TIRESIA

Volume 17, Issue 2

The Editorial Board

-Beckoning Creati'wit'y

April Issue

Prismatic Pulse

#World Heritage Day

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Prof. B. K. Pandey, Chairman, CSA & Head of Department, PMSD

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April manifested amidst the ascendency of solar incandescence, when terrestrial luxuriance relinquished its vernal evanescence to atmospheres of fuliginous luminance and tremulous incalescence. Across the Indian subcontinent, gulmohar and amaltas approached their seasonal culmination of chromatic effulguration, while horizons quivered amid refracted strata of caliginous thermals. The month bore the sacral hierophany of Ram Navami, the contemplative sanctity of Mahavir Jayanti, and the resonant liturgies of Easter, as sanctuaries and processional avenues permeated the civic firmament. April remained contiguous with the commemorative observances of Earth Day, through which discourses surrounding climatic perturbation and ecological precarity attained transient preponderance. Elsewhere, alpine snowmelt descended from montane fastnesses into fluvial augmentation, while cumulonimbic architectures amassed across tropical latitudes with barometric portent yet pluviometric abstinence. Yet amidst these terrestrial transfigurations, April endured as a season of resplendent efflorescence, as arboreal canopies burgeoned into aureate and vermilion magnificence, while the atmosphere itself appeared suffused with ceremonial vitality heralding the triumphant plenitude of the approaching summer.

April's international and national temperament unfolded through a simultaneity of sanctity, governance, cultural inheritance, and public spectacle. Primarily, on April 4, at the Bangkok Para Archery event, teenage archer Payal Nag, in a reported contest, surpassed her world No. 1 teammate Sheetal Devi to clinch gold, reflecting heightened adaptive sporting excellence and competitive resolve. Subsequently, on April 14, 2026, the nation commemorated Ambedkar Jayanti, rekindling constitutional discourse, civic assemblies, and institutional reflection on democratic equity and republican continuity. Concurrently, the International Monetary Fund released its World Economic Outlook (April 2026 edition), updating global growth projections amid geopolitical uncertainty and renewed deliberations on fiscal stability and macroeconomic recalibration. Thereafter, on April 18, 2026, World Heritage Day was observed, renewing attention toward archaeological preservation and the safeguarding of civilizational memory.

Amidst an atmosphere of institutional activity, the Computer Engineering Society hosted Ennexus '26 from March 14, 2026 to March 18, 2026, conducting algorithmic contests and technical engagements. Furthermore, the Electronics and Communication Engineering Society organized Explora '26 from March 20, 2026 to March 22, 2026, involving technical participation and departmental activities. Concurrently, the Coders & Developers Club conducted AlgOlympics 2026 from March 20, 2026 to April 03, 2026, focusing on competitive programming and analytical aptitude. Meanwhile, Hack With India, MMMUT, carried out its induction process from March 22, 2026 to April 03, 2026, emphasizing development practices and collaborative innovation. Following this, Google Developers Group Campus MMMUT conducted its induction from March 23, 2026 to April 05, 2026, promoting engagement and outreach. In parallel, the Cultural Subcouncil organized Abhyudaya '26 from March 27, 2026 to March 29, 2026, transforming the university atmosphere through artistic performances. Meanwhile, the Coders & Developers Club, MMMUT, extended its induction from March 28, 2026 to April 11, 2026. Finally, **The Editorial Board** conducted its induction drive from April 03, 2026 to April 06, 2026, encouraging participation from students possessing creative expression and organizational discipline.

Beneath a saffronic hush of declining radiance, April, in its translucent withdrawal, subsided into velutinous stillness, conceding arrival to May's freshly kindled resplendence. Gradually, the terrestrial firmament released its aureate memory, while temporal frontiers metamorphosed into luminous commencements, and the departing month relinquished its vernal opulence to summer's muted ascendancy. Thereafter, May emerged in fervent effulgence, suffusing the atmosphere with solar vibrancy and ceremonious warmth, as horizons awakened beneath expanding brilliance and seasonal vitality. Thus, April recedes in tranquil metamorphosis, leaving behind an intimation of rejuvenescence within existence's unfolding continuum. Within this atmospheric evanescence, **The Editorial Board** presents its April issue of Tiresia, offering a meditative traverse through this temporal metamorphosis.

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
Malaviya University
of Technology,
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www.mmmut.ac.in
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It is with a sense of responsibility and reflection that I present this message for the current edition of Tiresia. The recent months have been marked by steady academic engagement, evolving student initiatives, and a growing sense of collective responsibility. This period reflects a community actively shaping its vision through purposeful effort and meaningful participation. It also highlights the resilience and adaptability of our students and faculty in navigating an ever-evolving academic landscape.

The campus witnessed a vibrant blend of intellectual and extracurricular engagement through the successful organization of Aayaas, the annual sports meet, marked by energy, discipline, and sporting spirit. TechSrijan, the college's technical fest, further enriched this phase by fostering innovation and technical exploration. Arunoday, the annual literary fest by **The Editorial Board**, offered a platform for creative expression and intellectual exchange. The inaugural Malaviya Model United Nations emerged as a notable initiative, setting the foundation for a promising tradition.

The University advanced its academic pursuits through the successful organization of international conferences such as ICADMSES-2026, SASWIGR-2026, ICRAMEE-2025, and GTSS-2026, reinforcing its commitment to research and global engagement. A Faculty Development Programme on Electric Vehicles was organised by AICTE, and the ITCA Department conducted an NBA Accreditation Workshop, reflecting a focus on quality enhancement. These initiatives collectively strengthen the University's academic ecosystem and institutional credibility.

In the sphere of innovation, six student-led startups represented the University at the AI Impact Expo at Bharat Mandapam, New Delhi, highlighting a growing culture of applied entrepreneurship. Notably, a student from the Information Technology branch secured a placement package of Rs. 45 LPA. The University's selection under the NRF PAIR Programme, along with a grant of Rs. 2 crore from ISM Dhanbad, marks a significant milestone in its research journey. MMMUT has also been recognized as a nodal centre for the IIRS programme of ISRO. Such accomplishments reflect the Institution's growing prominence in both academic and innovation-driven domains. They further reinforce the University's commitment to nurturing talent and advancing impactful research.

