



# TIREZIA

Volume 17, Issue 3

The Editorial Board

*-Beckoning Creati'wit'y*

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*Prismatic Pulse*



#World Oceans' Day

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Mr. Arun Kumar Singh (Rtd. Colonel) | Ex Vice-Chancellor, SRMU

Prof. V. K. Dwivedi, Dean of International Affairs, Chairman, T&P Cell.



# Message From The Editorial Board

June unfurled as a pluvius interregnum between the subcontinent's fervid estivation and the impending munificence of the monsoon. Atmospheres of pluvial prescience pervaded terrestrial expanses with expectant solemnity, heralding the season's gradual transmutation. Across the horizons, increasingly propitious cloud assemblages advanced in measured peregrination, while the earth exhaled petrichor-laden intimations of imminent rejuvenescence. Riverine veins, attenuated by preceding torridity, anticipated refluent vivification beneath gathering firmaments of aqueous portent. Amid this seasonal metanoia, the processional magnificence of Jagannath Rath Yatra imparted a sacral cadence to public life. Simultaneously, the emergence of El Niño introduced an undercurrent of climatic uncertainty, tempering anticipations of monsoonal abundance with apprehensions of inclement irregularity. Concurrently, diplomatic colloquia, scientific enterprises, and cultural commemorations enriched the month's broader chronicle. Thus, June concluded as a liminal vestibule of regeneration, relinquishing expectancy to the monsoon's resplendent consummation.

Alongside these cyclical metamorphoses, June 2026 unfolded as a month of innovation, wellness, and international engagement across diverse spheres. Diplomatically, on June 2, 2026, India's digital outreach advanced further as UPI services were officially launched in Cambodia, extending the reach of indigenous financial technology. Thereafter, from June 4, 2026 to June 8, 2026, India hosted the inaugural World Yogasana Championship, celebrating a discipline rooted in the nation's civilizational heritage. Simultaneously, on June 4, 2026, the Government of India announced the winners of the 29<sup>th</sup> National Awards for e-Governance, recognizing exemplary public-service innovation. Globally, on June 8, 2026, countries worldwide observed World Oceans Day 2026, reaffirming commitments toward marine conservation and the sustainable stewardship of the world's oceans. Finally, on June 20, 2026, the 2026 Special Olympics USA Games commenced in Minneapolis, fostering athletic excellence, inclusion, and human solidarity across international boundaries.

Advancing the chronicle of campus progress, March 29, 2026 to April 13, 2026 witnessed the ECES Inductions, culminating in the final round during early April and welcoming aspiring innovators into a collaborative technical community. Subsequently thereafter, April 15, 2026 marked the commencement of the Solution Challenge 2026, promoted by GDG, advancing AI-driven solutions to real-world challenges. Alongside this, May 5, 2026 saw the announcement of the IICHe Student Chapter induction results, strengthening professional and technical engagement. Meanwhile, May 13, 2026 featured an NSS Special Interaction Session with distinguished dignitaries, reinforcing the spirit of social service and nation-building. Of great significance, May 26, 2026 marked a historic milestone as Prof. Anupama Kaushik Sharma assumed office as MMMUT's first woman Vice-Chancellor. Following this, June 1, 2026 to June 10, 2026 encompassed DARPAN '26, advancing environmental stewardship and animal welfare initiatives.

Finally, June 2, 2026 brought notable success in the 2026 IIRF Rankings.

Beneath a cerulean progressively freighted with hyetal auguries, June approached the culmination of its verdant ascendancy. In a serene declension into seasonal recollection, it ceded its floriferous sovereignty to July's auspicious emergence. Progressively, the atmosphere relinquished tentative argent condensations for a fuller orchestration of aqueous munificence. Simultaneously, horizons assumed a gossamer indistinctness, and the landscape awakened to luxuriant recrudescence. Silvan recesses, agrarian domains, and riverine tracts alike partook in this propitious metamorphosis, attended by humic emanations and rejuvenatory abundance. Thereupon, July arose in opalescent magnificence, auguring renewed fecundity and climatic beneficence. Amidst this flourishing transmutation, **The Editorial Board** proudly unveils its June issue of *Tiresia*, wherein June subsides into benedictory remembrance, embellishing nature's unfolding with vestiges of vitality and verdure.

*Bienvenidos!*

## Our Team

**Final Year Members:** Aadrika Barnwal, Aastha Singh, Harshit Pandey, Jayant Singh, Jyoti Singh, Nandini Mishra, Shivam Pal, Shivam Rai, Sneha Verma, Vishal Kotak, Vishwadeep Singh, Vivek Mani Tripathy

**Third Year Members:** Aditi Sharma, Alok Kumar, Ashmi Singh, Divyansh Singh Rathore, Gaurav Vishwakarma, Himanshu Mishra, Jagriti Singh, Pragya Kumari, Pranav Mishra, Shatakshi Srivastava, Shrestha Gupta, Vaishnavi Rai, Vinayak Yadav, Yashvardhan Ojha

**Second Year Members:** Aditi Mishra, Anurag Banerjee, Anushka Shukla, Arpit Tripathi, Gaurav Gupta, Kaustubh Nigam, Mayank Sharma, Ojashwani Singh Chauhan, Prathit Mishra, Ritesh Yadav, Shambhavi, Shivam Gupta, Shlok, Tushit Shaurya

# MESSAGE FROM

## *Faculty Advisor*



Dr. Virendra Kumar  
Faculty Advisor

Madan Mohan  
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Gorakhpur - 273010



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It gives me great pleasure and a sense of commitment that I present this message for the current edition of **Tiresia**. The past few months have been marked by vibrant academic and cultural engagement, most notably through the successful organisation of Abhyudaya '26, the University's annual Art, Cultural and Literary Fest, held from March 27, 2026 to March 29, 2026. The event infused the campus with renewed creative energy and fostered a spirit of collective participation and expression. I extend my sincere appreciation to the outgoing members of **The Editorial Board** for their dedicated contributions to the growth of this publication. I warmly welcome the incoming team as they assume the responsibility of advancing the distinguished literary continuum established by their predecessors and further strengthening the role of **Tiresia** as a forum for literary and creative expression.

The University entered a new chapter with Prof. Anupama Kaushik Sharma assuming charge as the fifth Vice-Chancellor of MMMUT, Gorakhpur on May 26, 2026, becoming the first woman VC of the institution. On behalf of the Arts and Literary Sub-Council, I extend my heartfelt congratulations and a warm welcome to her. Strengthening its academic standing, MMMUT secured the 51<sup>st</sup> rank in Engineering and the 66<sup>th</sup> rank in Management in the IIRF Rankings 2026. The Hon'ble Chief Minister of Uttar Pradesh laid the foundation stone for a new 144-bed Girls' Hostel, inaugurated the Cyber Forensics Research Centre, and shared the Research Excellence Awards.

