experience.

**Lessons Learned from the Camp:** This camp instilled in me valuable life lessons. It taught me independence, as we were responsible for ourselves from the moment we embarked on this journey. Interacting with diverse individuals from different backgrounds enhanced my communication skills and adaptability. Learning to say no when necessary and gaining insights into personal hygiene, gender sensitivity, and other vital topics were highlights of the camp. Additionally, the cultural events exposed me to the beauty of various state dance forms and singing styles.

**Closing Address:** The camp concluded with a closing address by the commanding officer of 31 UK Bn. ANOs were recognized for their contributions, and medals were awarded to the winners of group song and group dance competitions. CO sir imparted valuable knowledge and motivation while expressing satisfaction with the performance of the guest directorate. A grand feast marked the end of the camp, leaving us with cherished memories and newfound knowledge.



**Cadet Sharvan Kumar Choudhary 2<sup>nd</sup> From the right.**



**Cadet Sharvan Kumar Choudhary 1<sup>st</sup> from the left.**

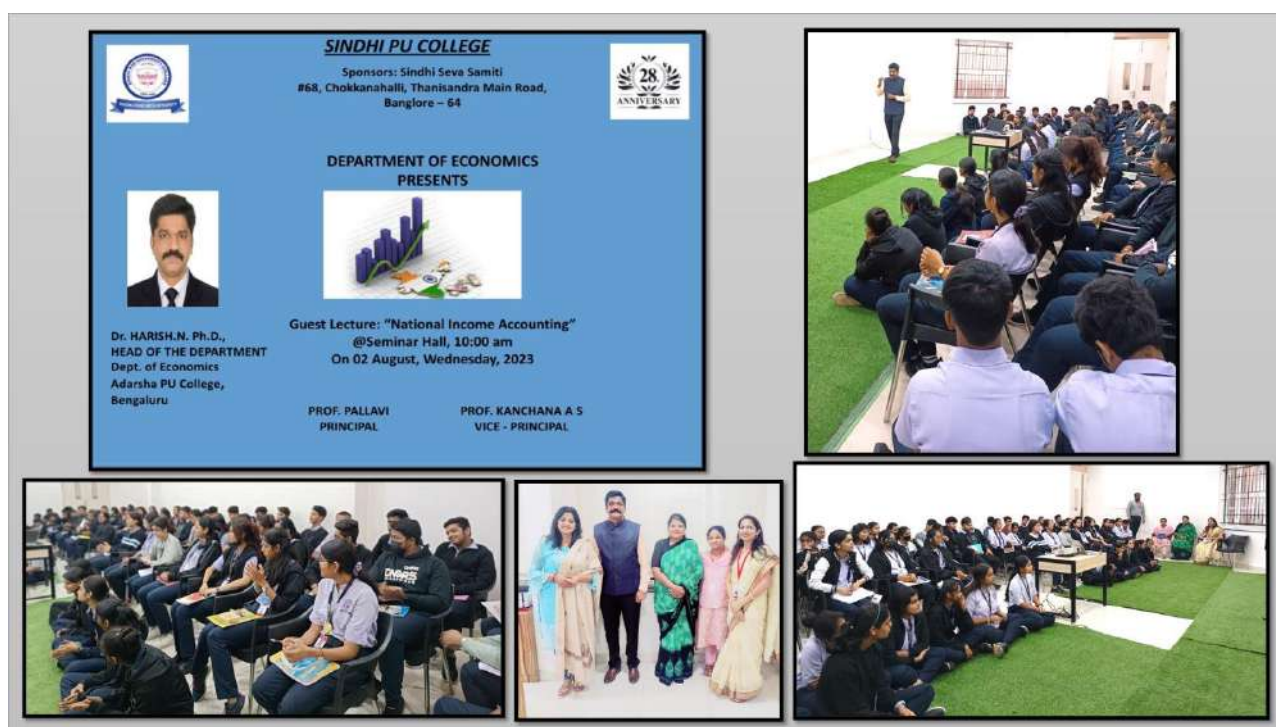
**In conclusion,** this camp was an unforgettable journey of self-discovery, friendship, and lifelong lessons. It provided ample opportunities for personal growth and self-expression. I am deeply grateful for the chance to participate in this enriching experience.

# Unlocking Insights, Inspiring Minds

## Guest Lecture on 2<sup>nd</sup> August, 2023

The Department of Economics orchestrated an enlightening guest lecture within the confines of the seminar room, exclusively tailored for the astute II PUC students. The distinguished guest speaker, none other than Dr. Harish.N, who also holds the esteemed position of Head of Department for Economics at Adarsha PU College in Bangalore, graced the occasion.

The lecture's focal point was the intricate subject of "National Income Accounting," which delved into the multifaceted dimensions of national income and the intricate web of macroeconomic identities. This pedagogical endeavour equipped the students with a profound understanding of social accounting and national economic metrics, bestowing upon them a deeper comprehension of the subject matter. The lecture left an indelible mark on the students' minds, enriching their academic journey with invaluable insights.



# Igniting the Flames of Talent and Unity

## Samedha 2023: A Spectacular Inter-House Cultural Extravaganza @ Sindhi PU College

Samedha 2023, the inter-house cultural fest held at Sindhi PU College on the 14th, 15th, and 17th of August, was an awe-inspiring celebration of talent, creativity, and unity. With a diverse array of 39 events encompassing cultural and literary competitions, this fest was a vibrant showcase of grace and energy, bringing together the entire college community.

### The Heartfelt Appreciation:

Kudos extend to the remarkable winners who showcased their prowess, but equal appreciation goes to every participant who contributed to the fest's strength and vitality. Samedha's success hinges on the active involvement of both participants and the enthusiastic audience, who played pivotal roles in making these three days unforgettable.

### The Grand Finale:

The final day of Samedha was a captivating ethnic extravaganza, with participants adorning themselves in resplendent attire. It was a fitting conclusion to this extraordinary event, celebrating our rich cultural heritage.

### The Winners' Announcement:

The culmination of any event is incomplete without recognizing and celebrating the champions. The winners of Samedha 2023 were officially revealed at Sindhi PU College on the 28th of August, 2023, amid much anticipation.

### The results were as follows:

- 1. Agni House - First Place**
- 2. Prithvi House - Second Place**
- 3. Vayu House - Third Place**

### A Vibrant Memory:

In retrospect, Samedha 2023 was a kaleidoscope of fun, energy, and boundless joy. We extend our heartfelt gratitude to the Management, Principal, and Vice Principal, who consistently ignited our spirits and encouraged us to give our best in this mega event.







## **Celebrating Freedom, Inspiring Unity**

### **Independence Day Celebration! On 15<sup>th</sup> August 2023**

Indian Independence Day, celebrated on August 15th, holds immense importance as it commemorates the day in 1947 when India gained freedom from British colonial rule. This day symbolizes the triumph of India's long and hard-fought struggle for independence, led by visionaries like Mahatma Gandhi and Jawaharlal Nehru. It is a reminder of the sacrifices made by countless freedom fighters who gave their lives for the nation's liberty.

Independence Day celebrations include the hoisting of the national flag, parades, cultural programs, and patriotic songs. It serves as a unifying force, bringing together people of diverse backgrounds, languages, and religions to celebrate their shared identity as Indians.

Beyond the festivities, Independence Day is a time for reflection on the values of democracy, secularism, and social justice that form the foundation of the Indian Republic. It inspires citizens to uphold these principles and work towards a more inclusive, prosperous, and equitable nation. In essence, Indian Independence Day is a day of pride, patriotism, and renewal of commitment to the country's progress, making it a significant and cherished celebration.

At Sindhi PU College, Thanisandra, we celebrated with utmost humility and grace. The occasion was graced by our esteemed Board Members and the distinguished Chief Guest of the day, Wing Commander- Sri. Vineet Dutta.

The event was further embellished by the dignified flag hoisting by our guest of Honour and board members.

The dedication and achievements of our NCC cadet, Anushka Patel, were duly recognized and honoured for her outstanding participation at the camp hosted at Brindavan College.

The formal proceedings culminated with the unveiling of the **inaugural volume of "INSIGHT," our college newsletter**. The event was a resounding success, fostering a sense of pride and unity among all the students, reinforcing our commitment to our great nation.



## Harvesting Joy

### Onam Celebration! On 28th August 2023

Onam is a vibrant and joyous festival celebrated in the Indian state of Kerala. It marks the homecoming of the mythical King Mahabali and is a symbol of the state's rich cultural heritage. The tagline for Onam could be: "Onam: The Festival of Colours, Culture, and Unity." During this festival, Keralites decorate their homes with colourful flower carpets, indulge in traditional feasts called "Sadya," and engage in various cultural performances like Kathakali and Puli Kali. It's a time when people come together, irrespective of their backgrounds, to celebrate unity, prosperity, and the spirit of Kerala.