Complementing these developments, the establishment of the Centre for Extension and Field Outreach aims to foster social responsibility among students, while the approval of the MMMUT Foundation seeks to strengthen the startup ecosystem. The University also marked Uttar Pradesh Sthapna Diwas with cultural programmes celebrating the state's heritage proudly. I extend my sincere appreciation to **The Editorial Board** for their thoughtful curation of this edition of Tiresia. I am confident this issue will engage readers with insight and reflect the evolving character of our academic community.

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

Tête-à-tête

A talk with Mr. Deepak Sarga

Mr. Deepak Sarga, a distinguished alumnus from the Electrical Engineering batch of 1975, has led a remarkable journey across engineering, entrepreneurship, and later professional astrology. His career reflects adaptability, curiosity, and purpose. Beginning as a trainee engineer in a captive power plant and later working with organizations such as National Thermal Power Corporation (NTPC) and packaging machinery firms, he eventually established his own business, serving clients including Hindustan Unilever Limited (HUL), Tata, and Cadbury. In later years, he pursued astrology through formal study and now practices it professionally while engaging in spiritual and social work. His story reflects lifelong exploration and reinvention beyond conventional career paths. Through his reflections on career and growth, he offers valuable insights for the younger generation. **The Editorial Board** had the honour of interacting with him to gain insights into his inspiring journey shaped by decades of learning and transformation.

Q How were your initial days in college, and what memories do you cherish from that time?

A The early days of college were a completely new experience, as we had just finished school and were still adapting to independent life. Over time, the college environment shaped our personalities and taught us responsibility and self-reliance. One of the most memorable parts of those years was the friendships we formed. Our batch was small, so everyone knew each other well. Living in Raman Hostel gave me some of my most cherished memories, from long conversations about studies and life to simple moments spent having tea outside campus. Although the campus was much smaller then, it had a strong sense of community. Even small adventures, like taking the only bus to town and watching multiple movies before returning late to the hostel, became unforgettable experiences that I still remember fondly.

Q Could you tell us about your professional journey after graduating from college?

A After completing my degree, I began my career as a trainee engineer in a captive power plant associated with Hindalco. The training period was meant to last one year, but within six months, I was given significant operational responsibilities. One of my early assignments involved synchronizing generators with the grid, which was quite a major responsibility for a young engineer. Later, I joined the National Thermal Power Corporation (NTPC) in Delhi and worked there for about four years. Although it was a prestigious and stable position, I realized that I had a natural interest in interacting with people and exploring business opportunities. Because of this inclination, I eventually transitioned into sales and marketing roles in the private sector, working with companies involved in packaging machinery. As a regional manager, I travelled extensively across North India, meeting clients and expanding the market for our products.

Q You later ventured into entrepreneurship and started your own business. What motivated you to take that path?

A After gaining several years of experience in the private sector, I felt confident enough to start my own venture. I established a proprietorship firm that supplied spare parts and machines for packaging systems. Our team worked with several reputed companies, including Hindustan Unilever Limited (HUL), Tata, and Cadbury. Many of these companies previously depended heavily on imported machinery, and we were able to meet some of their requirements locally. Building a business from scratch and serving such well-known clients was an extremely rewarding experience. It also gave me valuable insights into leadership and management. I continued this work for many years until 2015, when I decided to gradually step away from business as my children were well settled and the demands of running the company were quite high.

Q You eventually studied astrology and began practicing it professionally. How did this interest develop?

A Astrology had always been a subject that fascinated me deeply. Along with my professional life, I had developed a strong interest in meditation, spirituality, and traditional knowledge systems. This curiosity motivated me to pursue formal education in astrology. I studied astrology in Delhi for five years, including both academic study and research. After completing my studies, I

A meaningful life is built by embracing change, pursuing purpose, and continuing to learn beyond conventional boundaries.

began offering consultations. Today, many people approach me for guidance, and I see it as a form of social service as well. Through this work, I have been able to understand the challenges people face in life and try to help them find clarity and direction.

Q Which experiences or lessons from your college years had the greatest impact on shaping your personal and professional life?

A The most important lesson I learned during college was independence. Living away from home meant that we had to make our own decisions regarding studies, health, finances, and everyday responsibilities. This sense of independence prepared us to handle real-life situations with confidence later on. Equally important was the spirit of healthy competition among peers. Seeing friends study late into the night often motivated us to work harder and strive for better performance. Participation in sports and cultural activities also helped build confidence, teamwork, and discipline. I represented the college cricket team and took part in cultural programs, experiences that taught me balance and shaped my overall growth.

Q You have transitioned through several professions during your life. Did you face societal pressure while making these decisions?

A Yes, moving from a government job to the private sector was considered an unusual decision at that time. However, my family was supportive. My father had worked in the private sector, so they trusted my judgment. I believe that sometimes we receive an inner calling about what we truly want to pursue. If we listen to that voice and work sincerely, the journey becomes meaningful and rewarding. Choosing a path based on conviction rather than convention allows for a level of personal fulfillment that traditional security alone cannot offer.

Q Many people view their twilight years as a time to slow down, yet you continue to stay curious and pursue meaningful learning. What mindset or beliefs keep you motivated to remain active and engaged?

A In my view, age is largely a mental barrier. A person can remain curious, active, and productive at any stage of life if they maintain a positive mindset. Meditation and spirituality have helped me stay focused and content. I believe the mind should always be engaged in meaningful pursuits, because growth stops only when you stop learning. Remaining active keeps both the mind and spirit healthy. Rather than slowing down, life's later chapters can become a time to align experience with personal passions and meaningful pursuits.

Q What advice would you like to give to the current students regarding their responsibilities toward their alma mater and society?

A I believe that while building a successful career and achieving financial stability are important aspirations, students should also strive to contribute meaningfully to the reputation and progress of both their college and the nation. When alumni work sincerely and achieve success, it enhances the image of the institution they belong to. A strong reputation of the college benefits future batches as well. It creates more opportunities and builds trust in the quality of education the institution provides. Therefore, students should not only focus on personal success but also think about how their work and achievements can contribute to the larger community and create a meaningful positive impact.

Mr. Deepak Sarga with his team.