Continuing its remarkable placement performance, MMMUT recorded over 1,100 offers from more than 120 recruiters, with the highest package reaching Rs. 45 LPA and the placement season still underway.

Specialised internship programmes in Cyber Security, Digital Forensics, and Artificial Intelligence were introduced in collaboration with CyInt Technologies and Where U Elevate. Further advancing its innovation ecosystem, the Institution announced the establishment of a Centre for Smart Process Industries, a significant step towards preparing students for Industry 4.0 technologies. Reaffirming its commitment to the "Green Campus" initiative, the University celebrated World Environment Day with a plantation drive that saw the planting of over 100 saplings across the campus. Further reinforcing its culture of research and innovation, MMMUT achieved significant milestones in sustainable technology and advanced manufacturing. Prof. D. K. Dwivedi and research scholar Akash Anand Verma developed an innovative lead-free perovskite solar cell technology aimed at enhancing clean energy applications.

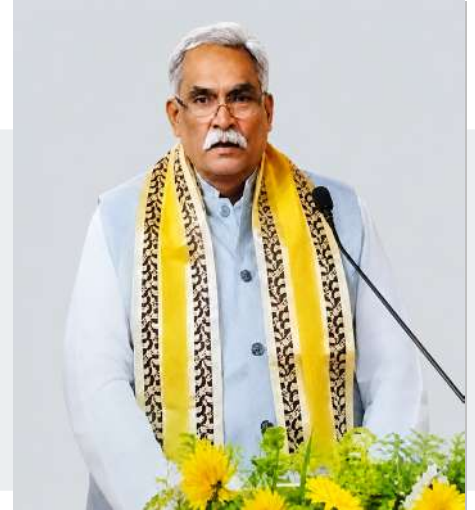
The Institution was also granted a patent for a low-cost Arduino-based motor control system integrated with a lightweight robotic arm, developed by Prof. A. K. Pandey, Mr G. K. Mishra, and Dr. O. H. Gupta (NIT Jalandhar). Adding to these achievements, eight faculty members were featured in the Global Scientific Index, June 2026, with Dr. Manoj Kumar Gupta ranking among the top 1% researchers globally and the remaining faculty members placed within the top 5%, a proud milestone for the Institution. Kudos to the efforts of **The Editorial Board**, whose unwavering dedication and consistent endeavours continue to enrich the University's literary and creative ecosystem. As the custodians of the University's e-zine, they shoulder the duties to bring the vibrant colours of campus on digital platform and I send them my best wishes.

With best regards  
Dr. Virendra Kumar  
Faculty Advisor  
**The Editorial Board**

# Tête-à-tête

*A talk with Mr. Arun Kumar Singh (Retd. Colonel)*

Mr. Arun Kumar Singh is a distinguished alumnus of the Electrical Engineering Department of Madan Mohan Malaviya University of Technology (formerly MMM Engineering College), Gorakhpur, and a veteran officer who served the Indian Army for 30 years. During his military career, he participated in the IPKF mission in Sri Lanka, operations in Siachen, the Kargil War, and Operation Parakram. After retirement, he worked on major infrastructure projects, including the Tala Hydroelectric Project in Bhutan, and served as a consultant with Snowy Mountains Engineering Corporation (SMEC), an Australian multinational associated with World Bank-funded projects. Alongside his professional career, he earned an MBA from Pune University and a Ph.D. in Development Economics from Lucknow University. He later served as Advisor and subsequently Vice-Chancellor of Ram Swaroop Memorial University for over eleven years.



**Q Sir, could you tell us about your professional journey?**

**A** I served in the Indian Army for 30 years and had the privilege of participating in several important operations, including the IPKF mission in Sri Lanka, operations in Siachen, the Kargil War, and Operation Parakram. Military service taught me discipline, responsibility, and the ability to perform under challenging circumstances. After retirement, I joined 1,056 MW the Tala Hydroelectric Project in Bhutan and later worked with Snowy Mountains Engineering Corporation (SMEC), an Australian multinational consultancy associated with World Bank-funded projects in infrastructure, irrigation, and water management. Subsequently, I joined Ram Swaroop Memorial University as an Advisor and later served as its Vice-Chancellor for more than eleven years. Looking back, every phase of my journey, from soldier to consultant and educator, has taught me the importance of integrity, lifelong learning, and service to society.

**Q Could you share some memories from your days as a student at MMMUT?**

**A** We belonged to one of the earliest batches of the Institute. At that time, there were only three engineering branches: Civil, Mechanical, and Electrical Engineering. Civil Engineering had around twenty seats, while Mechanical and Electrical Engineering had approximately thirty-five seats each. I received a merit scholarship during my studies, which remains one of my fondest memories. The campus was much smaller than it is today, and student life was very different. We had limited facilities compared to present-day students, but there was a strong sense of friendship and belonging. Hostel life was at the centre of our college experience. We spent a great deal of time

together, studied, shared ideas, and developed friendships that have lasted for decades. Looking back, those years were simple, enjoyable, and filled with valuable learning experiences that shaped our personalities and careers.

**Q How did your engineering education influence your career, and what differences did you observe between military and civilian life?**

**A** Engineering education gave me much more than technical knowledge. It taught me to think analytically, approach problems logically, and remain disciplined in difficult situations. These qualities became invaluable throughout my journey, whether in the Army, consultancy, or higher education administration. While military and civilian life are very different in their environment and responsibilities, both demand sincerity, professionalism, teamwork, and integrity. The Army taught me to place collective goals above personal interests, whereas civilian life broadened my perspective through diverse opportunities and experiences. Together, these experiences shaped not only my career but also my outlook towards life.

**Q How did your years in the Army shape your understanding of leadership?**

**A** Leadership is often misunderstood. It is not about rank, authority, or giving orders. A true leader is someone whose team willingly performs its duties without fear or pressure. During my years in service, I learned that leadership is built on trust, responsibility, and example. Difficult situations reveal a person's true character. When challenges arise, people naturally look towards those who can remain calm, take responsibility, and inspire



*Success may earn you recognition, but character earns you respect, and respect lasts a lifetime.*

confidence. A leader stands with the team during adversity, shares responsibilities, and is willing to make sacrifices when required. Ultimately, leadership is not about exercising authority; it is about inspiring trust and earning respect through one's actions.