# Saluting the Guiding Stars

## Teacher's day Celebration! On 5th September 2023

Teachers' Day is a special occasion celebrated to honour and appreciate the invaluable contributions of teachers in shaping the future of students. This day is observed on different dates worldwide but is commonly celebrated on the birth anniversary of Dr. Sarvepalli Radhakrishnan, a renowned Indian philosopher and the second President of India.

We, at Sindhi PU College, celebrated Teacher's Day with great enthusiasm on our Thanisandra campus. Our dedicated teachers were honoured with a warm welcome on the red carpet, accompanied by thoughtful tokens of gratitude, including potted plants, heartfelt cards, roses, and badges. The students expressed their appreciation for their teachers through a delightful feast featuring a fusion of Indian and Italian cuisine, accompanied by a harmonious medley of songs that filled the air with joy.

The celebration continued with captivating cultural performances by talented students like Harshita and Divya, Sanjana and Akansha from the 1st Humanities, Ananya G Gowda, Amulya G Gowda, and Anushka from the 2nd SEBA/S MBA. A group of science students also took the stage with spontaneous energy, leaving a lasting impression.

The special occasion culminated in a heartwarming cake-cutting ceremony, where our esteemed faculty members came together, brimming with excitement and happiness, marking the perfect conclusion to our Teacher's Day celebration.



### Commending Prof. Padmapriya's 15 years of dedication and service completion- Dept. of Commerce @ Sindhi PU College



# Inuoking the Blessings of the Lord Ganpati

## Ganesh Chaturthi Celebration! On 19th September 2023

Ganesh Chaturthi is a prominent Hindu festival that celebrates the birth of Lord Ganesha, the elephant-headed deity of wisdom and prosperity. The festival holds immense significance as it symbolizes the beginning of new endeavours and the removal of obstacles. Lord Ganesha is revered as the remover of obstacles and the provider of intellect and wisdom. During this festival, people bring home Ganesha idols, offer prayers, and participate in colourful processions, singing devotional songs.

The immersion of Ganesha idols in water bodies marks the conclusion of the festival, signifying the return of Lord Ganesha to his celestial abode. Ganesh Chaturthi promotes unity and community bonding as people come together to celebrate and seek the blessings of Lord Ganesha for a harmonious and successful life. It emphasizes the importance of wisdom, intellect, and the removal of hindrances on the path to prosperity.





# Where Theory Meets Reality

## Industrial Visit on 29<sup>th</sup> September, 2023

Sindhi PU College orchestrated an insightful industrial sojourn for a group of 45 enthusiastic students from the Commerce and Humanities disciplines. The students embarked on a captivating journey to the Dairy Ice Cream factory near the Harohalli Industrial area, adjacent to Bidadi, on the picturesque Wednesday of September 20, 2023.

The visit proved to be an enlightening experience as it unfolded the intricate process of ice cream production. The students were introduced to the storage of milk at room temperature, followed by witnessing the meticulous boiling of approximately 2000 Liters of milk in a single batch. They were enlightened about the stringent quality checks that dry fruits undergo before becoming a part of the ice cream concoction. Subsequently, the students delved into the world of Flavors and chocolate powders, discovering how these ingredients were stored and later incorporated into the ice cream mixture. The packaging process was another enlightening facet, with the revelation that Dairy Day churns out an astounding 1000 ice creams per minute while packaging an impressive 20 per minute.

The journey continued into a freezing storage room, maintained at a chilling -20 degrees Celsius, where all the ice creams were stored. The students gained valuable insights into the entire process, right from sourcing ingredients from local farmers to programming, processing, production, and marketing techniques, thanks to engaging interactions with the knowledgeable factory staff.

The -25-degree cold storage atmosphere was another eye-opening experience, showcasing the meticulous care taken in preserving the quality of the ice creams. The factory's three-tiered storage system for ice creams added to the students' understanding of its operations. It was fascinating to learn that these frozen delights were transported to shops in refrigerated vans, maintaining a constant -20-degree temperature. The factory visit culminated with a tour of the impressive Mother hub, serving as the largest outlet across South India. **Diary Day, founded by BALARAJU ANANTHARAMU on December 1, 2002**, in Bengaluru, Karnataka, left the students with a deep appreciation for the intricacies of ice cream production. Conversations with the factory staff allowed students to clear their doubts about production and marketing, further enriching their learning experience.

The day concluded with a visit to the IKEA store in Nagasandra, where students were guided through a world of exquisite furniture, soft toys, and other practical items. Founded by **Ingvar Kamprad in 1943 in Sweden**, IKEA's expansion into India was a testament to its global success. This captivating industrial visit was not just informative but also deeply memorable for all participants, leaving them with a newfound appreciation for the intricacies of production and the global reach of renowned brands.



# G-20: A Global Forum for Economic Cooperation

## A Closer Look at the G-20 Summit and its Role in Shaping the World Economy

The G-20 Summit of 2023, a crucial international gathering of major economies, holds the promise of shaping the global economic landscape for years to come. Here we will delve into the significant aspects of the G-20 Summit 2023, its objectives, key discussions, and the list of participating countries.

The 2023 G20 New Delhi summit was the eighteenth meeting of G20 (Group of Twenty). It was held in Bharat Mandapam International Exhibition-Convention Centre, Pragati Maidan, New Delhi on 9-10 September 2023. It was the first G20 summit held in India.

Originally, India was scheduled to host the G20 summit in 2021 and Italy in 2022. At the 2018 G20 Buenos Aires summit in Argentina, Prime Minister Narendra Modi said he had requested Italy to host the summit in 2021 and allow India to host it in 2022, on the occasion of the 75th year of India's independence. Italy agreed to let India host the G20 summit in 2022 in its place, owing to the momentum in bilateral ties.

### **Presidency:**

The G20 New Delhi Summit is chaired by the Indian Prime Minister, Narendra Modi.

India's presidency began on 1 December 2022, leading up to the summit in the third quarter of 2023. The presidency handover ceremony was held, in which the G20 Presidency gavel was transferred from Indonesian President Joko Widodo to Indian Prime Minister Modi at the close of the Bali summit. Indonesia held the presidency in 2022.

Indian Prime Minister Modi formally handed over the G20 presidency to Luiz Inácio Lula da Silva, the President of Brazil. India will continue to hold the position until 30 November 2023.

### **Agenda Priorities:**

G20 India has put forth six agenda priorities for the G20 dialogue in 2023:

- Green Development, Climate Finance & LiFE
- Accelerated, Inclusive & Resilient Growth
- Accelerating progress on SDGs
- Technological Transformation & Digital Public Infrastructure
- Multilateral Institutions for the 21st century
- Women-led development

Prime Minister Modi expressed optimism about the G20 countries' evolving agenda under India's presidency, shifting toward a human-centric development approach that aligns with the concerns of the Global South, including addressing climate change, debt restructuring through the G20's Common Framework for Debt, and a strategy for regulation of global cryptocurrencies.

### **Key Aspects of the G-20 Summit 2023:**

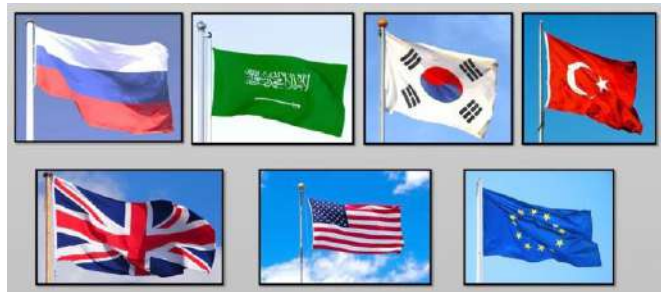
- **Global Recovery Post-Pandemic:** The G-20 Summit 2023 is expected to focus on the world's economic recovery post-COVID-19. Member nations will discuss strategies for sustainable and inclusive growth in a post-pandemic era.
- **Climate Change and Sustainability:** Environmental sustainability and climate change are central topics. Participants will address climate action, emissions reduction, and the role of green technologies in global economic development.
- **Trade and Supply Chains:** The summit will explore the future of global trade and supply chains, particularly in light of disruptions caused by the pandemic. Discussions will revolve around resilience and adaptability.



- **Digital Transformation:** As the world becomes increasingly digital, discussions will touch on digitalization, cybersecurity, and the regulation of emerging technologies, such as artificial intelligence and cryptocurrencies.
- **Global Health:** Given the pandemic's ongoing challenges, global health security will be on the agenda. Countries will discuss pandemic preparedness, vaccine distribution, and strengthening healthcare systems.
- **Financial Stability:** Economic stability and financial market resilience will be key themes, addressing issues such as inflation, monetary policies, and the future of the global financial system.