Colloquy

PROF. B. K. PANDEY

Chairman, Council of Student Activities, & HoD, Department of Physics & Material Science, MMMUT

Designation: Chairman, Council of Student Activities, & Professor & HoD, Department of Physics and Material Science, MMMUT

Qualification: D. Phil. (H. N .B., Shrinagar), M. Sc. (RMLAU, Ayodhya), B. Sc. (KNIPSS, Sultanpur)

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, has served as DoSA, CSA Chairman, Chief Warden, and on committees like the Board of Management, Academic Council, and Finance Committee, along with holding the position of Dean Research and Development and Professional Practices

Awards: Best Performing Head – ACU-2019 (Gorakhpur)

Prof. Brijesh Kumar Pandey earned his D. Phil. (Ph. D.) from H. N. B. Garhwal central University Shrinagar, specialising in Bond Structure in Organic Solids. Over the course of his distinguished career, he has built a strong academic and research profile, contributing extensively to the fields of nanoscience and renewable energy. His research accomplishments encompass diverse domains including solar cells, thermophysical properties of nanomaterials, thermal conductivity of nanofluids for coolant technologies, thermoelastic properties of bulk materials, and molecular modelling through first-principles DFT studies.
He has authored 168 research papers, comprising 35 national and 133 international publications, alongside 27 books and 5 book chapters. His scholarly contributions further include 4 patents, with one internationally granted. He has supervised extensive academic research, guiding 7 awarded Ph.D. scholars and 36 completed M.Sc. dissertations. With 959 citations, an H-index of 14, and an i10-index of 22, his academic influence remains remarkably distinguished and impactful.

Q If you had not pursued a career in academia, what other profession do you think you might have chosen and why?

A If I had not pursued a career in academia, I would likely have chosen a profession in administration. Because I think that it is the duty of an able and capable person to contribute to their nation in such a way that can lead his nation worldwide. It can be done by shaping the careers of bright young minds or by introducing policies at the global level, which can be done by being in the position of a teacher or administrator.

Q If you could give one piece of life advice to your younger self at the beginning of your career, what would it be?

A One piece of advice I would give to my younger self at the beginning of my career is to remain patient, curious, and persistent in the pursuit of knowledge. A career in academia and research is a long journey that requires continuous learning, dedication, and resilience. Most importantly, I would remind my younger self that consistency and passion for learning are the key factors that lead to long-term success and fulfillment in both academic and professional life.

Q After spending so many years in the academic environment, what continues to inspire you to work with students and contribute to the university community?

A After spending many years in the academic environment, what continues to inspire me is the opportunity to shape young minds and contribute to the growth of future scientists and professionals. This shloka always pushes me further to keep working with freshers :

अमंत्रमक्षरं नास्ति नास्ति मूलमानौषधम्।
अयोग्यः पुरुषो नास्ति योजकस्तत्र दुर्लभः॥

Its summarized meaning is that no human is useless and incompetent. Working with students keeps the academic atmosphere dynamic and intellectually stimulating. Their curiosity, questions, and new perspectives often encourage me to keep learning and exploring new ideas in academics, fostering a culture of lifelong intellectual growth. Another source of inspiration is the satisfaction that comes from mentoring students in their research and academic development. Additionally, being part of the university community allows me to contribute through teaching, research, and administrative responsibilities,

which together help strengthen the academic environment and promote innovation and collaboration within the institution.

"Energy at the atomic frontier glow."

Q What role should universities play in encouraging social responsibility among students?

A Universities play a very important role in shaping not only the academic abilities of students but also their sense of social responsibility. Higher education institutions should encourage students to understand that their knowledge and skills must ultimately contribute to the betterment of society. One way to achieve this is by integrating social awareness and ethical values into the curriculum, so that students recognize the impact of science, technology, and education on communities and the environment. Universities can also promote social responsibility by encouraging students to participate in community outreach programs, environmental initiatives, and social service activities. In addition, universities should create opportunities for students to apply their knowledge to real-world societal challenges, such as sustainable development, renewable energy, and technological solutions that benefit society. This helps students realize that education is not only about personal success but also about contributing positively to the community.

Q How should student clubs and societies contribute to leadership development among students? What should be the ideal way student bodies should conduct?

A Student clubs and societies play a vital role in developing leadership skills and personality organize events, manage teams, communicate effectively, and take responsibility for different activities. Through these experiences, students develop important qualities such as decision-making, teamwork, problem-solving, and accountability, which are essential for future professional and personal success. Finally, students can achieve their overall personality development through extracurricular activities.

Q As higher education continues to change rapidly, what qualities do you think universities should focus on developing in students to prepare them for the future?

A As higher education continues to evolve rapidly, universities should focus on developing adaptability, critical thinking, and a strong foundation of knowledge in students. In a world driven by technological advancement and global challenges, students must be able to learn continuously and adapt to new situations and emerging fields. Another important quality is analytical and problem-solving ability. Universities should also emphasize interdisciplinary learning and collaboration. Many modern challenges-such as sustainable energy, environmental protection, and technological development require communication skills. Students who combine technical knowledge with integrity, teamwork, and leadership abilities are better prepared to contribute meaningfully to society and succeed in an ever-changing global environment.

Q Finally, what message would you like to share with the students of MMMUT about curiosity, perseverance, and the pursuit of knowledge?

A My message to students of Madan Mohan Malaviya University of Technology is to remain curious and never stop asking questions. As expressed in the line, "Is path ka uddeśya nahi hai, śrānta bhavana me tike raho, tumhe pahuncana us seema par jisse aage raah nahi," the journey of learning demands continuous effort and determination. Curiosity forms the foundation of discovery, while perseverance and patience sustain progress. Challenges and failures are inevitable, but they are essential for growth. Education is not merely about earning degrees; it is about developing critical thinking, problem-solving abilities, and sense of responsibility toward society. Guided by integrity, dedication, students can achieve personal success.

DEC 11 **TechSrijan '26**, the annual technical fest of the University, was organized by the **Technical Sub-Council**, encompassing the **Robotics Club** and **Institute of Electrical and Electronics Engineers**, from **December 12, 2025** to **December 14, 2025**. The event showcased through Incognito, RoboKriti, and Mind Hustle across campus.

DEC 11 **IDEATHON '25**, organized by **FLUX** from **December 11, 2025** to **December 19, 2025**, challenged students to pitch interdisciplinary prototypes addressing real-world problems. Expert evaluators shortlisted the most impactful multidisciplinary ideas for patent support, effectively fostering a culture of research, innovation, and entrepreneurial problem-solving.

DEC 15 **TechSprint**, organized by **Google Developer Groups (GDG)**, was a hackathon conducted from **December 15, 2025** to **January 15, 2026**. Students collaborated in teams to develop technological solutions while enhancing their technical and collaborative skills. This month long odyssey served as a formidable platform for the cultivation of pioneering ideologies and the manifestation of technical excellence.

