



The Editorial Board -Beckoning Creati'wit'y

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# January Issue Perpetual Panorama

# **Interviewing** Dr. Anup Pandey

Councillor, North Northamptonshire Council



Message From Le Editorial Board

A s December bids adieu, its frost-embraced mornings yielding to January's pristine canvas, a tableau awaits the brushstrokes of a nascent chapter. The transition from year's end to the inception of a new epoch permeates the invigorating breeze and the nuanced shift in the sun's demeanor. January, an emblem of renewal, beckons aspirations for the unfolding future. The dawn of this year instils a rejuvenated sense of hope, redirecting collective attention toward unexplored horizons. Against this serene backdrop, January weaves diverse cultural motifs. Celebrated on January 14, 2024, Makar Sankranti bears cultural and agrarian significance, embodying new prelude and the triumph of light over darkness. Amid these festivities, the 76<sup>th</sup> Republic Day marks the adoption of India's Constitution, symbolizing democratic ideals uniting our diverse nation. As January exhales its frigid breath, the timeline, adorned with resolutions, heralds a nascent dawn for the unwritten chapters of the year.

In the recent global events, a rescue mission in Uttarakhand successfully emancipated 41 workers stuck within the confines of a tunnel on November 28, 2023. In the domain of Indian politics, BJP secured triumph in three states during the election results announced on December 3, 2023. The Krishna-Godavari Basin witnessed the initiation of oil production on January 7, 2024, contributing to the economic landscape. On January 20, 2024, Japan achieved a significant milestone in space exploration by landing on the moon, showcasing technological advancements. On January 22, 2024, the consecration of the Ram Mandir took place amidst much fanfare and celebration, marking a significant moment in the cultural history of the region.

**The Editorial Board** orchestrated "Vagmita", an online poetic extravaganza from October 11, 2023, to October 14, 2023, aimed at venerating the opulent poetic traditions of Hindi. The Sports Sub-Council at MMMUT impeccably executed the Dr. APJ Abdul Kalam Inter-Technical University ZONAL Sports Fest 2023, spanning from November 3, 2023, to November 4, 2023. This event underscored the essence of sportsmanship and healthy competition within the University community. On November 5, 2023, the Social Engineers' Board curated "Drishyaa", offering invaluable insights and support for the novice's professional journey. The Cultural Synod orchestrated HEATS from November 16, 2023, to November 17, 2023, acting as a preliminary trial event for enlistment into various clubs under Cultural Synod. A debate competition was hosted by **The Editorial Board** on the "New Education Policy" on November 30, 2023. **The Editorial Board** adeptly conducted the preliminary round of Arunoday '23 on December 4, 2023, which culminated in the finals on December 7, 2023, revealing a splendid performance by the freshmen. IEEE-SB MMMUT successfully presented TEDxMMMUT on January 5, 2024, centered around the theme 'Breaking Barriers'.

In this esteemed month, the cosmic canvas reveals its adaptability, imparting a revitalizing essence. The surroundings, imbued with inherent elasticity and tenacity, morph into a delightful realm for contemplation. **The Editorial Board** ardently urges individuals to grasp this hiatus from routine, engaging in introspection through a sincere embrace of their inner selves. With these reflections, we present the January edition of **Tiresia**, extending our heartfelt congratulations for the promising auspices this month heralds.

bienvenidos!



**Final Year Members**: Animesh Kumar Singh, Anoop Singh, Bhuwan Awasthi, Dilip Kumar Singh, Ishita Srivastava, Kaushki Tewari, Mohammad Ifham, Sankalp Sharma, Shivam Srivastava, Shreyashi Rai, Unnati Verma

**Third Year Members**: Abhijeet Yadav, Aditya Raj, Akanksha Pal, Akshat Saxena, Awantika Krishna, Harshita Mishra, Khwaab Jaiswal, Lavanya Gupta, Mayank Jaiswal, Nadeem Ahmed Warsi, Nikhil Tiwari, Saanvi Gupta, Shreyas Kumar, Swati Tiwari

**Second Year Members:** Aadrika Barnwal, Aastha Singh, Aashi Awasthi, Harshit Pandey, Jayant Singh, Jyoti Singh, Nandini Mishra, Prisha Agrawal, Rishika Agrawal, Shivam Pal, Shivam Rai, Sneha Verma, Vishal Kotak, Vishwadeep Singh, Vivek Mani Tripathy, Yash Pratap Singh