### List of G-20 Member Countries in 2023

1. Argentina 2. Australia 3. Brazil 4. Canada 5. China 6. France 7. Germany 8. India 9. Indonesia 10. Italy 11. Japan 12. Mexico 13. Russia 14. Saudi Arabia 15. South Africa 16. South Korea 17. Turkey 18. United Kingdom 19. United States 20. European Union (represented by the European Commission and the European Central Bank).



### Participating Leaders:





#### Invited Guests



From economics to environmental concerns, here's a comprehensive look at the G20's role in shaping our collective future. The G20 serves as a vital platform for addressing a multitude of global challenges. From economic stability to environmental sustainability, it brings nations together to forge a path towards a more equitable and harmonious world. In navigating issues from A to X, the G20's influence extends far beyond its member nations, shaping the collective destiny of our interconnected planet.

- **All About the G20:** The G20 comprises 19 of the world's largest economies and the European Union. It was established in 1999 as a response to financial crises, serving as a platform for dialogue and cooperation on pressing global challenges.

- **Balancing Global Economy:** One of the primary objectives is to ensure global economic stability. G20 members discuss fiscal and monetary policies, trade, and investment to foster growth and minimize economic disparities.
- **Climate Commitments:** Climate change is a pressing issue, and the G20 plays a significant role in addressing it. Discussions on reducing greenhouse gas emissions and transitioning to clean energy are crucial steps toward a sustainable future.
- **Debt Relief:** The G20 has taken steps to address the debt crisis in developing nations, especially during the COVID-19 pandemic, by providing debt relief measures to prevent economic collapse.
- **Energy Policies:** Energy security and sustainability are paramount. G20 members discuss energy policies, including diversifying energy sources and enhancing energy efficiency.
- **Financial Regulation:** To prevent future financial crises, the G20 has implemented financial regulations, including banking reforms and measures to combat money laundering and corruption.
- **Global Health:** The COVID-19 pandemic highlighted the importance of global health cooperation. G20 nations collaborate on vaccine distribution, pandemic preparedness, and strengthening healthcare systems.
- **Humanitarian Aid:** The G20 supports humanitarian efforts, addressing crises such as famine and refugee displacement through coordinated aid and assistance.
- **Infrastructure Investment:** Investing in infrastructure is a cornerstone for economic growth. G20 discussions often revolve around funding and implementing large-scale infrastructure projects.
- **Job Creation:** Unemployment and underemployment are common challenges. G20 nations work on policies to create jobs and ensure a skilled workforce.
- **Knowledge Sharing:** Knowledge exchange is fundamental. G20 meetings facilitate the sharing of best practices and expertise across various domains.
- **Labor Rights:** Protecting workers' rights is essential. G20 members discuss labour standards and policies that promote fair working conditions.
- **Multilateralism:** The G20 reinforces the importance of multilateral cooperation, advocating for a rules-based international system.
- **Nuclear Security:** Preventing nuclear proliferation and ensuring nuclear security are high-priority topics discussed within the G20.
- **Ocean Conservation:** Protecting marine ecosystems is a shared concern. The G20 addresses issues like overfishing, marine pollution, and sustainable fishing practices.
- **Poverty Alleviation:** The G20 aims to reduce poverty by addressing income inequality and promoting inclusive economic growth.
- **Quality Education:** Education is a key driver of development. G20 discussions include strategies to improve access to quality education globally.
- **Refugees and Migration:** The G20 addresses the challenges associated with refugee and migrant movements, emphasizing humanitarian approaches and regional stability.
- **Sustainable Development:** The United Nations' Sustainable Development Goals are a central focus. G20 nations work together to achieve these goals by 2030.
- **Technology Governance:** Technological advancements are shaping our future. The G20 debates issues like data privacy, cybersecurity, and digital inclusion.
- **Universal Healthcare:** Access to healthcare is a human right. G20 discussions explore ways to improve healthcare systems worldwide.
- **Vaccine Equity:** Ensuring equitable access to vaccines remains a critical priority, especially during global health crises.
- **Women's Empowerment:** Gender equality and women's empowerment are integral to the G20 agenda, promoting economic opportunities and social inclusion for all.

- **Xenophobia and Discrimination:** The G20 condemns xenophobia and discrimination, fostering inclusive societies that respect diversity and human rights.

**Outcomes:**

- The African Union joined the G20 as a permanent member.
- A new organisation called the Global Biofuel Alliance (GBA) was launched, to promote the development and adoption of sustainable biofuels, and set relevant standards and certification.
- The New Delhi Leaders Declaration was adopted with consensus.
- A group of countries made a joint agreement to build a rail and shipping corridor linking India with the Middle East and Europe called the India-Middle East-Europe Economic Corridor. The group comprises India, Saudi Arabia, the United Arab Emirates, Jordan, Israel and the European Union.

**Dhatri Raj G, 2<sup>nd</sup> SEBA**

# हिन्दी विभाग

डा. विजयकुमार सूर्यवंशी

एम. ए. एम.एड., पीएच.डी.

हिन्दी प्राध्यापक

सिंधी सेवा समिति द्वारा संचालित सिंधी पदवी पूर्व महाविद्यालय चोकनहल्लि, बेंगलूरु में एक नामांकित महाविद्यालय है। कालेज का हिन्दी विभाग बहुत ही विशाल है। विज्ञान, वाणिज्य और कला विभाग से सबसे अधिक विद्यार्थी हिन्दी भाषा का अध्यायन कर हिन्दी साहित्य और राजभाषा के विकास में अपना सहयोग दे रहे हैं।

## विभाग की दृढ़दर्शिता (विजन) और उद्देश्य (मिशन)

### दृढ़दर्शिता (विजन)

1. विद्यार्थियों को सामाजिक दृष्टि से जागरूक करना तथा बौद्धिक दृष्टि से सामर्थ्यवान बनाना ताकि वे सफलतापूर्वक रोजगार के योग्य बन सकें।
2. छात्रों के सर्वांगीण विकास के लिए विभाग के द्वारा समय-समय पर सांस्कृतिक कार्यक्रमों का आयोजन कर रचनात्मकता का विकास करना।

### उद्देश्य (मिशन)

1. ज्ञान की प्राप्ति के लिए अनुकूल वातावरण का निर्माण करना।
2. शाश्वत महत्व रखने वाली शिक्षा को प्रोत्साहन देना।
3. आधुनिक शिक्षा का उद्देश्य ज्ञान का विस्तार करना, व्यवसायिक शिक्षा को प्रोत्साहन देना और सामाजिक, राष्ट्रीय एकता का विकास कर देश का आधुनिकीकरण करना।

महाविद्यालय का हिन्दी विभाग अपने सुयोग्य अध्यापकों के बल पर ज्ञान के प्रसार की परंपरा का निर्वाह कर रहा है। विभाग के अध्यापक साहित्य के अध्येता हैं, और लगातार अपने लेखन कार्य से हिन्दी साहित्य जगत को समृद्ध कर रहे हैं। छात्रों के समग्र व्यक्तित्व निर्माण के लिए काम कर रहे हैं। समय-समय पर आयोजित संगोष्ठियों और कार्यशालाओं में छात्रों को विषय के विशेषज्ञों के साथ संवाद का अवसर प्राप्त कर देता है।

भाषा के अध्यापन के साथ-साथ अनेक प्रतियोगिता – जैसे वाद-विवाद, निबंध, भाषण, कविता वाचन का आयोजन कर छात्रों में कला-कौशल का विकाश किया जाता है। विभाग द्वारा राष्ट्रीय त्यौहार मनाने के साथ-साथ हिन्दी भाषा से संबंधित हिन्दी दिवस, गांधी जयंती, अतिथि प्रवक्ता व्याख्यान का आयोजन कर छात्रों का सर्वांगीण विकास किया जाता है। हिन्दी भाषा के माध्यम से छात्रों में भेदभाव मिटाकर एकता लाने का कार्य किया जाता है। उत्तम और कौशल पर आधारित शिक्षण पर जोर दिया जाता है। मौखिक शिक्षण से अधिक प्रायोगिक शिक्षण पर बल दिया जाता है। हिन्दी सुनने, बोलने, पढ़ने, लिखने में कुशल बनाया जाता है। इस कार्य को सुचारू रूप से चलाने के लिए कालेज की प्राचार्या, उपप्राचार्या, और प्रबंध समिति का सहयोग सहर्ष प्राप्त होता है।

