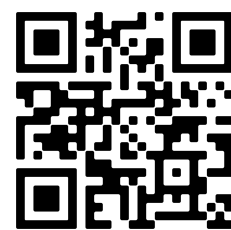


TECH talk

THE BIANNUAL MAGAZINE OF CSE



2022-23 ISSUE-I

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (A)

Approved by AICTE, New Delhi & Permanently Affiliated to JNTUK, Kakinada
Accredited by NAAC with "A" Grade & NBA (CSE, IT, ECE, EEE, &ME) under Tier-I



TECH - TALK



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Foreword

Department of Computer Science & Engineering involves researching, designing, developing in current trends of computing systems. It gave me great satisfaction to know that department has come up with its own magazine, “Tech-Talk”. The way they presented it was unique, very creative and hope it will serve as a motivational and technological source for the students to exhibit their inherent talents and improve their skills. I would like to express my appreciation to whole team members of Tech-Talk including faculty coordinators who really made it possible.



Dr. K. Appa Rao
Principal



Dr. D. Veeraiah
Professor & Head

I Congratulate the department of CSE, LBRCE for bringing out the prestigious bi-annual magazine, Tech-Talk. I am sure that the magazine will provide a platform for students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and also strengthen all round development of the students. My congratulations to the editorial board who took the responsibility for the arduous task most effectively.

Dept. of CSE - 2022-23 ISSUE-1

TECH - TALK

DEPARTMENT VISION

“The Computer Science & Engineering aims at providing continuously stimulating educational environment to its students for attaining their professional goals and meet the global challenges.”



DEPARTMENT MISSION

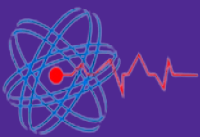
- ✦ To develop a strong theoretical and practical background across the computer science discipline with an emphasis on problem solving.*
- ✦ To inculcate professional behavior with strong ethical values, leadership qualities, innovative thinking, and analytical abilities into the student.*
- ✦ Expose the students to cutting edge technologies which enhance their employability and knowledge.*
- ✦ Facilitate the faculty to keep track of latest developments in their research areas and encourage the faculty to foster the healthy interaction with industry.*



About Department

The Department of Computer Science and Engineering at the LBRCE was established in 1998, offers Undergraduate Programs - B.Tech in CSE, CSE (AI&ML), and Post Graduate Program - M.Tech in CSE. The B.Tech (Computer Science and Engineering) program was started in the year 1998 with an intake of 40 students and the intake was subsequently increased to 60 students in the year 1999, 90 students in the year 2008, 120 students in the year 2009 and 180 students in the year 2019. The B.Tech (CSE (AI&ML)) program was started in the year 2021 with an intake of 60 students. The M.Tech (Computer Science and Engineering) was started in the year 2008 with an intake of 18 students and present intake is 06 students. Currently, our institute enabled high speed Internet bandwidth of 1720 (1000 + 500 + 200 + 20) Mbps.

Labs In The Department



P.C. Mahalanobis

Data Analytics Lab

F.C. Kohli
IT Workshop Lab



Arthur Samuel
Machine Learning Lab



Tim Berners - Lee
Web Engineering Lab



Ray Noorda
Networks & Systems Lab



Soft Computing Lab

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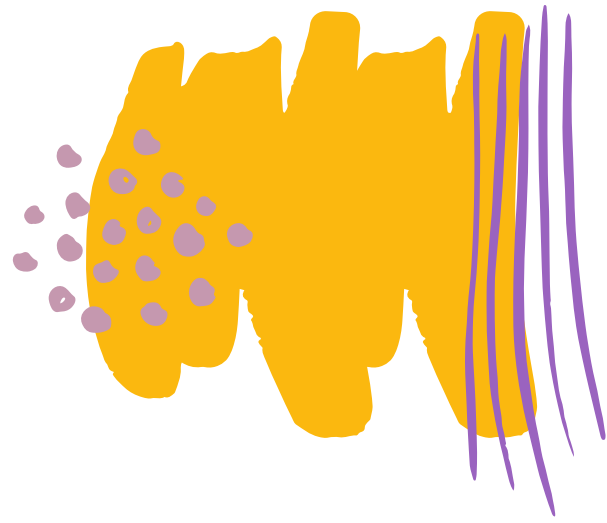
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Detection of Malicious Cloud Bandwidth Consumption in Cloud Computing Using Machine Learning Techniques

Computational Intelligence and Neuroscience, Volume 2022,
<https://doi.org/10.1155/2022/4003403>

The Internet of Things, sometimes known as IoT, is a relatively new kind of Internet connectivity that connects physical objects to the Internet in a way that was not possible in the past. The Internet of Things is another name for this concept (IoT). The Internet of Things has a larger attack surface as a result of its hyper connectivity and heterogeneity, both of which are characteristics of the IoT. In addition, since the Internet of Things devices are deployed in managed and uncontrolled contexts, it is conceivable for malicious actors to build new attacks that target these devices.

As a result, the Internet of Things (IoT) requires self-protection security systems that are able to autonomously interpret attacks in IoT traffic and efficiently handle the attack scenario by triggering appropriate reactions at a pace that is faster than what is currently available. In order to fulfill this requirement, fog computing must be utilized. This type of computing has the capability of integrating an intelligent self-protection mechanism into the distributed fog nodes.

This allows the IoT application to be protected with the least amount of human intervention while also allowing for faster management of attack scenarios. Implementing a self-protection mechanism at malicious fog nodes is the primary objective of this research work.

This mechanism should be able to detect and predict known attacks based on predefined attack patterns, as well as predict novel attacks based on no predefined attack patterns,

and then choose the most appropriate response to neutralize the identified attack.

This allows for the prediction of new cyberattacks in the environment. It predicts attacks in an uncertain IoT setting at a speedier rate and with greater precision than prior techniques. It is able to effectively anticipate both low-rate and high-rate assaults in a timelier manner within the dispersed fog nodes, which enables it to mount a more accurate defense.

In conclusion, a fog computing-based self-protection system is developed to choose the most appropriate reaction using fuzzy logic for detected or anticipated assaults using the suggested detection and prediction mechanisms.

This is accomplished by utilizing a self-protection system that is based on the development of a self-protection system that utilizes the suggested detection and prediction mechanisms.

The findings of the experimental investigation indicate that the proposed system identifies threats, lowers bandwidth usage, and thwarts assaults at a rate that is twenty-five percent faster than the cloud-based system implementation.

Author



Dr. Duggineni Veeraiah
Professor & Head

Second Sale Car Price Prediction using Machine Learning Algorithm

2022 7th International Conference on Communication and Electronics Systems (ICCES), 29 July 2022, DOI: 10.1109/ICCES54183.2022.9835872
<https://ieeexplore.ieee.org/document/9835872>

Every business firm recognizes the need of making sound and challenging decisions. Poor decisions can lead to substantial losses and even the demise of a firm. This paper is focused on one of the retail enterprises, which deals with the used car sales.

The major goal is to develop a prediction model that can estimate the selling price of used cars based on key factors. Machine learning techniques such as Random Forest Regression,

Feature engineering technique such as Extra Trees Regression are employed to accomplish the goal as Random Forest Regression is modeled for prediction analysis and Extra Trees Regression fits the number of decision trees. The results are so encouraging with our approach.

