MALLA REDDY ENGINEERING COLLEGE FOR WOMEN

Autonomous Institution – UGC, Govt. of India

Accredited by NBA & NAAC with 'A' Grade

NIRF Indian Ranking, Accepted by MHRD, Govt. of India | Band – Excellent, National Ranking by ARIIA

Maisammaguda, Dhulapally, Secunderabad – 500 010, Telangana

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Under
Student Chapter IEEE, CSI & ISTE & Technical Association CYNOSURS

INFOSPARK

HALF YEARLY TECHNICAL MAGAZINE

DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

CSE

www.mallareddyecw.com

DEPARTMENT VISION

- Visualizing a great future for the intelligentsia by imparting state-of the art Technologies in the field of Engineering and Technology for the bright future and prosperity of the students.
- To offer world class training to the promising Engineers.

DEPARTMENT MISION

- To nurture high level of Decency, Dignity and Discipline in women to attain high intellectual abilities.
- To produce employable students at National and International levels by effective training programmes.
- To create pleasant academic environment for generating high level learning attitudes.

ABOUT THE DEPARTMENT

The Dept. of CSE with an intake of 240 in B.Tech Programme also offers M.Tech programmes in COMPUTER SCIENCE AND ENGINEERING & COMPUTER SCIENCE. The programmes ensure that the student effectively meets the highest benchmarks of competence required by the industry.

The Dept has state of the art laboratories with latest softwares like Windows 2008, Visual Studio 2012, Ecllipse, WinRunner, QTP, J2EE, .NET, Fedora & Weka Tool. The Dept established IEEE & ISTE student chapters and Dept. Technical Association-CYNOSURES under which it organizes National level Technical Symposium - FUTURE SASTRA and State level Technical Symposium MEDHA every academic year and Student Development Programmes like Workshop on Web Designing, Android & its Application, ADOBE PhotoShop, Ethical Hacking and HTML5.

The Department also organizes Pre-placement training programmes on C-Skills, Java Skills and Project Based training programmes on C, C++, JAVA and Web Technologies and also organizes Intra College Student Conferences on Network Security and Data Base Management Systems and Recent Advancements in Computer Science and also organizes regular student seminar sessions of two hours per week for I - IV B.Tech student to enhance their all round performance.

To provide value added certification courses to students, The Dept. established Micro Soft Innovation Center which offers Micro Soft Certification, CISCO Networking Academy which offers CISCO Certification and in association with ORACLE Corporation, India, It offers Java Certification. The Dept. also offers Business English Certification (BEC) with the help of Center for Development of Communication Skills.

PO'S

PO1	Engineering knowledge	An ability to apply knowledge of mathematics (including probability & statistics and Mathematical Foundation of Computer science and Engineering.
PO2	Problem analysis	An ability to design and conduct experiments, as well as to analyze and interpret data including hardware and software components.
PO3	Design / development of solutions	An ability to design a complex computing system or process to meet desired specifications and needs.
PO4	Conduct investigations of complex problems	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering actives with an understanding of the limitations.
PO5	Modern tool usage	An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.
PO6	The engineer and society	An ability to understanding of professional, health, safety, legal,cultural and social responsibilities.
PO7	Environment and sustainability	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and demonstrate the knowledge need for sustainable development.
PO8	Ethics	Apply ethical principles, responsibility and norms of the engineering practice
PO9	Individual and team work	An ability to function on multi-disciplinary teams.
PO10	Communication	An ability to communicate and present effectively
PO11	Project management and finance	An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multi-disciplinary environments
PO12	Life-long learning	A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning

PSO'S

The graduates of the department will attain:

PSO1: The ability to analyze, design, code and test application specific or complex engineering problems in Cryptography and Network Security, Design and Analysis of Algorithm, Computer Networks, Data Mining, Cloud Computing, Mobile Computing, Cloud Computing, Internet of Things (IoT), Data Science, Artificial Intelligence, Machine Learning, Cyber Security, Block chain Technology, and Big Data by applying the knowledge of basic sciences, engineering mathematics and engineering fundamentals.