किसी विभाग की असली पहचान छात्रों की उपलब्धियों से की जाती है। सिंधी कालेज के हिन्दी भाषा के छात्रों ने विभाग का नाम रौशन किया है। आज विभाग के कई छात्र आजीविका (करियर) और अकादमिक जीवन में सफलता की नयी उंचाइयों को छू रहे हैं। हिन्दी विभाग छात्रों के भविष्य और सक्रियता को ध्यान में रखकर क्रियाशील रहता है। छात्रों को पाठ्य प्रणाली के साथ-साथ नैतिक शिक्षा भी देता है। प्रत्येक वर्ष सौ (100%) प्रतिशत परीक्षा फ़ल देने का प्रयास करता है।



## अध्यापक

डा. विजयकुमार सूर्यवंशी  
हिन्दी प्राध्यापक

विद्यार्थियों के सर्वांगीण विकास में अध्यापक को महत्वपूर्ण कार्य करना पड़ता है विद्यार्थियों का शारीरिक मानसिक बौद्धिक, सामाजिक विकास एक अध्यापक ही कर सकता है। वैज्ञानिक शिक्षण पद्धति का प्रयोग कर विद्यार्थियों को प्रभावित कर सकता है। विद्यालय जीवन में अध्यापक आत्मा के समान होता है। आत्मा के बिना शरीर (विद्यालय) निर्जीव होता है। वह भविष्य का निर्माण करता है। एक राष्ट्र का मार्गदर्शन सभ्यता और संस्कृति का संरक्षक होता है। भारत में अध्यापक को ब्रह्मा का रूप माना जात है।

### अध्यापक के गुण:

**1. प्रभावशाली व्यक्तित्व:** अध्यापक का व्यक्तित्व अत्यंत आकर्षक और प्रभावशाली होना चाहिए। उसके बैठने, उठने, चलने-फिरने में संजीवता होनी चाहिए। प्रभावशाली व्यक्तित्व का अध्यापक विद्यार्थियों पर अपना प्रभाव डाल सकता है।

**2. उत्साह:** अध्यापक को अपना कार्य उत्साह के साथ करना चाहिए। वास्तव में एक सफल अध्यापक वही होता है जो अपने प्रत्येक कार्य को अत्यंत उत्साह के साथ करता है।

**3. विषय का ज्ञाता:** एक अच्छे अध्यापक को अपने विषय का पर्याप्त ज्ञान होना चाहिए। इसके बल पर ही वह कक्षा में विश्वास के साथ पढ़ा सकता है। विषय का ज्ञान शिक्षक को सफल शिक्षण के योग्य बनाता है।

**4. व्यावसायिक प्रशिक्षण:** अध्यापक को व्यावसायिक प्रशिक्षण प्राप्त करना चाहिए। प्रशिक्षण अध्यापकों की दुर्बलताओं तथा कमजोरी को दूर करता है। सफल शिक्षक शिक्षण को परिमार्जित करता है।

**5. मनोविज्ञान का ज्ञान:** अध्यापक को अपने विषय के ज्ञान के साथ मनोविज्ञान का व्यावहारिक ज्ञान भी होना चाहिए। जिसके द्वारा वह छात्रों की मनोवृत्तियों का अध्ययन कर उनकी समस्याओं का समाधान कर सके। मनोविज्ञान की सहायता से बालकों की व्यक्तिगत विशेषताएं, विभिन्नताएं, प्रकृति, आदत, व्यवहार आदि का ज्ञान कर सकता है।

**6. सहनशीलता और धैर्य:** एक अध्यापक को सहनशील और धैर्यवान का होना आवश्यक है। एक सहनशील अध्यापक बालक को अनुचित, अनुशासनहीन कार्य करने से रोकता है। उसके परिणामों से अवगत कराता है।

**7. वेशभूषा:** विद्यार्थियों पर अध्यापक की वेशभूषा का अधिक प्रभाव पड़ता है। कक्षा के अंदर साफ सुथरे कपड़े पहन कर जाना चाहिए। अत्यधिक फैशन के साथ विद्यालय आना उचित नहीं। ढीले-ढाले गंदे कपड़े पहनना पूर्णतया शोभनीय है।

**8. समय की पाबंदी:** अध्यापक विद्यालय में समय पर नहीं आएंगे तो छात्रों से समय पर आने की आशा करना पूर्णतया व्यर्थ है। प्रत्येक अध्यापक का कर्तव्य है कि, वह विद्यालय के अंदर समय पर आए। समय की पाबंदी का छात्रों पर बड़ा अच्छा प्रभाव पड़ता है।

**9. सामाजिकता की भावना:** आधुनिक युग में प्रत्येक विद्यालय समाज से संबंधित है। दूसरे शब्दों में कह सकते हैं कि, स्कूल सामाजिक संस्था है। इसलिए अध्यापक के अंदर भी सामाजिक गुणों का होना आवश्यक है। एक अध्यापक यदि समाज से दूर भगाने का प्रयत्न करता है, तो वास्तव में एक सफल अध्यापक नहीं हो सकता।

**10. अध्ययनशीलता:** अध्यापक स्वयं अध्ययन की ओर ध्यान नहीं देता तो वह छात्रों को सफलतापूर्वक एवं पर्याप्त ज्ञान नहीं दे सकता। इसीलिए एक अध्यापक को अध्ययनशील होना चाहिए। इससे उसका ज्ञान भंडार और शिक्षण कला में सुधार होता है।

उपर्युक्त गुणों के अतिरिक्त प्रत्येक अध्यापक का कर्तव्य है कि वह अपने को निम्न बातों से ऊपर उठाए। उसे चाहिए की यथा संभव अपने को गलत बातों से दूर रखें। उसके द्वारा किया गया कोई भी काम अध्यापक के व्यवसाय पर एक कलंक लगा सकता है।



## हिंदी दिवस

### प्रस्तावना:

हिंदी दिवस, जो हर साल **14 सितंबर** को मनाया जाता है, हमारी भाषा और साहित्य की महत्वपूर्ण भूमिका का जश्न मनाने का अवसर है। इस लेख में, हम हिंदी दिवस के महत्व, हमारी भाषा का महत्व, और हिंदी की महानता को समझने का प्रयास करेंगे।

### हिंदी भाषा का महत्व:

हिंदी भाषा भारत की एकता और विविधता का प्रतीक है। यह भाषा देशभर में बोली जाती है और इसका महत्व विशेष रूप से भारत की राष्ट्रीय भाषा के रूप में है। हिंदी दिवस हमें याद दिलाता है कि हमारी भाषा हमारी जाति, धर्म, और क्षेत्रीय विविधता के बावजूद, हम सभी को एक साथ ले चलती है।

### हिंदी साहित्य का धरोहर:

हिंदी भाषा का महत्व सिर्फ उसकी बोलचाल में ही नहीं, बल्कि साहित्यिक दृष्टिकोण से भी है। भारतीय साहित्य में हिंदी का स्थान अत्यधिक महत्वपूर्ण है। अद्भुत कवियों और लेखकों ने हिंदी में अनमोल रचनाएँ दी हैं, जिनसे हमारी संस्कृति और भाषा की गरिमा बढ़ी है।

### हिंदी की महानता:

हिंदी दिवस पर हम हिंदी के महानता को समझने का अवसर प्राप्त करते हैं। संस्कृति, ग्रंथ, और धार्मिक ग्रंथों का कई शताब्दियों से उपयोग हिंदी में होता आ रहा है। वेदों से लेकर महाभारत, गीता और रामायण, सभी हिंदी भाषा में हैं, जो हमारे समृद्ध धार्मिक और सांस्कृतिक विरासत का हिस्सा हैं।

### हिंदी दिवस का महत्व:

हिंदी दिवस हमें हमारी राजभाषा के महत्व को समझने का मौका देता है। यह दिवस हमें हिन्दी के साथ जुड़े गर्व और सम्मान का अहसास कराता है। इस दिन हमें हिन्दी के लिए आभारी होना चाहिए और हमें इसकी सुरक्षा और संरक्षण के प्रति समर्पित रहना चाहिए।

### निष्कर्ष:

हिंदी दिवस हमारे देश के सभी वर्गों के लिए एक महत्वपूर्ण दिन है, जो हमें हिन्दी भाषा और साहित्य के महत्व को समझने का अवसर प्रदान करता है। इस दिन हमें अपनी राजभाषा के प्रति आभारी होना चाहिए और हमें इसकी संरक्षण और प्रशंसा करनी चाहिए, क्योंकि "हिन्दी भाषा - हमारी पहचान, हमारी शान" है, और यह हमारी एकता का प्रतीक है।

## राधा - कृष्ण की अमर प्रेम कथा

### प्रस्तावना:

राधा कृष्ण की प्रेम कथा भारतीय साहित्य और धर्म की एक महत्वपूर्ण प्रतिमूर्ति है। यह प्रेम कथा महाभारत के श्रीमद् भगवद् गीता पुराणों और कई लोककथाओं में प्रस्तुत है। इसके माध्यम से दिखता है कि प्रेम और भक्ति की महत्वपूर्णता क्या होती है।