# MESSAGEFROM Faculty Advisor



Dr. Abhijit Mishra Faculty Advisor

Madan Mohan Malaviya University of Technology, Gorakhpur - 273010



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perceive an inherent duty to harness the noble stature of this esteemed platform to convey and extend this message for the latest issuance of **Tiresia**. The prior months have seen a profusion of notable events and occurrences. The Malaviya Alumni Association (MAA) organized Alumni Meet 2023 from December 25, 2023, to December 26, 2023, to rekindle the cherished memories and former connections. The Alumni Meet was held under the Chairmanship of Hon'ble Vice-Chancellor, Prof. J. P. Saini, while Shri S. K. Mittal epitomized the gathering as the Chief Guest. This program was further blessed by the presence of Shri Prem Prakash as the Guest of Honour. The celebration felicitated the Golden Jubilee Batch (1973), the Silver Jubilee Batch (1998), and the Decade Batch (2013). The alumni from diverse fields and professions shared their experiences and accomplishments, inspiring the current students with their journey beyond academia. The spirit soared high with joyous reunion and heartfelt conversation, reaffirming the timeless spirit of unity and solidarity among the University's extended family.

academic accolades From to groundbreaking research, from cultural community festivals to outreach initiatives, our achievements stand as a testament to the spirit of excellence that permeates every aspect of life at Madan Mohan Malaviya University of Technology. As we celebrated our 10th Foundation Day on December 1, 2023, we look towards the future with optimism and determination. The Editorial Board hosted a Quiz competition and a Debate competition, igniting the intellectual discourse on this momentous occasion. The Dr. APJ Abdul Kalam Inter -

Technical University ZONAL Sports Fest 2023 was held from November 3, 2023, to November 4, 2023, which served as a platform for budding athletes to showcase their prowess in various disciplines ranging from track and field events to team sports. It is not just about winning medals, it's more about fostering a culture of sportsmanship, resilience, and mutual respect. With a plethora of events lined up, including athletics, basketball, volleyball, badminton, and many others, enthusiastic participants have left an indelible mark on the field. The University orchestrated a thoughtprovoking Debate Competition on November 30, 2023, delving into the multifaceted 'New Education Policy'. The students engaged in a spirited exchange of ideas, dissecting the policy's implications and potential impact on the future of education. The Editorial Board organized a remarkable program on January 12, 2024, marking the birth anniversary of Swami Vivekananda to celebrate the National Youth Day. This vibrant event united the university community in exploring the crucial importance empowering young people. of Guided by our core values of integrity, innovation, and inclusivity, we remain committed to providing a nurturing environment where students can thrive intellectually, socially, and personally.

With the utmost admiration, I applaud **The Editoricl Board** team for their unwavering commitment to excel in crafting the January edition of **Tiresia**, masterfully integrating a myriad of intellectualdiscourseandvariedviewpoints.

With best regards Dr. Abhijit Mishra Faculty Advisor **The Editorial Board** MMMUT



Dr. Anup Pandey, an innovative pioneer, a political figure, a social worker and a Councillor at North Northamptonshire Council. After earning his degree in Electrical Engineering from MMMUT, Gorakhpur in 1998, his academic journey blends into a Ph.D. degree in Deep Learning and MBA from Oxford University, England. As a recipient of a prestigious country-level award, he has been committed to enhancing the well-being of numerous individuals and families. **The Editorial Board** had an honour to explore his wealth of experience and glean invaluable insights from his extraordinary journey.



# **Q**Can you share some details about your accomplishments and prior successes?

A With nearly five years of experience gained at Infosys, I decided to pursue higher education by enrolling in an MBA program at Oxford University, England from 2005 to 2006. Post MBA, I transitioned into entrepreneurship, establishing my own consulting enterprise in 2006. Later, in 2017, I pursued my third master's degree in Artificial Intelligence. Upon completion of this master's program, I embarked on a full-time Ph.D. journey in deep learning in 2019. Through dedicated efforts, I successfully completed my doctoral degree within three and a half years, enhancing my expertise in Artificial Intelligence.

## **Q**In your perspective what importance does higher education hold?

From my perspective, higher education is not just a phase of life but a transformative journey that shapes one's identity and aspirations. It serves as the bedrock of intellectual and professional growth, offering a platform to explore interests, challenge assumptions, and expand worldview. Through higher education, I have acquired not only specialized knowledge but also a set of critical skills, such as analytical thinking, effective communication, and adaptability, which I continually rely on in both academic and professional contexts. Beyond the classroom, higher education has enabled me to build meaningful connections with peers, mentors, and industry leaders. Ultimately, I see higher education as a lifelong commitment to learning and growth.

**Q**How did you balance your academics and extra curricular activities in college?

A During college, I wasn't studious and skipped events, but memorable moments emerged from late-night rummy sessions with high-achieving friends. Their balance between academics and recreation convinced me that holistic development is vital. Education forms my foundation, yet extra curriculars provide crucial exposure for selfexpression. I equate being informed to a strong tape recorder and effective articulation to a powerful speaker, both essential for conveying ideas effectively.