PSO2: The ability to adapt for rapid changes in tools and technology with an understanding of societal and ecological issues, relevant to professional engineering practice through life-long learning.

PSO3: Excellent adaptability to function in multi-disciplinary work environment, good interpersonal skills as a leader in a team, in appreciation of professional ethics and societal responsibilities.

PEO'S

PEO1

PROFESSIONAL ENHANCEMENT: Provide the students with strong fundamental and advanced knowledge in Mathematics, Science and Engineering with respect to Computer Science and Engineering discipline with an emphasis to solve Engineering problems.

PEO2

CORE COMPETENCE: Prepare the students through well - designed curriculum to excel in various programmes in Computer Science and Engineering, to meet the needs of the industry and for higher education pursuit.

PEO3

TECHNICAL ACCOMPLISHMENTS: Train the students with intensive and extensive engineering knowledge and skill to analyze, design and create novel products and solutions in the field of Computer Science and Engineering.

PEO4

PROFESSIONALISM: To inculcate in students professional attitude, multidisciplinary approach, ethics, team work, communication, ability to relate computer engineering issues with societal needs and contribute towards nation building.

PEO5

LEARNING ENVIRONMENT: To provide students with an academic environment that inculcates the spirit of excellence, creativity, innovation, leadership, lifelong learning, ethical codes and guidelines to become a successful professional in Computer Science and Engineering.

MESSAGES

Founder Chairman's Message

MRECW has made tremendous progress in all areas and now crossing several milestones within a very short span of time and now I feel very happy to know that the students and faculty of the CSE Department of MRECW are bringing out the volume-1 of the Technical magazine INFOSPARK in A.Y 2020-21. As I understand this magazine is intended to bring out the inherent literary talents in the students and the teachers and also to inculcate leadership skills among them. I am confident that this issue will send a positive signal to the staff, students and the persons who are interestedin the educational and literary activities.

Ch. Malla Reddy
Founder Chairman, MRGI
Hon'ble Minister, Govt. of Telangana State

Principal's Message

I congratulate the department of CSE, MRECW for bringing out the first issue of the prestigious half yearly department technical Magazine INFOSPARK under A.Y: 2020-21, I am sure that the magazine will provide a platform to the students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and will also strengthen the all round development of the students. I am hopeful that this small piece of literary work shall not only develop the taste for reading among students but also develop a sense of belonging to the institution as well. My congratulations to the editorial board who took the responsibility for the arduous task most effectively. I extend best wishes for the success of this endeavor.

Dr. Y. Madhavee Latha
Principal

HOD'S MESSAGE

INFOSPARK-2021,Our Department magazine show cases the various achievements and talents of students. The primary objective of the department has been to impart quality technical education to the students. We providing the students with most conductive academic environment and making them towards serving the society with advanced technologies. Our department provides training sessions, workshops, hands-on, webinars, Industrial visits, Internships and Personality development classes. I am privileged to offer my best wishes. I congratulate students who have contributed their articles in huge volume.

Dr.C.V.P.R.PRASAD
Professor and HOD

FACULTY ARTICLES

GREEN COMPUTING

Green computing is the environmentally responsible and eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, engineering, manufacturing, using and disposing of computing devices in a way that reduces their environmental impact. Green Computing, also known as Green Technology or Green IT, has quickly emerged as the most effective means of utilizing technology.In basic terms, Green Computing involves reducing the environmental impact of technology. That means using less energy, reducing waste and promoting sustainability. Green computing aims to reduce the carbon footprint generated by the Information Technology and Systems business and related industries. Energy-efficiency and e-waste are two major techniques involved in green computing. Energy efficiency involves implementation of energy-efficient central processing units (CPUs), servers and peripherals as well as reduced resource consumption. And e-waste is the proper disposal of electronic waste.