Author



Dr. Chejarla Venkata Narayana
Professor

An optimized generalized adversarial system for predicting specific substructures in brainstem

*Multimedia Tools and Applications (2022),
<https://link.springer.com/article/10.1007/s11042-022-13663-9>*

Nowadays, the medical field is enriched with rich technologies, especially with a medical image processing system. However, the image complexity has minimized the prediction and segmentation exactness rate requiring additional duration to execute the process.

The current design article has focused on developing a novel Bat-based Generative Adversarial Model (BGAM) to gain the finest substructure localization and segmentation results to overcome this difficulty. Here, the fitness of Bat is updated in the classification layer of the generative adversarial approach to gain the tuned results. Finally, the designed model is validated with dual cases that are conventional generative adversarial models without a bat and generative adversarial models with the Bat.

Moreover, the evaluation has produced the finest results for BGAM compared to the conventional generative approach. The designed novel approach is executed in a python environment, and the proficiency of the developed system is validated with other associated approaches. It has proved the finest outcome by earning the highest specificity and sensitivity rate.



Author

Dr. S. Jayaprada
Associate Professor

TELUGU ANKELU: A Telugu Spoken Digits Corpora for Mobile Speech Recognition

2022 12th International Conference on Pattern Recognition Systems (ICPRS), 19 August 2022, DOI: 10.1109/ICPRS54038.2022.9854065

Automatic Speech Recognition (ASR) deals with recognizing spoken words or sentences through an automated program or an algorithm.

ASR has multi-faceted applications in various domains such as Mobile Speech Recognition, IoT, Human-Machine interaction, etc. Researchers have been working on different problems in these domains for more than 5 decades.

Mobile speech recognition is a pre-dominant area that supports a wide variety of applications useful for physically challenged, senior citizens and novice mobile users.

Though the domain has significant practicality, it faces challenges due to the lack of data in the targeted language. Though it is not major for well-developed languages like English, it is very profound in low-resourced and under-resourced languages.

India has 1,391.99 million inhabitants speaking a wide variety of languages with Hindi being the most popular language. There are many native languages spoken in each region of the country.

But research that contributes towards the development of ASR is questionable due to many reasons, and the unavailability of data is one of those.

Hence, an open-source speech digit data set has been prepared and will be available through this paper for the Telugu language which is the sixth largely spoken language in the country.

Author



Dr. P. Bhagath
Associate Professor

A Super Resolution CNN based Model for Crop Disease Detection

2022 7th International Conference on Communication and Electronics Systems (ICCES), 29 July 2022, DOI: 10.1109/ICCES54183.2022.9835998

The major contribution to Indian economy comes from agriculture which stands as the backbone and also it is the livelihood of many farmers.

But now-a-days the crops are being infected by multiple diseases and causing widespread of the disease which in turn damages the entire crop fields if they are not noticed in prior.

Crops get diseased by fungi, virus, and bacteria and also by worms and insects that attack the crops. These crop diseases should be diagnosed with the help of emerging technologies like DL (Deep Learning) which provide plenty of techniques for disease detection.

The proposed model which uses a Super Resolution Convolutional Neural Network (SRCNN) to improve the quality of the crop leaf images and also a CNN which acts as a classifier that helps to detect the crop disease. When the model is trained with SRCNN it improves the performance and illness of crops is also identified in an unerring way.

Author



Dr. M. Sitha Ram
Associate Professor

Comparative Analysis of CNN-Based Frameworks for Handwritten Arabic Numerals Recognition

2022 7th International Conference on Communication and Electronics Systems (ICCES), 29 July 2022, DOI: 10.1109/ICCES54183.2022.9835873

The Arabic Language is the broadest and most used Language in the Arab World, with more than 423 million people. There are various representations in the Arabic Number system like Hindu-Arabic, Mashriqi Arabic, Eastern Arabic, and Western Arabic, which are look-a-like.

Handwritten Character Recognition or Optical Character Recognition has gained popularity in recent days. This paper focuses on the importance of Optical Character Recognition (OCR) and different CNN-Based frameworks such as Lenet-5, ResNet-101, and ResNet-152 available today for OCR.

This research study has created a dataset with more than 50,000 training and 7000 testing images of Arabic numbers ranging from 1 to 100 numbers written by various age groups and named it LBREADB. After that, various CNN-Based frameworks were trained with LBREADB and tested on the random inputs.

A comparison has been made among the results based on the measurement criteria such as accuracy and prediction rate, which were shown at the ending.



Author

Mr. Shaik Johny Basha
Sr. Assistant Professor

Artificial Intelligence and a Digital Twin are effecting building energy Management

*2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), 14 October 2022,
DOI: 10.1109/ICSES55317.2022.9914233*

Using a three-dimensional data model connected to the Internet of Things, artificial intelligence, and machines, the study looks into the possibility of using digital twin-based techniques and methods to create an intelligent optimization and automation system to manage energy in a residential area.

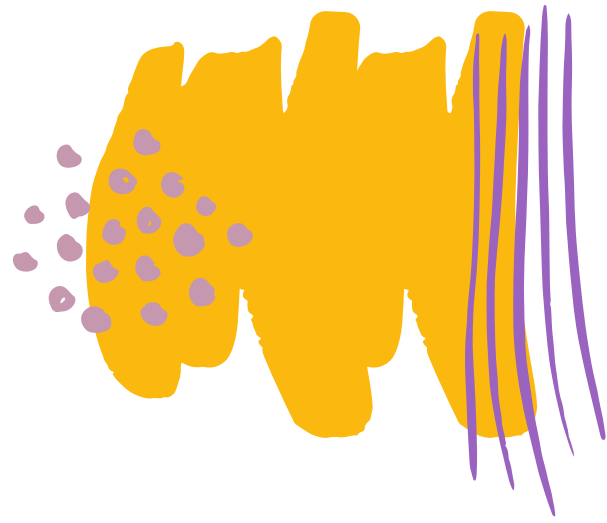
The Rinascimento III neighborhood in Rome is the focus of the case study. It has 16 eight-story buildings with 216 apartments that are powered by renewable energy for 70% of the time. Because the complex has dynamic analytic algorithms built in, many different energy-efficient intervention scenarios can be tested to make sure the real comfort and temperature levels of the complex are kept.

At the same time, a reliable IT infrastructure based on advanced computing paradigms that can deliver data is being designed and put into place. To meet NZEB criteria, a method was created to analyze the efficiency and effectiveness of integrated systems for producing renewable energy from solar energy. This is needed to raise the threshold of self-produced energy (near zero energy buildings).

Author



Ms. B. Usha Rani
Assistant Professor



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Smart Insole with Graphene: Lifesaving Technology for Diabetic Patients

Stevens Institute of Technology has signed an exclusive licensing agreement with Bon bouton, giving the cutting-edge health and technology company the right to use and further develop a graphene sensing system that detects early signs of foot ulcers before they form so people living with diabetes can access preventative healthcare and confidently manage their health.



Smart insole with a graphene sensing system that can help detect early signs of foot ulcers before they form. Credit: Bon bouton

The smart insole, Bon bouton's first product, can be inserted into a sneaker or dress shoe to passively monitor the foot health of a person living with diabetes. The data are then sent to a companion app that can be accessed by the patient and shared with their healthcare provider, who can determine if intervention or treatment is needed.

"I was inspired by two things—a desire to help those with diabetes and a desire to commercialize the technology," said Bon bouton Founder and CEO Linh Le, who developed and patented the core graphene technology while pursuing a doctorate in chemical engineering at Stevens.