Is it necessary to have a particular goal before enrolling in college, or should we allow time to explore many fields? Having a clear, long-term goal, whether it is an aspiration for success, wealth, recognition, or contributing to society, is often emphasized. In my early years, my ambition was to become an IAS officer. During my first year, I was so dedicated to UPSC preparation that I occasionally skipped classes, prompting my professors to encourage my attendance. However, upon pursuing M.Tech. in Delhi, my perspective broadened, and I realized that there were diverse paths to a fulfilling life beyond government positions. This realization, coupled with my inherent inclination towards social service, inherited from my grandfather, led me to reconsider my focus and ultimately move away from the UPSC preparation path.

# How do you keep yourself updated with the latest trends in technology and other fields?

Although I am generally occupied, I still manage to read at least one book every month. Mostly, I like to read about people's personalities

# 666 Set your own life standards, forge a unique benchmark, and let the success mirror your authenticity.

and how they have managed to change over time. I never read any fiction books because I believe that I am already in a fictional world, creating my own stories. Initially, I wasn't much interested in reading books, but during my college days, I remember indulging in comic books. However, my reading preferences changed over time as I started exploring different titles and topics. I believe that everyone should read books. One of the most popular books today is "Autobiography of a Yogi", which is a great read. There's even an audio version of the book available.

#### What factors contribute to the widespread reluctance of individuals to engage in political careers?

Although politics can benefit people in various sectors, many individuals and their family members do not aspire to become politicians. This may be due to the prevalent corruption in politics, which has been a persistent issue since the 90s. In order to enter politics, one may require a significant amount of money and influence, which can discourage people from pursuing this career path. The specter of corruption has cast a shadow over the perception of political careers, deterring many from entering the arena. In the United Kingdom, for instance, the political environment is relatively clean compared to some other nations and individuals may not need a vast amount of financial resources or power to enter politics. In contrast, the political scenario in India is quite different, as individuals may need to give up everything if they have to enter politics.

What are the challenges that you face from yourpeers, how do you manage peer pressure? In my perspective, life is like a marathon, though it's not a 100 m race. Even if we have competitors at the moment, they might not be with us after a few years. It is to be with ourselves and with no one else that we try to compete. I was never bothered about the peer pressure. We should not entertain any kind of pressure from our peers and do whatever is good for us. We just need to follow our base. We should never allow ourselves to fall into what others say. I believe that a positive comparison is good and healthy. For instance, there used to be a guy in my wing who didn't usually study consistently but still, he still he managed to score well throughout the graduation. Although I may not have achieved the same level of academic success with the same approach, I acknowledge his hard work and dedication.

# What advice would you like to give to the upcoming Malaviyans?

A In my personal experience, I've learned the importance of following your genuine interests and staying true to your aspirations. It's crucial not to let external influences dictate your path. Your career journey is your own responsibility, and while people may come and go in your life, it's essential not to sacrifice your time and energy for others. Focus on what truly resonates with you, work diligently towards your goals, and remember that genuine fulfillment often comes from pursuing your passions with unwavering dedication and hardwork.





**Sports** Sub-Council, **MMMUT** organized The Futsal Tournament. Team Bro Code FC emerged as the triumphant winners of the tournament.

National Service Scheme (NSS), MMMUT successfully conducted its orientation session.

University Innovation Cell (UIC), MMMUT conducted BYTEGRAM, a technical quiz from October 7, 2023, October 9, 2023, which celebrated logical to reasoning and programming brilliance.

Sports Sub-Council, **MMMUT** successfully organized Malaviyan Hockey League (MHL) from October 10, 2023, to October 13, 2023.

Editorial Board, MMMUT The triumphantly conducted Vagmita, an online poetry event from October 11, 2023, to October 14, 2023, which aimed to celebrate the rich poetic tradition of Hindi.

NSS, MMMUT and NCC, MMMUT organized Amrit Kalash Yatra as a part of "Meri Mitti Mera Desh" campaign.

MMMUT Sports Sub-Council, coordinated an Interbranch Carrom Tournament from October 13, 2023, to October 14, 2023.

**Sports** Sub-Council, **MMMUT** successfully conducted Kho-Kho Trials, promoting sports and active participation within the University community..



Electrical Engineer's Legation, MMMUT successfully organised its orientation session on October 30, 2023.

Codechef MMMUT Chapter 001 proficiently organized its orientation program.

Finance Club, MMMUT effectively **N**(T organized Bizz Quiz, which incorporated business-related questions, creating a comprehensive assessment of participants' knowledge in the business domain.

Computer Engineering Society (CES), NOV MMMUT successfully organized its orientation program.

