VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

INSIGHT

NEWS LETTER

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VOLUME NO.: 13

JUL - SEP, 2019

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.

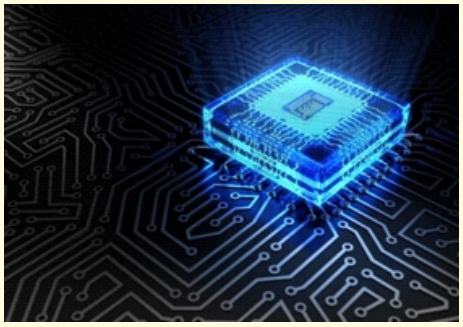
Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

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.



COMPUTER SCIENCE AND ENGINEERING

CSE comprises the basic knowledge of computer programming and networking. The computer science experience will give ample knowledge about the implementation design and management of the entire information system in both the aspects- hardware as well as software. The field of CS has some of the greatest advantages like having great pay, innovative and challenging working patterns, and constantly learning new things.

Computer Science Engineering (CSE) is an academic programme that integrates the field of Computer Engineering and Computer Science. It is one of the most sought after courses amongst engineering students. The course contains a plethora of topics but emphasises the basics of computer programming and networking. The topics covered in the course are computation, algorithms, programming languages, program design, computer software, computer hardware, and others.

Computer science engineers are involved in many aspects of computing, from the design of individual microprocessors, personal computers, and supercomputers to circuit designing and writing software that powers them. CSE is one of the engineering specialisations. However, candidates pursuing this programme have the option of further choosing amongst various other specialisations like telecommunication, web designing, computer hardware and software implementation and maintenance, etc.

These professionals can work as a data scientist, computer programmer, systems analyst, hardware engineer, software developer, system engineer, IT consultant, system designer, networking engineer, web developer, database administrator, mobility tester, programmer, e-commerce specialist, and software tester.

INDUCTION PROGRAM

When new students enter VMTW, they come with diverse thoughts, backgrounds and preparations. It is important to help them adjust to the new environment and inculcate in them the ethos of the institution with a sense of larger purpose. We at VMTW planned a complete 2-week long induction program on August 7 2019 for our students, right at the start.Its purpose is to make the students feel comfortable in their new environment, open them up, set a healthy daily routine, create bonding in the batch as well as between faculty and students, develop awareness, sensitivity and understanding of the self, people around them, society at large, and nature.

FRESHERS DAY

The purpose of Fresher's Party is to welcome new students in a friendly atmosphere and to encourage their creative impulses to boost their confidence. It is the day where seniors and juniors finally bond and unite to celebrate being part of the college. Senior Students in Computer Science department of VMTW organized fresher's party for F.Y. students on 7-09-19. The program started with lamp lightening and speech by Dr. P.Sudhakar Rao, Principal, VMTW and address by Dr. S.Ranga Swamy, Head of CSE Departmentor. Senior students arranged many activities for fresher's which include cultural events where everyone got chance to showcase their talent.

TEACHER'S DAY CELEBRATIONS

Teacher's day was celebrated by CSE department on 5th of September 2019. . It is the birth anniversary of Dr. Sarvepalli Radhakrishnan who was a great scholar and teacher.On this day teachers deserve to be given a heartily tribute for their hard efforts of making nation's future.

ENGINEER'S DAY CELEBRATIONS

Every year 15th September is celebrated as Engineers day all over the India as a tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya. We Computer Science department of VMTW celebrated Engineer's Day on 15th September 2019 to identify the great works done by our hard working engineers each year. The main objective of the event was to encourage self evaluation, motivation, effective communication and team building among the students. On this day some activities are conducted for students. All the students participated actively.

INDEPENDENCE DAY CELEBRATIONS

VMTW celebrated 73rd Independence Day in the college Campus. The students and staff members gathered in the college campus for flag hoisting ceremony. The Principal, Dr. P.Sudhakar Rao hoisted the national flag at 8:30 AM, 15 August 2019. Soon after the national anthem principal addressed the gathering. In his Independence Day message he elaborated on importance of patriotism and asked everyone to remember the sacrifice made by the martyrs of our nation.

Faculty Article on Quantum Computing

By Mrs. Ch. Veena, Asst Professor.

Quantum computing is an area of computing focused on developing computer technology based on the principles of quantum theory (which explains the behavior of energy and material on the atomic and subatomic levels). The field of quantum computing started in the 1980s. It was then discovered that certain computational problems could be tackled more efficiently with quantum algorithms than with their classical counterparts. Computers used today can only encode information in bits that take the value of 1 or 0—restricting their ability. Quantum computing, on the other hand, uses quantum bits or qubits. It harnesses the unique ability of subatomic particles that allows them to exist in more than one state (i.e., a 1 and a 0 at the same time).Superposition and entanglement are two features of quantum physics on which these supercomputers are based. This empowers quantum computers to handle operations at speeds exponentially higher than conventional computers and at much lesser energy consumption. With these advantages Quantum computing could contribute greatly in the fields of finance, military affairs and intelligence, drug design and discovery, aerospace designing, utilities (nuclear fusion), polymer design, machine learning and artificial intelligence (AI) and Big Data search, and digital manufacturing.

