



**VIGNAN'S INSTITUTE OF MANAGEMENT AND
TECHNOLOGY FOR WOMEN**



Department of Information Technology

ITSPECTRUM

IT NEWS LETTER

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Volume : 15



Vision of the Department

“To impart technical education producing competent and socially responsible engineering professionals in the field of Information Technology”.

Mission of the Department

- M1: To make the teaching–learning process more engaging, effective, and stimulating.
- M2: To impart strong foundational knowledge in sciences and information technology while fostering a positive attitude.
- M3: To create a conducive environment for developing skills and technologies aligned with industry needs.

Program Educational Objectives

- PEO1: Apply knowledge of mathematics and information technology to Analyze, design, and implement effective solutions for real-world problems in core as well as multidisciplinary domains.
- PEO2: Communicate effectively, work collaboratively in teams, uphold professional ethics, and leverage computing technologies for the betterment of society.
- PEO3: Pursue professional growth through lifelong learning, continuous skill enhancement, or higher education.

Program Specific Outcomes

- PSO1: Apply standard practices for software project development using hands-on programming skills for analysis, design and creation of software solutions.
- PSO2: Design networks and awareness of network security related issues.
- PSO3: Develop IT Application services with the help of different current engineering Tools.

Editorial Board

Dr. Ch. Baswaraj,
Associate Professor, Dept of IT.
Jukanti Anjali (IV-I Student)
B Jaya Sri (III-I Student)
Manasi Agarwal (III-I Student)
Ch.Vaishnavi (II-I Student)

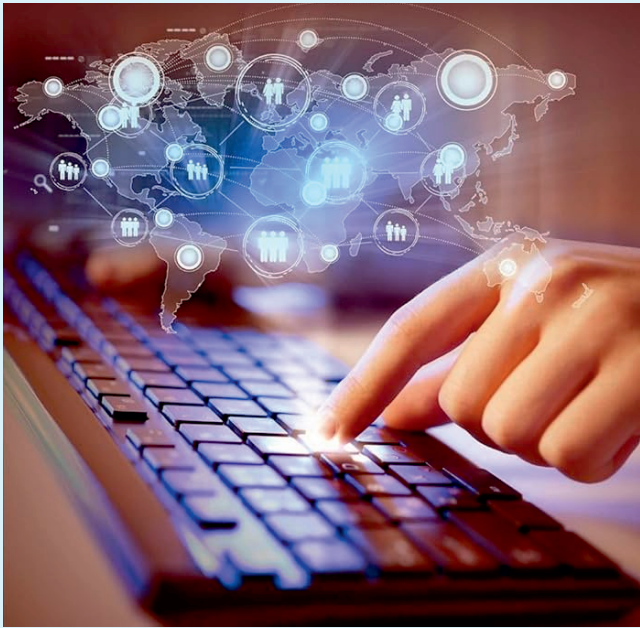
INFORMATION TECHNOLOGY

The Department of Information Technology was established in 2019 with an initial intake of 60 students. Since its inception, the department has been committed to providing excellent learning facilities and a dynamic academic environment that nurtures competent engineers capable of meeting both national and global industry standards.

The department's success is driven by the creativity, innovation, and dedication of its faculty and students. To strengthen technical competence, students are offered various in-house training programs designed to enhance their practical skills and domain expertise. The academic focus extends beyond theoretical knowledge, emphasizing holistic personality development through a blend of technical, analytical, and interpersonal skills.

The department regularly organizes workshops, seminars, and conferences to keep students and faculty abreast of emerging technologies in the field of Information Technology. Many of our students have secured placements in leading IT companies, while others have pursued higher education at top-ranked universities in the USA and other countries.





The collective efforts of both faculty and students have significantly contributed to the department's achievements and recognition. Furthermore, students are encouraged to participate in social outreach programs and extracurricular activities, fostering a spirit of leadership, teamwork, and community engagement.

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HOD'S MESSAGE

Dr. D. Shanthi

Postdoc (USA), PHD(CSE),
M.Tech(CSE), B.Tech(CSE), PG.Diploma
in AI(NITW), (M.SC.(Psychology), AU)
Professor & Head of the Department,
Department of Information Technology
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Email: drshanthicse@gmail.com

