



## 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

**Dr. G. Apparao Naidu**, Principal

**Dr. A. Sudhir Babu**, HOD, CSE.

**Mrs. V. Suzan Shalini**, Assistant Professor, BS&H.

**Mrs. B. Geetha**, Assistant Professor, CSE.

**Ms. P. Prasanna Lahari**, CSE (Student)

**Ms. S. Snigdha**, CSE (Student)



## 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.



## HOD MESSAGE

The department is being run by well qualified and experienced faculty members with 13 excellent years of exposure in Computer science & Engineering. We at the department of Computer Science and Engineering believe that learning is a continuous process and does not end with the acquisition of a degree, especially because steady and rapid advances in computing technologies shorten the life of tools and techniques prevalent today. Students are given a strong foundation in computer science and problem-solving techniques and are made adaptable to changes. We aim at offering the best quality education. The department offers undergraduate programs in Computer Science & Engineering, Information Technology, Artificial Intelligence & Machine Learning, Data Science and Artificial Intelligence & Data Science that owe their emergence to the relentlessly growing demand of professionals with expertise in various fields of Computer Science.

## CANCER AWARENESS ONLINE CAMPAIGN 2021

As it is covid-19 period, this was online event held in February month. Our college has collaborated with kamineni hospitals for this campaign..The aim of the campaign is to create cancer awareness amongst the population of India. It is important to dispel the myths that people wrongly believe, inform them about the signs and symptoms, and importance of screening for early detection. It is also vital to follow a healthy lifestyle, and sharing of survivor stories gives a message of hope and confidence.

The campaign is called "Raho cancer se do kadam aage" The objective being, that if you are aware of all these factors you can stay two steps ahead of cancer!

Name of the scheme was importance of health check up and taking appropriate health recovery methods.

The content informed readers not to be afraid of cancer and that if they had the right information, a healthy lifestyle, had screening tests and looked for early signs and symptoms they could stay two steps ahead of cancer.

## FACULTY DEVELOPMENT PROGRAMMES

| S.NO. | NAME OF THE FACULTY      | DESIGNATION         | TITLE OF THE PROGRAMME                                                                | DURATION                             |
|-------|--------------------------|---------------------|---------------------------------------------------------------------------------------|--------------------------------------|
| 1.    | DR. A SUDHIR BABU        | PROFESSOR           | MOBILE COMPUTING<br>(SHORT TERM TRAINING PROGRAMME)                                   | 15-19, FEB 2021                      |
| 2.    | MR. B PHIJK              | ASSISTANT PROFESSOR | ADVANCED ARTIFICIAL INTELLIGENCE TECHNOLOGIES AND LEVERAGING OPEN FRAMEWORKS AND SDKS | 22-FEB-2021<br>TO<br>6-MARCH-2021    |
| 3.    | DR. P RAJENDRA PRASAD    | ASSISTANT PROFESSOR | CYBER SECURITY                                                                        | 1-FEB-2021<br>TO<br>5-FEB-2021       |
| 4.    | MRS. PRATHYUSHA K        | ASSISTANT PROFESSOR | ADVANCED TRAINING PROGRAM ON TEACHING (PHASE 1)                                       | 09-FEB-2021<br>TO<br>15-FEB-2021     |
| 5.    | MRS. GEETHA BHAVANI      | ASSISTANT PROFESSOR | ELECTRICAL & COMPUTER ENGINEERING                                                     | 1-FEB-2021<br>TO<br>5-FEB-2021       |
|       |                          |                     | AGILE PROJECT MANAGEMENT (WORKSHOP)                                                   | 23-MARCH-2021<br>TO<br>24-MARCH-2021 |
| 6.    | MR. V JAGADEESHWAR REDDY | ASSISTANT PROFESSOR | ELECTRICAL & COMPUTER ENGINEERING                                                     | 1-FEB-2021<br>TO<br>5-FEB-2021       |
| 7.    | MR. R KRISHNA NAYAK      | ASSISTANT PROFESSOR | HANDS ON BIG DATA ANALYSIS                                                            | 8-12, FEB 2021                       |
| 8.    | DR. C SRINIVASA KUMAR    | ASSISTANT PROFESSOR | QUANTUM COMPUTING                                                                     | 8-20, MARCH 2021                     |
| 9.    | DR. P. VINAY BHUSHAN     | ASSISTANT PROFESSOR | ADVANCED ARTIFICIAL INTELLIGENCE TECHNOLOGIES AND LEVERAGING OPEN FRAMEWORKS AND SDKS | 22-FEB-2021<br>TO<br>6-MARCH-2021    |
|       |                          |                     | ELECTRICAL & COMPUTER ENGINEERING                                                     | 1-FEB-2021<br>TO<br>5-FEB-2021       |
| 10.   | MR. M VISHNU VARDHANARAO | ASSISTANT PROFESSOR | ADVANCED TRAINING PROGRAM ON TEACHING (PHASE - I)                                     | 9-12, FEB 2021                       |