DEC 27 **HEATS '25**, organized by **Cultural Synod** on **December 27, 2025** and **December 28, 2025**, provided platform for students to showcase their talents in dance, music, drama, and fine arts. The performances celebrated creativity and artistic expression within the university community. This two-day cultural extravaganza served as a testament to the university's vibrant heritage, leaving an indelible mark of inspiration on all who attended.

JAN 11 **Pintura de Pilares**, conducted by **Cultural Synod** on **January 11, 2026**, was a vibrant and engaging pillar painting competition that transformed ordinary architectural spaces into striking works of art. It provided artists a platform to express cultural, social, and creative themes through their artistic vision.

JAN 13 **Agentic AI Workshop**, by **AI Spark**, commencing on **January 13, 2026**, was a six-day immersive event covering advanced frameworks like Transformers and LangChain. Participants cultivated practical expertise by developing an end-to-end RAG-based project, FlashDeck AI, effectively driving hands-on innovation in AI.

JAN 13 **Pararth '26**, by **National Service Scheme**, conducted from **January 5, 2026** to **January 12, 2026** and inaugurated on **January 13, 2026** at Aryabhatta Hall, was a clothes donation drive promoting compassion and responsibility. The garments were later distributed to underprivileged communities, supporting welfare initiatives.

JAN 13 **Capture The Flag**, by **Computer Engineering Society (CES)**, scheduled from **January 13, 2026** to **January 17, 2026**, was a rigorous competitive cybersecurity event designed to test logical thinking and problem-solving skills. Participants solved intricate challenges across domains such as cryptography, web exploitation, and reverse engineering to uncover hidden "flags."

JAN 17 **The Editorial Board**, organized **Arunoday '26**, with preliminary rounds on **January 17, 2026** across various hostels and the **Malaviya Model United Nations** on **January 18, 2026** at the Multipurpose Hall. The event featured a sophisticated vibrant confluence of poetry, literature, painting, and exemplary diplomatic debate, encouraging creativity and engagement while nurturing profound intellectual expression.

FEB 07 **Literario**, by the **Electronics and Communication Engineering Society (ECES)**, held from **February 7, 2026** to **February 14, 2026**, celebrated poetry and literary expression during Valentine's week. Students shared poems and writings reflecting emotions and experiences, bridging technical landscapes with emotional expression through the power of verse and meaningful connection.

FEB 20 **AAYAAS '26**, the Annual Sports Fest by the **Sports Sub-Council**, held from **February 20, 2026** to **February 21, 2026** at Shaheed Bandhu Singh University Stadium, featured events like relay races, long jump, shot put, and track competitions. The fest celebrated athleticism, teamwork, and the sporting spirit of students.

FEB 24 **Blood Donation Camp**, by **National Service Scheme**, organized in collaboration with District Hospital on **February 24, 2026**, witnessed active participation from students, faculty members, and staff. The initiative promoted voluntary blood donation and community service while manifesting altruism and fostering culture of health and humanitarian responsibility.

FEB 27 **ELECTRA '26**, organized by the **Electrical Engineers Legation (EEL)**, from **February 27, 2026** to **March 1, 2026**, was the annual techno-management fest featuring events like Circuitous, Tesla, Lantastic, and Chronicler, celebrating innovation, creativity, and technical excellence, while fostering a spirit of collaboration and among students.

CAMPUS

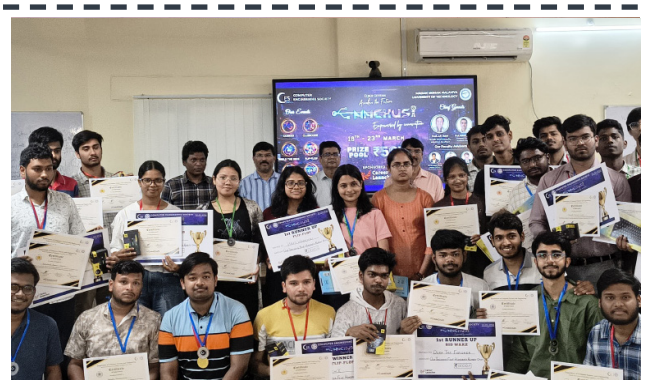
MAR 01 **MMMUT Reso**, conducted its induction process, from **March 01, 2026** to **March 21, 2026**, providing freshmen with a highly formidable platform to manifest pioneering technical creativity and transformative innovative projects. The drive effectively identified visionary and dedicated individuals while fostering collaborative innovation among passionate aspiring members across various branches.

MAR 11 **FLUX**, conducted its inductions from **March 11, 2026** to **March 21, 2026**, evaluating freshmen through rigorous multi-stage assessments focused on interdisciplinary innovation. The drive successfully identified exceptional and enthusiastic individuals ready to propel the society's research and technical activities.

MAR 20 **Explora '26**, by the **Electronics and Communication Engineering Society (ECES)**, held from **March 20, 2026** to **March 22, 2026**, featured events like 'Quantico' and 'Electromatic.' The fest provided students a platform to showcase technical excellence, creativity, and analytical skills through competitive activities.

MAR 12 Spearheaded by Vice-Chancellor **Prof. J. P. Saini sir**, **MMMUT ICADMSES-2026** has been convened on **March 12, 2026** and **March 13, 2026**, NEXUS for industrial collaboration. The conference blends global keynotes, from IIT Kanpur and UMP Malaysia with diverse technical sessions, exploring mechanical engineering advancements to redefine material science.

MAR 18 **ENNEXUS '26**, by the **Computer Engineering Society (CES)**, hosted from **March 14, 2026** to **March 18, 2026**, featured six intellectually rigorous challenges including CTF 2.0 and BidWarz. The event provided students a dynamic platform to demonstrate coding proficiency, strategic thinking, and collaborative innovation through diverse problem-solving exercises and competitive technical engagement.



BUZZ

MAR 20 **AlgOlympics '26**, by the **Coders & Developers Club (CDC)**, organized from **March 20, 2026** to **April 03, 2026**, was modeled after the globally prestigious ACM-ICPC to cultivate a sophisticated competitive programming culture. The initiative challenged participants through a rigorous two-round format, effectively manifesting unparalleled technical mastery, collaborative resilience, and strategic problem-solving excellence.

MAR 22 **Hack With India (HWI)**, conducted its inductions from **March 22, 2026** to **April 03, 2026**, welcoming freshmen through a highly rigorous three-stage evaluation of their leadership and technical aptitude. The initiative successfully inducted dedicated members while fostering professional growth and collaborative excellence among the aspiring participants.