Sports Sub-Council, MMMUT NOV successfully organized the Dr. APJ Abdul

Kalam **Inter-Technical** University ZONAL Sports Fest 2023, held from November 3, 2023, to November 4, 2023. The event showcased a vibrant celebration of sportsmanship and competition within the University community.

The Social Engineers' Board, MMMUT NOV organized Drishyaa. The event aimed at providing career counselling guidance for freshers.



**Day Scholar's Club**, **MMMUT** sucessfully hosted **FLASH**, with a mission to spread joy by illuminating lives of less fortunates. Volunteers distributed packaged food, clothes and old belongings.

NOV National Service Scheme (NSS), MMMUT successfully conducted Aayansh, a Stationery Donation Drive with an aim to celebrate Diwali with the loving students of Malaviyan Shiksha Niketan.

NOV<br/>25SportsSub-Council,MMMUTsuccessfullyconductedInterbranchCricket Tournament from November 25,2023, to December 3, 2023.

NOV<br/>30The<br/>EditorialGoard,<br/>Board,MMMUT<br/>MMMUT30successfully<br/>conductedaDebate<br/>Debate<br/>Competition30competition<br/>on<br/>"New Education Policy".

DEC The Editorial Board, MMMUT successfully conducted Quiz Competition and Debate Competition on the occassion of 10<sup>th</sup> Foundation Day.

**DEC O4** The Editorial Board, MMMUT successfully conducted the preliminary round of Arunoday '23 which provided a stage for symphony of ideas and experiences.

**DEC O7 The Editorial Board, MMMUT** successfully organized the finals of **Arunoday** '23 where the freshmen unfolded spectacular performances. **DEC DEC DEC DEC DEC Talk** from **December 8, 2023,** to **December 10, 2023,** ensuring a successful and engaging event for the fresher's to share their views.

DEC Computer Engineering Society (CES), MMMUT organized Connoisseur '23. The webinar featured alumni sharing their experiences and insights, catering to their respective fields.

DEC 16 Cultural Synod, MMMUT conducted Heats from December 16, 2023, to December 17, 2023, which served as a trial event for induction into the various clubs.

**DEC Malaviya Alumni Association (MAA)** organized an **Alumni Meet**, fostering connections and reunions among former members of the Malaviyan family.

**JAN IEEE-SB MMMUT** successfully organized **TEDxMMMUT** with the theme Breaking Barriers. The speakers included **Saakshar Duggal** (Cyber Law Expert), **Sougata Bhattacharjee** (Senior Staff Manager Samsung) and **Trishita Chatterjee** (Director FTI Consulting).

JAN<br/>12The<br/>EditorialGoard,<br/>Board,<br/>MMMUTMMMUT<br/>orchestrated a distinguished program in<br/>commemoration of National Youth Day.Dr. S.N. Singh offered his guidance to the younger<br/>generation as a keynote speaker.

**Edición Evolution** 

## In the symphony of medicine, CRISPR plays the revolutionary notes of genetic harmony

he Clustered Regularly Interspaced Short Repeats (CRISPR) were Palindromic originally derived from bacteria fighting against foreign genetic material, such as a plasmid or viral DNA. This represents a responsive defense mechanism that emerges in bacteria upon infection by a bacteriophage. In conventional terms, bacteria retain a recollection of the DNA they have previously encountered. When DNA with an identical sequence re-enters the bacteria, a learned immune reaction is triggered to dismantle the foreign DNA. CRISPR is composed of numerous short, repeated DNA sequences. In addition to a base sequence in each repeat, spacer DNA segments, each comprising about thirty nucleotides, are interspersed among the repeats. These spacers are brief DNA segments that come from bacteriophages or plasmids. When the host organism comes into contact with the same plasmid or bacteriophage again, it recognizes the foreign DNA by matching it to CRISPR RNA (crRNA). Following the binding of crRNA

to the corresponding foreign DNA, the Cas9 protein (nuclease) initiates the breakdown and elimination of the invading DNA and RNA. The mechanism involves a single-stranded guide RNA (sgRNA) interacting with Cas9, and the combination of sRNA and Cas9 guides the endonuclease activity to the region adjacent to the protospacer sequence (PAM). After the sgRNA recognizes a specific DNA sequence, the bound Cas9 protein cuts 3 nucleotides upstream of the PAM (NGG) on both the positive and negative DNA strands, forming a double-stranded break with blunt ends.

