



VIGNAN'S

INSTITUTE OF MANAGEMENT AND
TECHNOLOGY FOR WOMEN



Department of Information Technology

ITSPECTRUM

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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

Mr Venkat Rao Ubbala

Assistant Professor, Dept of IT.

Ch.Vaishnavi (IV-I Student)

R.Bhanu (III-I Student)

K.Poojitha (III-I Student)

K.Sravya (II-I Student)

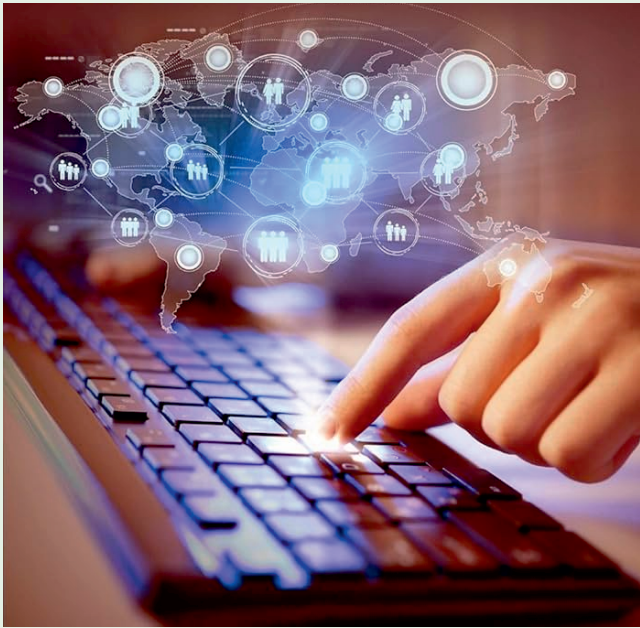
INFORMATION TECHNOLOGY

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)
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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).



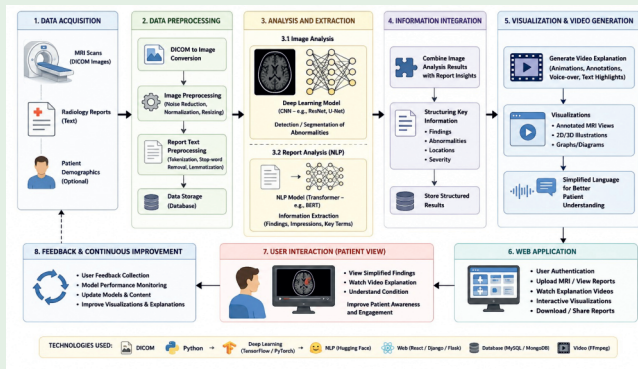
1. FACULTY ARTICLE WEB-BASED VIDEO ANALYSIS AND VISUALIZATION OF MAGNETIC RESONANCE IMAGING REPORTS FOR ENHANCED PATIENT UNDERSTANDING

By Dr. D. Shanthi
Assistant Professors,
Dept of IT



Title: Web-based Video Analysis And Visualization Of Magnetic Resonance Imaging Reports For Enhanced Patient Understanding

“Web-Based Video Analysis and Visualization of Magnetic Resonance Imaging (MRI) Reports for Enhanced Patient Understanding” aims to Using advanced image processing and AI algorithms, it generates dynamic 3D visuals and annotated videos that highlight affected regions, anomalies, and diagnostic insights in an easy-to-understand format. Patients can securely access these reports through a web portal, enabling them to review and understand their health conditions conveniently. Real-time video explanations alongside MRI visuals enhance clarity, promote transparency, and empower patients to make informed treatment decisions. The system also supports healthcare professionals by reducing manual interpretation time and improving consultation efficiency. Additionally, it facilitates remote access and collaboration among medical experts, supporting telemedicine. By transforming complex MRI findings into clear, meaningful visual narratives, the system enhances patient engagement and modernizes healthcare communication, marking a step toward patient-centric digital healthcare that fosters transparency, interactivity, and awareness.