MAR 23 **Google Developers Group (GDG)**, conducted its induction from **March 23, 2026** to **April 05, 2026**, comprehensively evaluating technical proficiency and problem-solving through a multi-stage selection process. The initiative successfully fostered a collaborative environment, welcoming passionate innovators into its vibrant technical community.

MAR 28 **Coders & Developers Club,** conducted its induction from **March 28, 2026** to **April 11, 2026**, identifying proficient programmers through rigorous meticulously crafted and highly rigorous technical assessments and interviews. The process successfully onboarded passionate individuals dedicated to manifesting technical innovation and collaborative growth within the community.

MAR 27 **Abhyudaya '26**, by the **Cultural Sub-Council**, held from **March 27, 2026** to **March 29, 2026**, was the Annual Art, Cultural and Literary Fest featuring over 40+ events and three musical concerts. The fest witnessed vibrant statewide participation, celebrating cultural diversity, artistic expression, and collaborative student engagement.

SIGNAL SUPREMACY

He who commands the invisible domain dictates the kinetic reality of the modern battlefield.

The electromagnetic spectrum is no longer a passive scientific continuum but a structured arena of strategic competition. In contemporary statecraft and warfare, power is mediated through control of signals that traverse this invisible domain. Communications networks, surveillance architectures, navigation constellations, and precision strike systems all depend upon stable and protected access to specific frequency bands. As political authority and military effectiveness become increasingly data-driven, the capacity to command, exploit, and deny electromagnetic signals assumes systemic importance. Signal supremacy, therefore, reflects institutionalized control over the informational bloodstream of modern power.

The spectrum's strategic centrality arises from its role as the medium through which information is generated, transmitted, and interpreted. Radio frequency communications connect dispersed units across land, sea, air, space, and cyber environments, enabling synchronized maneuver and coordinated operations. Radar systems emit electromagnetic waves and analyze reflected energy to construct operational awareness across contested airspace and maritime corridors. Satellite-based positioning, navigation, and timing services provide temporal precision for network-centric operations and guided munitions, while signals intelligence platforms harvest adversary emissions to infer intent and operational capability. Dominance within this environment directly shapes awareness, coherence, and operational tempo, whereas degradation creates fragmentation and strategic vulnerability.

Modern doctrine embeds spectrum control within core operational planning through electronic warfare. Electronic support measures detect, classify, and geolocate hostile emissions, transforming raw signal activity into actionable

intelligence, while electronic attack employs directed energy or manipulated transmissions to disrupt, degrade, or deceive adversary systems. As a result, commanders increasingly treat spectrum management alongside maneuver and logistics because electromagnetic superiority conditions operational viability across domains.

Jamming represents a principal instrument of electronic attack because it deliberately transmits electromagnetic energy to interfere with an adversary receiver's ability to extract meaningful information. Noise jamming elevates background energy levels and reduces signal clarity below functional thresholds, whereas deceptive jamming introduces crafted emissions that mimic legitimate signals and distort sensor interpretation or command channels. Spot jamming targets discrete frequencies, while barrage jamming spans broader bands at greater energy expenditure, creating layered disruption effects.

The operational consequences of effective jamming are substantial because disruption of satellite navigation signals can induce positional errors in precision munitions and autonomous platforms, while interference with tactical communications fractures command hierarchies and delays coordinated action. Radar suppression or deception further compresses decision cycles and obscures targeting processes. However, jamming remains constrained by exposure and escalation risks since high-power emissions reveal the jammer's signature and may invite counterstrike.

Persisten vulnerabilities have driven sustained investment in resilience and spectrum hardening. Frequency hopping distributes transmissions across shifting channels, spread-spectrum modulation reduces susceptibility to