CRISPR was first reported by Yushizumi Ishino, but its biological application was unknown at the time. Based on effector proteins, this system has been categorized into two main classes with six subtypes. The type II CRISPR-Cas9 system is the most widely used tool in the field of genome editing consisting of three main components: a CRISPR RNA (cRNA), an endonuclease named Cas9, and a transactivating crRNA (tracrRNA). This system consists of two components: (1) the Cas9 protein, which can cleave the DNA and (2) the guide RNA that distinguishes the sequence of DNA to be rectified. To apply CRISPR-Cas9, the sequences of the intended target genome are first identified. Then, the guide RNA is tailored to recognize a particular stretch of As, Ts, Gs, and Cs in the DNA. The guide RNA is affiliated with the DNA-cutting enzyme Cas9, and then this complex is presented to the target cells. Cas9 locates the target sequence and cuts the DNA at that point, allowing alteration of the existing genome by either modifying or adding to the sequence. Therefore, CRISPR-Cas9 operates as a tool for precisely editing DNA, functioning akin to a cut-and-paste mechanism. Utilizing this technology, any identified genomic sequence guided by a short strand of RNA can be accurately modified. In 2013, this system was first applied to the human genome.

Moreover, various CRISPR-based therapies have a wide array of research and medical applications. For example, in the laboratory, CRISPR systems can be used to modify genes in bacteria, animals, and plant models, enabling researchers to gain new understanding of the effects of genetic modification. Although existing genetic engineering technologies have enabled researchers to explore various types of genetic modifications for decades, CRISPR is less costly, more efficient, and more reliable. Additionally, various CRISPR-based therapies are being explored in clinical trials for treating certain human diseases. Examples include novel treatments for diabetes, sickle cell disease, cancers of blood-forming tissues, such as multiple myeloma, leukemia, and lymphoma, chronic infectious diseases, such as AIDS, and a form of inherited impairment in vision known as Leber congenital amaurosis. Investigations of CRISPRbased therapies in humans are helping to shed light on how DNA alterations induced by CRISPR enzymes affect cells, how the human immune system responds to CRISPR-derived interventions, and the risks associated unwanted off-target alterations in with DNA.



How does CRISPR work?

Application of CRISPR in medical science



The vast potential of CRISPR technology brings forth ethical considerations extending beyond its capabilities. The concept of creating "designer babies" through gene editing to impart desirable traits raises profound ethical questions, while observed off-target effects raise concerns about its efficient implementation. Ongoing debates encompass the potential for unintended consequences, ecological impacts, and the widening gap in access to genetic technologies. Achieving a vital equilibrium requires addressing ethical, scientific, and dimensions, societal managing challenges like safeguarding intellectual property, and and affordability ensuring accessibility in the responsible use of CRISPR technology.

In essence, the CRISPR-Cas9 system is a ground breaking tool for genetic editing that originates from bacterial adaptive immunity. It enables precise modifications in DNA sequences and has a wide range of applications, from laboratory research to potential clinical treatments. Currently, CRISPR-Cas9 is extensively employed to carry out gene editing in plants, animals, and human samples. The technology is cost-effective and efficient, making it an attractive alternative to traditional methods. However, its widespread use raises ethical considerations, particularly with regards to "designer babies" and off-target effects. Striking a balance between the benefits and drawbacks requires addressing ethical, scientific, and societal implications. Challenges genome such limited understanding, as ecological impacts, and equitable access need to be navigated. Ongoing efforts to establish regulatory oversight are crucial for unlocking the full potential of CRISPR technology while safeguarding against its pitfalls and fostering ethical advancements in genetic science.



666 Disconnect to reconnect: In the quiet moments, the soul speaks the loudest.

In a world being dominated by the incessant hum of notifications and the ever-present glow of screens, the notion of a 'Digital Detox' has emerged as a compelling counterpoint to the relentless pace of modern life. It beckons us to step away from the digital noise, to pause, and to rediscover the harmony that exists beyond the confines of our devices. Our lives have become intertwined with digital devices from smartphones, that accompany us everywhere to laptops that define our workspaces.

In the age of smartphones and social media, our lives are intricately woven into the fabric of the digital realm. However, this constant connectivity comes at a cost. Research suggests a myriad of adverse effects stemming from prolonged digital exposure – heightened stress levels, diminished attention spans, and a decline in overall mental health. The unceasing deluge of information, artfully crafted to ensnare our attention, affords scant opportunity for genuine introspection. In the pursuit of virtual connections, we find ourselves increasingly disconnected from the tangible aspects of life – the warmth of face-toface conversations, the rustle of leaves in the wind, and the simple joy of being present in the moment. The quest for digital validation often replaces authentic human connections, creating a void that no amount of online interactions can fill.