1. STUDENT ARTICLE ON BLOCKCHAIN TECHNOLOGY APPLICATIONS

By R BHANU, 23UP1A1238, III-IT

Title: On Blockchain Technology Applications

Blockchain technology, initially known as the foundation of cryptocurrencies like Bitcoin and Ethereum, has evolved into a transformative innovation across multiple sectors. At its core, it is a decentralized and secure digital ledger that records transactions across several computers, ensuring transparency, security, and immutability of data. In finance, blockchain enables fast, low-cost, and secure cross-border transactions without intermediaries, revolutionizing global banking and digital payments. Beyond finance, it is used in healthcare for secure patient records, in supply chain management for tracking goods, and in education for verifying credentials. Governments and organizations are exploring blockchain for tamper-proof voting systems, while the real estate sector benefits from transparent property transactions and smart contracts. The emergence of Non-Fungible Tokens (NFTs) and Decentralized Applications (DApps) further showcases its potential in digital art, entertainment, and intellectual property protection. A key advantage of blockchain is its ability to build trust in digital systems without central authorities. Although challenges like scalability, energy consumption, and regulations remain, continuous innovation is improving its

efficiency and expanding its reach. As industries embrace blockchain for its transparency and reliability, it is redefining how information, assets, and trust are managed. For students and technologists, understanding blockchain offers insight into the future of secure and intelligent digital systems and an opportunity to contribute to this global technological revolution.

Conducted Events In Department

THE FESTIVAL OF MAKAR SANKRANTI



The festival of Makar Sankranti was celebrated with great enthusiasm and cultural vibrancy at VMTW Campus in January 2024, marking the Sun's transition into Makara (Capricorn) and the beginning of the harvest season across India. Students, faculty, and staff came together in a spirit of unity and festive joy. The celebration began with a traditional welcome and a talk on the festival's significance, honoring hard work, agricultural abundance, and harmony with nature. Cultural programs showcased regional traditions like Bhogi, Pongal, and the Kite Festival, adding color and energy to the event. The highlight was the kite flying competition, filling the sky with vibrant hues. Traditional delicacies such as tilgul, pongal, and jaggery sweets were shared, spreading sweetness and goodwill. NSS volunteers also led an awareness drive on sustainable agriculture and environmental care. The event beautifully

combined cultural heritage with social awareness, reminding everyone of India's unity in diversity. Faculty praised the students' enthusiasm and creativity in reviving traditions and fostering togetherness. The celebration not only marked a festival but also conveyed values of gratitude, hard work, and community spirit, inspiring optimism and collective growth as the sun's northward journey began. cultural wisdom with contemporary thinking.