**Q What advice would you give to students aspiring to join the defence services?**

**A** My foremost advice is to be truthful and genuine. Never try to create an artificial image of yourself during the selection process. Selection boards are highly experienced and can easily identify whether a candidate is sincere or simply trying to impress. Beyond academic knowledge, defence organizations look for honesty, integrity, positivity, leadership potential, and the ability to remain calm under pressure. If you mention a hobby or achievement, make sure it is genuinely a part of your life because confidence comes naturally when your experiences are real. Ultimately, success in the defence services depends not only on intelligence but also on character and authenticity.

**Q Could you share your experience at the SSB interview?**

**A** During my SSB interview, I was asked detailed questions about the hobbies I had mentioned in my application, including swimming and hunting. The interviewers wanted to understand whether those interests were genuine or merely written for the sake of the application. Since these were real experiences from my life, I could answer naturally and confidently. That experience taught me an important lesson: honesty is always the best strategy. When your answers come from real experiences, confidence follows automatically. The SSB process does not simply assess knowledge; it evaluates character, authenticity, and the ability

to think clearly under pressure. Therefore, being truthful is one of the greatest strengths a candidate can possess.

**Q What is your philosophy regarding education?**

**A** I believe the ultimate purpose of education is to become a good human being. In today's world, success is often measured by salary packages, job titles, or material achievements. While these are important milestones, they should not become the sole purpose of education. Education should cultivate values such as honesty, empathy, responsibility, and a commitment to society. True education empowers individuals not only to build successful careers but also to make meaningful contributions to the lives of others. An educated person is one who uses knowledge with wisdom and success with humility.

**Q What message would you like to give to the students of MMMUT?**

**A** Develop a strong value system in life. Honesty, discipline, integrity, and commitment are qualities that will guide you through every challenge, regardless of the profession you choose. Success is not built overnight; it is the result of consistent effort, sound principles, and the courage to persevere during difficult times. Stay curious, continue learning, and never compromise on your values. If your character is strong, achievements will follow naturally, and more importantly, you will earn the respect and trust of others, which is the greatest success one can achieve, for it is not the titles you hold or the wealth you gather that truly define you, but the integrity with which you live each day, and when you build your life on these foundations, success, in its truest sense, will always find you.



Mr. Arun Kumar Singh in a felicitation event.

# Colloquy

**Q** We'd love to hear about your journey, from your student days to where you are now. What experiences along the way shaped who you've become?

**A** Whenever I walk through the MMMUT campus, I often remember my own student days. I completed my Mechanical Engineering degree from this Institution in 1994, and never imagined that one day I would return here as a Professor and Dean. After graduation, I pursued my M.E. from MNNIT Allahabad, then my Ph.D. from IIT Delhi, where I learned the value of rigorous thinking, patience, and innovation. The biggest lesson has been that success is not a destination; it is a continuous process of learning, adapting, embracing new challenges, and helping others grow.

**Q** You have seen MMMUT grow first as a student and now as a senior administrator. Which change in the Institute fills you with the greatest pride, and why?

**A** What makes me happy is the confidence of today's MMMUT students, because when I was a student, we had talent, but opportunities were comparatively limited, whereas today our students are competing with the best institutions in the country, securing excellent placements, pursuing higher studies abroad, publishing research papers, launching startups,

and participating in national and international competitions. What fills me with pride is that today's students think globally, and they are more confident, more aware, and more willing to take risks, and seeing this change gives me immense satisfaction as an alumnus and a teacher.

## PROF. V. K. DWIVEDI

DEAN OF INTERNATIONAL AFFAIRS, CHAIRMAN, TRAINING & PLACEMENT CELL, & PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING, MMMUT.

**Q** Could you share a memorable moment from your journey as an educator that continues to inspire you today?

**A** A few years ago, a student who was struggling academically came to me for guidance, and through continuous effort and mentoring, he gradually improved and eventually secured an excellent placement. Several years later, he visited me and said, "Sir, at one point I had almost given up, but your encouragement kept me going," and that conversation stayed with me, because it reminded me that as teachers, we may not always realize the impact of a few words of encouragement, while moments like these continue to inspire me every day.



**Designation:** Dean of International Affairs, Chairman, Training & Placement Cell, and Professor, Department of Mechanical Engineering, MMMUT

**Qualification:** Ph.D. (Thermal Engineering, IIT Delhi), M. E (Design of Process Machines, MNNIT Allahabad), B.E. (Mechanical Engineering, MMMEC)

**Interests:** Solid State Physics, Solar and photovoltaic Cell. Synthesis and characterization of nanoparticles, Thermal conductivity of Nanofluids, and Thermophysical properties of Nanomaterials

**Experience:** 30+ years of experience in academia, research, and industry. Has served as Principal of Galgotias College of Engineering & Technology, Greater Noida, and currently holds key administrative positions at MMMUT. He has played a significant role in institutional development, international collaborations, and strengthening industry-academia partnerships.

**P**rof. Vijay Kumar Dwivedi earned his Bachelor's degree in Mechanical Engineering from MMMEC, followed by a Master's degree from MNNIT Allahabad and a Ph.D. in Thermal Engineering from IIT Delhi. With over three decades of experience in teaching, research, administration, and industry, he has established himself as a distinguished academic leader and researcher. His work primarily focuses on thermal engineering, solar energy applications, renewable energy systems, and energy optimization. Having served in key leadership positions, including Principal of Galgotias College of Engineering & Technology and currently as Dean of International Affairs and Chairman of the Training & Placement Cell at MMMUT, he continues to contribute significantly to academic excellence, institutional development, and student success through his visionary leadership and commitment to innovation.

**Q** Through your experience across diverse academics, international affairs, and placements, what have you learnt about the evolving needs and aspirations of today's students?

**A** Today's students are very different from previous generations, and that is a positive thing. They are ambitious, curious, and eager to explore opportunities beyond traditional career paths. Many students today want to work on startups, research projects, international collaborations, and emerging technologies. They don't just want a degree; they want experiences and opportunities that help them grow. At the same time, I feel that students sometimes face more pressure than ever before. There is constant competition and comparison. Therefore, along with technical skills, institutions must help students build confidence, resilience, and clarity about their goals. The students of today want to make an impact, and our responsibility as educators is to provide them with the right platform and guidance.

**Q** As technology and industry evolve rapidly, what fundamental changes must today's engineering students make in their mindset and approach to remain relevant and successful?

**A** Engineering education has always been about problem solving, but today the problems are bigger, faster, and more complex than ever before. The students who will truly succeed are not those who simply memorize concepts, but those who develop the hunger to learn beyond what is taught in the classroom. Knowledge is no longer

rotating machinery  
overhaul at the  
plant



scarce, it is everywhere, but the ability to think critically, adapt quickly, and apply it with purpose is what separates an ordinary engineer from an extraordinary one. Technology will not slow down for anyone. Industries will transform, tools will change, and new challenges will emerge every single day. The students who embrace this change with curiosity and confidence, rather than fear and hesitation, are the ones who will shape the future.