Le came up with the idea to create an insole that could help prevent diabetic ulcers after several personal incidents that lead him to pursue preventative healthcare.

Complications from diabetes can make it difficult for patients to monitor their foot health. Chronically high levels of blood glucose can impair blood vessels and cause nerve damage. Patients can experience a lot of pain but can also lose feeling in their feet.

Diabetes-related damage to blood vessels and nerves can lead to hard-to-treat infections such as ulcers. Ulcers that do not heal can cause severe damage to tissues and bone and may require amputation of a toe, foot, or part of a leg.

Bon bouton's smart insoles sense the skin's temperature, pressure, and other foot health-related data, which can alert a patient and his or her healthcare provider when an infection is about to take hold. This simplifies patient self-monitoring and reduces the frequency of doctor visits, which can ultimately lead to a higher quality of life.



Bon bouton, which is based in New York City, is currently partnering with global insurance company MetLife to determine how its smart insoles will be able to reduce healthcare costs for diabetic foot amputations.

In 2018, Bon bouton also announced its technical development agreement with Gore, a company well known for revolutionizing the outerwear industry with GORE-TEX® fabric, to explore ways to integrate Bon bouton's graphene sensors in comfortable, wearable fabric for digital health applications, including disease management, athletic performance, and everyday use.

"We are interested in developing smart clothing for preventative health and embrace the possibilities of how our graphene technology can be used in other industries," said Le.

"I am excited to realize the full potential of Bon bouton, taking a technology that I developed as a graduate student at Stevens and growing it into a product that will bring seamless preventative care to patients and save billions of dollars in healthcare costs."

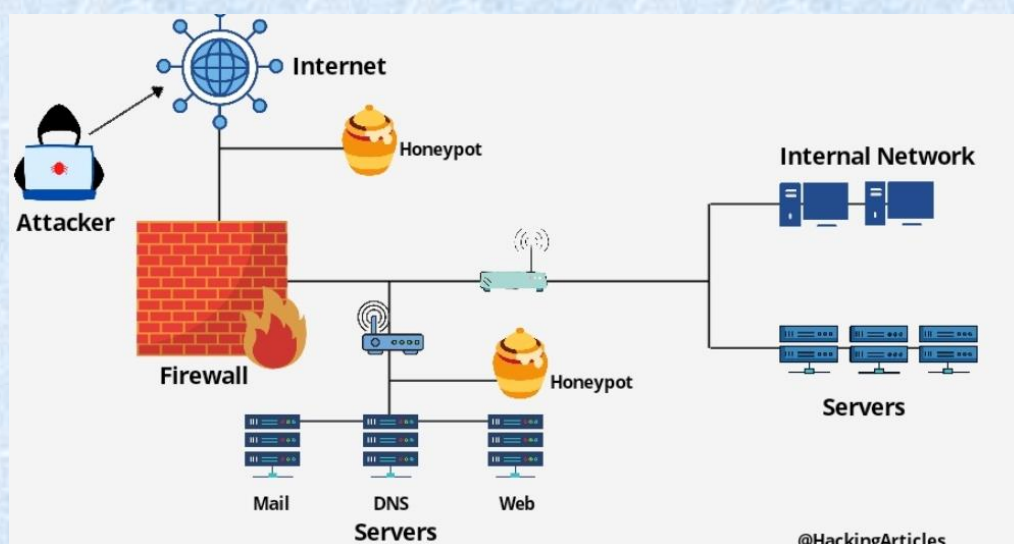
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Sunkara. Joshith Sai Ram



HONEYPOT

The internet is growing very fast and new attacks everyday the more you know about your enemy, the better you can protect yourself. The main goal of honeypot is to gather as much information as possible. Honeypots are cyber systems and processes set up to appear operational to collect information on threat behavior and vectors. Real or simulated systems and processes are configured to appear as if they are real systems, often with vulnerabilities. Many of the previously described sensors are inserted within and around honeypots to collect data on threat behaviors. Honeypots have been used for everything from single servers to networks of servers, through client processes and files or information. Honeypots are a common technique and tool for censoring uncontrolled threat sources.



What is Honeypot's?

Honeypot is an exciting new technology with enormous potential for the security community. According to Lance Spitzer, founder of honeypot project: "A honeypot is an information system resource whose value lies in

unauthorized or illicit use of that resource.” They are used in monitoring, detecting, and analyzing attacks.

Honey pot concepts and technology have evolved significantly. Initial honeypots were simple simulations of services to capture threat behavior. Overtime threats have modified their behavior to prevent getting caught by honeypot technologies. Advanced platforms, called distributed deception platforms, are the current wave of honeypot technologies with multiple levels of deception and high interaction honeypots all through centralized control and management services. These systems create real network services along with fictional account credentials and data spread on operational user machines across a network to make it appear as used services to attackers.

Introduction:

Global communication is getting more important every day. At the same time, computer crimes are increasing. Countermeasures are developed to detect or prevent attacks most of these measures are based on known facts, known attack patterns. It is important to know, what kind of strategy an attacker uses, what tools he utilizes and his intention. By knowing attack strategies, countermeasures can be improved, and vulnerabilities can be fixed. To gather such information is one main goal of a honeypot.

Types of Honeypots

1) Low-Involvement Honeypot

A low-involvement honeypot typically only provides certain fake services. In a basic form, these services could be implemented by having a listener on a specific port. For example, a simple *netcat -l -p 80 >*

/log/honeypot/port 80.log could be used to listen on port 80 (HTTP) and log all incoming traffic to a log file. In such a way, all incoming traffic can easily be recognized and stored. On a low involvement honeypot, there is no real operating system that an attacker can operate on. This will minimize the risk significantly because the complexity of an operating system is eliminated.

2) Mid-Involvement Honeypot A mid-involvement honeypot provides more to interact with but still does not provide a real underlying operating system. The fake daemons are more sophisticated and have deeper knowledge about the specific services they provide. At the same moment, the risk increases.

3) High-Involvement Honeypot

A high-involvement honeypot has a real underlying operating system. This leads to a much higher risk as the complexity increases rapidly. At the same time, the possibilities to gather information, the possible attacks as well as the attractiveness increase a lot. One goal of a hacker is to gain root and to have access to a machine, which is connected to the Internet. A high involvement honeypot does offer such an environment. A high involvement honeypot is very time-consuming.

20761A05A8

N. Reshma



How Advanced Technology Has Changed our Lives?

Over the years, technology has revolutionized our world and daily lives. Additionally, technology for seniors has created amazing tools and resources, putting useful information at our fingertips. Technology has made our life so easy and has given us so many facilities, which we could never have imagined before. At the same time technology has not only improved the standard of living of human beings but has brought revolutionary changes in the field of development of the country and the world, however, the rising technology is also having a bad effect on the environment and human health.

Improved Communication:

Technology's advancements have provided quicker ways to communicate through instant messaging apps and social media platforms. Seniors are able to keep in touch with loved ones, while caregivers have new avenues to check in on aging parents or patients. These amount of active web users globally is now 3.2 billion people. That is almost half of the world's population. Every day, two million smartphones are sold around the world, and the amount of information we share shared on social media networks is phenomenal.



How we watch:

With your mobile devices, you can watch, or “stream” the TV shows you want, when you want, and how you want. Streaming services like Netflix and Amazon Prime all offer access to cable TV shows and original content for a low monthly price. Streaming is just another way to watch your favorite shows, but it uses the Internet instead of cable. It can be a more cost-effective way to watch television.

