



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



Department of Information Technology

ITSPECTRUM

IT NEWS LETTER

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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

Dr. A. Sudheer Babu, HOD, IT.

M. Vasanthi (IV-I Student)

T. Madhavi (IV-I Student)

Jukanti Anjali (III-I Student)

Manasi Agarwal (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.A.Sudheer Babu

Professor & Head of the Department,
Department of Information Technology

The collective efforts of both faculty and students have significantly contributed to the department's achievements and recognition. The Information Technology Students' Association (ITSA) plays an active role in organizing diverse academic and co-curricular activities such as quizzes, extempore sessions, mock interviews, debates, alumni seminars, guest lectures, and technical fests. ITSA also conducts specialized training programs to bridge curriculum gaps and explore topics beyond the syllabus.



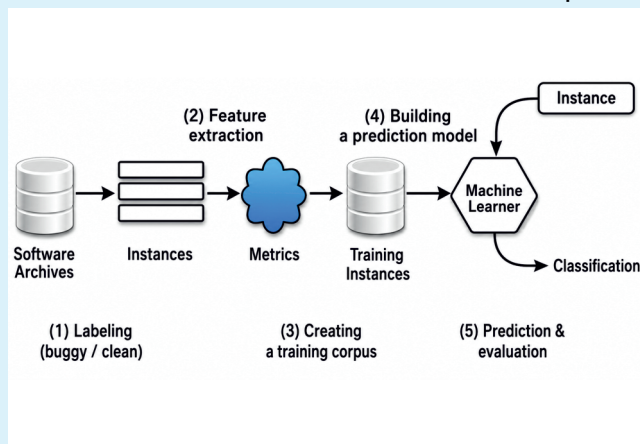
1.FACULTY ARTICLE'S ON SOFTWARE PREDICTION OF DEFECTS AT FUNCTION POINTS STAGE USING NEURAL NETWORKS

By Dr. Basavaraj chunchure
Associate Professor
Dept of IT

Title: Software Prediction of Defects at Function Points Stage Using Neural Networks

Text Information Retrieval using Hybrid Detecting defect predictions in the early stages of the software development life-cycle is important for ensuring better quality of software and lowering the costs associated with maintenance. In this paper, we investigate the prediction of defects in software applications at the Function Points (FP) stage, and calls on Neural Network models. By studying the function point metrics, the neural network will learn to identify patterns that relate to defects prior to their implementation, and prior to programming work.

The model presented in this paper applies supervised learning to better estimate the prediction and give early views into the reliability of the software under development. The experiments demonstrate that neural network methods outperform traditional statistical methods, and allow the software quality analyst to handle a non-linear characterization of the function point



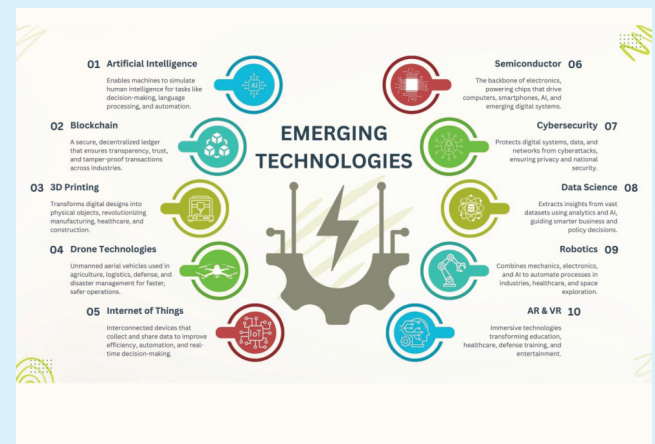
Overall, this research will allow for a method of agile pro-active quality assurance work, which will enable project teams to manage work bundles more effectively, and reduce defects and post-release defects in the software. This will ultimately lead to a more solid software development practice with fewer defects and better costs.