**Q** From your experience, what does an ideal placement prep roadmap look like for engineering students, and what are some common mistakes to avoid?

**A** One thing I often tell students is that your degree may get you your first opportunity, but your ability to learn will determine your entire career. When I was a student, knowledge was limited to books, classrooms, and libraries. Today, knowledge is available at your fingertips. The challenge is no longer access to information; it is the ability to learn continuously and use that knowledge more effectively and meaningfully. Students should stop asking, "What will come in the exam?" and start asking, "What problem can I solve?" A curious mind with the right attitude will always find a way,

belongs to people who are curious, adaptable, and willing to learn throughout their lives.

**Q** If you had the opportunity to implement one truly transformative reform in India's higher technical education system, what would it be?

**A** I would like every engineering student to work on real-life problems, because sometimes students become excellent at solving textbook problems but struggle with practical challenges. Education should create innovators and problem-solvers, not just degree holders. If industry, academia, and research institutions work closely together, students will graduate with greater confidence and competence.

**Q** What message would you like to give to every MMMUT student, who dreams of making a national or global impact?

**A** I would simply say: Believe in yourself. I started my journey as a student walking on the same campus roads that you walk today, and if my journey teaches anything, it is that ordinary beginnings can lead to extraordinary destinations. Never compare your journey with others. Stay committed, and the results will follow.

# CAMPUS

**JAN  
22**

**Chemisch'Graphy**, organized by the **Indian Institute of Chemical Engineers**, concluded on **January 22, 2026**, as an online competition celebrating the fusion of photography and scientific observation, participants captured scientific phenomena through creative lenses, fostering analytical thinking, scientific curiosity, interdisciplinary learning while showcasing innovation and artistic expression.

**MAR  
16**

The **Institute of Electrical and Electronics Engineers** held its inductions from **March 16, 2026** to **March 17, 2026**, welcoming students interested in emerging technologies and innovation. The Society identified enthusiastic individuals eager to build technical expertise while fostering collaboration, leadership, continuous learning and a strong culture of innovation.

**MAR  
17**

**Drone & IoT Club** organized its induction process on **March 17, 2026**, inviting students to explore emerging domains such as drone technology, automation, robotics, and Internet of Things applications. Through a multi-stage evaluation of technical aptitude, innovation, problem-solving abilities, the drive inducted motivated individuals while fostering technical learning, creativity, collaborative excellence, and innovative thinking.

**MAR  
17**

The **Robotics Club** commenced its induction process from **March 17, 2026** to **March 26, 2026**, engaging students passionate about robotics, automation, and technological innovation. The selection process assessed technical aptitude, problem-solving skills, and enthusiasm for learning, successfully identifying dedicated individuals prepared to contribute to the club's future projects and initiatives. It includes a clear vision for future robotic applications and strong analytic skills.

**FEB  
16**

**Day Scholars' Club** welcomed a new cohort of members through its induction process from **February 16, 2026** to **February 18, 2026**, introducing participants to the club's vision, values, and activities through meaningful interactions with senior members. The initiative cultivated a sense of belonging, leadership, and collaboration encouraging active participation in the club's diverse engagements.



# BUZZ

MAR  
19

The **Social Engineers' Board (SEB)** conducted its induction process from **March 19, 2026** to **March 22, 2026**, welcoming a new cohort of enthusiastic students into the organization. The selection process evaluated leadership, teamwork, and social responsibility, identifying individuals with the potential to contribute constructively and work effectively with their peers towards excellence.



APR  
01

**Educational Visit**, organized by the **National Service Scheme (NSS)**, on **April 1, 2026**, at Composite School Jungle Ayodhya Prasad, Khorabar, promoted scientific awareness and higher education among school students. Through interactive sessions on various scientific concepts, volunteers fostered meaningful engagement with young learners while encouraging educational outreach and social responsibility.



APR  
01

The **Student Library Council (SLC)** conducted its induction process from **April 1, 2026** to **April 4, 2026**, welcoming individuals with a passion for learning, organization, and academic engagement. The drive identified enthusiastic candidates committed to supporting the Council's initiatives while promoting knowledge sharing, collaboration, and intellectual growth within the University community. These newly inducted members will bring a excellent progress for the council.



APR  
02

The **Editorial Board** conducted its Induction Drive from **April 2, 2026** to **April 5, 2026**, welcoming talented freshmen to explore the realms of literature, creativity, and meaningful expression. Through a rigorous selection process assessing writing aptitude, critical thinking and articulation, the drive identified dedicated individuals committed to fostering intellectual curiosity, creative excellence and a vibrant culture of rich literary engagement across the entire University campus.



# CAMPUS

**APR  
14**

The **Electronics and Communication Engineering Society (ECES)** organized its induction process from **March 29, 2026** to **April 13, 2026**. The process invited enthusiastic individuals with an interest in electronics, communication technologies, and technical innovation. The process identified dedicated candidates eager to contribute to the society's activities while fostering technical excellence, creativity and learning.



**APR  
15**

**Solution Challenge 2026**, promoted by **Google Developer Groups (GDG)**, commenced on **April 15, 2026**, and continues to engage students in developing impactful AI-based solutions addressing real-world problems in collaboration with Hack2Skill India. The initiative provides a platform for innovation, technical creativity, and problem-solving while exposing participants to industry-relevant technologies and collaborative learning opportunities for aspiring innovators nationwide.



**MAY  
05**

The **Indian Institute of Chemical Engineers (IChE) Student Chapter, MMMUT**, conducted its induction process culminating in the final round on **March 24, 2026**, and announced the results on **May 5, 2026**, welcoming dedicated and enthusiastic members into the organization. The initiative fostered technical engagement, professional growth, and collaborative learning while strengthening the chapter's culture of excellence and innovation among aspiring engineers and technology leaders.



**MAY  
13**

**Special Interaction Session**, organized by the **National Service Scheme (NSS)**, on **May 13, 2026**, featured Shri Samardeep Saxena, Regional Director, NSS Regional Directorate Lucknow, and Dr. Manju Singh, State NSS Officer, Uttar Pradesh, as distinguished guests. The session provided valuable insights into the objectives and societal impact of NSS activities while encouraging greater commitment towards community service and nation-building with dedication and sincerity.



# BUZZ

**MAY  
26**

On **May 26, 2026**, Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur, ushered in a new era of leadership with Prof. Anupama Kaushik Sharma becoming the first woman to serve as Vice-Chancellor of the Institution. Guided by a vision of academic excellence, research-driven innovation and institutional advancement, her leadership is poised to further strengthen the university's enduring legacy while fostering new avenues of growth and achievement.