FACULTY DEVELOPMENT PROGRAMMES

S.NO.	NAME OF THE FACULTY	DESIGNATION	TITLE OF THE PROGRAMME	DURATION
1.	MRS. VASIREDDY INDRANI	ASSISTANT PROFESSOR	EMERGING SOFTWARE ENGINEERING PARADIGMS	11 SEP, 2019
2.	MR. N. VENU KUMAR	ASSISTANT PROFESSOR	EMERGING SOFTWARE ENGINEERING PARADIGMS	11 SEP, 2019
3.	MR. S. RAVI KUMAR	ASSISTANT PROFESSOR	IT INDUSTRY REAL-TIME TOOLS	14-19 AUG, 2019

PUBLICATIONS (2019-20)

S.NO.	AUTHOR	JOURNAL NAME	TITLE OF THE PAPER	ISSN NUMBER
1.	MRS. V. INDRANI	INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH	ANALYSIS OF DESIGN AND NETWORK ISSUES IN DATA CENTER AND CLOUD COMPUTING	VOL: 9, ISSUE: 6(6) ISSN 2277-7881
2.	MRS. K. HELINI	INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY	PREDICTING CORONARY HEART DISEASE: A COMPARISON BETWEEN MACHINE LEARNING MODELS	VOL. 29, NO. 03, (2020) ISSN: 2005-4238
3.	MR. MORAM VISHNU VARDHANA RAO	SOLID STATE TECHNOLOGY	A BUILDING DAMAGE CLASSIFICATION FRAMEWORK FOR FEATURE SUBSET SELECTION USING ROUGH SET WITH MUTUAL INFORMATION	VOL: 63, ISSUE: 2S (2020)
4.	MR. SUNIL CHANDOLU	INTERNATIONAL JOURNAL OF ENGINEERING AND ADVANCED TECHNOLOGY (IJEAT)	PACKETS DELIVERY RATION AND OVERHEAD REDUCTION FOR A-GPS MOBILE AD-HOC NETWORKS	VOL: 9, ISSUE: 3 ISSN 2249-8958
		INTERNATIONAL JOURNAL OF RESEARCH IN ADVENT TECHNOLOGY	GENDER VOICE RECOGNITION WITH CLASSIFICATION APPROACH USING RANDOM FOREST AND DECISION TREE ALGORITHM	VOL.8, NO.4 ISSN 2321-9637

Student Article on Robotics

By Ms. K. Srinidhi, CSE.

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that substitute for (or replicate) human actions. Robotics, design, construction, and use of machines (robots) to perform tasks done traditionally by human beings. Robots are widely used in such industries as automobile manufacture to perform simple repetitive tasks, and in industries where work must be performed in environments hazardous to humans. Many aspects of robotics involve artificial intelligence; robots may be equipped with the equivalent of human senses such as vision, touch, and the ability to sense temperature. Some are even capable of simple decision making, and current robotics research is geared toward devising robots with a degree of self-sufficiency that will permit mobility and decision-making in an unstructured environment. Today's industrial robots do not resemble human beings; a robot in human form is called an android. A software robot is an abundant type of computer program which carries out tasks autonomously, such as a chatbot or a web crawler. However, because software robots only exist on the internet and originate within a computer, they are not considered robots. In order to be considered a robot, a device must have a physical form, such as a body or a chassis.

PLACEMENTS AND TRAINING

ACTIVITIES CONDUCTED AS A PART OF PRE-PLACEMENT TRAINING

Department of computer Science Engineering organized a training program on "Assessment for placement" by FACE on 19-08-2019 in the seminar hall for III & Final year students.

In this Quantitative aptitude, Communication skills, Problem solving, leader ship, critical thinking topics were discussed.

HIGHER EDUCATION COUNSELLING

1. Around two fifty eight members of the CSE department's student body signed up to participate in a Awareness Program on "English for Competitive Exams"
2. Around one hundred fifteen members of the CSE department's student body signed up to participate in Awareness program on "Higher education and competitive exams" by Manhattan review.

STUDENTS ACHIEVEMENTS

A total of 90 students completed NPTEL course on "The Joy Of Computing" and got certificates.

Few students completed coursera courses on different technologies and got certificates.

MEMORANDUM OF UNDERSTANDING (MOU)

1. A One-year memorandum of understanding (MOU) between VMTW and SRI Gajanan E-Slates Pvt.Ltd affirms the parties intent to work together and indicates a common course of action.
2. A One-year memorandum of understanding (MOU) between VMTW and Valmiki affirms the parties intent to work together and indicates a common course of action.

INDUSTRY INSTITUTE INTERACTIONS (2019-20)

S.NO.	COMPANY'S NAME	SECTOR	ATTENDED	COMPLETED ON	NO. OF STUDENTS
1.	DIGI BROOD TECHNOLOGIES PRIVATE LIMITED	IT	1-JULY-19	15-JULY-19	15
2.	SMART KNOWER	IT	1-JULY-19	15-JULY-19	25
3.	CHANNEL SOFT IT SERVICES PRIVATE LIMITED	IT	18-SEP-19	28-SEP-19	20

CERTIFICATION PROGRAMS

Add on /Certification programs:

To encourage advanced learners and slow learners Training and placement cell of VMTW conducted some certification programs.

1. 6 days certification program on Web Application Development "WEB MASTER" Program was conducted for advanced learners.
2. 6 days certification program on Data analytics using Hadoop was conducted for advanced learners.
3. 30 Hours certification program on "Data visulization and Realtime data analysis" using Tableu