2.FACULTY ARTICLE'S ON CHALLENGES AND POSSIBLE SOLUTIONS FOR EMERGING TRENDS IN TECHNOLOGIES

By Mr Srinivasarao Munagala
Associate Professor
Dept of IT

Title: challenges and possible solutions for emerging trends in technologies

Technological advancements to the point of AI, Machine Learning, Internet of Things, and Blockchain are at the core of the industrial evolution but, are also the source of many challenges. Among the first issues are data privacy, cybersecurity, and ethical implications, as well as the superfast pace of technological changes, which are hard to be followed by the workforce. On the one hand, a lot of companies find it difficult to link their old infrastructures with new technologies, while on the other hand, specialists are forced to acquire skills continuously. Ethical problems, particularly those related to AI in making decisions, imply unfairness and lack of accountability questions.



The solution to these problems is to focus mainly on reskilling activities, data security, and the implementation of a worldwide cybersecurity framework. Interdisciplinary collaboration and responsible innovation can be good instruments to ensure the development and usage of these technologies in an ethical way. Society, by enhancing adaptability, awareness, and sustainability, could thus become capable of handling the risks related to the new technologies, and at the same time, benefiting from their advantages for an inclusive and equitable growth to be.

STUDENT'S ARTICLE ON BALANCING ACADEMICS AND MENTAL HEALTH

By SRIPATHI HARSHITHA
19UP1A1226

Title: Balancing Academics and Mental Health



Modern students face increasing academic pressure, competition, and expectations from parents and society. While striving for excellence, many overlook the importance of mental health. Stress, anxiety, and burnout have become common among students of all age groups. Educational institutions are now focusing on mental wellness through

counseling, mindfulness sessions, and peer-support groups. It is essential for students to maintain a balance between studies, rest, and recreation. Practicing hobbies, staying connected with friends, and maintaining a healthy lifestyle can help reduce stress.

Teachers and parents play a vital role by providing emotional support and understanding students' struggles. Prioritizing mental well-being not only enhances learning but also builds resilience and confidence. In today's competitive world, success should be measured not just by grades but by a student's overall happiness and emotional health.

STUDENT'S ARTICLE ON THE RISE OF HYBRID EDUCATION MODELS

By TERALA RITHIKA
20UP1A1237

Title: The Rise of Hybrid Education Models



The education system has evolved rapidly since 2020, giving rise to hybrid learning models that blend online and offline teaching. This approach allows students to attend classes both in person and virtually, making education more flexible and accessible. Hybrid education combines the interactive benefits of classroom learning with the convenience of digital platforms. Students can learn at their own pace, revisit recorded lectures, and access resources anytime. However, it also requires self-discipline and time management. Schools and colleges are adopting technology to enhance engagement through online -

flexible and accessible. Hybrid education combines the interactive benefits of classroom learning with the convenience of digital platforms. Students can learn at their own pace, revisit recorded lectures, and access resources anytime. However, it also requires self-discipline and time management. Schools and colleges are adopting technology to enhance engagement through online assignments, virtual labs, and digital collaboration tools. While challenges like internet access and screen fatigue persist, hybrid learning is here to stay. It represents a balanced, future-ready approach that empowers students to adapt to diverse learning environments and prepares them for the digital age.

SAC Activities

TITLE: WOMEN EMPOWERMENT: “GIRLPOWER”, KONDAPUR –14-09-2022

The VMTW Extension Activity Center organized the “GirlPower” program at Kondapur to promote women's confidence, leadership, and social awareness. The session highlighted personal safety, professional development, and the importance of active participation in community initiatives, encouraging young women to pursue growth and empowerment.

NSS Activities

TITLE: SWACHH BHARAT AT VMTW COLLEGE CAMPUS–07-09-2022



In collaboration with NYK, the VMTW Extension Activity Center conducted a Swachh Bharat program on campus, focusing on cleanliness, waste segregation, and environmental responsibility. Students and faculty jointly participated in cleaning activities, reinforcing the importance of sanitation and civic responsibility within educational environments.