Dr. V .VARADARAJAN
Professor

Artificial Intelligence

Artificial intelligence (AI) centers on machine coding that mimics human and animal intelligence. AI professionals develop algorithms and program machines to perform humanlike tasks. Already ubiquitous, AI helps detect credit card fraud, identify disease outbreaks, and optimize satellite navigation.

In their annual technology prediction report, the Institute of Electrical and Electronics Engineers Computer Society predicts several AI concepts will be widely adopted in 2021. Computing developments in AI purportedly include reliability and safety for intelligent autonomous systems, AI for digital manufacturing, and trustworthy and explainable AI and machine learning.

Computer and information research scientists, one potential AI career, earned a median annual salary of $126,830 as of 2020, with the BLS projecting much-faster-than-average growth for the profession from 2019 to 2029.

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Mr.T.Sasi Vardhan
Associate Professor

STUDENT ARTICLES

CREATING REAL-TIME 3D HOLOGRAMS WITH ARTIFICIAL INTELLIGENCE

Computer-generated holograms have long been a goal of researchers, but the procedure has traditionally involved a supercomputer churning through physics simulations, which takes time and can yield less-than-photorealistic results. Tensor holography, a new method of creating holograms for virtual reality, 3D printing, medical imaging, and more, operates on a smartphone. A team of scientists use deep learning to accelerate computer-generated holography, allowing for real-time hologram generation. Using a chain of trainable tensors, the team designed a convolutional neural network - a processing technique that roughly resembles the way human's process visual information. The team created a database of 4,000 pairs of computer-generated images. Each pair matched a picture with its respective hologram, including all depth information and color information for each pixel. Tensor holography creates holograms in milliseconds without the use of any additional software. LiDAR sensors can be used to calculate depth information for the holograms. "It's a considerable leap that could completely change people's attitudes toward holography," says Liang Shi, the study's lead author and a PhD student in MIT's Department of Electrical Engineering and Computer Science (EECS). "We feel like neural networks were born for this task.

D.Tejaswini

19RH1A0562

DIGITAL CURRENCY

Cryptocurrencies are digital assets created using computer networking software that enables secure trading and ownership. Bitcoin and most other cryptocurrencies are supported by a technology known as blockchain, which maintains a tamper-resistant record of transactions and keeps track of who owns what. Public blockchains are usually decentralized, which means they operate without a central authority such as a bank or government. The term cryptocurrencies comes from the cryptographic processes that developers have put in place to guard against fraud. These innovations addressed a problem faced by previous efforts to create purely digital currencies: how to prevent people from making copies of their holdings and attempting to spend them twice. Individual units of cryptocurrencies can be referred to as coins or tokens, depending on how they are used. Some are intended to be units of exchange for goods and services, others are stores of value, and some are mostly designed to help run computer networks that carry out more complex financial transactions. One common way cryptocurrencies are created is through a process known as mining, which is used by Bitcoin. Mining can be an energy-intensive process in which computers solve complex puzzles in order to verify the authenticity of transactions on the network. As a reward, the owners of those computers can receive newly created cryptocurrency. Other cryptocurrencies use different methods to create and distribute tokens, and many have a significantly lighter environmental impact.

D.PRATHIMA

19RH1A0564

AEROSOL JET PRINTING

The 3-D printing has been gaining widespread attention for electronic applications. Aerosol jet printing has emerged as a powerful technique to print new-age sensors and devices on various substrates. In this paper, we use simulation studies to optimize the dimensions and design of aerosol jet printed strain sensor for a good performance. Physical dimensions such as the end loop length, number of grids, grid line width, gauge length, and five different sensor designs are simulated to study their effect on the performance of the strain sensor. This paper helps to identify the factors that affect the sensitivity and gauge factor of the flexible strain sensor fabricated using aerosol jet printing technology.Aerosol jet printing works by spraying out an aerosol – a suspension of small liquid droplets in air – in aprocess that parallels spray painting. Unlike spray paint, however, this aerosol is very precisely deposited, supported by a series of steps that ensure a small, focused beam of material.The process begins in the aerosol chamber (a), which stores the printing ink. This ink contains particles of your desired printing material in an appropriate liquid solvent. Within this aerosol chamber, you'll also find the atomizer, which aerosolizes the ink into small, airborne droplets.From there, an inert gas (b) is pumped in, carrying the aerosol with it. Once the stream is out of the chamber, a virtual impactor (not depicted) removes excess gas to create a denser aerosol mist.Finally, a sheath gas stream (c) is introduced, surrounding the aerosol to help it focus and prevent clogging. This aerosol stream exits the nozzle (d) with a variable diameter and is deposited onto your desired substrate (eg: a smartphone casing). This substrate is held on a moving build platform (e), with the aerosol's long focal distance helping it better accommodate 2D and 3D substrates alike. To target deposition, a controllable shutter precisely blocks and releases the stream based on inputted CAD data.