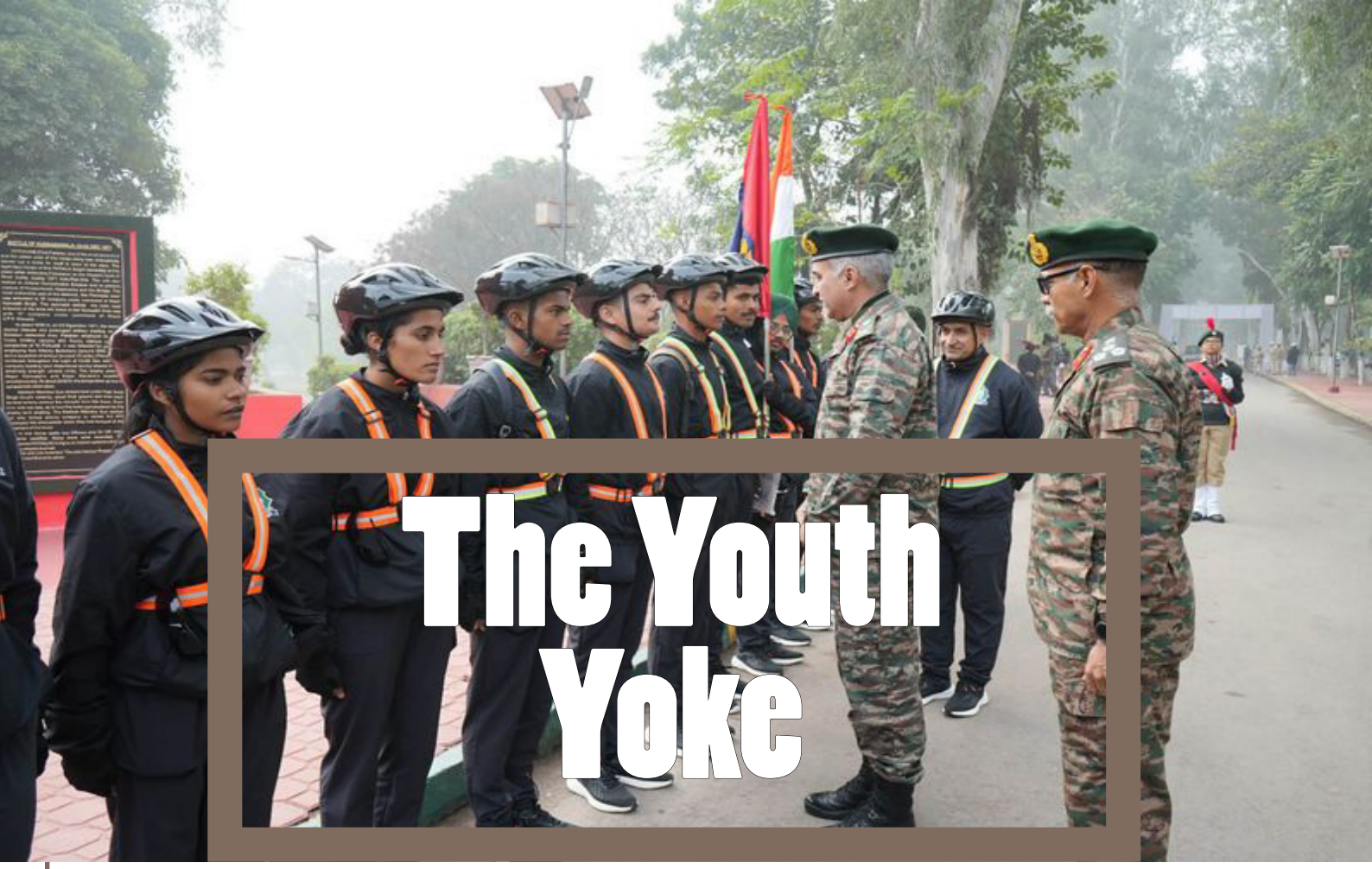
Tactical Satellite Antennas

Precision Signal Routing

narrowband interference, and directional antennas with adaptive beamforming limit exposure while concentrating power toward intended receivers. Encryption and authentication further mitigate deceptive manipulation risks. Architecturally, distributed networks, redundant communication pathways, and integration of terrestrial and space-based links reduce single points of failure and strengthen survivability under contested conditions.

Strategically, spectrum dominance shapes deterrence, escalation management, and grey-zone competition. Demonstrated capacity to disrupt adversary command, control, and intelligence networks exposes fragility and influences risk calculation. Calibrated interference below the threshold of kinetic force offers coercive leverage while preserving plausible deniability. Power projection increasingly depends upon secure satellite communications and infrastructures, meaning states unable to assure resilient spectrum access face constraints.

Future spectrum warfare will be defined by convergence with cyber capabilities and artificial intelligence. AI-enabled signals intelligence systems can analyze electromagnetic datasets in real time, identify anomalies, and optimize adaptive responses. Machine learning may dynamically allocate frequencies under contested conditions to enhance survivability, while cyberelectromagnetic integration will blur distinctions between network intrusion and signal disruption as software vulnerabilities intersect with radio hardware. In this evolving environment, disciplined doctrine, resilient architecture, and innovation will remain essential because control of signals will continue to shape modern power.



The Youth Yoke

In a world that never stops demanding, strength lies in knowing when to pause.

We stand at the summit of human connectivity. Today's youth inherit a landscape where boundless opportunities and instantaneous information have erased the geographic friction of the past. It is a marvel of human achievement and a turning point in how individuals engage with knowledge, ambition, and identity. Yet beneath this seamless connectivity lies a constant pressure that quietly drains the mind. The very tools designed to liberate young minds have tethered them to a relentless cycle of social expectations.

We frequently celebrate our hyperconnected reality while ignoring the epidemic of exhaustion it leaves behind. This contradiction lies at the heart of modern youth experience. Today's youth step into adulthood beneath the weight of endless possibilities and mounting expectations. However, the pressure to seize every opportunity has created a generation perpetually out of breath. Young people must balance massive societal expectations with their emerging anxieties in a world that demands constant visibility. They are told every moment must be optimized for future gain. This constant readiness drains psychological reserves and leaves little room for simply being young. The youth yoke is a cognitive overload born from the promise of having everything at once.

Society has been built upon the dangerous idea that human potential can grow at the same rate as our technology. We have structured our lives around relentless schedules, celebrated the cult of hustle, and created social algorithms to live by. We have been convinced that, by learning to master the tools of productivity, we can beat time itself. Institutions assure us that they support student mental health while continuously raising the bar for success. In doing so, we have normalized a pace of life that is difficult

to sustain. For a brief time, the world believed it had mastered the modern grind. But the inevitable failures soon began to appear. Young minds are working too much, nervous systems are overheating, and rising mental health concerns remind us of our psychological limits. Quiet burnouts in university libraries, constant background anxieties, and fears of being left behind in a world of digitally filtered peers are not isolated glitches; they are fractures in a broken model of living.

Every time a young person struggles under overwhelming expectations, it reveals the reality of human limits. We cannot master the human spirit by forcing it to perform at the speed of a fiber optic cable. Nor can we algorithmically program our way out of fundamental human needs. In order to move forward successfully in this complicated world, we must redefine what it truly means to succeed. The only way to achieve lasting success is by pursuing present goals without sacrificing the mental strength required for the future. This demands a conscious recalibration of priorities where well-being is valued alongside achievement.

Resilience is not about making ourselves tougher to withstand more stress, nor is it about retreating from the world altogether. It is about participating consciously, creating healthy boundaries, and choosing depth over meaningless achievement. Sustainability means moving forward without sacrificing the mental and emotional balance that supports our growth. We are already witnessing this shift as young people work to dismantle mental health stigmas, hold institutions accountable, and create spaces for genuine human connection. They understand that true progress cannot exist without protecting the emotional well-being that sustains it. Healing from the pressures of modern academia and constant competition requires a fundamental shift in how we value our time, energy, and sense

Youth Empowerment

Asian Ecumenical Youth Assembly

of self. We must strive for more than mere survival.

Simply adapting to pressure may help us endure, but growth comes from responding with awareness and intention. Real growth is not measured by how quickly we move, but by how thoughtfully we shape our path forward. If this generation hopes to create a healthier future, it must begin by redefining success itself. The burden carried by today's youth reflects the moral cost of a culture that equates worth with endless productivity. As our capabilities expand, our humility and self-awareness must expand with them.

When understood properly, fear can serve not as a weakness, but as a reminder of our human limits and a catalyst for healthier systems, stronger support structures, and more compassionate ways of living. We must reconsider what it truly means to be capable. Capability should not be measured solely through achievement and exhaustion. True power does not come from endless achievement or carefully curated digital identities. It comes from understanding ourselves more deeply, exercising control over what truly matters, and appreciating the peace we already possess.

Our generation's legacy will not be defined solely by accomplishments displayed on digital profiles, but by the wisdom with which we choose our limits and protect our humanity. We must learn that enough can, in fact, be enough, and find the courage to step away from comparisons that never truly end. In doing so, we create room for healthier and more meaningful lives. In the end, perhaps our strength will come not from escaping our limitations, but from understanding them. Only then can we embrace opportunity without losing ourselves to it, and build futures sustained by healthy minds.