**JUN  
02**

On **June 2, 2026**, Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur, achieved a notable milestone in the IIRF Rankings 2026 by securing the 51<sup>st</sup> rank in the Engineering Category and the 66<sup>th</sup> rank in the Management Category. The achievement reflected the University's continued progress in academics, research, innovation and advancing institutional excellence.



**JUN  
13**

**AutoCAD Workshop**, organized by the **Association of Civil Engineers (ACE)**, on **June 13, 2026**, familiarized participants with the fundamentals of computer-aided drafting and design through an interactive online session. The workshop strengthened technical skills, practical understanding, and professional competence in industry-standard design practices for future engineering applications efficiently.



**JUN  
21**

**International Day of Yoga**, celebrated by Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur, on **June 21, 2026**, marked the successful culmination of a week-long Yoga Camp held from **June 15 to June 21, 2026**. The celebration promoted physical and mental well-being while encouraging a healthy lifestyle across campus through regular yoga and mindfulness practices.





# Synthetic Society

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*A synthetic society begins where intelligence is no longer exclusively human, but continues to serve its purpose more efficiently.*

**H**uman society has continuously evolved, progressing from the agricultural and industrial eras to today's digital age. The rapid proliferation of Artificial Intelligence is now driving the next stage of this evolution, giving rise to what is increasingly described as a synthetic society, a new socio-technical ecosystem. A synthetic society is a social system that involves regular interactions between humans and intelligent non-human actors such as AI agents, autonomous robots, virtual assistants, and digital twins. These systems are no longer mere command-line processors, as in traditional technology. They can make decisions, learn from experience, communicate, and act autonomously, making them active participants in social, economic, and organisational systems.

encompassing human-human, human-AI, AI-AI, and even collaborations between human organisations and digital twins. Synthetic societies are coming to the fore as a result of several technological developments that collectively underpin intelligent, autonomous, and interconnected systems. At the forefront is Artificial Intelligence (AI), whose advances in pattern recognition, generative modelling, knowledge synthesis, and decision intelligence have significantly expanded machine capabilities, while the emergence of autonomous agents has enabled the independent execution of complex workflows, coordination with other agents, and the performance of tasks with minimal human intervention.

Within such a society, interactions extend across multiple dimensions,

Advanced robotics and the Internet of Things extend AI into the physical domain, enabling autonomous vehicles, industrial robots,

and healthcare assistants to operate alongside humans, while billions of networked devices continuously generate data that intelligent systems can use to monitor, analyse, and respond to dynamic conditions in real time.

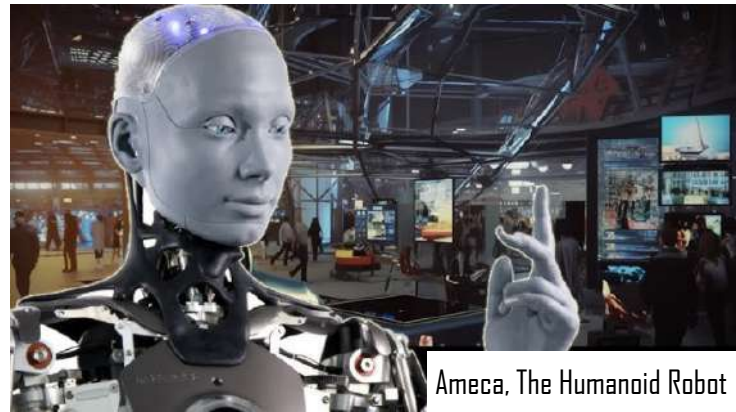
A synthetic society is distinguished by a set of defining characteristics that govern the interaction between humans and intelligent systems. At its core lie human-AI collaboration and hyperconnectivity, with real-world systems and AI agents remaining persistently linked through digital networks, thereby supporting distributed intelligence and creating a more responsive socio-technical ecosystem. The principles of a synthetic society are already reshaping multiple sectors, from healthcare and education to business, urban infrastructure, and scientific research. AI-driven systems are enhancing clinical diagnosis, personalising learning, automating enterprise operations, optimising traffic and public utilities in smart cities, and accelerating scientific discovery through large-scale data analysis. As these applications expand, their broader societal impact becomes increasingly evident. By automating repetitive processes, augmenting human decision-making, and delivering personalised services, synthetic systems significantly enhance productivity, while the synergy between human ingenuity and machine intelligence accelerates innovation. Furthermore, optimised resource utilisation contributes to greater economic and environmental sustainability.

Alongside its transformative potential, a synthetic society introduces systemic risks arising from the increasing autonomy and interdependence of intelligent systems. Challenges such as emergent behaviour within multi-agent ecosystems can



