



Vision of the Department

To achieve value oriented and quality education with excellent standards on par with evolving technologies and produce technocrats of global standards with capabilities of facing futuristic challenges.

Mission of the Department

- M1: To enrich advanced knowledge among students for reinforcing the domain knowledge and develop capabilities and skills to solve complex engineering problems.
- M2: To impart value based professional education for a challenging career in Computer Science and Engineering.
- M3: To transform the graduates for contributing to the socio-economic development and welfare of the society through value based education.

Program Educational Objectives

- PEO1: To acquire logical and analytical skills in core areas of Computer Science & Information Technology.
- PEO2: To adapt new technologies for the changing needs of IT industry through self-study, graduate work and professional development.
- PEO3: To demonstrate professional and ethical attitude, soft skills, team spirit, leadership skills and execute assignments to the perfection.

Program Specific Outcomes

- PSO1: **Software Development:** Ability to grasp the software development life cycle of software systems and possess competent skill and knowledge of software design process.
- PSO2: **Industrial Skills Ability:** Ability to interpret fundamental concepts and methodology of computer systems so that students can understand the functionality of hardware and software aspects of computer systems.
- PSO3: **Ethical and Social Responsibility:** Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues.

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.

EDITORIAL BOARD

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COMPUTER SCIENCE AND ENGINEERING

Department of Computer Science and Engineering was started since the inception of Vignan's Institute of Management and Technology for Women during 2008 with an initial intake of 60. The strength was enhanced to 120 later. The Department had added Post graduate programme in Software Engineering during 2013 with an intake of 18.

The Department is headed by well qualified faculty strength of 38 under the dynamic leadership of Mr. A.Sudhir Babu, with experience of about 29 years of teaching and research.

The Department has state-of-art laboratories equipped with more than more than adequate advanced computing systems with continuously updated application software with 24x7, 30 MBPS internet facility.

In Computer Science & Engineering the student will go through the algorithms, programming languages, operating systems, database management systems, computer network, computer graphics and artificial intelligence.

Computer Science Engineering is a course that deals with design, implementation, and management of information systems of both software & hardware processes. A computer scientist specializes in theory of computation and design of computational systems. Computer Science engineering aids with various disciplines such as electrical and electronics engineering, information technology, software engineering, and more.

candidates can find various entry-level jobs in the IT industry or related fields, given they fulfill the required skill set such as knowledge of subjects like programming, database management, data structures and more. Candidates have various career options after completing computer science engineering courses.

Computer science is a vast field with a variety of disciplines where each of them is independent and yet connected to each other. Digitalisation has increased the market value of online businesses which has led every company to increase their online presence in the form of a website, application, or social media.



SIGNATURE DAY

For final-year students, the last day of college is an emotional one. However, this is remembered as a memorable and inspiring last day of college, with messages to each other. The date on which this Agreement, or any other document related to it, is signed by the Party signing it last in time on the last date in time is referred to as the Signature Date.

"Things come and go, but memories last forever."



PLACEMENT SUCCESS MEET

This success meet was held on July 14, 2020-2021. This year, 85% of students have jobs. 253 job offers for 229 pupils break placement records. Top MNCs provide 10 LPA salaries.

Vignan's Institute of Management and Technology for Women features a Training and Placement Cell led by an Officer In-Charge and a management faculty. Management, department leaders, and coordinators support it. The Placement cell aims to improve students' skills and make them employable. The Placement cell helps students graduate with at least one offer. All-around development, inter-disciplinary knowledge, and industry-oriented learning experiences help students attain industry standards. The Placement cell enhances academic experiences.



INDEPENDENCE DAY

The Vignan's Institute of Management and Technology for Women hosted an Independence Day celebration on August 15, 2021. The Importance of the Indian Constitution and the four principles of justice, liberty, equality, and fraternity enshrined in the Indian Constitution's preamble celebrations.



FACULTY ARTICLE ON CLOUD COMPUTING

By P. Rajendra Prasad,
Assistant Professor.

We define cloud computing as a method of availing computing resources from a provider, on demand, by a customer using a computer connected to a network (usually the Internet). There are five major characteristics of a cloud computing model. They are:

- A customer can avail any contracted computing resource such as processing power, storage space, or application programs from a service provider without human interaction.
- The computing resources can be accessed anywhere, anytime with any standard device which can access the web.
- The computing resources of a provider are pooled to provide the contracted service. The pooled resources may be geographically distributed across multiple data centres. The computing resources of a provider are shared by several customers. The resources are dynamically assigned to customers depending on the demand. Usually a customer has no knowledge of the location of the resources which may be anywhere in the world.
- Computing resources may be availed elastically by customers. A customer may request more resources when needed and release them when not required. From a customer's point of view the resources are unlimited. The customer pays only for the total resources used.



- Cloud computing systems are adaptive systems. They automatically balance loads and optimize the use of resources. A user is permitted to monitor and control resource usage thereby providing transparency in bills. Unique Characteristics of Cloud Computing as a Utility Existing utilities such as a power utility have six major characteristics:
- Investment in infrastructure is made by a provider who also maintains it.
- The service offered by the infrastructure provider is shared by several customers.
- The service is provided to customers on-demand.
- The service is elastic and scalable. In other words, customers assume unlimited availability of the service on demand.
- A customer pays only for what is consumed.
- A specified quality of service is assured by the provider. Cloud computing as a utility has five additional requirements due to the special nature of computing.

FACULTY ARTICLE ON INTERNET OF THINGS

By V. Roopa,
Assistant Professor.