INTERNATIONAL WOMEN'S DAY CELEBRATIONS

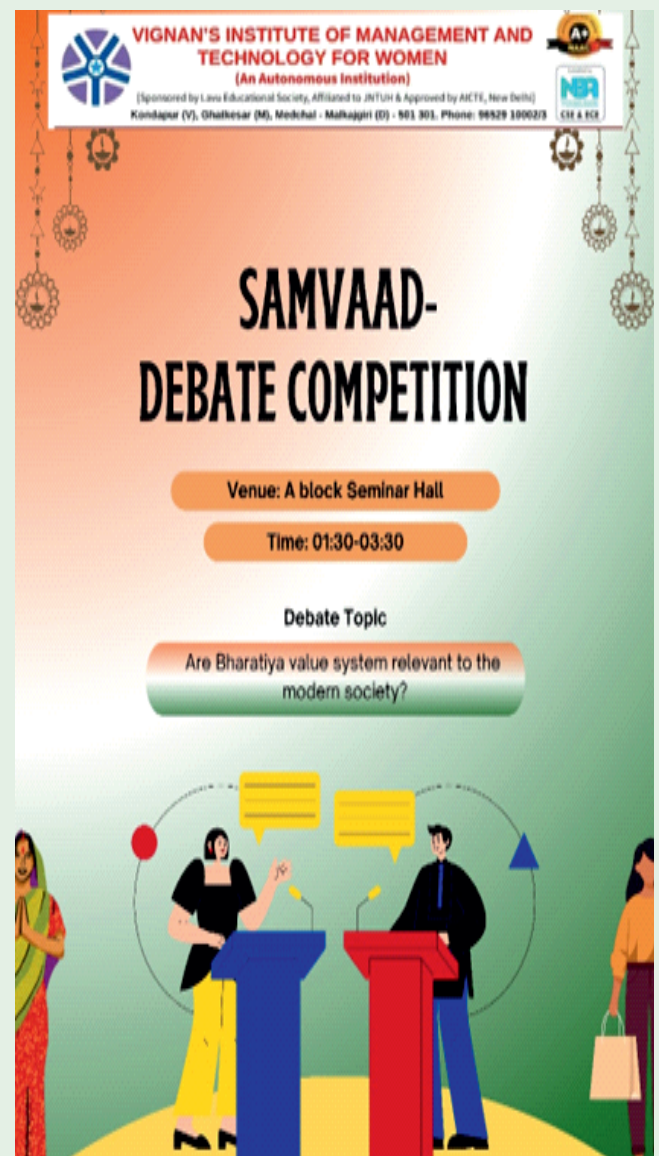


The Department of Information Technology celebrated International Women's Day with great enthusiasm and pride at the A-Block Seminar Hall, honoring the invaluable role of women in education, technology, and society. The event aimed to recognize women's achievements and spread awareness about gender equality and empowerment. It began with a warm welcome address, followed by inspiring speeches from faculty members who emphasized the importance of this year's theme and the need to encourage women's participation in innovation, leadership, and decision-making. Students and faculty actively participated through cultural performances, songs, skits, and motivational talks that highlighted women's strength and resilience. The atmosphere was filled with positivity and respect, celebrating the immense potential of women to shape the future. Special appreciation was given to women faculty and

staff for their dedication and contributions to the department's success. Interactive sessions and fun activities added joy and unity to the event. The Head of the Department expressed gratitude to all organizers and participants for making the celebration meaningful. The program concluded with a heartfelt vote of thanks, leaving the audience inspired by the message of empowerment and equality. The Women's Day celebration not only honored womanhood but also reinforced the importance of creating an inclusive environment that uplifts women's voices, achievements, and dreams.

SAC Activities

SAMVAAD – DEBATE COMPETITION



The Department of Information Technology organized an intellectually engaging event titled “SAMVAAD – Debate Competition” at the A-Block Seminar Hall from 1:30 PM to 3:30 PM, providing a platform for students to express their views on socially and culturally relevant topics. The debate topic, “Are Bharatiya Value Systems Relevant to Modern Society?”, inspired participants to explore the relevance and adaptability of Indian traditional values in a rapidly changing world. Students presented well-researched arguments both for and against the motion, showcasing clarity of thought, logical reasoning, and strong communication skills. Those in favor emphasized that values such as respect for elders, unity in diversity, compassion, and moral integrity remain vital even amidst modernization, while the opposing side discussed the challenges of aligning age-old traditions with contemporary lifestyles and global influences. The competition became a vibrant exchange of ideas, marked by passion, respect, and intellectual curiosity. The audience remained engaged throughout, appreciating the confidence and eloquence of the speakers. Faculty members commended the participants for their preparation and balanced approach. The event provided an excellent platform for students to enhance their public speaking, critical thinking, and analytical skills while deepening their understanding of cultural values and modern perspectives. The session concluded with the announcement of winners and words of encouragement from faculty, celebrating the spirit of debate and learning. Overall, the SAMVAAD – Debate Competition enriched participants’ knowledge and reinforced the importance of meaningful dialogue in shaping an informed and value-driven generation.