TECH inSights

Mail your answers at literaryedb@mmmut.ac.in

A computer uses a 32-bit byte-addressable virtual memory system with a 4 KiB page size. The system has a 2-way set-associative Physical Cache with a total capacity of 64 KiB and a block size of 64 bytes. If a program accesses the virtual address 0x001A3F44 and this results in a cache hit, what is the decimal value of the cache index bits extracted from the corresponding physical address?

COMPUTER SCIENCE AND ENGINEERING

A packet router receives packets from 4 independent incoming links. The probabilities that a packet arriving on the links is corrupted are:

Link 1 → 1/10, Link 2 → 1/100, Link 3 → 1/1000, Link 4 → 1/10000,

For each corrupted packet, the router generates an 'error-report' message whose information content is given by: $I(x) = -\log P(x)$, during one processing cycle, exactly one packet arrives from each link. The router stores all 'error report' generated in that cycle. Find the maximum possible total information (in bits) stored by the router in one cycle.

INFORMATION TECHNOLOGY

The cutoff frequency of TE_{01} mode of an air filled rectangular waveguide having inner dimensions a cm × b cm (a > b) is twice that of the 'dominant TE_{10} mode'. When the waveguide is operated at a frequency which is 25% higher than the cutoff frequency of the dominant mode, the guide wavelength is found to be 4 cm. The value of b (in cm, correct to two decimal places) is.

ELECTRONICS AND COMMUNICATION ENGINEERING

Water (ρ = 1000 kg/m^3) flows steadily through a horizontal pipeline that suddenly contracts from a diameter of 200 mm to an unknown diameter d. At the larger section, the gauge pressure is 120 kPa and the velocity is 2 m/s. Neglecting friction losses. If the gauge pressure at the smaller section is found to be 0 kPa, determine the contracted diameter d of the smaller section.

CIVIL ENGINEERING

Find the first-order rate constant for the disappearance of A in the gas reaction 2A -> R if, on holding the pressure constant, the volume of the reaction mixture, starting with 80% A, decreases by 20% in 3 min.

CHEMICAL ENGINEERING

A Universal series motor has a resistance of 32 ohm and an inductance of 0.65 H. When connected to a 240-volt DC supply and loaded to take 0.8 A, it runs at 2000 rpm. Determine the speed, torque and power factor when connected to 240-volt, 50 Hz AC supply and loaded to take the same current.

ELECTRICAL ENGINEERING

A solid circular shaft of diameter d is subjected to a suddenly applied twisting torque T. The maximum shear stress developed is β, under the given loading conditions. The shaft is made of a homogeneous and isotropic material with uniform cross-section throughout its length. If the diameter of the shaft is doubled, keeping the torque same, what will be the new maximum shear stress?

MECHANICAL ENGINEERING

Winner of the Tech inSights of Tiresia Volume 17, Issue 1 is Rajveer Singh, B.Tech 2nd Year, ChE.
Rest of the answers were either late or unsatisfactory.

Consecration

01

RHYTHMS OF THE RED EARTH

The Santhal Tribe of eastern India intertwines cultural heritage with forests, rivers, and agrarian life through vibrant festivals, rhythmic dances, and folk traditions. Oral storytelling and rituals preserve their resilience, ecological wisdom, and collective identity.

~Mayank Sharma, CE 2nd Year

VALLEY OF LIVING TRADITIONS

In Arunachal Pradesh's Ziro Valley, the Apatani Tribe excels in wet-rice cultivation and sustainable land management, balancing human life with nature. Seasonal ceremonies strengthen social bonds and honor abundance.

~Anurag Banerjee, CSE 2nd Year

02

03

PAINTED NARRATIVES OF HERITAGE

India's ancient Bhil Tribe is renowned for Pithora Painting, a symbolic art form chronicling spiritual beliefs, folklore, and daily life. Through color and ceremony, they safeguard ancestral creativity.

~Aditi Mishra, ECE 2nd Year

04

GUARDIANS OF THE SAVANNAH

The Maasai of Kenya and Tanzania embody pastoral resilience with striking attire, beadwork, and the Adumu Jumping Dance. Their rituals affirm ties to land, livestock and community amid modernization.

~Shambhavi, IT 2nd 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. The most compelling entries will be published in the next issue of Tiresia.

अधिष्ठिति

> अधिष्ठिति ही गढ़ती है जीवन का स्वरूप,
> अधिष्ठिति के गर्भ में प्रक्षिप्त स्थिरता अनूप।

अधिष्ठिति, यह शब्द अपने भीतर एक गंभीर निस्तब्धता समेटे हुए है। यह केवल किसी वस्तु का टिके रहना नहीं, बल्कि उस मूल आधार का बोध है, जिस पर समस्त आचरण, विचार, और अस्तित्व की रचना खड़ी होती है। किसी प्रौढ़ आचार्य की शांत दृष्टि से देखें तो अधिष्ठिति वह अदृश्य भूमि है, जहाँ से जीवन के सभी निर्णय अंकुरित होते हैं; और एक जिज्ञासु युवा की बेचैन अंतरात्मा से देखें तो यही वह प्रश्न है, जो बार-बार उभरता है, "मेरी जड़ें कहाँ हैं?"

मनुष्य प्रायः बाहरी उपलब्धियों को अपनी स्थिरता समझ बैठता है। पद, प्रतिष्ठा, संबंध, वैभव आदि ये सब उसके चारों ओर एक सुरक्षित घेरा बना देते हैं। किंतु जैसे ही परिस्थितियों का प्रवाह बदलता है, यह घेरा टूट जाता है, और व्यक्ति स्वयं से पूछता रह जाता है कि उसका वास्तविक आधार क्या था। तभी ज्ञात होता है कि अधिष्ठिति बाहरी संरचनाओं में नहीं, बल्कि भीतर की सुव्यवस्थित चेतना में निवास करती है।