Dr. D.Shanthi brings 18 years of experience to her role as Professor and Head of the Department of Information Technology at VMTW, Hyderabad, India. She completed her Postdoctoral research at California Public University (USA) and holds a PG Diploma in AI & ML with a 3.66 CGPA from NITW. Dr. Shanthi earned her Ph.D. in Computer Science from JNTU Hyderabad in 2020. She comes from a core Computer Science Engineering background. She also qualified the UGC NET examination in 2024. Additionally, she holds 3 copyrights, including 2 national and 1 international. Dr. Shanthi has been invited as an expert by esteemed organizations such as RCI (Hyderabad), IEI (Hyderabad), Telangana State Residential Degree Colleges, Thiruvalluvar University (Tamil Nadu), SRM (AP),

and Chaitanya Deemed University (Hyderabad). She has 2 scholars from CDU and Lincoln University College (Malaysia), under her guidance one scholar got his PHD. She has also been recognized as a research guide by JNTUH. She has authored 45 research papers in prominent international and national journals, including IEEE, Springer, and Inderscience, and few are presented at notable conferences. Her research citations are 537 H-Index: 12 and I10 Index: 13 and one of her research article won the “Best Paper Award” in 2019. Her accolades include the “Young Scientist Award” from DK International Research Foundation Faculty Awards in 2019, the “Outstanding Research Faculty Award” from Amaravathi Research Academy Faculty Excellence Awards in 2020, and the “APJ Abdul Kalam Award” from Shikshak Kalyan in 2021. Dr. Shanthi has published 2 national-level books, 4 international books, 3 Scopus-indexed book with Bentham Science, and 1 AICTE local language translation of a Software Engineering textbook. She is an active member of professional bodies such as FSIESRP, MIAENG, LMCSI, MEMRC, and MIEEE, and serves on the editorial boards of several journals, including the American Journal of Software Engineering and Applications, IJERT, and Microprocessors and Microsystems (SCI Journal), Discover Computing (springer Journal).



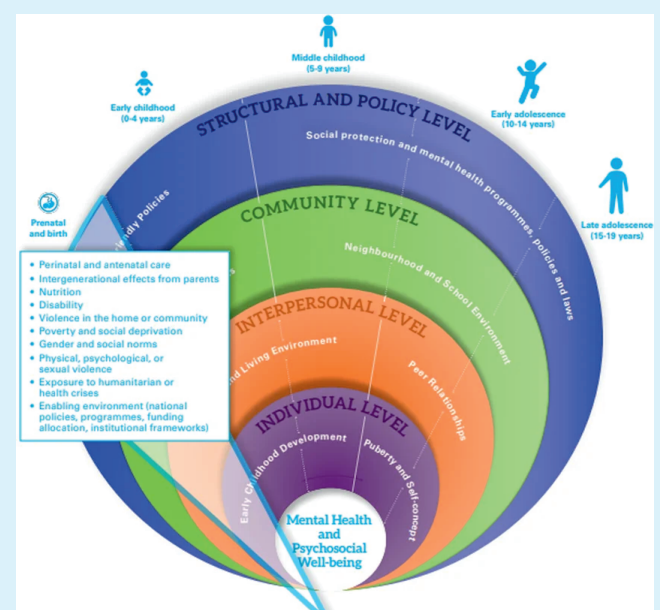
1. FACULTY ARTICLE'S DEVELOPING SOLUTIONS FOR ASSESSING MENTAL HEALTH AND WELL-BEING IN YOUTH

By Dr. D. Shanthi
Professors & HoD,
Dept of IT

**Title: Developing Solutions
For Assessing Mental
Health And Well-being In Youth**



Addressing youth mental health requires innovative and accessible assessment solutions that combine technology, psychology, and education. Early identification of stress, anxiety, and depression can help design timely interventions and promote overall well-being. Digital tools such as AI-based screening apps, school-based counseling programs, and data-driven emotional tracking can provide valuable insights into a student's mental state. Collaborative efforts between educators, healthcare professionals, and families are essential to create supportive environments. By integrating these approaches, institutions can foster emotional resilience, enhance self-awareness, and ensure that young people receive the care and guidance needed for holistic development.