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Gajji Vasavi
18RH1A0557

METAVERSE

Metaverse is a network of 3D virtual worlds focused on social connections. In simple words, the metaverse is a combination of virtual, augmented, and physical reality. It makes the online interactions close to real-life experiences. There are several metaverse platforms where users interact with systems in different ways. Metaverse has gained popularity after Facebook changed its name to Meta. Businesses have begun to start new projects of metaverse on digital space.

It is unclear whether there will be one metaverse or many different separate metaverses (or any metaverse at all, really), but this seems to be the one constant: The metaverse is an immersive next-generation version of the internet, likely rendered by virtual or augmented reality technology.

A metaverse is a network of 3D virtual worlds focused on social connection and it can be defined as a simulated digital environment that uses augmented reality (AR), virtual reality (VR), and blockchain, along with concepts from social media, to create spaces for rich user interaction mimicking the real world. It covers nearly everything, such as games, meetings, and shopping. To access Metaverse, you must first put on a headset, after which you can connect to the virtual reality interface.

Metaverse has the potential to address all the existing challenges of remote work. It allows managers to effectively communicate with the employees, including reading their body language and in-person interaction. Metaverse is a boon for healthcare professionals and medical staff who were previously unable to visit patients due to geographical limitations. Most Metaverse games today have a decentralized economic model where developers and publishers own the in-game asset ownership and the right to distribute these assets.

PREETHI KOTHURI

18RH1A05A9

ROBOTIC PROCESS AUTOMATION

Robotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans actions interacting with digital systems and software. Just like people, software robots can do things like understand what's on a screen, complete the right keystrokes, navigate systems, identify and extract data, and perform a wide range of defined actions. But software robots can do it faster and more consistently than people, without the need to get up and stretch or take a coffee break.Today, RPA is driving new efficiencies and freeing people from repetitive tedium across a broad swath of industries and process. Enterprises in industries ranging from financial services to healthcare to manufacturing to the public sector to retail and far beyond have implemented RPA in areas as diverse as finance, compliance, legal, customer service, operations, and IT. And that's just for starters.When you combine RPA's quantifiable value with its ease of implementation relative to other enterprise technology, it's easy to see why RPA adoption has been accelerating worldwide.RPA can help many different types of industries address their specific operational issues in new and powerful ways.

B.Venkatalaxmi
20RH1A6710

IBOC – TECHNOLOGY

The IBOC technology allows digital audio broadcasting without the need for new spectrum allocations for the digital signal. The IBOC system will be compatible with existing tuners as it utilizes the existing AM and FM bands by attaching a digital side band signal to the standard analogue signal. For digital compression, the IBOC uses a perceptual audio coder (PAC) developed by Lucent Technology. The USADR AM IBOC DAB system basically comprises the codec, forward error correction (FEC) coding, and interleaving section, modem and blender. In analogue radio, a large number of radio signals can exist in the atmosphere at any time. However, each of them is being transmitted on a different radio frequency. Stations that share the same radio frequency are usually far apart so that they don't interface with each other. In order to receive a station within its transmission range, all we have to do is tune the receiver to its frequency. The drawback of this analogue mode is that the signals in close proximity in terms of frequency can interfere with each other to some extent, depending on the modulation pattern of the radio station and the ability of the radio receiver to reject interfering adjacent signals.