Student's Participation

S.N O.	Name of the Student	Name of the Event	State/ National/ International level	Date of the Event
1	Christina Joseph	CODE-A-THON	National	6th & 7th March 2025
2	Pasupuleti Usha Laxmi	CODE-A-THON	National	6th & 7th March 2025
3	K Srilaxmi	CODE-A-THON	National	6th & 7th March 2025
4	Rongali Bhanu	CODE-A-THON	National	6th & 7th March 2025
5	Kotagiri Seeja	CODE-A-THON	National	6th & 7th March 2025
6	T. Lakshmi Priya	CODE-A-THON	National	6th & 7th March 2025
7	Thangeda Radhika	CODE-A-THON	National	6th & 7th March 2025
8	Yamasani Sai Priya	CODE-A-THON	National	6th & 7th March 2025
9	Rampelly Sindhu	IDEATHON-2K25	National	7th Feb 2025
10	K. Lakshmi Priyanka	IDEATHON-2K25	National	7th Feb 2025
11	Gattupally Sloka	IDEATHON-2K25	National	7th Feb 2025
12	Julakanti Navya	IDEATHON-2K25	National	7th Feb 2025

NSS Activities

I.Nasha Mukh Bharat Abhiyan – Drug Abuse Prevention Program

Date: 17th March 2025

Venue: Municipal Meeting Hall, GHMC, Uppal

Organized by: VMTW NSS Unit & NYK

The VMTW NSS Unit, in collaboration with Nehru Yuva Kendra (NYK), organized an impactful program under the Nasha Mukh Bharat Abhiyan at the Municipal Meeting Hall, GHMC, Uppal, on 17th March 2025. The event aimed to raise awareness among youth about the dangers of drug abuse and the importance of leading a healthy, addiction-free life. Mr. Koushik, the guest speaker, emphasized the role of students in building a drug-free society and encouraged them to spread the message of positivity and self-control. Interactive sessions, short films, and motivational

speeches highlighted real-life stories of recovery and resilience. The event inspired participants to take an oath against substance abuse and contribute to national well-being. This initiative reflected the NSS Unit's commitment to shaping a socially responsible and healthy youth community.

II. Free Eye Testing Camp

Date: 7th March 2025

Venue: VMTW Campus

Organized by: VM

TW NSS Unit & ICICI Bank, Ghatkesar



On 7th March 2025, the VMTW NSS Unit, in collaboration with ICICI Bank, Ghatkesar, conducted a Free Eye Testing Camp at the VMTW Campus. The camp aimed to promote the importance of eye health and early diagnosis of vision-related issues. A team of qualified optometrists and healthcare professionals carried out comprehensive eye examinations for students, faculty, and staff. The initiative saw enthusiastic participation, with over 200 individuals benefitting from free consultations and advice on maintaining good eyesight. Awareness was also created about preventive eye care measures, digital screen safety, and nutrition for eye health. ICICI Bank officials appreciated the NSS volunteers for their dedication and social commitment. The event successfully demonstrated the NSS motto of “Not Me, But You,” focusing on community health and service-oriented action.

III. Tercentenary Birth Anniversary of Warrior Queen Lokamata Devi Ahilyabai Holkar

Date: 6th March 2025

Venue: VMTW Campus

Organized by: VMTW NSS Unit



To commemorate the 300th birth anniversary of the legendary queen Lokamata Devi Ahilyabai Holkar, the VMTW NSS Unit organized a special event on 6th March 2025 at the campus. The celebration honored the queen's legacy as a visionary ruler, architect, and symbol of women's empowerment. The event began with floral tributes and a brief documentary highlighting her contributions to administration, social reform, and temple architecture. Students presented speeches, cultural performances, and a short skit depicting her leadership and compassion. Faculty members encouraged students to draw inspiration from Ahilyabai Holkar's life, emphasizing values like courage, integrity, and service to society. The celebration fostered a deep sense of respect for Indian history and women's leadership, leaving a lasting impact on all attendees.