Amidst the digital cacophony, it emerges as a powerful remedy, offering a respite from the relentless barrage of notifications and the perpetual scroll. It is an intentional act of stepping back, unplugging, and reclaiming control over our time and attention. The transformative power of a Digital Detox lies in its ability to restore balance and foster a renewed appreciation for life's subtleties. Individuals who embark on a Digital Detox often report a heightened sense of mindfulness. Freed from the constant distractions, they find solace in the present moment. The world, once viewed through the pixelated lens of screens, suddenly comes alive with vibrant colors and nuanced details. It becomes a catalyst for rediscovering one's passions, nurturing creativity, and cultivating a deeper connection with oneself. However, the path to a successful Digital Detox is not without its challenges. The fear of missing out (FOMO), deeply ingrained societal expectations, and the addictive allure of digital platforms can create formidable barriers. It acknowledges these hurdles and offers practical strategies to overcome them. Breaking the chains of digital dependency requires a conscious and gradual approach. Setting realistic goals, establishing designated 'tech-free' zones, and cultivating offline hobbies are among the strategies discussed. Additionally, fostering open conversations with friends and family about the intention to undergo and it can garner support and understanding.

While a Digital Detox encourages periods of intentional disconnection, it does not support a complete rejection of technology. Instead, it supports a balanced and mindful approach to technology usage. It explores the concept of digital minimalism, where individuals consciously curate their digital lives, retaining only what adds value and eliminating the digital clutter that contributes to information overload. Compounded screen time can entail severe consequences for the well-being of individuals. In fact, excessive use of Information Technology can lead to technostress, which is defined as any negative impact on attitudes, thoughts, behaviors, or body physiology that is caused either directly or indirectly by technology. To counteract technostress and its negative consequences individual well-being on and productivity, the notion of "Digital Detox" has found its way into popular culture and, more recently, Information Systems (IS). It describes a periodic





disconnection from Information Technology as well as strategies that help to reduce with Information engagement Technology. The flipside that of the coin is with increasing information technology use due to remote work arrangements, knowledge workers are exposed to a higher risk of technostress. This phenomenon refers to stress individuals experience because of their Information Technology use and their inability to cope with it healthily.

Businesses and educational institutions also play a crucial role in promoting a culture that values periodic disconnection. Encouraging employees to take breaks from constant connectivity, incorporating digital wellness programs, and reevaluating the expectations surrounding instant responses contribute to cultivate a healthier work environment. The blue lights emitted by screens interferes with the production of melatonin, a hormone essential for the regulation of our sleepwake cycle. When we're constantly bombarded with information and stimuli, our brains have little time to process the influx of data. By taking a step back and allowing our minds to wander, we create the space for new ideas to emerge and insights to crystallize, leading to greater innovation and problem-solving skills.

In conclusion, a Digital Detox is not a rejection of technology but a deliberate choice to recalibrate our relationship with technology. It is a journey towards balance to cultivate a mindful, balanced, and fulfilling existence in a digital age. As we navigate the complexities of the digital landscape, the quote that opened it serves as a poignant reminder – in the quiet moments, it is often the soul that speaks the loudest. Through Digital Detox, we create those quiet moments, allowing our souls to resonate with the serenity that exists beyond the screens, and in doing so, we rediscover the essence of a truly balanced life.

# void f (int n) {if(n<=1) {printf("%d",n);} else {f(n/2); printf("%d",n%2);}} What does f(294) print?

A rectangular ring of ferromagnetic material has a 16 cm inner diameter, 20 cm outer diameter and 2.5 cm thickness. A coil of 750 turns is wound on the ring. It is found that to produce a flux of 1.25 mWb, the coil must carry current of 1 A. Find the relative permeability of the material.

#### ELECTRICAL ENGINEERING

An oil of viscosity 6 poise is used for lubrication between a shaft and sleeve. The diameter of the shaft is 0.75 mm and it rotates at 250 r.p.m. Calculate the power lost in oil for a sleeve length of 125 mm. The thickness of oil film is 1.2 mm.

#### CIVIL ENGINEERING

A shaft carries a weight of W at the centre. The CG of the weight is displaced by an amount *e* from the axis of rotation. If y is the additional displacement of the CG from the axis of rotation due to the centrifugal force. Then, find the ratio of y to *e* (where  $\omega_c$  = critical speed of shaft and  $\omega$  = angular speed of shaft).

MECHANICAL ENGINEERING

Mail your answers at <u>literaryedb@mmmut.ac.in</u>

A mixture of silica and galena solid particles having a size range of 4.91 x  $10^{-6}$  m to 2.20 x  $10^{-5}$  m is to be separated by hydraulic classification using free settling conditions in water at 293.2 K. The specific gravity of silica is 2.65 and that of galena is 7.5. Calculate the size range of the mixture fraction obtained in the settling.

#### CHEMICAL ENGINEERING

A U-shaped electromagnet is designed to lift a 400 kg mass (which includes the mass of the keeper). The iron yoke ( $\mu_r = 3000$ ) has a cross section of 40 cm<sup>2</sup> and mean length of 50 cm, and the air gaps are each 0.1 mm long. Neglecting the reluctance of the keeper, calculate the number of turns in the coil when the excitation current is 1 A.