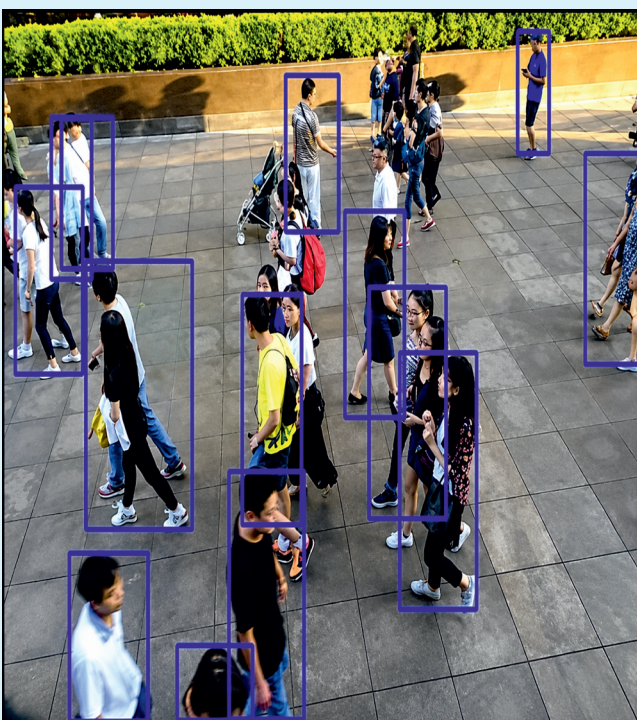
2. FACULTY ARTICLE'S REAL TIME CROWD COUNTING SYSTEM USING MACHINE LEARNING

By Mrs.Kolan Helini
Assistant Professors
Dept of IT

Title: Real Time Crowd Counting System Using



Real-time crowd counting using machine learning offers an efficient way to monitor and manage large gatherings, ensuring safety and optimal resource allocation. This system utilizes advanced computer vision techniques and deep learning models to analyze live video feeds and accurately estimate crowd density. By employing convolutional neural networks (CNNs), the model can detect and count individuals even in complex, overlapping environments. Such systems are vital for public safety management, event control, and smart city applications. Integrating these technologies enables authorities to prevent overcrowding, enhance surveillance, and make data-driven decisions for effective crowd management.



1.Student's Article What Is The Life Of An Engineering Student

By Ch.Vaishnavi
22UP1A1214 III-IT

Title: What Is The Life Of An Engineering Student



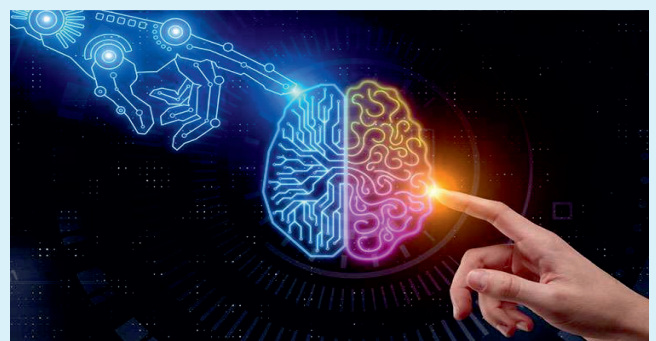
Life as an engineering student is a mix of challenges, fun, and self-discovery. Whether you chose engineering by passion or pressure, the journey tests patience, discipline, and adaptability. From adjusting to hostel life, managing finances, and making lifelong friends to struggling with assignments and sleepless exam nights, every experience shapes you. Engineering teaches time management, teamwork, and perseverance while pushing you beyond your limits. Between lectures, labs, and fests, you learn to balance academics and enjoyment. Despite the pressure, engineering life remains unforgettable—filled with lessons, laughter, and memories that define who you become in both career and character.



1.Student's Article Future of Engineering: Trends & Opportunities

By Dega Geethika
23UP1A1211 II-IT

Title: Future of Engineering: Trends & Opportunities



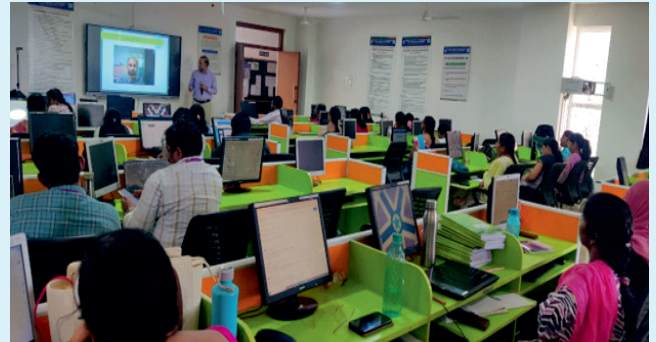
The future of engineering is driven by innovation, sustainability, and technology integration. Emerging fields like artificial intelligence, robotics, renewable energy, data science, and biotechnology are creating vast opportunities for aspiring engineers. Automation and smart infrastructure are reshaping industries, demanding engineers with multidisciplinary skills and creative problem-solving abilities. Green engineering and sustainable design are becoming vital for addressing global challenges. With advancements in digital transformation and Industry 4.0, engineers must adapt to lifelong learning and continuous skill development. The coming decades promise exciting careers where engineers will lead progress, shaping a smarter, cleaner, and more connected world.

