VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

INSIGHT

NEWS LETTER

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VOLUME NO.: 16

APR - JUN, 2020

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.

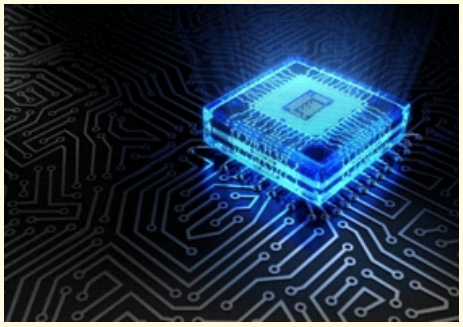
Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

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.

EVENTS ORGANIZED

SHORT TERM TRAINING PROGRAMME

One Week Online STTP on Challenges in Cyber Security from 20-4-2020 to 24-04-2020 by T. Ram Kumar, Athidi Digital Solutions Hyderabad organized by CSE department of VMTW.

WEBINAR

One-day-WEBINAR conducted by Computer Science Department on “Data Analytics Innovative Research Methods and Data Analysis” by Dr. Piyush Kumar Pareek, Professor, Department of CSE, East West Group of Institutions on 23-05-2020. A total of 250 students participated in this webinar.

WORKSHOP

A webinar on Machine Learning Using R Programming by Dr. Jayadev Gyani, Professor, Department of CS in CCIS, Majmaah University wasorganized by CSE department of VMTW on June-6-2020.

The main objective of this program is to inculcate the knowledge on latest technologies like Machine Learning and R-Programming Language among the Faculty, Researchers and students. Also motivate the students to do mini projects and participate in research activities..

QUIZ

A online quiz conducted to the students of VMTW on C-Programming on May 29-2020.

In this contest participants test what they know by answering questions on one or more topics ‘C’ programming language offers various features and functionalities to the programmers.It has various important topics which you known must to improve coding skills.To help students to get better at C programming, we take a quiz that focused on the advanced concepts and topics of the C programming language.So, this helps in greater understanding of the C programming language and thus improves our knowledge in this language.

FACULTY DEVELOPMENT PROGRAMMES

S.NO.	NAME OF THE FACULTY	DESIGNATION	TITLE OF THE PROGRAMME	DURATION
1.	MRS. P. PRATHIMA	ASSISTANT PROFESSOR	QUANTUM COMPUTING	08-MAR-2020
2.	MR. K. BHARATH REDDY	ASSISTANT PROFESSOR	PROGRAMMING IN JAVA	JAN-APR 2020
3.	MR. M. VISHNU VARDHANARAO	ASSISTANT PROFESSOR	AI FOR EVERYONE	10-MAY-2020
4.	MRS. D. SWAROOPA	ASSISTANT PROFESSOR	ARTIFICIAL INTELLIGENCE	22- 26 MAY 2020
5.	MRS. GEETHA BHAVANI	ASSISTANT PROFESSOR	DATA ANALYTICS- INNOVATIVE RESEARCH METHODS AND DATA ANALYSIS	JAN-APR 2020
6.	DR. P. VINAY BHUSHAN	ASSISTANT PROFESSOR	CLOUD DATACENTER INFRASTRUCTURE	18-20 MAY 2020
			PHP AND MYSQL	18-23 MAY 2020
			BLOCKCHAIN TECHNOLOGIES	19-23 MAY 2020

PUBLICATIONS

S.NO.	AUTHOR	JOURNAL NAME	TITLE OF THE PAPER	ISSN NUMBER
1.	MRS.K. HELINI	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH IN COMPUTER APPLICATIONS AND MANAGEMENT STUDIES	HYBRID SYSTEM TO PREDICTION OF HEART DISEASE USING DATA MINING NAIVE BAYES ALGORITHM	VOL 9,ISSUE 2 (2020) ISSN 2319 – 1953
		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
2.	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
3.	DR. RANGA SWAMY SIRISATI	INTERNATIONAL JOURNAL OF ENGINEERING AND ADVANCED TECHNOLOGY (IJEAT)	MACHINE LEARNING BASED DIAGNOSIS OF DIABETIC RETINOPATHY USING DIGITAL FUNDUS IMAGES WITH CLAHE ALONG FPGA METHODOLOGY	VOL. 29, NO. 5, (2020) ISSN 2005-4238

STUDENT ARTICLES

Article on Block Chain Technology

By M. Sharanya, CSE (18UP1A0585).