IV. A Session on Career Guidance

Date: 6th March 2025

Venue: VMTW Campus

Organized by: VMTW NSS Unit

The VMTW NSS Unit organized an enlightening Career Guidance Session on 3rd March 2025 -

at the campus, aiming to help students navigate their career paths with clarity and confidence. The session featured expert speakers who shared valuable insights into career planning, goal setting, and developing employability skills. Topics such as resume building, interview techniques, and emerging job trends in various industries were discussed. The speakers also motivated students to pursue higher education, internships, and entrepreneurship opportunities. Interactive Q&A sessions helped participants clarify doubts and identify suitable career options based on their interests and strengths. The event not only enhanced students' awareness of professional opportunities but also encouraged them to cultivate essential life skills for future success. It was a step toward bridging the gap between academic learning and career readiness.

V.Awareness on “Cardiovascular Disease Risk Assessment”

Date: 17th February 2025

Venue: VMTW Campus

Organized by: VMTW NSS Unit, Care Foundation & IIIT Hyderabad

A health awareness program on “Cardiovascular Disease Risk Assessment” was organized on 17th February 2025 by the VMTW NSS Unit in collaboration with the Care Foundation and IIIT Hyderabad. The session aimed to educate students about heart health, lifestyle habits, and preventive care. Medical professionals explained the causes and early warning signs of cardiovascular diseases and demonstrated simple health assessment methods. Free blood pressure and BMI checks were provided to attendees. The interactive talk focused on the importance of regular exercise, balanced nutrition, and stress management. Students actively participated in

discussions and pledged to adopt healthier routines. The collaboration between educational institutions and healthcare organizations showcased a strong commitment to promoting student wellness



VI. Vote Awareness – “Right to Vote: Importance in Contemporary Politics in India”

Date: 25th January 2025

Venue: VMTW Campus

Organized by: VMTW NSS Unit

Commemorating National Voters Day, the VMTW NSS Unit organized an awareness session on “Right to Vote: Importance in Contemporary Politics in India” on 25th January 2025 at the campus. The event emphasized the power of voting as a fundamental right and civic duty. Eminent speakers enlightened students about the significance of electoral participation in shaping the nation's democratic fabric. Interactive discussions were held on topics

VII. “A Day on the Road: Students as Traffic Guides”

Date: 22nd January 2025

Venue: Ghatkesar

Organized by: VMTW NSS Unit

The NSS volunteers of VMTW actively participated in a unique community initiative

titled “A Day on the Road: Students as Traffic Guides”, held on 22nd January 2025 at Ghatkesar. In collaboration with local traffic police, students took on the role of traffic guides to assist in managing road intersections and ensuring smooth vehicle movement. The initiative aimed to educate both students and the public on traffic discipline, pedestrian safety, and the importance of following traffic rules. Volunteers distributed awareness pamphlets and interacted with commuters about safe driving practices. The experience offered students a real-world perspective on civic responsibility and teamwork. The police officials appreciated their enthusiasm and cooperation. The activity successfully demonstrated how youth involvement can bring about positive behavioral changes in society, promoting the message that road safety is everyone's responsibility.

Activities

QUIZ AND GROUP DISCUSSION ACTIVITIES

The Department of Information Technology organized Quiz and Group Discussion competitions to enhance students’ knowledge, communication, and teamwork skills. The Quiz Competition tested quick thinking and awareness in science, technology, and current affairs, while the Group Discussion sessions encouraged idea exchange on relevant topics, promoting clarity, confidence, and collaboration. Guided by faculty, the events emphasized teamwork and professional communication. Winners were awarded certificates, inspiring others to participate. Overall, the activities fostered critical thinking, creativity, and confidence, contributing to students’ holistic development and preparing them to face future challenges effectively.

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.Eswaralah	IAENG	Life Member
9	Dr.P.Eswaralah	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.