**राधा कृष्ण की प्रेम कथा:** राधा कृष्ण की प्रेम कथा वृंदावन के गोपियों और गोपों के बीच के प्रेम की कथा है। राधा गोपियों की रानी थी और कृष्ण गोपों के राजा थे। इनका प्रेम बीरह भाव से भरपूर था, लेकिन उनकी आत्मा एक थी।

राधा कृष्ण की अनूठी प्रेम कहानी में कृष्ण की चालाकियाँ और राधा रानी की निरंतर विश्वासशीलता एक अद्वितीय धोतक है। कृष्ण की छलांगें और रासलीलाओं में उनका प्रेम दर्शाया गया है, जो प्रेम की उच्चतम श्रृंगारिक अभिव्यक्ति के रूप में मानी गयी है।

राधा कृष्ण की प्रेम कथा विशेष रूप से भक्ति और साधना के प्रतीक के रूप में मानी जाती है। इनका प्रेम निरंतर भगवान की आराधना और उनके साथ दिन रात बिताने की एक मिसाल है।

### राधा कृष्ण प्रेम कथा के कुछ सच्चे उदाहरण:

1. मीराबाई राजपूताना की रानी, ने अपने अंतरात्मा की प्रेम कथा को राधा कृष्ण के प्रेम के संबंध में दिखाया। वह अपने भगवान कृष्ण से अपनी आत्मा की अद्वितीय बंधन की बात करती थी और उनकी कविताओं में उनके प्रेम की उच्चतम भावनाओं का वर्णन किया।
2. मुक्तक उपहार: एक दिन, गोपियाँ राधा रानी को पाने के लिए सुंदर मुक्तक लाए। कृष्ण ने पूछा कि किसके लिए यह मुक्तक है और जब गोपियों ने उत्तर नहीं दिया तो कृष्ण ने उन्हें आशीर्वाद दिया कि यह मुक्तक राधा की ही है क्योंकि वह ही सबसे प्रेमिक और महत्वपूर्ण है।
3. माखन चोरी: बचपन में कृष्ण ने माखन चोरी की कहानियाँ की थीं। एक दिन उनके दोस्त गोपियाँ माखन खाने के लिए उनके पास आईं लेकिन भगवान कृष्ण ने चुपके से उनसे पास माखन लेने के लिए उन्हें रोक दिया और बातचीत करने नायिका के साथ खेलने की खुशी और प्रेम की प्रतीति को दिखाती है।
4. रासलीला: वृंदावन के कुछ रातों में, कृष्ण ने गोपियों के साथ रासलीला किया, जिसमें वे गोपियों के साथ नृत्य किया और, उनके प्रेम की खुशी में लीलाए की। इसके माध्यम से उन्होंने अपने प्रेमिका के प्रति उनके अत्यधिक प्रेम को प्रकट किया।

### निष्कर्ष:

राधा कृष्ण की अमर प्रेम कथा भारतीय साहित्य का एक महत्वपूर्ण भाग है, जो प्रेम और भक्ति की महत्ता को सिखाती है। यह कथा हमें यह सिखाती है कि प्रेम में अलग होने के बावजूद भक्ति की आत्मा एक होती है और यह सिर्फ दैहिक भावनाओं से परे होती है। इसके माध्यम से हमें यह सिखने को मिलता है कि वास्तविक प्रेम और भक्ति केवल दृढ़ आत्मविश्वास और अटल श्रद्धा पर आधारित होती है।

## गणेश चतुर्थी

**गणेश चतुर्थी** हिन्दूओं का एक प्रमुख त्योहार है और पुराणों के अनुसार इसी दिन गणेश जी का जन्म हुआ था। गणेश चतुर्थी पर भगवान गणेश जी की पूजा की जाती है। यह त्योहार भारत के विभिन्न भागों में मनाया जाता है और जगह - जगह पर भगवान गणेश की बड़ी - बड़ी प्रतिमा स्थापित की जाती है। १० दिन तक प्रतिमा का पुजन किया जाता है। तथा ११ वे दिन गाजे बाजे के साथ नाचते झुमते श्री गणेश जी की प्रतिमा का विसर्जन किया जाता है।

**गणेश उत्सव १० दिनो तक क्यों मनाते हैं** - कहा जाता है कि एक बार वेदव्यास जी, गणेश जी को महाभारत की कथा सुना रहे थे, उस कथा को सुनाने में वेदव्यास जी को १० दिन लग गए, उन १० दिन तक गणेश जी ने अपने नेत्र बंद कर लिए और जब १० दिन बाद गणेश जी ने आंखें खोली तो भगवान गणेश का तापमान बहुत बढ़ गया था। उसी समय वेदव्यास जी ने गणेश जी को पास में स्थित एक कुंड में स्नान करवा दिया, जिसके बाद गणेश जी के शरीर का तापमान कम होता हुआ प्रतीत हुआ। यही कारण है, गणेश जी की मूर्ति की स्थापना करने के बाद १० दिन तक गणेश जी को विराजमान रखा जाता है और उनकी पूजा की जाती है और फिर ११वे दिन उनका विसर्जन किया जाता है।

**गणेश चतुर्थी से जुड़ी कथा** - एक बार पार्वती माता ने अपने तन के मैल से एक पुतला बनाया और उसका नाम गणेश रखा तब महादेव जी स्नान करने के लिए भोगावती गए थे तब पार्वती जी ने गणेश से कहा "हे पुत्र, तुम द्वार पर जाकर खड़े हो जाओ। मैं भीतर स्नान करने जा रही हूँ जब तक मैं स्नान करूँ, तब तक तुम किसी भी पुरुष को भीतर मत आने देना। "

अपनी माता के आदेशानुसार जब महादेव भोगावती से वापस आए तब गणेश जी ने उन्हें द्वार पर रोक लिया इससे शिवजी को क्रोध आ गया और उन्होंने क्रोध में गणेश जी का सिर धड़ से अलग कर दिया और अंदर चले गए। पार्वती जी न महादेव को देखकर तुरंत भोजन परोस दिया, और एक थाली गणेश के लिए भी लगा दी। तो शिव जी ने पुछा "यहा एक और थाली किसकी है ? " तब माता पार्वती बोली - "यह मेरे पुत्र गणेश के लिए है जो बाहर द्वार पर पहरा दे रहा है। " तब शिवजी ने अपने और गणेश के बीच हुई घटना के बारे में पार्वती माता को बताया, यह सुनकर पार्वती जी बहुत दुखी हुई उनके विलाप को कम करने के लिए शिवजी ने एक हाथी के बच्चे का सिर काटकर, बालक के धड़ से जोड़ दिया। पार्वती जी इस प्रकार पुत्र गणेश को दोबारा पाकर बहुत प्रसन्न हो गईं। यह घटना भाद्र-पद मास की शुबल चतुर्थी को हुई थी, इसलिए यह तिथि पर्व के रूप में मनाई जाती है।

**निष्कर्ष:** - गणेश चतुर्थी आने से पहले बाजारों में चारों ओर गणेश जी की अलग-अलग मूर्तियों के दर्शन करने को मिलते हैं, ऐसा प्रतीत होता है मानो बाजार में कोई मेला सा लग जाता है। गणेश चतुर्थी पर हर एक मंदिर के नजारे देखने लायक होता है, ऐसा प्रतीत होता है मानो जैसे घर में किसी बालक के जन्म पर कोई खुशियां मनाई जाती है वैसे ही, खुशियां इन ११ दिन में हर एक घर में देखने को मिलती हैं।

**संदेश:** - जब भगवान गणेश बाल अवस्था में थे तो उनका युद्ध ब्रह्म ऋषि परशुराम से हो गया। युद्ध में परशुराम ने क्रोध में आकर गणेश के ऊपर प्रहार किया और गणेश का एक दांत कट गया। एक दांत कट जाने के कारण गणेश का नाम एकदंत कहा जाने लगा परंतु गणेश जी ने उस टूटे हुए दांत का भी एक सदुपयोग ढूंढा जो उनकी कुशाग्र बुद्धि का प्रतीक है, उन्होंने उस टूटे हुए दांत का इस्तेमाल लेखन में किया और, यह संदेश दिया कि सरात्मकता के साथ कैसे जीवन में आगे बढ़ा जा सकता है।

**सीख:** - गणेश जी का प्रत्येक अंग कुछ ना कुछ सीख देता है, जैसे उनकी छोटी-छोटी आंखें जो जीवन में सूक्ष्म लेकिन तीक्ष्ण दृष्टि रखने की प्रेरणा देती हैं।