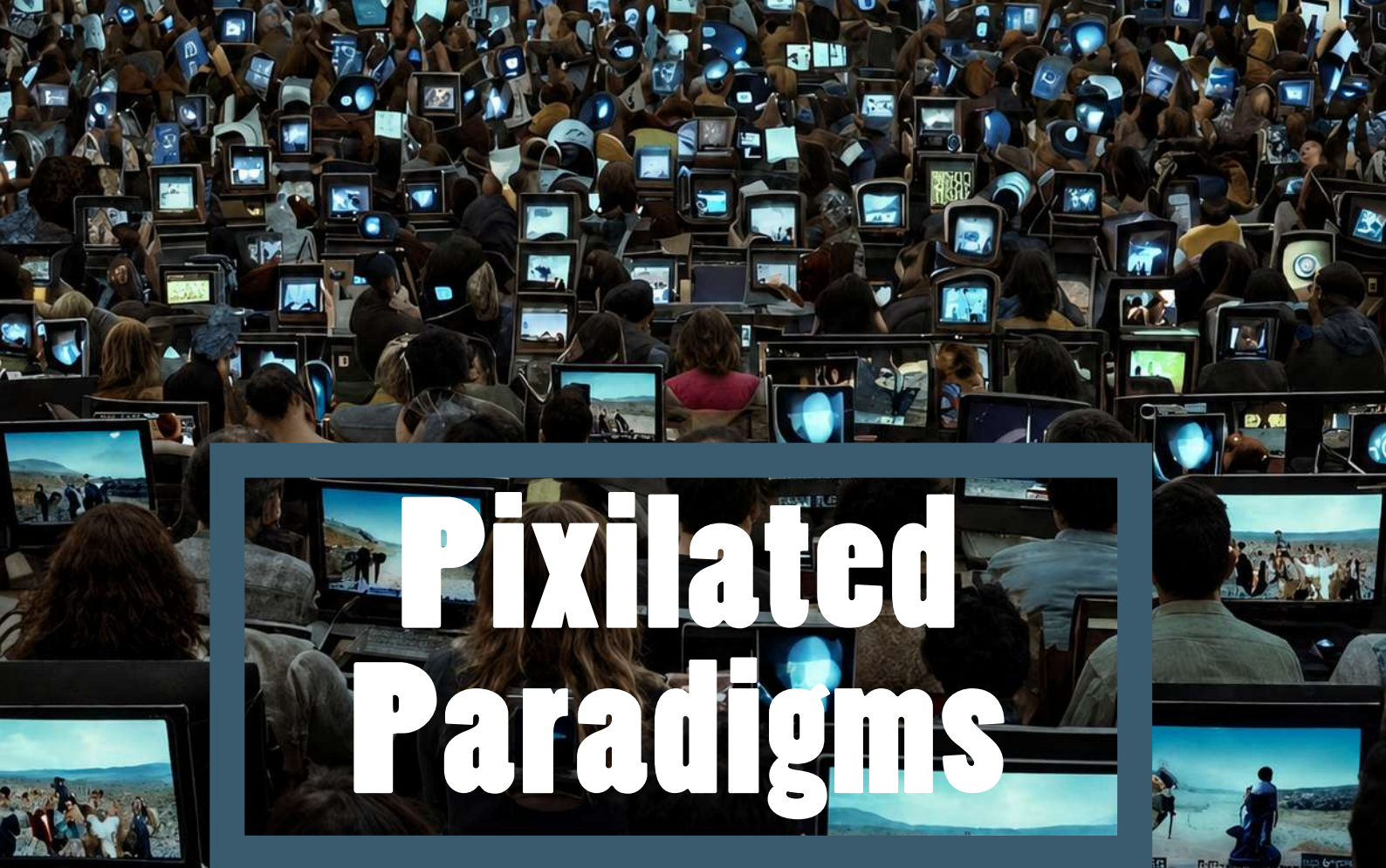
produce unpredictable outcomes that are difficult to anticipate or control, while issues relating to data provenance arise because generative AI systems and digital twins rely on continuously evolving data streams that are susceptible to contamination and model collapse. Coupled with the growing dependence on interconnected AI and IoT infrastructure, such vulnerabilities can undermine the resilience of entire socio-technical ecosystems.

These technical challenges are inseparable from broader ethical and governance concerns. As autonomous systems increasingly influence consequential decisions, limited interpretability and unclear accountability create significant gaps in oversight and public trust. Addressing these issues requires embedding transparency, auditability, human oversight, robust data governance, and value alignment into the architecture of intelligent systems to ensure that technological progress remains consistent with societal values and responsible innovation. The evolution of synthetic societies is likely to redefine intelligence as a distributed capability shared between humans and autonomous agents operating across physical and virtual environments.



Ameca, The Humanoid Robot

Future ecosystems may witness self-organising AI infrastructure functioning with minimal human intervention. The question is not if, but how, synthetic societies will form. The defining challenge, therefore, will not be the advancement of Artificial Intelligence itself, but the design of resilient governance frameworks capable of ensuring that autonomous systems remain aligned with human values and democratic oversight.



# Pixilated Paradigms



*The tales we craft today become the myths  
whispered through history.*

Since the dawn of civilization, humanity has woven a tapestry of stories, myths and legends. Enabling societies to preserve their values, explain the unknown, and forge communal bonds. Folklore, in its myriad form, functions as a mirror reflecting societal fears, aspirations, and moral paradigms. The present era marks unprecedented technological advancement. This enduring tradition of telling tales has undergone a profound transformation, giving rise to what may be regarded as a new epoch of folklore; manifested within the expansive realm of the internet.

The contemporary digital landscape facilitates the rapid dissemination and evolution of stories, transcending geographic and cultural boundaries with extraordinary immediacy. Among the most prominent exemplars of this phenomenon are 'memes' units of cultural expression that evolve through iterative reinterpretation. These visual and textual constructs encapsulate prevailing societal sentiments,

humour, and critique, becoming embedded within the collective digital consciousness. Like traditional folktales, they serve as vehicles for social commentary, identity formation, and communal engagement.

Beyond memes, the proliferation of viral narratives and challenges illustrate the dynamic nature of internet based storytelling. Urban legends such as reports of inexplicable phenomena or purported threats, mirror the moral and cautionary functions of classical folklore, yet are disseminated and amplified through social media platforms. These stories often oscillate between fact and fiction, blurring boundaries and engendering collective fascination or apprehension. Simultaneously, participatory campaigns, such as awareness-raising initiatives or social movements transform individual acts into shared narratives, fostering a sense of collective purpose and identity. The realm of celebrity fandoms has also become fertile ground for modern mythmaking. Conspiracy theories and elaborate backstories whether

regarding public figures or fictional characters are propagated and sustained within online communities. These narratives often attain a mythic quality, inspiring artistic expression, community rituals, and social discourse, thereby echoing the storytelling traditions of ancient cultures but in a digitally mediated form.

Moreover, virtual communities have cultivated their own mythologies comprising of symbols, rituals, and shared stories that serve to reinforce group cohesion. Subcultures centred around particular genres of entertainment, such as horror or gaming, develop narratives that deepen engagement and foster loyalty. These stories often involve cryptic clues or legends about hidden secrets that imbue virtual spaces, with a sense of mystery and ongoing discovery.

In contemplating the trajectory of digital storytelling, it becomes evident that the internet is poised to be universally regarded as an expansive, and ever so evolving archive of contemporary folklore. Future generations will likely perceive these digital narratives, memes, viral stories, online rituals, and shared myths; not merely as transient phenomena, but as integral facets of the cultural tapestry of our era.

These ongoing digital shenanigans, collective endeavours, and emergent legends will serve as a living chronicle of societal values, anxieties, and humour, preserved within the vast, interconnected repositories of cyberspace. As technological innovations continue to accelerate, the boundaries between reality and myth will further blur, ensuring that the internet remains an indelible record of human creativity and the enduring human tendency to craft stories, both profound and playful that define us across generations.



Kintsukuroi Art

The Better India Foundation



In this light, digital folklore is not merely a reflection of our present but a foundational legacy for the future's cultural historians to interpret and understand the complexities of our collective consciousness. Ultimately, this evolving digital tapestry does more than just archive our shared experiences. It actively shapes how future generations will likely perceive these digital narratives, memes, viral stories, online rituals, and shared myths; not merely as transient phenomena, but as integral facets of the cultural tapestry of our era.

These ongoing digital shenanigans, collective endeavours, and emergent legends will serve as a living chronicle of societal values, anxieties, and humour, preserved within the vast, interconnected repositories of cyberspace. As technological innovations continue to accelerate, the boundaries between reality and myth will further blur, ensuring that the internet remains an indelible record of human creativity and the enduring human tendency to craft stories, both profound and playful that define us across generations.