Conducted Events In Department

A STTP Program on “Workshop on AI”:

The Department of Information Technology of Vignan's Institute organized a Short-Term Training Program (STTP) on “Workshop on Artificial Intelligence” from 13th July to 27th July 2024 at the national level. The program was conducted under the guidance of Chief Patron Dr. L. Rathaiah, Chairman, Vignan Group of Institutions, and Mr. B. Shravan, CEO, Vignan Group of Institutions, with Dr. G. Apparao Naidu, Principal, VMTW as the Patron, and Dr. D. Shanthi, Professor & HOD, IT as the Convener. The workshop aimed to enhance participants' understanding of Artificial Intelligence concepts, machine learning, and real-time applications. Eminent experts from academia and industry delivered interactive sessions and hands-on training, enriching the participants with the latest developments in AI. Faculty members, students, and research scholars from various institutions actively participated, making the program a great success and an

inspiring platform for innovation, collaboration, and knowledge sharing in the field of Artificial Intelligence.



SAC Activities

Title: The Infosys Springboard Pragati: Path to Future



The Department of Information Technology successfully facilitated the Infosys Springboard Pragati: Path to Future (Cohort 2) program from July 2024 to September 2024, focusing on Self-Growth and Career Development. This national-level initiative by Infosys aimed to empower students with essential professional, technical, and personal development skills required for the future workforce. Through a series of interactive online sessions, workshops, and mentorship activities,

participants gained valuable insights into leadership, communication, digital literacy, and emerging technologies. The program emphasized self-learning, confidence-building, and problem-solving abilities, preparing students to adapt to evolving industry trends. Faculty mentors guided students throughout the journey, encouraging active participation and consistent growth. The event witnessed enthusiastic involvement from students who showcased remarkable progress in both technical and interpersonal domains, aligning with the institution's vision of holistic education and continuous skill enhancement for future-ready professionals.

NSS Activities

Title: Blood Donation Camp (27-07-2024)



The VMTW NSS Unit, in association with the Red Cross Society, organized a Blood Donation Camp on 27th July 2024. The event witnessed enthusiastic participation from students, faculty, and staff who came forward to donate blood voluntarily. Medical professionals conducted the camp safely, ensuring proper hygiene and care. The initiative aimed to save lives and encourage the habit of regular blood

donation among youth. The camp fostered humanitarian values and compassion, spreading the message that a single act of kindness can make a significant difference. Certificates were awarded to all donors for their noble contribution.



Title: Tree Plantation – Ek Ped Maa Ke Naam Abhiyan (27-07-2024)



The VMTW NSS Unit, in collaboration with Ghatkesar Municipality, conducted a Tree Plantation Drive “Ek Ped Maa Ke Naam Abhiyan” on 27th July 2024. The campaign encouraged students to plant a tree in memory or honor of their mothers, symbolizing love, gratitude, and environmental care. NSS volunteers planted numerous saplings across

environmental awareness and strengthened the bond between nature and humanity.

Title: Blood Donation Camp (27-07-2024)



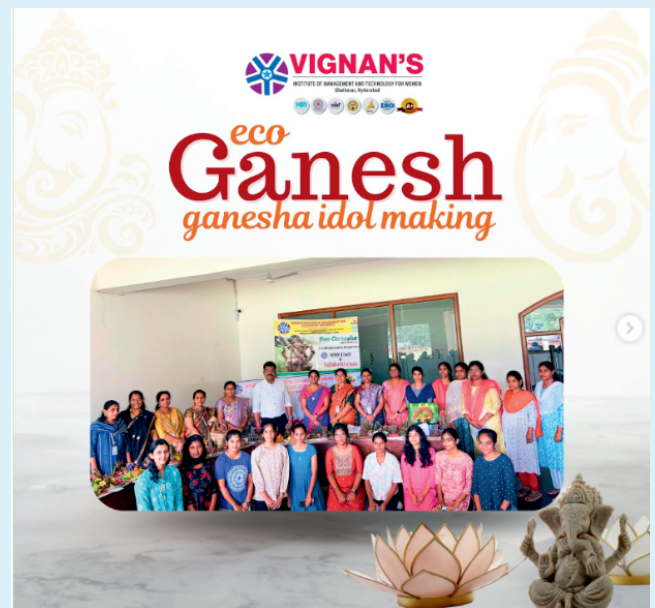
The VMTW NSS Unit celebrated the Har Ghar Tiranga campaign on 11th August 2025, inspiring students and staff to hoist the national flag at their homes and institutions. The initiative, under the Azadi Ka Amrit Mahotsav, aimed to evoke a sense of patriotism and pride among citizens. NSS volunteers organized awareness drives and distributed flags to promote participation. The celebration fostered national unity and respect for the tricolor, reminding everyone of India's rich heritage and freedom struggle. The event concluded with a patriotic address and the singing of the national anthem.