How we pay bills and Transfer money:

No more do you have to enter a bank to withdraw money or transfer it to someone. Many banks have already made transactions possible online and accessible to people everywhere. Companies like Paytm, Google-pay, Phone-pay have created platforms where people can send and receive money from any location using the Internet.

How we read:

Paper books are not going anywhere. However, e-reader devices have made reading easier when you are on the go. An e-reader device like a Kindle or Nook can hold thousands of books without taking up space in your home. It is a great way to have multiple options on hand if you are going on a trip or vacation.

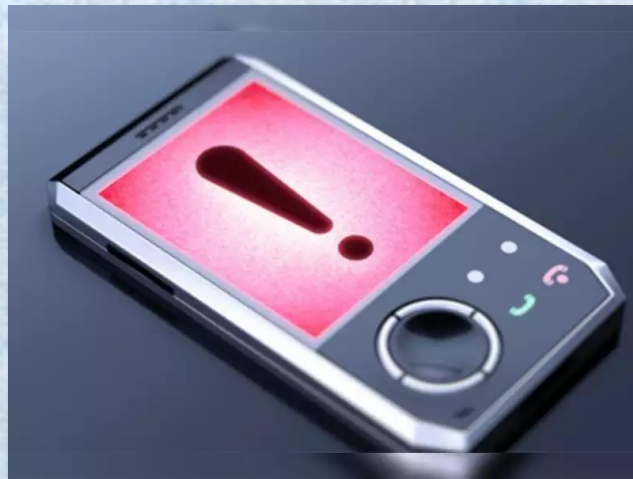
20761A0564

V. Anusha



What If Screen Time De Valuator is Used with Default Apps in Mobiles and Laptops?

- In the contemporary world, mobiles , laptops, and all other digital gadgets run the world. There is no work that can be done without these mobile phones.
- They are just ruling the world from the last one decade.
- And due to the outbreak of Covid-19 , the usage of mobile phones has increased drastically because of various online platforms that continued their courses in online mode.
- We know that the advancement of technology is a boon and a curse at the same stage.
- It is like a sword with both edges and the consequences depend on our extent and way of usage.



ABOUT THE AUTOMATIC SCREEN TIME DE VALUATOR

- This automatic screen time de valuator is a smart automation technique to control the screen time in mobiles, laptops, and other digital devices.
- This application will be developed using machine learning algorithms.
- This will be available as a default app in mobiles as well as laptops. The user needs to set some deadline of his mobile screen time.
- When the screen time limit ends, the power of the mobile automatically turns off and will take few minutes to switch on the device again. The user cannot change the screen time limit once it is fixed.

Technological advancement is a boon for sure but over usage of anything might not be good. So limited use of assets is necessary.

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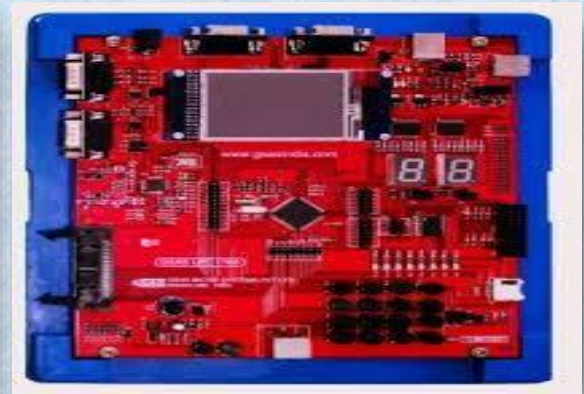
P. Jahnavi



AUTOMATIC FIRE ALERT

Introduction:

From the past 10 years, all around the globe, mainly all over India, there are many cases reporting fire accidents in homes, Volvo buses, trains etc. These tragic events will lead to huge loss of property and life. To avoid this disaster, we can follow this smart idea. The smart fire stopper consists the usage of micro controller and sensors. It is a complete digital environment in which sensors are used to detect the temperature of the environment around the household as well as the other complex circuits most likely used around large-scale industries, etc.



This automated fire detector does not require any human assistance except at the initial stage of installation of code into the micro controller.

The micro controller will be loaded with the code lines that compares the temperatures recorded by the sensors every minute . When the temperatures recorded raise about the safety temperature level , then power supply will be automatically cut down by the controller, thus avoiding fire accidents.

Alternatives Available to Serve This Purpose:

In the market , they are many other alternative sources such as MCB's(Mini Circuit Breakers) ,fuses etc. to serve this purpose. But they have their own disadvantages. As MCB's and fuses are made of metallic bodies, there may be a huge chance of their corrosion. This corrosion is unwanted and may lead to the malfunction of them. Hence due to this reason, they may not serve the purpose and avoid the disasters that occur due to fire.

Advantages of Using This Automatic Fire Detector:

- Hence, in my view, it may be a better idea to avoid the
- disasters that occur due to fire, thus saving many lives...
- Anyone can use it without any prior knowledge. Only installation of the code requires assistance and all other process are automated.



20761A05H8
M. Sai Nithin



UI/UX BASICS

What is UX?

- ◆ UX stands for user experience or user experience design. It is also sometimes abbreviated as UXD, UED or XD.
- ◆ UX Design is the process of enhancing user satisfaction of a product through increased usability, accessibility, and pleasure provided in the interaction with the product.

User experience design encompasses not only traditional human-computer interaction design, but also all aspects of a product or service as perceived by users.

UX design is the merger of user needs, business vision and technological feasibility. The result of UX design is a set of low-resolution wireframes (a basic visual guide for how a product will function) that are deeply connected with user research.

What is UI?

- ◆ UI stands for User Interface or User Interface Design. It is also sometimes known as user interface engineering.
- ◆ UI is the design of user interfaces for machines: how a product looks and feels, not how it functions.

UI design is the merger of user needs and visual design. The result of UI design is a set of high-resolution wireframes (a visual representation of a product).

Discover:

UX always starts with discovery—interviewing potential customers to understand what the target audience needs and talking to stakeholders to understand their goals and competitive analysis. Discovery is all about WHY - xxx. During discovery you will validate your problem (your product is there to solve that problem), identify your end users, and determine project goals.

What is the process of UI?

UX has e key phases: design and testing. UI design precedes the development of the product's functional elements. UI design is the creation of the finished interface; its focus is on the visual and emotional feel of the product. UI design establishes the layout, colors, typography, and interactivity to visually communicate the flow of the screens in an intuitive manner. The UI design process must balance technical functionality and visual elements to create a system that is not only operational but also usable and adaptable to changing user needs.

20761A0563

V. Sravya



ELECTRONIC PAPER DISPLAY

It is also called E-paper. It is a display technology using organic electronics designed to mimic the appearance of regular ink on paper. An Electronic Paper Display is also known as EPD. It is a display device that possesses a paper-like high contrast appearance, ultra-low power consumption, and a thin, light form. It gives the viewer the experience of reading from paper, while having the power of updatable information. Unlike a conventional flat panel display, which uses a backlight to illuminate its pixels, electronic paper reflects light like ordinary paper and is capable of holding text and images indefinitely without drawing electricity or using processor power, while allowing the paper to be changed.