D. MANIHARIKA
20RH1A6715

GOOGLETULIP

Google Tulip is a great initiative for the growth of agricultural sector where we can understand the signals from the roots of plants and we can communicate with them according to their requirements.Google Tulip is a machine learning technology to improve profitability in the agricultural sector. Over the years, humankind has created lots of effective ways to communicate with each other. But using technology in the plant kingdom is an innovation worth acknowledging. Scientists found that plants use their roots to send signals to neighbouring plants, as a means to maintain their security and well being. Decoding the language of plants and flowers has been a very difficult and long-drawn challenge for the research scientists, but not anymore. Using artificial intelligence we can now communicate with plants. This is one of the greatest advancements in the world of artificial intelligence. Google Home can understand tulips, allowing translation between Tulips and various human languages.The ability to communicate with tulips comes with great environmental and societal benefits. Now Tulips are having a way to indicate to the humans that they are in need of water, light or simply some more space. Their needs are expressedmoreclearly, they areable tolivea happierandhealthier life. Google Tulip was basically developed and tested in the Netherlands, which provided the perfect testing ground for the tulips. Statistics reveal that the Netherlands produce nearly 12.5 billion flowers per year.

G.Samhitha
20RH1A6719

HAPTIC TECHNOLOGY

Haptic is the technology of adding the sensation of touch and feeling to computers. When virtual objects are touched, they seem real and tangible. Haptic senses links to the brain's sensing position and movement of the body by means of sensory nerves within the muscles and joints.Touch is at the core of personal experience. Of the five senses, touch is the most proficient, the only one capable of simultaneous input and output. This mechanical stimulation can be used to assist in the creation of virtual objects in a computer simulation, to control of machines and devices.Haptic technology has made it possible to investigate how the human sense of touch works by allowing the creation of carefully controlled haptic virtual objects.

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G. Santhoshi
20RH1A6720

Communications service providers

Communications service providers (CSPs) have worked doggedly over the last two decades to prepare for a new, data-led mode of operation. The plumbing is now done but extracting actionable insights from data lakes and then trusting that for fundamental operational processes is the next giant step operators need to take, writes George Malim.CSPs have seen how other organisationsutilise data to improve efficiency within their businesses. Financial institutions have, for example, been using early forms of data analytics to enable credit scoring since the 1950s. CSPs themselves have relied on data to assess credit risk for device subsidy, propensity to churn and for segmentation.Another significant challenge is the culture of the CSP. The traditional view is that network engineering is the heart of the business. The network is the prized asset and telco-grade engineering is the key attribute of the CSP. This means that CSP employees are composed of skilled workers that operate to high-level network engineering practices. They see the network via engineering metrics such as availability and throughput rather than consumer metrics such as video buffering or jitter during gaming.

G. Meghana Reddy
20RH1A6723

3D printing technology in education

3D printing technology is to create products in a short time by printing three-dimensional digital files. It is similar to the way paper is printed in two dimensions, but it is different since it targets 3D products. The technology was developed to shorten the time to make prototypes. In general, it takes weeks for a company to produce a prototype after planning and designing the product. However, if the company uses 3D printing technology to produce prototypes, it can complete prototypes in just a few hours. It can also save a lot of money in producing prototypes. In fact, 3D printing technology was created 30 years ago. However, the technology was not popularized due to patent issues. Currently, the patents for 3D printing technology have expired. Therefore, 3D printing technology could be utilized in various fields. In practice, 3D printing technology is especially frequently used when cooking food. Also, it is widely used to produce small products such as ornaments. In particular, as 3D printing technology becomes important in the future, many educational institutions will be interested in 3D printing technology.