अधिष्ठिति वह सूक्ष्म शक्ति है, जो सिद्धांतों को केवल बौद्धिक अवधारणा बने रहने नहीं देती, बल्कि उन्हें व्यवहार के धरातल पर उतारती है। विचार मन में जन्म ले सकते हैं, पर यदि उनके पीछे कोई सुदृढ़ अधिष्ठिति न हो, तो वे वाक्यों तक सीमित रह जाते हैं। अधिष्ठिति ही वह अंतःस्थ ऊर्जा है, जो विचार को चरित्र में, और चरित्र को कर्म में परिणत करती है। यह मूल्य, और आचरण के मध्य का जीवंत सेतु है, ऐसा सेतु, जो परिस्थितियों के दबाव में भी टूटता नहीं, बल्कि, और अधिक मज़बूत होता जाता है। जब किसी व्यक्ति की अधिष्ठिति परिपक्व होती है, तब उसके निर्णय क्षणिक लाभ या भय से संचालित नहीं होते; वे दीर्घदृष्टि, संतुलन, और उत्तरदायित्व से निर्देशित होते हैं। किंतु जहाँ अधिष्ठिति दुर्बल है, वहाँ सिद्धांत केवल अवसरानुकूल तर्क बन जाते हैं। इसीलिए अधिष्ठिति केवल आधार नहीं, बल्कि आत्मानुशासन की वह आंतरिक व्यवस्था है, जो व्यक्ति को स्वयं के प्रति सत्यनिष्ठ बनाए रखती है।

समाज भी अपनी किसी अधिष्ठिति पर टिका होता है। कहीं वह न्याय पर आधारित होता है, कहीं शक्ति पर, कहीं परंपरा पर, और कहीं केवल उपभोग की प्रवृत्ति पर। जिस आधार को समाज चुनता है, वही उसकी दिशा, और उसकी गति निर्धारित करता है। जब अधिष्ठिति शुद्ध, और संतुलित होती है, तब विकास केवल बाह्य विस्तार नहीं रहता, वह मानवीय गरिमा का संवाहक

बनता है। पर जब यह आधार स्वार्थ या भय से निर्मित होता है, तब समृद्धि भी असंतोष को जन्म देती है।

युवा चेतना के लिए अधिष्ठिति का प्रश्न, और भी जटिल, और प्रासंगिक हो उठता है। युवावस्था ऊर्जा, स्वप्न, और विद्रोह की भूमि है; यहाँ परिवर्तन की आकांक्षा तीव्र होती है, पर दिशा का निर्धारण उतना ही चुनौतीपूर्ण। यदि भीतर का आधार अस्पष्ट हो, तो उत्साह उच्छृंखलता में बदल सकता है, और स्वतंत्रता दिशाहीनता में। युवा मन स्थापित मान्यताओं को प्रशनंकित करता है, पर प्रश्न पूछते समय वह स्वयं किस आधार पर खड़ा है? यह समझना उससे भी अधिक आवश्यक है। अधिष्ठिति का बोध उसे अंधानुकरण से बचाता है, और साथ ही अंध-विद्रोह से भी। यही बोध उसकी जिज्ञासा को गहराई, उसके स्वप्नों को स्थायित्व, एवं उसकी ऊर्जा को रचनात्मक दिशा प्रदान करता है। जब युवा अपनी अधिष्ठिति को पहचान लेता है, तब उसका परिवर्तन केवल प्रतिक्रिया नहीं रहता; वह नव-निर्माण का आरंभ बन जाता है।

अधिष्ठिति को जान लेना पर्याप्त नहीं; उसे जीना, परखना, और समयानुसार परिष्कृत करना ही परिपक्वता का प्रमाण है। जो व्यक्ति अपनी अधिष्ठिति को समझता है, वह परिस्थितियों का मात्र अनुयायी नहीं रहता, बल्कि अपने पथ का स्वयं निर्माता बन जाता है, और यही सजग जीवन का वास्तविक उत्कर्ष है। जैसे नदी अपनी धारा को स्वच्छ रखने के लिए सतत प्रवाहित रहती है, वैसे ही अधिष्ठिति को जीवंत बनाए रखने के लिए जागरूकता, और सजग लचीलापन आवश्यक है। समय, और परिस्थितियों के परिवर्तन के साथ इसकी समीक्षा करना ही इसे सुदृढ़ बनाता है।

अधिष्ठिति का वास्तविक सौंदर्य इसी में निहित है कि वह मनुष्य को केवल स्थिर नहीं करती, बल्कि उसे निरंतर विकसित होने की प्रेरणा भी देती है। यह भीतर ऐसा प्रकाश उत्पन्न करती है, जो भ्रम, और असमंजस के क्षणों में भी दिशा का बोध कराता है। जब व्यक्ति अपने मूल आधार से जुड़ा रहता है, तब बाहरी परिवर्तन उसे विचलित नहीं करते, बल्कि उसके अनुभवों को, और अधिक परिपक्व बना देते हैं। अधिष्ठिति ही वह मौन शक्ति है, जो संघर्षों को सहने का धैर्य, और उपलब्धियों को विनम्रता से स्वीकारने की दृष्टि प्रदान करती है। यही कारण है कि जिस समाज, और व्यक्ति की अधिष्ठिति जितनी गहरी होती है, उसका अस्तित्व उतना ही संतुलित, जागरूक, और दीर्घजीवी बनता है। अंततः, अधिष्ठिति केवल जीवन का आधार नहीं, बल्कि उसके अर्थ, उसकी दिशा, और उसकी गरिमा का भी मूल स्रोत है।

अंततः, अधिष्ठिति का सबसे गहन आयाम यह है कि वह मनुष्य को बाहरी संसार के कोलाहल के बीच भी अपने भीतर की निस्तब्धता से जोड़ती है। यह निस्तब्धता पलायन नहीं, बल्कि वह आंतरिक स्पष्टता है, जहाँ व्यक्ति अपने अस्तित्व के वास्तविक स्वरूप का साक्षात्कार करता है। जब जीवन अस्थिरताओं, प्रतिस्पर्धाओं, और परिवर्तनशील परिस्थितियों से घिर जाता है, तब वही व्यक्ति संतुलित रह पाता है, जिसकी अधिष्ठिति केवल विचारों में नहीं, बल्कि उसकी चेतना की गहराइयों में प्रतिष्ठित होती है। ऐसी अधिष्ठिति मनुष्य को कठोर नहीं बनाती, बल्कि उसे संवेदनशील, विवेकशील और धैर्यवान बनाती है। वह उसे यह सामर्थ्य देती है कि वह समय के साथ बदलते हुए भी अपने मूल्यों की आत्मा को अक्षुण्ण रख सके। सारतः, अधिष्ठिति केवल व्यक्तिगत स्थिरता का आधार नहीं, बल्कि व्यापक मानवीय चेतना का केंद्र है, जो संस्कृति, समाज, और जीवन को दिशा, संतुलन तथा वास्तविक अर्थ प्रदान करती है।

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