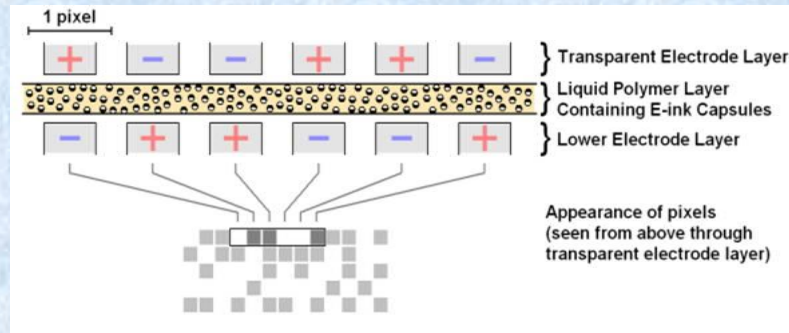
Introduction:

An Electronic Paper Display is also known as EPD. It is a display device that possess a paper-like high contrast appearance, ultra-low power consumption, and a thin, light form. It gives the viewer the experience of reading from paper, while having the power of updatable information.

Technologies Used:

The basic material used in the electronic paper display is ELECTRONIC INK. Electronic ink is a proprietary material that is processed into a film for integration into electronic displays. Although revolutionary in concept, electronic ink is a straightforward fusion of chemistry, physics, and electronics to create this new material.

Block Diagram:



The principal components of electronic ink are millions of tiny microcapsules, about the diameter of a human hair. In one incarnation, each microcapsule contains positively charged white particles and negatively charged black particles suspended in a clear fluid.

Advantages:

Paper-like readability.

Sunlight and non-uniform light visibility.

High reflectivity, high contrast & resolution.

Viewing angle ~ 180 degree.

Highly flexible.

19761A0586

G . Nireekshan Kumar



GOOGLE DRIVER LESS CAR

Introduction:

A self-driving car is a vehicle equipped with an autopilot system, and capable of driving from one point to another without aid from an operator. Driverless passenger car programs include the 800 million EC EUREKA Prometheus Project on autonomous vehicles, the⁹ passenger vehicles from the Netherlands, the ARGO research project from Italy, the DARPA Grand Challenge from the USA, and Google Self driving car.

GOOGLE'S SELF DRIVING CAR

Larry and Sergey founded Google because they wanted to help solve big problems using technology. And one of the big problems we are working on today is car safety and efficiency. Our goal is to help prevent traffic accidents, free up peoples time and reduce carbon emissions by fundamentally changing car use.

So, we have developed technology for cars that can drive themselves. Our automated cars, manned by trained operators, just drove from our Mountain View campus to our Santa Monica office and on to Hollywood Boulevard. They have driven down Lombard Street, crossed the Golden Gate bridge, navigated the Pacific Coast Highway, and even made it all the way around Lake Tahoe. All in all, our self-driving cars have logged over 140,000 miles. We think this is a first in robotics research.

COMPONENTS OF CAR

1.LIDAR

Most everyone has seen or heard about Google's driverless car. People want to know what is on top of the now famous cars. The cars navigate by a technology called LIDAR and the device seen on the roof is a LIDAR sensor. Though it may seem futuristic for a car to run on total autopilot, the technology behind it has been in use for several years.

Thurn is also responsible for developing Google Street View. The Google car combines GPS, video information from Street View with the LIDAR sensors information and information sent from radar sensors on the front of the car. The car also has an additional sensor on the rear wheel which locates the vehicles position on the map. Currently, Google is testing seven driverless cars. Six of the cars are Toyota Priuses and one is an Audi TT

CONCLUSION

According to the World Health Organization, more than 1.2 million lives are lost every year in road traffic accidents. We believe our technology has the potential to cut that number, perhaps by as much as half. We're also confident that self-driving cars will transform car sharing, significantly reducing car usage, as well as help create the new highway trains of tomorrow."

19761A0592

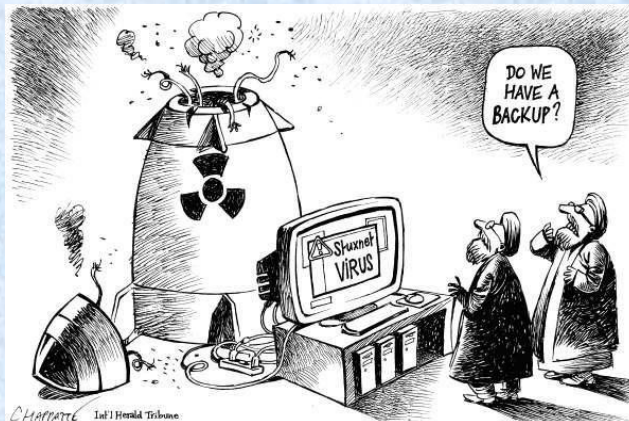
K . Satish



Stuxnet: The World's First Cyber...Boomerang?

Introduction:

In June 2012, two years after the initial discovery of the Stuxnet worm, an excerpt from David Sanger's then soon to be released book entitled *Confront and Conceal* was published in the *New York Times*. This piece, purportedly based on the testimony of several current and former American, European, and Israeli officials, declared that Stuxnet - "the world's first fully fledged cyber weapon" was engineered by the United States and Israel as part of a wider covert operation aimed at undermining the Iranian nuclear program. Whilst the United States and Israel had long been suspected of developing this complex piece of malware, Sanger described the nature of their involvement more fully than any previous account.



Stuxnet's Influence on the Cyber Arms Race:

Interest and development in offensive cyber weapons programs certainly predate the release of Stuxnet. Even prior to its discovery in June 2010, U.S. intelligence officials had estimated there to be around twenty to thirty militaries with respectable offensive cyber capabilities.

There is of course great difficulty in determining the precise period in which nations began to build-up their cyber arsenals as, in the words of Richard Clarke, former U.S. presidential advisor for cyber security, "the entire phenomenon of cyber war is shrouded in such government secrecy that it makes the Cold War look like a time of openness and transparency".

Cyber Weapons as Instruments of State Policy:

Soon after the discovery of the malware in June 2010 speculation grew that this offensive cyber action would open the floodgates to newer, increasingly devastating digital attacks. *The New Yorker's* Steve Coll stated that Stuxnet "has established new and disturbing norms for state aggression on the Internet and its side-channels". Misha Glenny even went as far as to suggest that "all countries that possess an offensive cyber capability will be tempted to use it now that the first shot has been fired".

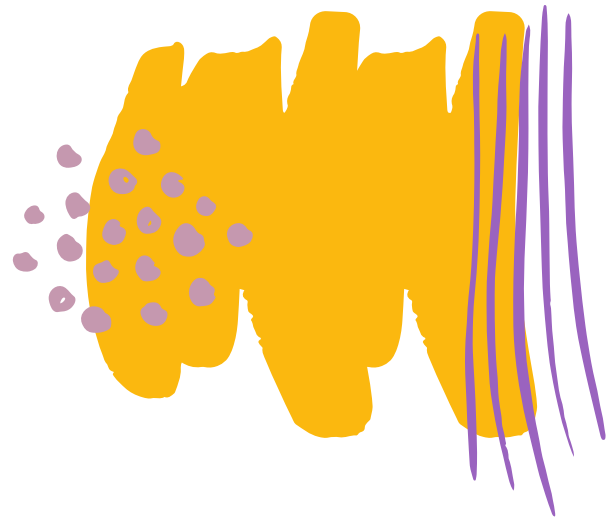
Conclusion:

It is quite clear that the goal of Stuxnet was to disrupt Iran's nuclear enrichment program. Regardless of whether this was part of a grander covert operation codenamed Olympic Games, the implications remain much the same.