The internet did not replace the campfire; it merely expanded its glow to encompass the globe. This digital evolution of folklore proves an undeniable truth. Our mediums shift, but our impulse to build meaning through story remains. We are no longer passive listeners. We are active, co-creative participants. Every meme, viral thread, and collectively mourned tragedy is a pixel in a mosaic. We are building a living archive of the human experience in real time, written by everyone and owned by no one. In an era often criticized for its isolation, our hyper-connectivity has allowed us to laugh at the same absurdities and mourn the same losses from opposite sides of the planet. And no matter how cold technology becomes, the myths we build through it will always burn with human warmth.

A computer system uses a 32-bit byte-addressable virtual memory architecture, where the page size is 4 KB. The system is equipped with a 2-way set-associative physical cache that has a total storage capacity of 64 KB. Each cache block (or cache line) is 64 bytes in size. A program running on this system accesses the virtual memory address 0x001A3F44, and after the required address translation, the access results in a cache hit. Based on the given memory organization and cache configuration, determine the decimal value of the cache index bits that are extracted from the corresponding physical address. While solving the problem, make use of the provided details about the virtual memory system, page size, cache associativity, total cache capacity, and block size, ensuring that the cache index is correctly identified from the translated physical address.

## COMPUTER SCIENCE AND ENGINEERING

A database table contains 8,388,608 records. A balanced binary search index is used, and each comparison halves the remaining search space. In the worst case, how many comparisons are required to locate a record?

## INFORMATION TECHNOLOGY

The neutral base width of a bipolar transistor, biased in the active region, is  $0.5 \mu\text{m}$ . The maximum electron concentration and the diffusion constant in the base are  $10^{14} \text{ cm}^{-3}$  and  $D_n = 25 \text{ cm}^2/\text{sec}$  respectively in the base, the collector current density is (the electron charge is  $1.6 \times 10^{-19} \text{ Coulomb}$ ):

## ELECTRONICS AND COMMUNICATION ENGINEERING

A concrete gravity dam retains water up to 14 m on the upstream side, while downstream tailwater depth is 2 m. The dam rests on a stratified, anisotropic sand layer overlying impermeable bedrock, with horizontal permeability twice the vertical permeability. Determine seepage quantity.

## CIVIL ENGINEERING

Distillation of a non-reactive binary mixture with components A and B is carried out in a batch still as shown below. The initial charge of the mixture in the still is 1 kmol. The initial and final amounts of A in the still are 0.1 kmol and 0.01 kmol, respectively. Use a constant relative volatility is 4.5. The mole fraction of B remaining in the vessel is \_ (rounded off to three decimal places).

## CHEMICAL ENGINEERING

A 230 V / 115 V, 50 Hz single-phase transformer takes a no-load current of 1 A at a power factor of 0.2 lagging, with the no-load test conducted on the 230 V primary side. If the core loss of the transformer is measured at 50 Hz, the core loss component of the current  $I_0$  in Amperes is:

## ELECTRICAL ENGINEERING

A uniform cylindrical disc ( $m = 2.5 \text{ kg}$ ,  $r = 0.40 \text{ m}$ ) spins with initial angular velocity  $\omega = 20 \text{ rad/s}$  and is gently placed on a horizontal surface, with zero initial horizontal velocity. Gravity acts downward, and the coefficient of kinetic friction is finite and positive. Neglect all energy losses except kinetic friction. Determine the horizontal velocity of the disc's center when it just begins pure rolling without slipping.

## MECHANICAL ENGINEERING



Winner of the Tech inSights of Tiresia Volume 17, Issue 2 is Shubham Yadav, B.Tech 2<sup>nd</sup> Year, C.E.  
 Rest of the answers were either late or unsatisfactory.

# Consecration

## 01 FOOTSTEPS OF THE DESERT

The Rabari community of Gujarat and Rajasthan is celebrated for its nomadic pastoral lifestyle, vibrant embroidered attire, and camel herding traditions. Their oral folklore and handcrafted textiles preserve generations of resilience, artistry, and cultural pride.

~Ritesh Yadav, CSE 2<sup>nd</sup> Year



## 02 SONGS OF THE HIGHLANDS

Nestled in the hills of Nagaland, the Angami Tribe cherishes agricultural festivals, intricate shawl weaving, and community feasts. Their customs celebrate harmony with nature while strengthening unity, heritage, and ancestral values across generations.

~Gaurav Gupta, EE 2<sup>nd</sup> Year



## 03 ECHOES OF THE BAMBOO FORESTS

The Mizo community of Mizoram reflects cultural richness through bamboo dance, vibrant festivals, and close-knit village traditions. Their enduring respect for cooperation and nature continues to shape a harmonious and resilient society.

~Prathit Mishra, EE 2<sup>nd</sup> Year



## 04 DANCING WITH THE MONSOON

The Garo Tribe of Meghalaya celebrates Wangala, the Festival of Hundred Drums, expressing gratitude for a bountiful harvest. Traditional music, rhythmic dances, and communal celebrations embody their spiritual connection with nature.

~Kaustubh Nigam, IT 2<sup>nd</sup> Year



We invite all students to explore the sacred traditions, rituals, and cultural expressions that define humanity's diverse heritage. Draft a concise description of a cultural practice that inspires awe or reverence and submit it to [literaryedb@mmmut.ac.in](mailto:literaryedb@mmmut.ac.in). The most compelling entries will be published in the next issue of **Tiresia**.



# असंप्रज्ञात

“

इन्द्रिय-पथ सब लौट पड़े जब अंतःदीप्ति के घाट,  
जीवन-सरिता सागर पहुँची, नाम मिला असंप्रज्ञात।

अस्तित्व की यात्रा में मनुष्य अनेक पड़ावों से गुजरता है। वह सोचता है, विचार करता है, तर्क करता है और अनुभव संचित करता है। यह सब उसकी चेतना के जागृत स्वरूप की अभिव्यक्ति है। परंतु इन सबसे परे एक ऐसी अवस्था है जहाँ विचारों का प्रवाह थम जाता है, तर्क की सीमाएँ समाप्त हो जाती हैं और मन अपनी समस्त हलचल छोड़कर एक अखंड शांति में विलय को प्राप्त हो जाता है। यही अवस्था असंप्रज्ञात है।

योगदर्शन में कहा गया है कि वह समाधि जो समस्त संज्ञान से परे है, जहाँ चेतना अपने शुद्धतम रूप में प्रकट होती है, वहीं निर्विकल्प निर्बीज अवस्था असंप्रज्ञात है। महर्षि पतञ्जलि ने योगसूत्र में कहा है कि

"विरामप्रत्ययाभ्यासपूर्वः संस्कारशेषोऽन्यः।"