## ELECTRONICS AND COMMUNICATION ENGINEERING

Write the output of following code?
#include <stdio.h>
#include <string.h>
int main()
{ char a[1000] = "0001234";
 int i, c = -1;
 for (i = 0; i < strlen(a); i++)
{
 if (a[i] != '0') { c = i;
 break; }
 }
 for (i = c; i < strlen(a); i++) {
 printf("%c", a[i]);}</pre>

return 0;

}.

COMPUTER SCIENCE AND ENGINEERING



Winner of the Tech inSights of **Tiresia** Volume 15, Issue 1 is Akanksha, B.Tech. 2<sup>nd</sup> Year, IT. Rest of the answers were either late or unsatisfactory.

Quotiloguy

"It's embarrassingly plain how inadequate language is."

- All the Light We Cannot See

This quote presents the Power of Language: Explore how proficiency in English can open doors to various opportunities.

-Chitranjan Shukla, ME 2<sup>nd</sup> year



66

"I am no bird, and no net ensnares me: I am a free human being with an independent will." -Jane Eyre

ALL THE

LIGHT

CANNOT SEE

NTHONY DOER

This quote resonated with me, inspiring a sense of independence and resilience in facing life's challenges. It taught me the importance of embracing freedom and staying true to one's principles.

-Aastha Singh, CE 2<sup>nd</sup> year

"At some point, you just pull off the Band-Aid, and it hurts, but then it's over and you're relieved." -Looking for Alaska

John Green's quote conveys the idea that facing difficult or painful situations head-on, akin to swiftly removing a Band-Aid, might be initially painful but ultimately brings relief by resolving the issue.

-Vishwadeep Singh, CSE 2<sup>nd</sup> year

We invite all the students to share the book quotes that have profoundly impacted their lives. Also, provide a brief description of how that quote had such a significant influence on you at <u>literaryedb@mmmut.ac.in</u>. Best ones will be published in the next issue of **Tiresia**.

JOHN GREEN

प्रज्ञान की राह पर चलकर, विज्ञान को पाएं। ज्ञान के समंदर में, अपना रास्ता बनाएं।। विज्ञान की ज्योति से, अज्ञानता को मिटाकर। इसकी चमक से, अपनी मंज़िल को पाएं।।

म्रपूर्ण विश्व ईश्वर द्वारा संरचित उस ब्रहमांड का एक अभिन्न अंग है जो स्वयं कई अन्य अगणित जीवों से निर्मित है। इन सभी जीवों में जीवन जीने के माध्यम में कितने ही किन्तु-परंतु क्यूँ ना हों, लेकिन कुशल जीवन की चाह के प्रति नज़रिया समानांतर रूप से अभिन्न रहा है। उदाहरण के तौर पर, पौधारोपड़ मात्र बीज को पगडंडियों के इर्द-गिर्द समाहित करना ही नहीं है बल्कि उससे भी कहीं ज्यादा जटिल प्रणाली है। ठीक उसी प्रकार इस पृथ्वी पर समस्त मानव जीवन एक अशांत महासागर के समान है, जिसकी तीव्र लहरें कभी मनुष्य को अपने दुखों के समान तलहटी पर ला पह्ंचाती हैं, तो कभी सुँखों की नौका में विहार का आनंद प्रदान करती हैं। किन्तु जिस प्रकार बीजारोपड़ के पश्चात् अन्य जटिलताओं का मुखर रूप से सामना करने की सम्पूर्ण जिम्मेदारी स्वयं उस बीज की ही होती है, ठीक उसी प्रकार प्रत्येक हार के पश्चात् संघर्ष करते हुए विजय रूपी वर का आलिंगन करना भी मन्ष्य के ही कर्तव्यों एवं सद्ग्णों में सम्मिलित है। यदि हम जीवन के इन सभी वृत्तांतों की गहराई से विवेचना करें तो यह स्पष्ट हो जाता है कि प्रत्येक पराजय अथवा घटनाचक्र एक क्षणिक तूफ़ान की प्रज्ञान मन्ष्य को अन्य प्राणियों से अलग स्थापित

भाँति होता है, जो कि पलक झपकते ही विलीन हो जाता है। परंतु क्या संसार के इस मानव रूपी परम् बुद्धिजीवी इकाई द्वारा इन तूफ़ानो को ही जीवन का सार मान लिया जाना उचित होगा? कदापि नहीं, क्योंकि प्रत्येक तूफ़ान के मध्य में एक शून्य स्थापित होता है जिसके भीतर शांति निहित होती है। सम्पूर्ण जीवन की जटिलताओं के आवरण का त्याग करने पर हमें प्राप्त होने वाले इसी शून्य को 'प्रज्ञान' कहते हैं।