Blockchain technology is a structure that stores transactional records, also known as the block, of the public in several databases, known as the "chain," in a network connected through peer-to-peer nodes. Typically, this storage is referred to as a 'digital ledger.'

There are four types of block chain structures:

- ·Public Block chains. Public block chains are permission less in nature, allow anyone to join, and are completely decentralized.
- Private (or Managed) Block chains. ...
- Consortium Block chains. ...
- Hybrid block chains.

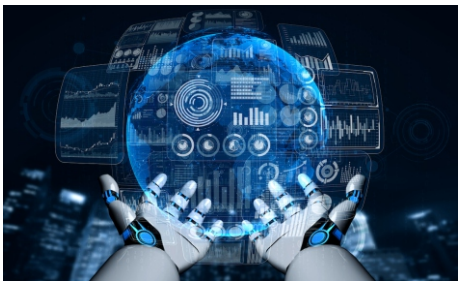
A blockchain is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without a need for a central clearing authority. Potential applications can include fund transfers, settling trades, voting, and many other issues

Blockchain is a type of shared database that differs from a typical database in the way that it stores information; blockchains store data in blocks that are then linked together via cryptography.

As new data comes in, it is entered into a fresh block. Once the block is filled with data, it is chained onto the previous block, which makes the data chained together in chronological order.

- Different types of information can be stored on a blockchain, but the most common use so far has been as a ledger for transactions.
- In Bitcoin's case, blockchain is used in a decentralized way so that no single person or group has control—rather, all users collectively retain control.

Decentralized blockchains are immutable, which means that the data entered is irreversible. For Bitcoin, this means that transactions are permanently recorded and viewable to anyone.



Article on Machine Learning

By M. Jaya Sree, CSE (18UP1A0576).

Machine learning is the science of getting computers to act without being explicitly programmed. In the past decade, machine learning has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome.

Machine learning is so pervasive today that you probably use it dozens of times a day without knowing it. Many researchers also think it is the best way to make progress toward human-level AI.

Machine learning (ML) trends are forecasted for the business landscape in 2022, but readers need to keep in mind that businesses are still contending with the pandemic, as well as labor shortages, economic crisis, and many other problematic factors.

While some businesses worldwide have certainly come out stronger during these global crises, many have not, but for nearly everyone, advanced technologies have revolutionized the way we live and work.

2020 and 2021 made us realize that technology is potentially an advantageous savior and certainly an important guide during a crisis. Artificial intelligence, machine learning, and associated technologies have the potential to resurrect traditional business models from total chaos to a highly streamlined, cost-friendly, and efficient workflow.

The "intelligent" component of the intelligent digital mesh mostly refers to AI, ML (and related technologies), as these two drive the "brains" of smart machines to deliver business value. AI and ML collaboratively play a critical role in the intelligent digital world of business — enabling machines to mimic human thinking and human tasks. Businesses have learned to trust advanced technologies and endorse technology-enabled business models.

STUDENT ACTIVITIES & ACHIEVEMENTS

STUDENTS ACHIEVMENT

Niharika Reddy of Computer Science and Engineering department received certificate for full stack web development program conducted by Edureka.


CERTIFICATE
PROUDLY PRESENTED TO
Niharika Reddy Karnampally
Full Stack Web Development Program Demo Session
Jul 8, 2020
Karan at Edureka
edureka!

HIGHER EDUCATION COUNSELLING

Around two-fifty members of the CSE department's student body signed up to participate in a workshop on "International study and work opportunities" that was organized by BHERI Overseas.

COURSERA COURSES

Many of our faculty members have successfully completed the Courses provided by Coursera. These courses helped all the teaching and non-teaching faculties to learn the different things with the standpoint of very experienced faculties worldwide. Many of our students have also completed the courses and many of them have joined the different courses. This is very excellent initiative taken by joint collaboration.

INDUSTRY TRAINING

In association with Digi Brood Technologies private limited, around 15 students have attended industry training in IT sector on 1-7-2020,to enhance their knowledge.