19761A05C7

V . Nithya Sree





ACTIVITIES

- 39 A GUEST LECTURE ON DATA STRUCTURES: INDUSTRY PERSPECTIVE
- 40 TWO DAYS WORK SHOP ON “NETWORK SIMULATION TOOLS AND TECHNIQUES”
- 41 “ENGINEERS DAY 2022”
- 44 GUEST LECTURE ON “MACHINE LEARNING AND ITS APPLICATIONS”
- 45 SEMINAR ON “LIFE AFTER ENGINEERING”V
- 46 WORKSHOP ON “ADVANCED DATA STRUCTURE USING PYTHON”
- 48 WORKSHOP ON “NLP AND ITS USE CASES IN INDUSTRY”
- 50 WORKSHOP ON “DATA SCIENCE USING PYTHON”
- 53 “ 24-HOURS HACKATHON ON DATA SCIENCE USING PYTHON ”



A Guest Lecture on Data Structures: Industry Perspective

Resource Person: Ms C.Meghna Chejarla, Software Development Engineer.

Name of Organization: Amazon, Hyderabad.

Event Date: 6th August 2022

About the Event

Resource person Meghna started his lecture by introducing her and explained about how she conquered the Amazon interview process. Different challenges she had faced and what are the different resources that helped her to crack the interview. She gave her valuable insights about Data Structures in real worlds applications and in industry perspective as well. She continued by telling some of the most important things that one need to remember for attending the interview conducted by Top MNCs like Amazon. She also delivered what are different challenges she is been facing in her everyday life at Amazon. She also concluded what are the different perks that Amazon offer for its employees throughout the globe.



Dr. D. Veeraiyah, HOD CSE, Introducing Resource Person to the Gathering



Ms. C. Meghana Interacting with Students

Two days work shop on “Network Simulation Tools and Techniques”

Resource Person: Dr.E.Suresh Babu, Assistant Professor.

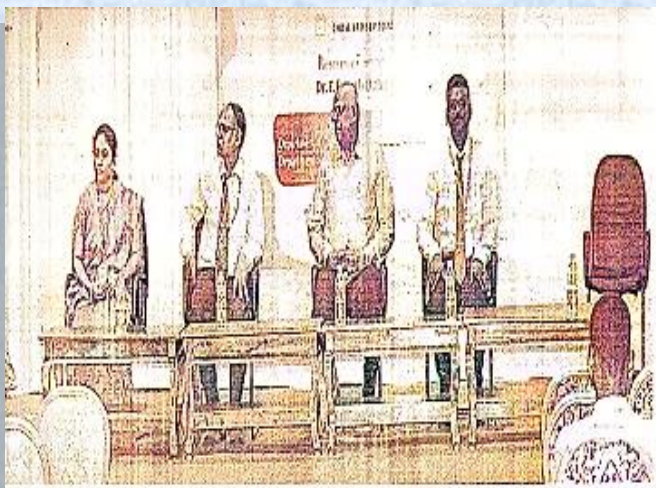
Name of Organization: NIT, Waranagal.

Event Date: 2nd and 3rd September 2022

About the Event

Dr. E. Suresh Babu explained about the computer network model and revisited the computer networking fundamentals like OSI model, TCP/IP model, Topologies etc.

He gave an overview of various network simulation tools like OPNET, QualNet, Omnet++, Netsim. The resource person outlined the process for NS3 tool utilization. He explained the process of configuring, compiling, and installing NS3 tool. He also explained about using NS3 for various network problems. He outlined the structure of a python program in NS3. He illustrated some example network problems and demonstrated them using NS3 tool. He demonstrated how to capture packets using WIRESHARK and how to analyze them.



Delegates on the Dias



Dr. E. Suresh Babu Interacting with Students

Event on “Engineers Day 2022”

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
MYLAVARAM
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Invites you for the
— ENGINEER'S —
★ ★ ★ ★ DAY ★ ★ ★ ★
2022

“ INNOVATIONS AND INVENTIONS IN ENGINEERING ”

Events
Universal 3 Coordination
Virtual Puzzle Solving
Presentation About An Engineer

Date: **14 Sep**

For Registration

For Contact

COORDINATOR	STUDENT COORDINATORS
Dr. S. JAYAPRADA Associate Professor 93469 94255	R. NAGA PRIYANKA 91824 45940 A. CHANDANA PRIYA 73372 02725 A. UMA MAHESWAR 88864 74434

Theme: “Innovations and Inventions in Engineering”

Engineer’s Day 2022 is celebrated in India on September 15th to honor Sir Mokshagundam Visvesvaraya - the first Civil Engineer in India provides an opportunity to celebrate and thank those who play a vital role in the country’ overall development as the scientific achievements are a sign of a developed nation that is on a correct path.

The Department of CSE organizing the Engineer’s Day Celebration 2022 in association with Computer Society of India. A Technical Competition are conducted on 14th September 2022.

The Event was organized with three rounds

1. Universal 3 coordinators
2. Virtual Puzzle Solving
3. Presentation about an Engineer, the aim of making them realize.

The initiative taken by CSE Department at LBRCE was highly appreciated by all the staff members and the students. It was an open opportunity to all the BTech students to showcase their talents.



Students Participation - Faculty Monitoring



On this occasion, best PPTs were presented by the students on the role of an engineer and his responsibilities towards the society. A Competition at individual class level followed by group activity to inculcate competitive spirit among the building engineers. Student coordinators played a major role in collection of topics.



Prize Distribution by Mr. G Srinivasa Reddy, President, LBRCE, and Dr. K Appa Rao, Principal and Dr. D. Veeraiiah, HOD, CSE.



Respective Professors with Prize Winners

Guest Lecture on “Machine Learning and its applications”

Resource Person: Dr. E. Sreenivasa Reddy, Professor & Principal.

Name of Organization: University College of Engineering,
Acharya Nagarjuna University, Guntur.

Event Date: 24th September 2022

About the Event

The Departments of CSE and AI&DS jointly organized Guest Lecture on “Machine Learning and Its Applications” under Machine Learning Club and in Association with CSI.

The Resource person focused on introducing the concepts of Machine Learning and its applications to students and also focused on encouraging students on Entrepreneurship. The main objective of the event was to provide the students with exposure of Entrepreneurship and Career Development.



Event Inaugural



Resource Person Interacting with Students

Seminar on “Life After Engineering”

Resource Person: Sri. MNS Chakravarthy, Australian Immigration Lawyer.

Name of Organization: CEO, Career Baba, Educational Consultancy.

Event Date: 21st October 2022

About the Event

Resource Person Sri MNS Chakravarthy garu covered about how programming and non-programming students can choose their carrier by choosing right courses. For programming students he suggested for Software Developer, For non-programming students some courses are suggested like Business Analytics, Information Systems, Cyber Security, Data Analyst and Data Scientist in Master Degree. How different countries offer best job oppurtunities and best education in overseas like USA and Australia.



Event Inaugural



Resource Person Interacting with Students

Workshop on “Advanced Data Structure Using Python”

Resource Person: Mr.R.Sriram(Program Manager),
Mr.S.Dharani Prakash(Skill Development Engineer).

Name of Organization: NeoPAT.

Event Date: 12th to 17th September 2022

About the Event

Day 1: Resource Person R. Sriram started this workshop and explained neoPAT LMS login and implementation of different searching and sorting algorithms.