J. Sreeja
20RH1A6724

BLOCKCHAIN TECHNOLOGY

Though the Blockchain Technology was invented in 1991, it was popularized by a person (or group of people) using the name Satoshi Nakamoto in 2008 to serve as the public transaction ledger of the cryptocurrency bitcoin, based on work by Stuart Haber, W. Scott Stornetta, and Dave Bayer. The identity of Satoshi Nakamoto remains unknown to date. A blockchain is a digital record of transactions. The name comes from its structure, in which individual records, called blocks, are linked together in single list, called a chain. Blockchains are used for recording transactions made with cryptocurrencies, such as Bitcoin, and have many other applications.Blockchain is the technology that underpins the cryptocurrency Bitcoin, but Bitcoin is not the only version of a blockchain distributed ledger system in the market. There are several other cryptocurrencies with their own blockchain and distributed ledger architectures.The blockchain is a chain of data blocks. Each block can be thought of as a page in a ledger. The individual blocks are composed of several components. Generally as block contains Hash, Data, Previous Hash. Hashing is the process of converting a given key into another value. The result of a hash function is known as a hash value or simply, a hash. A good hash function uses a one way hashing algorithm, or in other words, the hash cannot be converted back into the original key.Blockchain uses SHA 256 Hashing.Immutability, Provenance, Single Source of Truth, Standardization, Smart Contract are the properties of blockchain. Banking, Supply Chain Management, Luxury Goods/Limited Edition,Healthcare, Shared Economy- Private Transport and Ridesharing, Government Services are some of the Applications.

PusaPelly Akhila
20RH1A6741

SUSTAINABLE FARMTECH

In the recent years, the adoption of digital creation in the precision agriculture had come a long way.This encapsulated and adjusted the ways that farmers treat crops and manage fields.GIS software and GPS agriculture,satellite imagery,AI ,Machine learning,Drone and other aerial imagery these made agriculture efficient faster and simple,but even though modern farms are extremely rich they are not sustainable all these technologies suggest farmers to use the chemical fertilizers to fasten the process of crop production but no one debugs the most important loss.The most important loss is not adapting these emerging technologies but the choice of taking chemical fertilizers as a source.Chemical fertilizers do not need a prior introduction to its destruction,inspite giving a temporary yield in less time, it destroys the quality of the soil,water retentation and fertility which makes the soil not suitable for the agriculture as before.if we replace the chemical fertilizers by organic fertilizers or organic manure this helps the most happening technologies to covert into sustainable farmtech and remains more effective than previous.Variable rate technology is one such farming technology technique which involves all these propaganda which was released by John Degree.So as to make this small change will lead to a great outcome which not only gives the production but saves the environment and ecosystem.

Santhapuri Samatha
20RH1A6747

MIND-CONTROLLED PROSTHETIC ARM FEEL OBJECTS THROUGH AI

For the first time, people with arm amputations can experience sensations of touch in a mind-controlled arm prosthesis that they use in everyday life. The implant system for the arm prosthesis is called e-OPRA and is based on the OPRA implant system created by Integrum AB. The implant system anchors the prosthesis to the skeleton in the stump of the amputated limb, through a process called Osseo integration (Osseo = bone). The prosthesis is mind-controlled, via the electrical muscle and nerve signals sent through the arm stump and captured by the electrodes. The signals are passed into the implant, which goes through the skin and connects to the prosthesis. The signals are then interpreted by an embedded control system developed by the researchers. The control system is small enough to fit inside the prosthesis and it processes the signals using sophisticated artificial intelligence algorithms, resulting in control signals for the prosthetic hand's movements. The touch sensations arise from force sensors in the prosthetic thumb. The signals from the sensors are converted by the control system in the prosthesis into electrical signals which are sent to stimulate a nerve in the arm stump. The nerve leads to the brain, which then perceives the pressure levels against the hand. People who lose an arm or leg often experience phantom sensations, as if the missing body part remains although not physically present. When the force sensors in the prosthetic thumb react, the patients in the study feel that the sensation comes from their phantom hand. Precisely where on the phantom hand varies between patients, depending on which nerves in the stump receive the signals. The lowest level of pressure can be compared to touching the skin with the tip of a pencil. As the pressure increases, the feeling becomes stronger and increasingly "electric".