## PUBLICATIONS (2020-21)

| S.NO. | AUTHOR                                                   | JOURNAL NAME                                                             | TITLE OF THE PAPER                                                                                                                      | ISSN NUMBER                                  |
|-------|----------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1.    | DR. A.SUDHIR BABU                                        | INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY                 | ANALYSIS OF SIMILARITY MEASURES WITH WORDNET BASED AND ENHANCED FEATURE SELECTION IN TEXT DOCUMENT CLUSTERING                           | ISSN 2005-4238<br>VOL-29,<br>NO. 06(2020)    |
| 2.    | MRS. V.INDRANI<br>MRS. D. SWAROOPA<br>MRS. D.DEEPTHI SRI | INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN ENGINEERING & MANAGEMENT | PERCEPTIONS OF CLIENT AND SERVER SIDE LOAD BALANCING IN MICRO SERVICES                                                                  | ISSN: 2350-0557<br>VOL-7, ISSUE-4,<br>2020   |
| 3.    | MRS. K. HELINI                                           | INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN ENGINEERING & MANAGEMENT | MOVIE RECOMMENDATION SYSTEM BASED ON COLLABORATIVE FILTERING                                                                            | ISSN: 2350-0557<br>VOL-7, ISSUE-4,<br>2020   |
| 4.    | MRS. BHAVANI GEETHA<br>MRS. P. PRATHIMA                  | MUKT SHABD JOURNAL                                                       | ENABLING CLOUD-FOG COMPUTING AND SMART CITY APPLICATIONS WITH FASTER 5G SELF-HEALING PROTOCOLS AND APPLICATIONS: A COMPREHENSIVE REVIEW | ISSN : 2347-3150<br>VOL X, ISSUE VI,<br>2021 |

## EVENTS

| S.NO. | DATE       | NAME OF THE EVENT                        | RESOURCE PERSON(S)                                                                                      |
|-------|------------|------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1.    | 15-02-2021 | ONE DAY OBE ON ASSESSMENT AND EVALUATION | DR. B. NARSIMHA,<br>DEPARTMENT OF CSE, HITS, BOGARAM,<br>9395373275                                     |
| 2.    | 22-02-2021 | ONLINE GUEST LECTURE ON R-PROGRAMMING    | DR. PIYUSH KUMAR PAREEK,<br>PROFESSOR, DEPARTMENT OF CSE,<br>EAST WEST GROUP OF INSTITUTIONS, BANGALORE |

## CULTURAL CLUB ACTIVITIES



### MADHUBANI ART

By Swetha Rapolu, CSE.

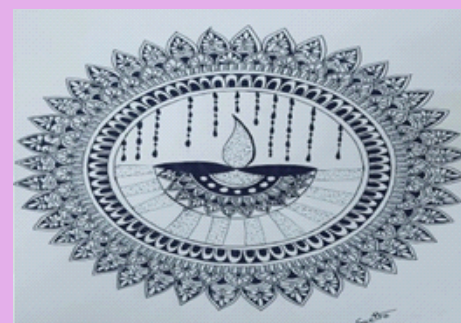
Today, Madhubani paintings have admirers all over the world. Scholars and avid art collectors, ethnic art promoters as well as laymen with hardly any exposure to nuances of fine arts, equally enjoy the simplicity and liveliness of Madhubani paintings and collect Madhubani portfolios. Student got an online participation certificate from Art contest.



### DIYA MANDALA ART

By Swetha, CSE.