Day 2: Resource Person S. Dharani Prakash covered applications of Data Structures such as recursion and expression evaluation and their implementation using Python.

Day 3: Resource Person S. Dharani Prakash covered linked list implementation using python and their applications.

Day 4: Resource Person S. Dharani Prakash covered trees and graphs implementation using python and their applications.

Day 5: Resource Person S. Dharani Prakash covered the interview point of questions on back tracking, Dynamic programming and Brute Force Techniques and also shared his experience about different challenges he had faced and how are the different resources helped him to crack the Interview. He has presented valuable insights about Data Structures and real world applications of Data Structures



Event Inaugural



Resource Person Interacting with Students



Workshop on “NLP and Its use cases in Industry”

Resource Person: Dr. Swarup Kumar Behera, Senior Data Scientist.

Name of Organization: Reliance Jio Platforms, Hyderabad.

Event Date: 23rd November 2022

Lakireddy Bali Reddy College of Engineering
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**A ONE DAY WORKSHOP ON NLP AND
IT'S USE CASES IN INDUSTRY**

23 Nov 2022
Lotus Hall

Organised by:
Department of Computer Science
and Engineering

Resource person:
Dr. Swarup Ranjan Behera
Senior Data Scientist
Reliance jio AICoE

Jio

nirf
NATIONAL
INSTITUTIONAL
FRANKING
FRAMEWORK

NBA
NATIONAL BOARD
of ACCREDITATION

About the Event

Convener of the Workshop, Dr. D. Veeraiah, started his speech by thanking LBRCE Management and congratulating all the participants who registered for this workshop. Then he thanked the Resource Person, Dr. Swarup Ranjan Behera for accepting our request irrespective of his busy schedule. He added the importance of NLP for Text Analytics. He suggested all the students to utilize this opportunity, which will help them in identifying/doing projects in this thrust area..

Outcome of the Event

On completion of this workshop Student can be able to:

- + Complete a small project on text data.
- + Learn the different NLP python libraries.
- + Real life experience and practical approach.
- + Industry and corporate ready.
- + Know the scope and future of NLP.
- + Student gets to do an industry level project on NLP.



Convener of the Workshop, Dr. D. Veeraiyah Addressing the Students



Inviting the Resource Person in the Inauguration Session



Resource Person Interacting with Students

Workshop on “Data Science using Python”

Resource Person: Mr. B. Vijay Kumar, Technical Head,
Mr. V. S. Pavan, Trainer & Developer.

Name of Organization: Brain O Vision.

Event Date: 12th to 17th December 2022

About the Event

This program is designed to train and develop II Year Student of CSE and AI&DS to provide the basic concepts of Python, its syntax, functions and packages to enable them to write scripts for data manipulation and analysis. The course covers various variables types and their features, basic operators and statements, loops, as well as the



main packages for data science.

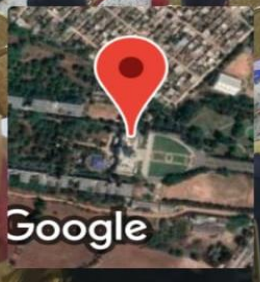


Outcome of the Event

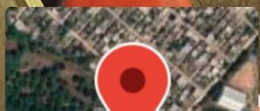
On completion of this workshop Student can be able to:

- ✚ Understand and analyse large amounts of data to bring out insights
- ✚ Design and evaluate on relevant examples and cases make the learning more effective and easier
- ✚ Gain hands-on knowledge through the problem-solving based approach of the course along with working on the skill set at the end of the course
- ✚ Conduct the investigation on real time data sets using data science methods and techniques.





Mylavaram, Andhra Pradesh, India
LBR College Building, Bhadrachalam Road, Mylavaram,
Andhra Pradesh 521230, India
Lat 16.749363°
Long 80.634766°
14/12/22 11:01 AM GMT +05:30



Mylavaram, Andhra Pradesh, India
LBR College Building, Bhadrachalam Road, Mylavaram,

“ 24-Hours Hackathon on Data Science using Python ”

Resource Person: Mr. Ganesh Nag D, Founder & CEO,
Mr. Intisar Mehdi, Sr.Consultant.

Name of Organization: Brain O Vision, Virtusa.

Event Date: 12th to 17th December 2022

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
L.B. Reddy Nagar, Mylavaram, NTR District, A.P. 521230

24 HOURS Hackathon
on
Data Science using Python

In Association with
Ministry of Education
BRAIN O VISION
AICTE

17
DEC | 2022
@ 10 A.M

Organizing by: **Department of CSE and AI&DS**

About Event

In this event students worked how to collect various data sets like farming, manufacturing, health care, telecommunication, transportation, online marketing, fashion design, food, agriculture, education, etc. from Kaggle and analysed by using classification and regression techniques. They used Jupiter & google co lab for extracting the data sets and generate various designs on respective areas.

Outcome of the event:

- ✚ Understand and analyse large amounts of data to bring out insights
- ✚ Design and evaluate on relevant examples and cases make the learning more effective and easier
- ✚ Gain hands-on knowledge through the problem-solving based approach of the course along with working on the skill set at the end of the course
- ✚ Conduct the investigation on real time data sets using data science methods and techniques



Inaugural of Hackathon



Description of the event

Hackathon was inaugurated on 17/12/2022 by Dr. D. Veeraiah, HOD - CSE, and Dr. O. Rama Devi, HOD - AI&DS, Convener(s) of hackathon, along with Mr. Ganesh Nag D, Founder & CEO, Brain o Vision, Mr. Intisar Mehdi, Sr.Consultant, Virtusa, Hyd. Coordinator of the Hackathon all the teaching faculty of CSE and AI&DS.

- ✚ Coordinators of the Hackathon, Dr. J. Nageswara Rao and Ms. K. Vinaya Sree Bai, welcomed all the dignitaries and delegates. In their welcome speech, they highlighted the importance and objectives of organizing this Hackathon.
- ✚ Conveners of the Hackathon, Dr. D. Veeraiah and Dr. O. Rama Devi started their speech by thanking LBRCE Management and congratulating all the participants who short listed for this hackathon. Then they thanked the Resource Person, Mr. Ganesh Nag D and Intisar Mehdi for accepting our request irrespective of his busy schedule. They added the importance of Data Science using Python. They suggested all the students to utilize this opportunity, which will help them in identifying/doing projects in Data Science.