अर्थात् वह समाधि जो समस्त प्रत्ययों के विराम से प्राप्त होती है और जिसमें समस्त वृत्तियाँ शांत हो जाती हैं व संस्कारमात्र शेष रहते हैं वही असंप्रज्ञात है। यहीं चित्त की समस्त सीमाएँ विलीन होकर शुद्ध चैतन्य का अखण्ड प्रकाश प्रकट होता है। यह केवल

किसी योगी की दार्शनिक उपलब्धि नहीं है, अपितु यह उस प्रत्येक मनुष्य की संभावना है जो अपने भीतर की यात्रा पर निकला है सत्य की ओर निरंतर अग्रसर।

जब समुद्र में तूफान आता है तब मानो लहरें आकाश को छूने लगती हैं, जल का कण-कण उद्वेलित हो उठता है। परंतु उसी समुद्र की गहराइयों में एक अटल, अविचल, अप्रभावित शांति विद्यमान रहती है। असंप्रज्ञात ठीक इसी समुद्र की गहराई के समान है। बाहर संघर्ष हो, परिस्थितियाँ विषम हों, परन्तु तब भी उस गहराई में एक मौन प्रवाहित होता रहता है। यही मौन असंप्रज्ञात की पहली अनुभूति है।

आज के शिक्षार्थी और युवा जन इस अनुभव से अंजान नहीं हैं। परीक्षाओं का दबाव, भविष्य की अनिश्चितता, सम्बन्धों की जटिलता, अपेक्षाओं के भार के मध्य मन निरंतर चलायमान रहता है। विचारों का कोलाहल इतना तीव्र हो जाता है कि स्वयं का कलरव सुनाई देना बंद हो जाता है। जो इन संघर्षों को धैर्यपूर्वक पार कर लेते हैं, उनके अंतःकरण में एक स्थिरता का उदय होता है। यही क्षण असंप्रज्ञात का स्पर्श है।

यह संघर्ष के बाद का मौन केवल थकान नहीं है। यह उस भट्टी की तपन के बाद निकला कुंदन है जो भीतर की समस्त अशुद्धियों को जलाकर चेतना को उसके स्वच्छ स्वरूप में ले आती है। जिस प्रकार निशा तम के बाद ही प्रभात का उदय होता है, उसी प्रकार मानसिक संघर्ष की चरम सीमा के पश्चात् ही असंप्रज्ञात की वह शांति अवतरित होती है जो जीवन को एक नई दिशा देती है।

आस्तिक दर्शनों के अनुसार मनुष्य के भीतर मन, बुद्धि, अहंकार व इंद्रियाँ, ये सभी अलग-अलग दिशाओं में प्रवाहित होते रहते हैं। मन चाहता कुछ है, बुद्धि सोचती कुछ और है, इंद्रियाँ खिंचती किसी और ओर हैं। यह आंतरिक विखंडन ही समस्त दुःख और भटकाव का मूल कारण है। असंप्रज्ञात आत्मप्रबंधन की वह अंतिम और सर्वोच्च अवस्था है जहाँ यह समस्त विखंडन समाप्त हो जाता है। मन, बुद्धि, इंद्रियाँ और अहंकार सभी एक ही दिशा में संरेखित हो जाते हैं। यह संरेखण ही योग है, यही समता है।

श्रीमद्भगवद्गीता में भगवान श्रीकृष्ण ने इसी अवस्था की ओर संकेत करते हुए कहा है कि

"समत्वं योग उच्यते।"

समता ही योग है। और यह समता केवल बाहरी परिस्थितियों में संतुलन नहीं है, यह भीतर की वह दशा है जब मनुष्य सुख-दुःख, जय-पराजय, मान-अपमान से अप्रभावित रहकर अपने कर्म में पूर्णतः स्थित रहता है। असंप्रज्ञात इसी समता का परम स्वरूप है।

जब कोई साधक, विद्यार्थी अथवा साधारण मनुष्य इस अवस्था को स्पर्श करता है, तो उसका जीवन

आद्योपांत परिवर्तन को धारण करता है। उसके निर्णयों में स्पष्टता, कार्यों में दृढ़ता और व्यवहार में अकारण प्रसन्नता प्रकट होती है। वह भय से नहीं, विवेक से कार्य करता है। वह प्रतिक्रिया से नहीं, चेतना से जीता है। उसकी उपलब्धियाँ केवल उसकी नहीं रहतीं, अपितु समाज के लिए प्रेरणा बन जाती हैं। व्यावहारिक धरातल पर भी असंप्रज्ञात की अनुभूति अनेक रूपों में प्रकट होती है। वैज्ञानिक वर्षों के अथक शोध के पश्चात् एक निःशब्द क्षण में सत्य का साक्षात्कार करता है। वह क्षण प्रयोगशाला का नहीं, उसकी चेतना की गहराई का होता है। कवि जब शब्दों को नहीं खोजता, अपितु शब्द स्वयं उसके भीतर से उतरते हैं, तब वह माध्यम बन जाता है। ये उसी जागृत चेतना के विविध आयाम हैं जहाँ साधक और साधना का भेद मिट जाता है।

असंप्रज्ञात केवल ध्यान-कक्ष तक सीमित नहीं है। यह जीवन के प्रत्येक क्षेत्र में संभावित है, यदि मनुष्य अपनी आंतरिक यात्रा के प्रति सजग हो। संघर्षों को पलायन नहीं, साक्षीभाव से देखे। विचारों के चक्रवात में भी शांति से जुड़ा रहे। जब अस्तित्व के अंतरतम में यह मौन उतरता है, तो जीवन का प्रत्येक कर्म यज्ञ बन जाता है। प्रत्येक संबंध में करुणा और प्रत्येक चुनौती में अवसर दिखता है। जो मनुष्य इस अवस्था को स्पर्श कर लेता है, वह जीवन को बिना भेद, बिना थके, निरंतर देखता है। यह चेतना जब विस्तार पाती है, तो व्यक्ति और उसका परिवेश रूपांतरित होने लगता है। उसके शब्दों में शांति, कर्मों में निष्काम भाव और उपस्थिति में आश्वासन होता है। यही अवस्था ऋषियों ने जीवन्मुक्ति कही, देह में रहते हुए भी बंधनों से परे। असंप्रज्ञात कोई दार्शनिक पद नहीं, बल्कि जागृत चेतना है जो मनुष्य को बंधनों से मुक्त कर उसके वास्तविक, पूर्ण, शांत और आनंदमय स्वरूप का बोध कराती है।



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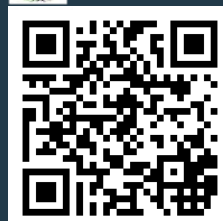


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