इस जटिलतापूर्ण जीवन में 'प्रज्ञान' शब्द का विशेष महत्व है, क्योंकि यह मात्र ज्ञान का संग्रह ही नहीं अपितु उसके सार्थक उपयोग को भी उजागर करता है। इस रहस्यमयी जीवन में मनुष्य कभी समस्याओं के ज्वर में ठिठुरता है तो कभी उससे सुरक्षा के लिए प्रकाश की किरणों से संबल प्राप्त करता है। परंत् क्या प्रत्येक आडंबर मात्र एक घटना होती है? बिलक्ल नहीं, क्योंकि प्रत्येक घटना में एक गहरा अर्थ छूँपा होता है, जो कि हमें ज्ञान का अंश देता है तथा साथ ही अनुभव द्वारा अंधकार को भेदने की सीख भी। इसी प्रबल ज्ञान एवं अनुभव को प्रज्ञान करार दिया गया है।

करता है। यह एक ऐसा कारक हैं जो आपको दो क्योंकि नर सेवा ही नारायण सेवा है। जीवन में सफल होने, दूसरों की मदद करने यह स्पष्ट है कि प्रज्ञान की जागृति के लिए अंतर्मन तथा दुनिया को एक बेहतर स्थान के रूप में की यात्रा करनी पड़ेगी तथा हमें अपनी समस्त सुसज्जित करने में अवश्य ही मदद करेगा। यदि ऊर्जा को एकत्रित कर समाज की सेवा मे लगा देना हम अपने विवेक का प्रयोग कर सही और गलत होगा। प्रज्ञान को प्रज्जवलित करने के एक अन्य के अंतर को ना पहचान सके तो फिर मनुष्य सरलतम मार्ग को वर्णित करते हुए गोस्वामी श्री एवं पशु में क्या अंतर रह जाएगा? निश्चय ही प्रज्ञान एवं आत्मा के सम्मिलन के फलस्वरूप नवाचार का अंक्रित होना समस्त मानव जाति के लिए कॅल्याणकारी साबित होता है।

अब हमारे समक्ष यह प्रश्न उठता है कि यदि प्रज्ञान की इतनी ही महत्ता है तो हम इसको पूर्ण रूप से अपने मन के भीतर कैसे धारण कर सकते हैं? हमारे राष्ट्र एवं प्राचीन सभ्यता में बावजूद अपने लक्ष्य को प्राप्त करने मे सफल जितने भी तपस्वियों एवं महर्षियों ने जन्म लिया होते हैं एवं ऐसा करने में हमें इस विश्व में है, उनकी समस्त आध्यात्मिक यात्रा इसी प्रज्ञान को जागत करने पर ही केंद्रित थी। चाहे वह प्रभ् श्री राम का वन-गमन हो, जिसके माध्यम से के अनेक मार्गों को समायोजित करने के लिए उन्होंने अपने प्रज्ञान को प्रज्जवलित किया जिसके सर्वाधिक आवश्यकता होती है, संपूर्ण एकाग्रता उपरांत वह युवराज राम से मर्यादा पुरुषोत्तम श्री की, अर्थात् मनुष्य अपने जीवनकाल में जिस राम बनकर अयोध्या लौटे, या फिर गौतम बुद्ध भी कार्य में लिप्त हो, उसे उसकी जटिलता से का समस्त संसार का त्याग करने के पश्चात ऊपर उठकर तन्मयता से करने की कोशिश करनी ज्ञान के मध्यस्थ मार्ग का पालन करना हो। इसी चाहिए। जिसके फलस्वरूप हम प्रज्ञान, अर्थात् क्रम में स्वामी विवेकानंद का आध्यात्मिक ज्ञान प्रबल विवेक एवं अनुभव के माध्यम से जीवन के भी उल्लेखनीय है, जिसमें उन्होंने उपदेश दिया लक्ष्य के उच्चतम शिखर को हासिल कर अपने कि स्वयं को दूसरों की सेवा में समर्पित कर जीवन के उद्देश्य को सिद्ध कर सकते हैं।

त्लसीदास जी ने श्रीरामचरितमानॅस में लिखा है-

'बिन् सत्संग विवेक न होई'

अर्थात्, उत्कृष्ट संगति के बिना हम अथक प्रयासों के उपरांत भी प्रज्ञान को दयोतित नहीं कर सकते हैं। प्रज्ञान हमें वह शक्ति प्रदान करती है जिसके माध्यम से हम अनेक कठिनाइयों के व्याप्त मायाजाल भी प्रभावित नहीं कर सकता है। अतः प्रज्ञान रूपी दीपक को लौ प्रदान करने







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