- शिवंगी चूरसिया, 2<sup>nd</sup> HEBA

## सोशल मीडिया का युवापीढ़ी पर प्रभाव

### प्रस्तावन:

सोशल मीडिया ने आधुनिक जीवन को एक नई दिशा देने के साथ - साथ युवा पीढ़ी के जीवन पर भी गहरा प्रभाव डाला है। यहाँ तक की इसका युवा पर भी असर पड़ रहा है। सोशल मीडिया के प्रति युवापीढ़ी की दृष्टि, विचारधार और सोच में बदलाव की बात करने का यह निबंध है।

**सोशल मीडिया का प्रभाव:** सोशल मीडिया के आगमन से युवा पीढ़ी के जीवन में कई प्रकार के परिवर्तन आए हैं। उनकी सोच, रुचिया और विचारधार में वृद्धि देखी जा सकती है। सोशल मीडिया ने युवाओं को विश्वभर में हो रही घटनाओं और चुनौतियों से अवगत कराया है जिनसे उनके ज्ञान और जागरूकता में सुधार हुआ है।

**सकारात्मक प्रभाव:** सोशल मीडिया ने युवापीढ़ी को सकारात्मक दिशा में भी प्रेरित किया है। वे विभिन्न जानकारीयों और ज्ञान स्रोतों का उपयोग करके नए कौशल सीखने में सक्षम होते हैं और सामाजिक बदलाव की ओर पहले से अधिक योगदान करने हैं।

**नकारात्मक प्रभाव:** हालांकि सकारात्मक पहलुओं के साथ सोशल मीडिया ने युवा के जीवन में नकारात्मक प्रभाव भी डाले हैं। यहाँ उन्हें समय की बर्बादी की ओर ले जा सकता है, और उनकी आत्म - समर्पण का भाव पैदा कर सकता है।

**व्यक्तिगत संबंधों पर प्रभाव:** सोशल मीडिया ने युवापीढ़ी के व्यक्तिगत संबंधों पर भी प्रभाव डाला है। यह उन्हें विश्वभर में नए लोगों से जुड़ने का मौका देता है, लेकिन कई बार इसका प्रभाव यह भी हो सकता है कि वे अपने आस - पास के व्यक्तियों से दूर हो जाएंगे।

**निष्कर्ष:** सोशल मीडिया का युवापीढ़ी पर प्रभाव सकारात्मक और नकारात्मक दोनों होता है। यह उनकी सोच, विचारधारा, रुचियों और सोशल इंटरैक्शन पर असर डालता है। युवापीढ़ी को सोशल मीडिया का सही तरीके से उपयोग करके अपने लक्ष्यों की प्राप्ति में मदद करनी चाहिए और नकारात्मक प्रभावों से बचने के उपायों को ध्यान में रखना चाहिए।

- साक्षी एस हीरेमटः, 1<sup>st</sup> CEBA - A

## बेटी बचाओ, बेटी पढ़ाओ

"बेटी बचाओ, बेटी पढ़ाओ" एक महत्वपूर्ण सोच है जो हमारे समाज की आवश्यकता है। यह एक संकेत है कि हमें लड़कियों के अधिकार को सुनिश्चित करना चाहिए और उन्हें एक बेहतर जीवन की संधाना करने का मौका देना चाहिए। इस निबंध में, हम इस मोहिम के महत्व को समझेंगे और इसके लाभों की चर्चा करेंगे।

"बेटी बचाओ, बेटी पढ़ाओ" का मुख्य उद्देश्य है लड़कियों को समाज में समानता और समरसता की ओर बढ़ाना है। इस समाज में जातिवाद, लिंगात्मक भेदभाव, और बेटी के जन्म पर प्रतिबंध डालने के रूझानों के चलते लड़कियाँ कई समस्याओं का सामना करती हैं। बेटी बचाओ का दूसरा महत्वपूर्ण पहलू है शिक्षा को प्रोत्साहन देना। शिक्षा एक महत्वपूर्ण उपाय है जिससे लड़कियाँ अपने लक्ष्यों को प्राप्त कर सकती हैं और स्वयं को समर्पित कर सकती हैं। शिक्षित लड़कियाँ समाज के साथ समरस रूप से जुड़ सकती हैं और अधिक आत्मनिर्भर बन सकती हैं। इस प्रक्रिया में, सरकार और सामाजिक संगठनों की महत्वपूर्ण भूमिका होती है। वे बेटी बचाओ, बेटी पढ़ाओ के तहत और योजनाएँ बना सकते हैं जो लड़कियों के लिए शिक्षा की उपलब्धता को बढ़ावा देती हैं।

समापन के रूप में, "बेटी बचाओ, बेटी पढ़ाओ" ने हमें यह सिखाया है कि हमें लड़कियों के समाज में समान अधिकार और अवसर प्रदान करने की दिशा में कदम बढ़ाना चाहिए। यह एक महत्वपूर्ण मोहिम है जो हमारे समाज को मानवाधिकार और सामाजिक समानता की दिशा में अग्रसर करने में मदद कर सकती है।

"बेटी बचाओ, बेटी पढ़ाओ" से शुरुआत करना हम सभी की जिम्मेदारी है और इसका पालन करने से हम एक समृद्धि और समरस समाज की ओर कदम बढ़ा सकते हैं।

- कीर्तना, 1<sup>st</sup> CEBA- A

## विद्यार्थी और अनुशासन

### "शिक्षा का महत्व और अनुशासन - विद्यार्थी के जीवन में अद्वितीय भूमिका"

अनुशासन, जीवन की एक महत्वपूर्ण गुणवत्ता है, जो विद्यार्थी के जीवन में गहरे प्रभाव की भूमिका निभाता है। शिक्षा का महत्व भी उससे काटना मुश्किल है, क्योंकि यह विद्यार्थी को सफलता की दिशा में मार्गदर्शन करता है, उसे ज्ञान प्रदान करता है, और उसकी विचारशीलता कौशल को पोषित करता है।

विद्यार्थी के जीवन में अनुशासन के महत्व को समझने के लिए, हमें इसके कुछ महत्वपूर्ण पहलुओं को देखना होगा:

1. **\*समय प्रबंधन\*:** अनुशासन विद्यार्थियों को समय का सही उपयोग करने की आदत देता है। यह उन्हें अपने अध्ययन, खेल, और अन्य गतिविधियों के बीच संतुलन बनाने में मदद करता है।
2. **\*स्वास्थ्य और फिटनेस\*:** अनुशासन विद्यार्थियों को स्वस्थ जीवनशैली की महत्वपूर्णता समझाता है। वे नियमित व्यायाम का आदर करते हैं और स्वस्थ आहार की ओर प्रवृत्त होते हैं।
3. **\*ज्ञान और प्रशिक्षण\*:** अनुशासन विद्यार्थियों को नियमित अध्ययन और सीखने के लिए प्रोत्साहित करता है। यह उन्हें उनके उच्चतम लक्ष्यों की प्राप्ति के लिए विचार करने और कठिनाइयों को पार करने के लिए सामर्थ्य प्रदान करता है।
4. **\*सामाजिक उत्तरदायिता\*:** अनुशासन सामाजिक जवाबदारी की भावना को बढ़ावा देता है। यह विद्यार्थियों को सही और गलत के बीच अंतर करने की क्षमता देता है, जो समाज में सहमति और सामंजस्य को बढ़ावा करता है।
5. **\*व्यक्तिगत विकास\*:** अनुशासन व्यक्तिगत विकास में महत्वपूर्ण भूमिका निभाता है। यह गुणों जैसे कि दिनचर्या, जिम्मेदारी, और समय प्रबंधन को पोषण देता है। विद्यार्थी लक्ष्य तय करने, उन पर काम करने, और बाधाओं को पार करने के लिए इन कौशलों की आवश्यकता होती है, जो किसी भी प्रयास में सफलता पाने के लिए महत्वपूर्ण हैं।

इसके रूप में, अनुशासन विद्यार्थी के जीवन में एक महत्वपूर्ण संग्रहणीय आशीर्वाद का एक महत्वपूर्ण हिस्सा है। यह उन्हें ज्ञान, विचारशीलता कौशल, और जिम्मेदारी की ओर मोड़ने के लिए बेहद मदद करता है, जो आज की दुनिया में अनमोल है। इसलिए, अनुशासन के निवेश को एक बेहतर कल के लिए एक बेहतर निवेश के रूप में देखना चाहिए।

- आदित्य, 2<sup>nd</sup> CEBA

## कालेज जीवन

कालेज जीवन एक ऐसा समय होता है जब विद्यार्थी अपने शिक्षा के पथ पर नए कदम रखता है और समृद्धि, ज्ञान और व्यक्तिगत विकास की ओर बढ़ता है। यह नई संभावनाओं और स्वतंत्रता की नयी दिशा की शुरुआत होती है। इस निबंध में, हम कालेज जीवन के महत्वपूर्ण पहलुओं पर विचार करेंगे।