Title: Celebrating Rakhi with Indian Soldiers (20-08-2024)



The VMTW NSS Unit, in collaboration with Samskruthi Foundation, celebrated Rakhi with Indian Soldiers on 20th August 2024 to honor the nation's protectors. NSS volunteers and students visited defense personnel, tying rakhis and expressing gratitude for their service and sacrifice. The heartfelt interactions strengthened emotional bonds between students and soldiers, symbolizing respect, love, and patriotism. The event encouraged students to appreciate the selfless dedication of the armed forces. It served as a reminder of unity, national pride, and the spirit of protecting and serving the nation beyond boundaries and backgrounds.

Title: Workshop on Eco Ganesha (06-09-2024)



The VMTW NSS Unit organized an Eco Ganesha Workshop on 6th September 2024 to promote environmental awareness and eco-friendly celebrations. NSS volunteers and students learned to make clay Ganesha idols using natural materials, avoiding harmful chemicals and plaster of Paris. The workshop aimed to educate participants on sustainability and the importance of protecting the environment during festive occasions. Faculty members appreciated the creative efforts of the students.

and encouraged adopting green practices. The event successfully spread the message of celebrating traditions responsibly while maintaining ecological balance and safeguarding nature for future generations.

Activities



Independence Day Celebrations – 15th August 2024



The 75th Independence Day was celebrated with great patriotism and enthusiasm at Vignan's Institute of Management and Technology for Women (VMTW) on 15th August 2024. The event was graced by Dr. G. Apparao Naidu, Principal, VMTW, who hoisted the National Flag and addressed the gathering. In his inspiring speech, he emphasized the significance of freedom, unity, and the role of youth in nation-building. Faculty members, NSS volunteers, and students actively participated in the celebrations, showcasing patriotic songs, dances, and speeches. The vibrant atmosphere reflected the spirit of independence, evoking pride and respect for the nation's glorious heritage and sacrifices.

Professional Societies/Bodies

S.N.	Name of the Faculty	Name of the Professional Society / Body at National and International Level	Name of the Grade/ Level/Position
1	Dr.D. Shanthi	CSI	Life Member
2	Dr.D. Shanthi	IEEE	Member
3	Dr.D. Shanthi	IAENG	Life Member
4	Dr.D. Shanthi	FSIESRP	Life Member
5	Dr.D. Shanthi	AIMERS	Member
6	Dr.D. Shanthi	IFERP	Member
7	Dr.D. Shanthi	MEMRC	Life Member
8	Dr.P.Eswaraiah	IAENG	Life Member
9	Dr.P.Eswaraiah	IFERP	Life Member
10	Mr.Janakiraman Ranjith	IAENG	Life Member
11	Mrs.Swapna Chiluguri	ISTE	Life Member
12	Mrs.Swapna Chiluguri	IFERP	Member
13	Mrs.Swapna Chiluguri	IAENG	Life Member
14	Mrs.Kolan Helini	AIMERS	Member
15	Mrs.Kolan Helini	IFERP	Member
16	Mrs. P.Amreswari	IAENG	Life Member
17	Mrs. P.Amreswari	IFERP	Member
18	Mrs.Eenaja Aileni	IAENG	Life Member
19	Mrs.Eenaja Aileni	AIMERS	Member
20	Mrs.Bojjapalli Archana	AIMERS	Member
21	Mrs.Bojjapalli Archana	IAENG	Life Member
22	Mrs.Bojjapalli Archana	SDIWC	Member
23	Mr.U.Venkat Rao	NDLI Club	Member
24	Mr.U.Venkat Rao	AIMERS	Member
25	Mr.U.Venkat Rao	IAAC	Member
26	Mr.U.Venkat Rao	CSI	Member
27	Mr.U.Venkat Rao	ABCDINDEX	Life Member
28	Mr.U.Venkat Rao	IFERP	Member
29	Mrs.FouziyaMojammed	IAENG	Life Member
30	Mrs.FouziyaMojammed	IFERP	Member
31	Mr.ChandraShekher Sangishetty	IAENG	Life Member
32	Mr.ChandraShekher Sangishetty	IFERP	Member
33	Mr.Srinivasarao Munagala	IFERP	Member
34	Mrs.Sandhya Rani Gangu	IAENG	Life Member
35	Mrs.Sandhya Rani Gangu	FSIESRP	Member
36	Mrs.Sandhya Rani Gangu	AIMERS	Member
37	Dr.A.Sudheer Babu	IFERP	Member
38	Dr.Ch. Baswaraj	IFERP	Member

Program Outcomes (Adapted from NBA)

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