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.   S.JYOTHIKA
                                                    20RH1A6748

BRAIN GATE TECHNOLOGY

The Brain Gate System is established on Cyber kinetics stage technology to sense, transfer, examine and put on the language of neurons. The principle of operation behind the Brain Gate System is that with intact brain function, brain signals are generated even though they are not sent to the arms, hands and legs. The signals are interpreted and translated into cursor movements, offering the user an alternate Brain Gate pathway to control a computer with thought, just as individuals who have the ability to move their hands use a mouse. The 'Brain Gate' contains tiny spikes that will extend down about one millimeter into the brain after being implanted beneath the skull, monitoring the activity from a small group of neurons. It will now be possible for a patient with spinal cord injury to create brain signals that convey the intention of moving the paralyzed limbs, as signals to an implanted sensor, which is then output as electronic impulses. These impulses assist the user to work mechanical devices with the help of a computer cursor. Matthew Nagle, a 25-year-old Massachusetts fellow with unadorned spinal cord damage, has been paralyzed from the neck down since 2001].After taking part in a clinical trial of this system, he has opened e-mail, switched TV channels, turned on lights . He even moved a robotic hand from his wheelchair. This character the first time that neural movement signals have been recorded and decoded in a human with spinal cord injury. The system is also the first to permit a human to regulate his nearby situation using his mind.

Sarala Lakshmi
20RH1A6749

CRYPTO CURRENCY

A cryptocurrency is a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend. Many cryptocurrencies are decentralized networks based on blockchain technology—a distributed ledger enforced by a disparate network of computers. A defining feature of cryptocurrencies is that they are generally not issued by any central authority, rendering them theoretically immune to government interference or manipulation.A cryptocurrency is a form of digital asset based on a network that is distributed across a large number of computers. This decentralized structure allows them to exist outside the control of governments and central authorities.Experts believe that blockchain and related technology will disrupt many industries, including finance and law.The advantages of cryptocurrencies include cheaper and faster money transfers and decentralized systems that do not collapse at a single point of failure.The disadvantages of cryptocurrencies include their price volatility, high energy consumption for mining activities, and use in criminal activities.Understanding Cryptocurrencies: Cryptocurrencies are digital or virtual currencies underpinned by cryptographic systems. They enable secure online payments without the use of third-party intermediaries. "Crypto" refers to the various encryption algorithms and cryptographic techniques that safeguard these entries, such as elliptical curve encryption, public-private key pairs, and hashing functions.

Y. Sarvani Reddy
20RH1A6757

Blue Eyes Technology

The blue eyes technology works on Artificial Intelligence. It aims to give human abilities to a computer. A research team of IBM has come up with this technology to make a computer understand and sense human feelings and behavior.The aim of the blue eyes technology is to give human power or abilities to a computer so that the machine can naturally interact with human beings as humans interact with each other, through speech, facial expressions and touch.

The Blue eyes technology identifies human emotions using image processing techniques by extracting eye portion from the captured image and compares it with the stored images in the database. This high-end technology facilitates the computers to talk, listen and feel our presence with various tools of artificial intelligence like face recognition, fingerprint, and video calls etc.,This technology is used to simplify life by providing user-friendly facilities. It also helps in reducing the gap between the computer and human.

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K.Shivani
20RH1A05C1

IMPORTANT WEBSITES

www.ieee.org/india

www.engineering.careers360

https://www.coursera.org/in

https://www.udemy.com/

www.mathworks.in/products/matlab/

https://archive.org/details/texts

https://www.codecademy.com/

https://www.cse.org/

https://www.scribd.com/books

https://books.google.co.in/

MathGV.com/

http://www.engineeringchallenges.org/

https://www.lumosity.com/en/

http://elevateapp.com/

http://www.tryengineering.org/

http://www.engineergirl.org/

http://www.discoverengineering.org/

http://www.eng-tips.com/

http://efymag.com

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www.dspguide.com

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