कालेज जीवन स्वतंत्रता की एक नयी दिशा की शुरुआत होती है। विद्यार्थी अब अपने शिक्षा के क्षेत्र को चुन सकता है और अपनी प्राथमिकताओं के अनुसार पढ़ाई कर सकता है। यह उसे आत्मनिर्भरता की अनुभूति कराता है और उसे अपने आप पर विश्वास बढ़ता है।

कालेज जीवन में विद्यार्थी को उसके चयन के विषयों में गहरा अध्ययन करने का अवसर मिलता है। वह अपने रुचिकर विषयों का अध्ययन करके उसमें विशेषज्ञता प्राप्त कर सकता है। यह उसकी व्यक्तिगत रुचियों की पुनर्तः खोज होती है और उसे उसके पूरे जीवन के लिए ज्ञान की दिशा में अग्रसर होने का माध्यम प्रदान करती है। कालेज जीवन उस समय की शुरुआत होती है जब विद्यार्थी नए मित्र बनाता है और नए दोस्ती के बंधन बनते हैं। यह एक महत्वपूर्ण अवसर होता है साथी और मित्रों के साथ समय बिताने का, जिससे वह सामाजिक और मानसिक रूप से विकसित होता है।

कालेज जीवन विद्यार्थी को स्वतंत्रता का अद्यतन करने का मौका देता है। वह अपने स्वतंत्र विचारों को व्यक्त करने में स्वतंत्र होता है और नए विचारों का संवाद करता है। यह उसकी व्यक्तिगतता और आत्म-समर्पण की मान्यता करता है।

कालेज जीवन एक महत्वपूर्ण चरण होता है जो विद्यार्थियों को नई सोच, नई संभावनाओं और स्वतंत्रता के पथ पर ले जाता है।

- सलोनी, 2<sup>nd</sup> CEBA

## कविता संग्रह

### राष्ट्रभक्ति - दिल से लहराता है भारत का गर्व

स्वतंत्रता की धारा, हर दिल में बहती है,  
वीरता के संकल्प से, हर बच्चे की आँखों में सवेरा है।  
सैनिकों का बलिदान, देश के लिए महत्वपूर्ण है,  
गीत गाते हैं वे, हर बुद्धिमान भारतीय के लिए।  
तिरंगा लहराना, गर्व से भर देता है हमें,  
अपने देश के लिए, हर कठिनाई को अपने आप में बांध लेता है हमें।  
राष्ट्र की भक्ति, हमारी मातृभूमि के प्रति हमारा संकल्प,  
यही बनाता है हमें सच्चे भारतीय का महत्वपूर्ण बिडा।  
सोने की धारा के तले, हम सब एक हैं परिपक्व,  
राष्ट्रभक्ति का आदर्श, हर भारतीय की आँखों में स्थिर रहता है।

- निशांत, 2<sup>nd</sup> CEBA

### कृष्ण जन्माष्टमी

कृष्ण की मधुर बांसुरी की मधुर आवाज,  
जन्माष्टमी के पावन दिन का खुशियों का संकेत।  
माखन चोर, नन्हे मुरलीधर का आगमन,  
नन्हे कान्हा के प्यार में डूबे हैं हम सब यहाँ।  
गोपियाँ करती हैं गोपाल का मनमोहन,  
रास लीला का रंग, है सबकी आँखों का सोहना।  
श्रीकृष्ण की बाल लीला, नंदलाल का माखन चुरान,  
जन्माष्टमी के इस पवित्र दिन पर, लहे हैं हम सब मान।  
माखन मिश्री, धूप, और पूजन की विशेष अर्चना,  
कृष्ण की प्रेम भक्ति से भरा है हमारा मन।  
आपकी आराधना में खो जाओ यहाँ,  
कृष्ण जन्माष्टमी का मनाओ, जय श्रीकृष्ण कहो हम।

- मयंक ठाकुर 1<sup>st</sup> CEBA



## पिता -परम प्रेरणा का स्रोत

पिता, तुम्हारी ममता, तुम्हारी ममता, तुम्हारे बिना अधूरा है,  
जीवन के सफर में तुम्हारे साथ हमें हर कदम पर तोहफा है।  
आपकी ममता, आपकी छाया, हर कठिनाई में हमारा साथ,  
आपके बिना जीवन अधूरा, है यह हमारी आवाज का सार्थक मात्र अर्थ।  
आपके आशीर्वाद से हम चलते हैं जीवन की राहों पर,  
पिता की ममता, हमारे दिल की धड़कन, आपके बिना यह दुनिया अधूरा है हमारे लिए।

- नेहा बोहरा, 2<sup>nd</sup> HEBA

## आजादी

आजादी की महक अब फिर आई,  
वीरों की लहर में फिर से लहराई।  
देश की धड़कन, वीरता की पुकार,  
वीर सपूतों ने दिखाई अपनी ताकत यार।  
स्वतंत्रता की ओर बढ़ते कदम,  
बलिदानी वीरों का रहता है गीत याद।  
दिल में बसी है उनकी आवाज़,  
जो कहती है कहानी उनके संघर्ष की राज।  
देशभक्ति की आग में जलता यह जीवन,  
हर दिन मनाते हैं हम उनके बलिदानों की जश्र।  
आजादी की प्राप्ति को हम याद करें,  
वीरों के सपनों को हम साकार करें।

- श्रवण कुमार चौधरी, 2<sup>nd</sup> HEPS

## सशक्त भारत के मुख्य नेता, नरेंद्र मोदी जी!

नरेंद्र मोदी जी, देश के मानने योग्य,  
सेवा में जुटे, विकास के पथ पर आगे।  
सृजनात्मक दृष्टि, विकल्पों की दाद देते,  
सपनों को साकार कर, देश को उन्नति देते।  
"सबका साथ, सबका विकास" उनकी शिक्षा है,  
युवा शक्ति को उत्साहित कर, नया भारत बनाना है।  
"सबका साथ, सबका विश्वास" उनका मार्गदर्शन,  
एक बेहतर भविष्य के लिए है उनका संकल्प और काम।  
नरेंद्र मोदी जी, आपके आदर्श बच्चों के लिए है,  
आपके साथ है हम, जय हिन्द का गान गाते है।

- भूमि चंद्र, 2<sup>nd</sup> CEBA

## आदरणीय शिक्षक

शिक्षक हमारे मार्गदर्शक, ज्ञान का सागर,  
जीवन के पथ पर हमे करते हैं अग्रसर।  
नूर की किरने जैसे उनकी बाते हो,  
हमें रौशनी देते, ज्ञान की वो।  
सिखाते है हमे अक्षरण की चमक,  
अद्यतन ज्ञान से हमे करते है लबा-लब।  
मानवता के मार्ग पर चलने की राह,  
दिखलाते हैं वह हमे, अपने उदाहरण से।  
गुरुत्वाकर्षण से भरपूर होती उनकी शक्ति,  
छात्रों को प्रेरित करते वह, हर एक कदम पर।  
सिखाने की भूख जैसे न बुझती कभी,  
हेमे प्रेरित करते, उनके विचार सदा।  
शिक्षक है हमारे दिलों के करीब,  
जीवन के सफ़र में, हेमे देते है सहारा।  
आपके बिना कैसे चलता ये जीवन,  
हमें बतलातीं है कविता, शिक्षक हमारे अद्यतन।

- अंजलि गुप्ता, 2<sup>nd</sup>CEBA

## गणेश चतुर्थी

गणपती जी है सबके प्यारे  
शिव गैरी के राजदुलारे  
भोली और प्यारी सी सुरत  
सवारी बने हैं उनकी मुसक मोदक उनको बहुत है भाते  
बड़े प्यार और चाव से खाते  
देवों में वह देव हमारे  
सबसे पहले उनकी पूजा करते है सारे  
रिद्धि सिद्धि के है दाता  
हम सबके भाग्यविधाता जो उनकी पूजा हैं करते  
गणेश उनके विघ्न है हरते  
गणेश चतुर्थी जब भी आयें  
बड़े प्यार से सब हैं मनाये  
जिनके घर गणेशा जाते  
मंगल ही मंगल सब होता  
दुःख संताप मिटते हैं सारे।