Title Workshop on “Green Ganesha”, Aushapur Village – 29-08-2022

The Center organized a creative workshop on “Green Ganesha” at Aushapur Village to promote eco-friendly celebrations. Participants learned to craft idols using natural materials, emphasizing sustainability and environmental protection during festive seasons while spreading awareness about reducing pollution.



On 7th July 2022, Vignan's Institute of Management and Technology for Women (VMTW) organized a Swachh Bharat Mission cleanliness drive on the college campus to promote environmental awareness, hygiene, and social responsibility among students.

Faculty members, staff, and students enthusiastically participated in the program and worked together to clean various areas of the campus. The activity emphasized the importance of maintaining clean surroundings and encouraged students to adopt responsible waste management practices. Through active participation, the students demonstrated their commitment to the vision of a clean and healthy India. The event not only improved the campus environment but also created awareness about sanitation, personal hygiene, and community service. The program concluded with a pledge by the participants to continue supporting cleanliness initiatives and contribute positively to society. Theme: "Clean Campus, Green Campus – Our Responsibility, Our Pride."

Activities

HARITHA HARAM PROGRAM, KONDAPUR – 08-07-2022



As part of the state-wide plantation drive, the Center organized a Haritha Haram program at Kondapur. Students actively participated in planting saplings,

promoting greenery, and spreading awareness on environmental conservation as a collective social responsibility.

TITLE: AWARENESS PROGRAM ON CYBER CRIME – 27-07-2022

The VMTW Extension Activity Center held an awareness session on cybercrime to educate students about online threats, data security, identity protection, and responsible digital behavior. The program stressed vigilance while using social media, online banking, and communication platforms.

TITLE: INDEPENDENCE DAY ON 15 AUGUST 2022



The VMTW Extension Activity Center commemorated Independence Day on 15 August 2022 with a vibrant and patriotic celebration on campus. The program commenced with the ceremonial flag hoisting, followed by a formal address highlighting the

nation's progress, democratic values, and the responsibilities of youth in nation-building. Students presented cultural performances, including patriotic songs, speeches, and thematic activities emphasizing unity, social responsibility, and respect for national heritage. The event also recognized student volunteers engaged in community outreach initiatives carried out during the academic year. Overall, the celebration fostered a strong sense of national pride and reaffirmed the institution's commitment to moldings socially responsible citizens.

FACULTY PUBLICATIONS

S.No	Name of the Authors	Title of the Paper	ISSN No	Volume, Issue, Page No	Year of Publication	Link to website of the Journal	Link to Article/ Paper/ Abstract of the article	Is it listed in UGC Care List/ Scopus/ Web of science/ Other, mention
1.	Mrs. K. Helini	An Integrated Methodology of Tsf-KNN-Based Automated Data Classification and Security for Mobile Cloud Computing	-	-	2022/10/5	Springer	An Integrated Methodology of Tsf-KNN-Based Automated Data Classification and Security for Mobile Cloud Computing Springer	Springer
2.	Mrs. K. Helini	Aggregation Technique To Integrate Texture And Motion Features For Traffic Data	ISSN NO : 2347-3150	Volume X, Issue IX, SEPTEMBER/2022	9/2022	-	https://scholar.google.com/citations?view=publication&hl=en&user=DQ0-ZXwAAAAAJ&as_scp=ZKwAAAAAJY8Cldo_TBC	-

FACULTY BOOKS/BOOK CHAPTERS PUBLISHED

S.No.	Name of the Authors	Department of the Teacher	Title of the Paper	ISBN Number	Year of Publication	Name of the Publisher	Relevant Link
1	Mr. U. Venkat Rao	Challenges and Possible Solutions for emerging trends in Technologies	Artificial Intelligence based Smart Warehouse Management in Aviation Sector	978-93-5627-706-9	2022	(Name of the Publisher not provided)	-