People in different cultures all over the world have created mandalas, suggesting that the form speaks to something deep within every human being. The brilliant psychoanalyst Carl Jung believed that the mandala represents the Self and that drawing a mandala gives a person a sacred space to meet that Self. He considered making mandalas an effective form of art therapy, helping to calm and comfort people struggling with mental health issues.



## TRAINING AND PLACEMENT

Vignan's Institute of Management and Technology for Women has its own Training and Placement Cell, which is led by an Officer In-Charge and supported by management professors. It has the backing of management, department heads, and coordinators.

The placement cell's goal is to improve students' skills in tandem with their graduation and to make them employable. The placement cell makes every effort to ensure that students graduate with at least one job offer.

Students would benefit from all-round growth, multi-faceted and inter-disciplinary knowledge, as well as many industry-oriented learning experiences, in order to strengthen their abilities and meet industry standards. The Placement cell helps students have such experiences during their academic careers.

- ◆ Trainings.
- ◆ Industrial visits.
- ◆ Guest Lectures.
- ◆ Career Counselling sessions.
- ◆ Summer Internships / Live Projects.
- ◆ Other Corporate Forums.
- ◆ Business Thought Leadership Sessions.



| S.NO. | COMPANY'S NAME                            | A.Y.    | DATE       | CLASS        | TOPIC                 |
|-------|-------------------------------------------|---------|------------|--------------|-----------------------|
| 1.    | CAMPUS RECRUITMENT TRAINING BY SIX PHRASE | 2020-21 | 18-01-2021 | SEMINAR HALL | QUANTITATIVE APTITUDE |
| 2.    | CAMPUS RECRUITMENT TRAINING BY SIX PHRASE | 2020-21 | 10-02-2021 | SEMINAR HALL | QUANTITATIVE APTITUDE |
| 3.    | CAMPUS RECRUITMENT TRAINING BY SIX PHRASE | 2020-21 | 02-03-2021 | SEMINAR HALL | QUANTITATIVE APTITUDE |



### Article on Cryptography

By C. Sunil Kumar,  
Assistant Professor.

Cryptography is the study of secure communications techniques that allow only the sender and intended recipient of a message to view its contents. The term is derived from the Greek word *kryptos*, which means hidden. It is closely associated to encryption, which is the act of scrambling ordinary text into what's known as ciphertext and then back again upon arrival. In addition, cryptography also covers the obfuscation of information in images using techniques such as microdots or merging. Ancient Egyptians were known to use these methods in complex hieroglyphics, and Roman Emperor Julius Caesar is credited with using one of the first modern ciphers.



When transmitting electronic data, the most common use of cryptography is to encrypt and decrypt email and other plain-text messages. The simplest method uses the symmetric or "secret key" system. Here, data is encrypted using a secret key, and then both the encoded message and secret key are sent to the recipient for decryption. The problem? If the message is intercepted, a third party has everything they need to decrypt and read the message. To address this issue, cryptologists devised the asymmetric or "public key" system. In this case, every user has two keys: one public and one private. Senders request the public key of their intended recipient, encrypt the message and send it along. When the message arrives, only the recipient's private key will decode it meaning theft is of no use without the corresponding private key.



### Article on Natural Language Processing

By S. Snigdha, II CSE - C.

Natural language processing (NLP) is the field of AI concerned with how computers analyze, understand and interpret human language. NLP allows humans to talk to machines in human language. Computer languages are inherently strict in their syntax and would not work unless they are correctly spelled. On the contrary, natural languages have more flexibility to adapt and interpret the flaws coming from mispronunciation, accents, word play, dialects, context, etc. To teach computers how to understand human languages, scientists have adopted concepts and models from linguistic fields. Smart assistants like Apple's Siri and Amazon's Alexa recognize patterns in speech thanks to voice recognition, then infer meaning and provide a useful response. We've become used to the fact that we can say "Hey Siri," ask a question, and she understands what we said and responds with relevant answers based on context. And we're getting used to seeing Siri or Alexa pop up throughout our home and daily life as we have conversations with them through items like the thermostat, light switches, car. Search engines use NLP to surface relevant results based on similar search behaviors or user intent so the average person finds what they need without being a search-term wizard.

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