- शिवानी, 2<sup>nd</sup> HEPS

## लगता है की यह संसार बस संसार है !

कभी लगता है इस ज़िन्दगी में खुशियां बेशुमार है  
तो कभी लगता है ज़िन्दगी ही बेकार है।  
कभी लगता है लोगों में बहुत प्यार है,  
तो कभी लगता है रिश्तों में सिर्फ दरार है,  
कभी हम भी ज़िन्दगी जीने के लिए बेकरार है,  
तो कभी लगता है सिर्फ हमें मौत का इंतज़ार है।  
कभी लगता है हमको भी उनसे प्यार हैं,  
तो कभी लगता है सिर्फ प्यार का बुखार है।  
कभी लगता है शायद उनको भी हमसे इज़हार है,  
फिर लगता है, हम दोनों में तो सिर्फ तक़ार है।  
कभी लगता है, सब अपने ही यार हैं,  
फिर लगता है इनमें भी छिपे ग़दर हैं।  
कभी लगता है कितना प्यारा संसार है  
तो कभी लगता है ये संसार बस संसार है।

- निशी, 1<sup>st</sup> HEBA

## जिन्दगी जीना सीखा रही थी!

एक दिन सपना नींद से टूटा  
खुशी का दरवाज़ा फिर से रूठा  
मुडकर देखा तो वक्त खड़ा था  
जिन्दगी और मौत के बीच पड़ा था  
दो पल ठहर के मेरे पास वह आया  
पूछा मिली भी जो खुशी क्यों ठुकराया  
ऐसे में जब मैं हल्का सा मुस्कुराया  
नज़रें उठाई और तब सवाल ठुकराया  
जवाब सुनकर वह भी रोने लगा,  
कहीं ना कहीं मेरे दर्द में खोने लगा  
मेरे भाई हसा नहीं कभी खुद के लिए  
जिया हो जिन्दगी पर ना कभी अपने लिए  
इस खुशी का एक ही इंसान मोहताज था  
मेरी जान मेरी धड़कनों का वो ताज था  
आखिर खत्म हो गया एक किस्सा मेरी जिन्दगी का  
पर नाज रहेगा हमेशा अपनी कहानी पर।

- डिंपल, 2<sup>nd</sup> CEBA

## **स्वतन्त्रता दिवस - जय हिंद, जय भारत!**

स्वतन्त्रता दिवस आया फिर से,  
देश की आजादी का मिले सवेरा।  
साथ मिलकर याद करें वीरों को,  
जिन्होंने बलिदान से जीवन गुजारा।  
स्वतंत्रता की मशाल जलाओ फिर से,  
देश को सजाओ रंगों से भरकर।  
भारत माता के नाम करो याद,  
उन्होंने दिल्ली से लहराया तिरंगा।  
आजादी की खुशबू फैलाओ हर जगह,  
स्वतंत्रता का संदेश सभी तक पहुँचाओ।  
समृद्धि और खुशियों का रास्ता बनाओ,  
स्वतन्त्रता के इस पवित्र पर्व को मनाओ।

- कविता, 2<sup>nd</sup> SEBA

## **स्वच्छ भारत - हम सबका सपना, हम सबकी जिम्मेदारी**

स्वच्छ भारत, हमारा सपना,  
हर नागरिक का यह अपना कर्तव्य।  
कचरा न फेको यहाँ-वहाँ,  
स्वच्छता की ओर बढ़ाओं कदम।  
प्लास्टिक का प्रयोग घटाओ हम,  
पेड़-पौधों का सहारा बनाओ।  
खुले में शौच को अलग करो,  
जल, वायु, मिट्टी को सुरक्षित रखो।  
स्वच्छ भारत बनाने का संकल्प,  
सभी का हो, हर घर में सफलता।  
हम मिलकर बदलेंगे यह समृद्धि का मार्ग,  
स्वच्छ भारत, हो हमारा प्यारा वाचन।

- फातिमुज्जोहरा, 1st CEBA

## ज्ञान का दीपक वो जलाते

ज्ञान का दीपक वो जलाते हैं,  
माता पिता के बाद वो आते हैं।  
माता देती हैं हमको जीवन,  
पिता करते हैं हमारी सुरक्षा।  
लेकिन जो जीवन को सजाते हैं,  
वही हमारे शिक्षक कहलाते हैं।  
शिक्षक बिना न ज्ञान हैं,  
शिक्षक बिना न मान हैं।  
हमारा जीवन सफल बनाते हैं,  
ज्ञान का दीपक वो जलाते हैं।  
जीवन संघर्षों से लड़ना शिक्षक हमें बताते हैं,  
सत्य न्याय के पथ पे चलना शिक्षक हमें बताते हैं।  
ज्ञान का दीपक वो जलाते हैं,  
माता पिता के बाद वो आते हैं।

- रितू पी.सुथार, 2<sup>nd</sup> CEBA

## भ्रष्टाचार को हराओ ,देश को उन्नति का मार्ग दिखाओ

भ्रष्टाचार, देश की बड़ी बिमारी,  
लूटता विकास, बढ़ता परिस्रम की हानि।  
न्याय की मृत्यु, अपने लाभ का लालच,  
इसे जड़ से निकालना, हम सबकी चाह है सच।  
स्वराज्य का दीपक, आत्मा का आदर्श है,  
भ्रष्टाचार का नाश, हम सबका कर्तव्य है।  
नेताओं का ईमान, जनता का विश्वास,  
साथ मिलकर, हम करें इसे बदलाव की आस.  
शिक्षा का प्रकार, सबको मिले समान,  
भ्रष्टाचार की जंजीरें, तोड़े हम एक साथ।  
सबका सहयोग, इस युद्ध में शक्ति,  
भ्रष्टाचार को हराना, हमारा लक्ष्य, हमारा मक्सद है यही।

- रेवा ई, 2<sup>nd</sup> HEPS



## ज़िंदगी का सार !

ज़िंदगी ने सिखाया बहुत  
कभी हंसाया तो कभी रुलाया बहुत  
हर रंग इसके सुहाने  
कभी बीते अपनों के संग,  
कभी संग बेगाने !  
इस सफर में लोग बहुत मिले,  
कुछ दोस्त बने कुछ बिछड़े  
हर पल ने कुछ सिखाया  
सफर बीता लड़की से नारी तक का  
इन छोटे-छोटे हाथों से बनाए बहुत घर मिट्टी के  
मालूम नहीं था वही हाथ सजाएंगे सपने किसी और के  
वो दोस्तों की महफिलों में अपना अलग अंदाज रखना  
आज किसी और के अंदाज को अपना बना लेना  
ज़िंदगी का यही तो इक सार है  
लबों पे हमेशा मुस्कान हो, मन में जो भी विचार है  
काश एक लम्हा अपना हो,  
एक अंदाज़ अपना हो,  
ज़िंदगी से यही दरखवास्त है।

- प्रोफेसर रचना गुलाटी, Dept. of Economics

## जीवन एक गुलजार है !

जीवन एक गुलजार है, इसमें हर रंग चमकता है,  
सुख-दुख की राहों में, हम सबको सफलता तक पहुंचना है।  
हर कदम पर चुनौतियाँ हैं, पर आगे बढ़ना ही मान्य है,  
हर दर्द और खुशी, हमारे जीवन का एक हिस्सा है।  
प्यार, दोस्ती, खुशियाँ, सब कुछ इस गुलजार में है,  
अपने सपनों को पूरा करने का एक अद्वितीय मौका है।  
जीवन एक उपहार है, हमें खुशियों से भर देना है,  
सपनों को पीछे छोड़कर, आगे बढ़ना ही मान्य है।  
इस गुलजार में जीने का मजा अलग है,  
इसे हर पल जीकर आनंद उठाना ही मान्य है।

- मेहेक ए. श्रॉफ, Librarian

# Embrace the Journey

## A story of Triumph

**“Education is not the filling of a pail, but the lighting of a fire.” – William Butler Yeats**

A man was walking nearby to a group of elephants that was halted by a small rope tied to their front leg. He was amazed by the fact that the huge elephants are not even making an attempt to break the rope and set themselves free.



He saw an elephant trainer standing beside them and he expressed his puzzled state of mind. The trainer said “when they are very young and much smaller, we use the same size rope to tie them and, at that age, it’s enough to hold them.

As they grow up, they are conditioned to believe they cannot break away. They believe the rope can still hold them, so they never try to break free.”

**Moral:** It is the false belief of the elephants that denied their freedom for life time. Likewise, many people are not trying to work towards success in their life just because they failed once before. So, keep on trying and don’t get tied up with some false beliefs of failure.

**I would like to end by addressing to my dear Students,**

I extend my heartfelt gratitude to each of you for the tremendous effort and dedication you put into Insight Ed1, Vol2. Your contributions were not only impressive but also invaluable in making this publication a resounding success. Your passion for knowledge, creativity, and hard work is shone through every page of this edition. I look forward to seeing your continued enthusiasm and dedication in our future endeavours.

Warm regards,

Handwritten signature of Kanchana AS

Prof. Kanchana A S,  
Vice Principal  
M.Com, M.Phil., B.Ed., Dr. (HC) Commerce







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