STUDENT PUBLICATIONS

S.N.	Name of the Student & Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No. & Issue No.	Name of the award if any
1.	L. Nishitha (19UPIA1216) IV-II	Zestera Publications	International Journal of Data Science and IoT Management System (IJDIMS)	Volume 1, Issue 3, 2022	-
2.	T. Madhavi (19UPIA1228) IV-II	Unicorn Publications	International Journal of Engineering Research and Science Technology (IJERST)	Volume 18, Issue 3, 2022	-
3.	V. Sravani (19UPIA1234) IV-II	Zestera Publications	International Journal of Pharmacy with Medical Sciences (IJPAMS)	Volume 2, Issue 3, 2022	-
4.	M. Vasanthi (19UPIA1217) IV-II	Unicorn Publications	International Journal of Engineering Research and Science Technology	Volume 18, Issue 3, 2022	-
5.	V. Meghana Reddy (19UPIA1233) IV-II	Zestera Publications	International Journal of Pharmacy with Medical Sciences (IJPAMS)	Volume 2, Issue 4, 2022	-
6.	A. Sowmya (19UPIA1203) IV-II	Longman Publishers	International Journal of basic and applied research (IJBAR)	Volume 12, Issue 3, 2022	-

S. No.	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr.A.Sudheer Babu	IAENG	Life Member
2	Dr.A.Sudheer Babu	IFERP	Member
3	Mr.Janakiraman Ranjith	IAENG	Life Member
4	Mrs.Swapna Chiluguri	ISTE	Life Member
5	Mrs.Swapna Chiluguri	IFERP	Member
6	Mrs.Swapna Chiluguri	IAENG	Life Member
7	Mrs.Kolan Helini	AIMERS	Member
8	Mrs.Kolan Helini	IFERP	Member
9	Mrs. P.Amreswari	IAENG	Life Member
10	Mrs. P.Amreswari	IFERP	Member
11	Mrs.Eenaja Aileni	IAENG	Life Member
12	Mrs.Eenaja Aileni	AIMERS	Member
13	Mrs.Boijapalli Archana	AIMERS	Member
14	Mrs.Boijapalli Archana	IAENG	Life Member
15	Mrs.Boijapalli Archana	SDIWC	Member
16	Mr.U.Venkat Rao	NDU Club	Member
17	Mr.U.Venkat Rao	AIMERS	Member
18	Mr.U.Venkat Rao	IAAC	Member
19	Mr.U.Venkat Rao	CSI	Member
20	Mr.U.Venkat Rao	ABCDINDEX	Life Member
21	Mr.U.Venkat Rao	IFERP	Member
22	Mrs.FouziyaMojammed	IAENG	Life Member
23	Mrs.FouziyaMojammed	IFERP	Member
24	Mr.Srinivasarao M	IFERP	Member
25	Dr.Ch. Baswaraj	IFERP	Member

FACULTY AS RESOURCE PERSON

S.N.	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date	Location	Organized by
2022-2023 (CAYM3)					
1	Dr. A. Sudheer Babu	A One Week online FDP on "Block Chain Algorithms and applications"	16-09-2022	Hyderabad	Sreyas institute of Engineering and Technology
2	Dr. Ch. Baswaraj	A One Week FDP on "Machine Learning and its Applications"	19-12-2022	Hyderabad	KLU

Student Innovative Projects:

S.N.	Name of the Faculty	Name of the Project/ Initiative/ Event	Date of Event	Place of Event	Website Link if any
1	Mrs. K. Helini	User-Oriented Machine Learning Models for Efficient Cyber security Operations	15-07-2022	VMTW	https://www.vmtw.in/pdf/Hackthon/IT/it_sib-2022

Program Outcomes (Adapted from NBA)

Engineering Graduates will be able to:

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.



Alumni Achievements

IBM APPRECIATION CERTIFICATE