Today the Internet has become ubiquitous, has touched almost every corner of the globe, and is affecting human life in unimaginable ways. However, the journey is far from over. We are now entering an era of even more pervasive connectivity where a very wide variety of appliances will be connected to the web. We are entering an era of the "Internet of Things" (abbreviated as IoT). This term has been defined by different authors in many different ways. Let us look at two of the most popular definitions. Define the Internet of Things as simply an interaction between the physical and digital worlds. The digital world interacts with the physical world using a plethora of sensors and actuators. Another definition defines the Internet of Things as a paradigm in which computing and networking capabilities are embedded in any kind of conceivable object. We use these capabilities to query the state of the object and to change its state if possible. In common parlance, the Internet of Things refers to a new kind of world where almost all the devices and appliances that we use are connected to a network. We can use them collaboratively to achieve complex tasks that require a high degree of intelligence.

For this intelligence and interconnection, IoT devices are equipped with embedded sensors, actuators, processors, and transceivers. IoT is not a single technology; rather it is an agglomeration of various technologies that work together in tandem.

Sensors and actuators are devices, which help in interacting with the physical environment. The data collected by the sensors has to be stored and processed intelligently in order to derive useful inferences from it. Note that we broadly define the term sensor; a mobile phone or even a microwave oven can count as a sensor as long as it provides inputs about its current state (internal state + environment). An actuator is a device that is used to effect a change in the environment such as the temperature controller of an air conditioner.



FACULTY PUBLICATIONS (2020-21)

S.NO.	AUTHOR	JOURNAL NAME	TITLE OF THE PAPER	ISSN NUMBER
1.	MRS D. SWAROOPA	INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN ENGINEERING & MANAGEMENT	ANALYSIS OF RAFT CONSENSUS ALGORITHM	ISSN: 2350-0557 VOL-7, ISSUE-4, JULY 2020
2.	MRS K.HELINI	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS	MOVIE RECOMMENDATION SYSTEM BASED ON COLLABORATIVE FILTERING	ISSN: 2320-2882 VOL 8, ISSUE 7 JULY 2020
3.	DR A.SUDHIR BABU	INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY	ANALYSIS OF SIMILARITY MEASURES WITH WORD NET BASED AND ENHANCED FEATURE SELECTION IN TEXT DOCUMENT CLUSTERING	ISSN 2005-4238 VOL -29, ISSUE 06 (2020)
4.	MR MORAM VISHNU VARDHANA RAO	INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN ENGINEERING & MANAGEMENT	ANALYSIS OF CLASSIFICATION TECHNIQUE FOR PREDICTION OF DAMAGES LEVELS IN BUILDING-STRUCTURES	ISSN 822 – 842 VOLUME-29, NO. 05(2020)
5.	MR K.BHARATH REDDY	INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN ENGINEERING & MANAGEMENT	ANALYSIS OF EDUCATIONAL INSTITUTIONS QUALITY GROWTH RATE IN ACADEMICS	ISSN 2277-7881



STUDENT ARTICLE ON DATA MINING

By P. Lahari, IICSE-A.

We are living in an information-rich, data-driven world. While it's comforting to know there's a plethora of readily available knowledge, the sheer volume creates challenges. The more information available, the longer it can find the useful insights you need.

That's why today we're discussing data mining. We'll be exploring all aspects of data mining, including what it means, its stages, data mining techniques, the benefits it offers, data mining tools, and more. Let's kick things off with a data mining definition, then tackle data mining concepts and techniques.

We will now begin by understanding what is data mining.

What is Data Mining?

Typically, when someone talks about "mining," it involves people wearing helmets with lamps attached to them,

digging underground for natural resources. And while it could be funny picturing guys in tunnels mining for batches of zeroes and ones, that doesn't exactly answer "what is data mining."

Data mining is the process of analyzing enormous amounts of information and datasets, extracting (or "mining") useful intelligence to help organizations solve problems, predict trends, mitigate risks, and find new opportunities. Data mining is like actual mining because, in both cases, the miners are sifting through mountains of material to find valuable resources and elements.

Data mining also includes establishing relationships and finding patterns, anomalies, and correlations to tackle issues, creating actionable information in the process. Data mining is a wide-ranging and varied process that includes many different components, some of which are even confused for data mining itself. For instance, statistics is a portion of the overall data mining process, as explained in this data mining vs. statistics article.

STUDENTS ACHIEVEMENTS

Niharika Reddy, of the CSE department, has been awarded certificate for her participation in Boot Camp.



STUDENTS REGISTERED IN VARIOUS PROFESSIONAL SOCIETIES

In the academic year 2020-21, the Computer Science and Engineering department will have 70 students enrolled in the CSI Computer Society of India. These students come from a variety of professional societies.

HIGHER EDUCATION COUNSELLING

Around two hundred members of the CSE department's student body signed up to participate in an awareness workshop on "overseas education" that was organized by Valmiki Foreign Education Services. programme.

INDUSTRY INSTITUTE INTERACTIONS

S.NO.	COMPANY'S NAME	SECTOR	ATTENDED	COMPLETED ON	NO. OF STUDENTS
1.	DIGI BROOD TECHNOLOGIES PRIVATE LIMITED	IT	1-JULY-21	15-JULY-21	25
2.	CHANNEL SOFT IT SERVICES PRIVATE LIMITED	IT	18-SEP-21	28-SEP-21	20
3.	ARDENT COMPUTECH PRIVATE LIMITED	IT	10-JULY-21	24- JULY -21	28

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