Hackathon Selected Participants at SRK Hall

I PRIZE WINNERS CSE-AI&ML







సంక్షిప్త 20/2/22

డేటా సైన్స్ యూజింగ్ ఫైతాన్పై అవగాహన పెంచుకోవాలి

మైలవరం: పెరుగుతున్న టెక్నాలజీలో భాగంగా డేటా సైన్స్ యూజింగ్ ఫైతాన్ అవశ్యకత ఎంతో ఉందని ప్రెసిడెంట్ డాక్టర్ అప్పారావు తెలిపారు. విద్యార్థులు డేటా సైన్స్ యూజింగ్ ఫైతాన్పై అవగాహన పెంచుకుని సమాజానికి ఉపయోగపడే విధంగా అభివృద్ధి చేయాలన్నారు. మైలవరం లకి రెడ్డి బాలిరెడ్డి ఇంజనీరింగ్ కళాశాల సీఎస్ఈ, ఆర్టిసిసీయల్ ఇంటిలిజెన్స్ అండ్ డేటా సైన్స్ (ఏఐ అండ్ డీఎస్) విభాగంలో డేటా సైన్స్ యూజింగ్ ఫైతాన్పై ట్రైనింగ్ ఓ విజన్ సాఫ్ట్ సొల్యూషన్స్, హైదరాబాద్ ఆధ్వర్యంలో నిర్వహించిన 24 గంటల హ్యాకథాన్(ఈ నెల 17 ఉదయం 10గంటల నుంచి 18 ఉదయం 10గంటల వరకు) ముగిసింది. ఈ



లకిరెడ్డి ఇంజనీరింగ్ కళాశాలలో బహుముఖులు అందజేస్తున్న జయప్రకాశ్ రెడ్డి అవార్డు

సందర్భంగా సోమవారం ఏర్పాటు చేసిన కార్యక్రమంలో రిసోర్స్ పర్సన్ గా గణేష్ నాగ్ డోడి, సీఈఓ ట్రైనింగ్ ఓ విజన్ సాఫ్ట్ సొల్యూషన్స్, ఇంటిసార్ మెహదీ, సీనియర్ కన్సల్టెంట్ టెక్నాలజీ, కళాశాల హాసరి చైర్మన్ జయప్రకాశ్ రెడ్డి పాల్గొన్నారు.

ఈనాడు

అలరించిన హ్యాకథాన్

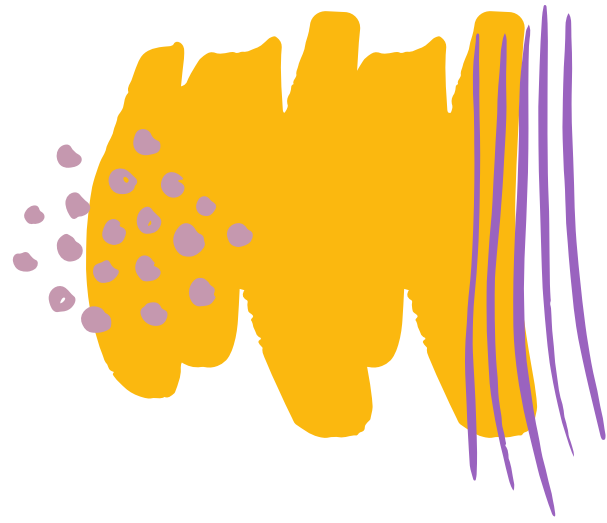
మైలవరం, న్యూఓటెక్: ఇంజనీరింగ్ విద్యార్థులకు నిర్వహించే పోటీలు వారిలోని ఆలోచనా శక్తిని, సాంకేతిక పరిజ్ఞానాన్ని బయటకు తీస్తాయని



విజేతలతో చైర్మన్ జయప్రకాశ్ రెడ్డి తదితరులు

స్థానిక లకిరెడ్డి బాలిరెడ్డి ఇంజనీరింగ్ కళాశాల గౌరవ చైర్మన్ లకిరెడ్డి జయప్రకాశ్ రెడ్డి అన్నారు. సీఎస్ఈ, ఏఐడీఎస్ విభాగం ఆధ్వర్యంలో ట్రైనింగ్ ఓ విజన్ సాఫ్ట్ సొల్యూషన్స్ సంస్థ సహకారంతో, డేటా సైన్స్ యూజింగ్ ఫైతాన్పై ద్వితీయ సంవత్సర టీటెక్ విద్యార్థులకు 24 గంటల హ్యాకథాన్ నిర్వహించారు. మొత్తం 52 జట్లుగా విద్యార్థులు పాల్గొన్నారు. ప్రథమ, ద్వితీయ, తృతీయ స్థానాల్లో నిలిచిన జట్లకు వరుసగా రూ.10 వేలు, రూ.7,500లు, రూ.5 వేలు జయప్రకాశ్ రెడ్డి అందజేశారు. కార్యక్రమంలో ట్రైనింగ్ ఓ విజన్ సాఫ్ట్ సొల్యూషన్స్, హైదరాబాద్ ఆధ్వర్యంలో రిసోర్స్ పర్సన్ గా గణేష్ నాగ్ డోడి, సీఈఓ ట్రైనింగ్ ఓ విజన్ సాఫ్ట్ సొల్యూషన్స్, ఇంటిసార్ మెహదీ, సీనియర్ కన్సల్టెంట్ టెక్నాలజీ, కళాశాల హాసరి చైర్మన్ జయప్రకాశ్ రెడ్డి పాల్గొన్నారు.





PLACEMENTS AND
ACHIEVEMENTS



PLACEMENTS

June - December 2022

TECH-TALK

*Congratulations to all the
PlaceHolders*

COMPANY :



Ms. RALLABANDI ESWARI MADHAVI
19761A0553





2022-23 ISSUE-1



COMPANY :



Package
8 LPA



VENGALA NAGA PHANINDRA
19761A05I9





SUNKARA ABHINASH
19761A05B9

COMPANY :




Congratulations



20765A0508

B VIVEKANANDA KUMAR

Package
7.5 LPA



COMPANY :



TECH-TALK

05 Students Placed

CONGRATULATIONS

Package 6 LPA

R.ESWARI MADHAVI 19761A0553	M.D.R SRIKANTHI 19761A05A5	TALLURI AKHILA 19761A05C2	M SURYA PRAKASH 19761A0537	K V NAGA JOSHITHA 19761A0531

COMPANY



Package 5 LPA

CONGRATULATIONS TO

PULI CHAITANYA KUMAR REDDY
(19761A05H5)

FOR GETTING SELECTED IN
ADJOINT TECHNOLOGIES

2022-23 ISSUE-1

COMPANY :

divami

TECH-TALK

04 Students Placed

Package 4.5-5 LPA

CONGRATULATIONS

			
A.VENKATA ADI LAKSHMI 19761A0502	SEELAM YESHWANTH REDDY 19761A0555	BOLLA TIRUPATHI RAO 19761A05D8	P VENUGOPAL REDDY 19761A05J0



COMPANY :



No. of Selections : 03

Package 4.5 LPA

Congratulations

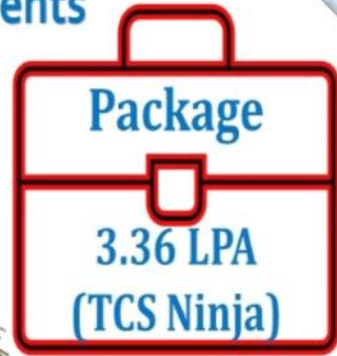
				
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	KETHE VENKATA NAGA IOSITHA	POPIURI LAKSHMI GAYATHRI	SHAIK SADHIK	

2022-23 ISSUE-1

COMPANY :



Congratulations to all the selected Students



State Level Influential Award

Congratulations



A Harshitha(19761A0570)



2nd Place in

State Level Influential Student Award

Presented by Hon'ble Chief Minister of Andhra Pradesh

Presented by Hon'ble Chief Minister of Andhra Pradesh
State Level Influential Student Award



Congratulations!!

TECHNOVERT
TECHNOLOGISTS BY NATURE



No.of Selections : 02 (8.0 LPA)



No.of Selections : 70
GenC - 49 (4.0 LPA)

GenC Elevate - 12 (4.0 LPA + S.B)

GenC PRO - 09(5.4 LPA)

No.of Selections : 04

Package: 4.5 LPA-03

Package:11LPA-01

No.of Selections : 32
ASE - 31 (4.5 LPA)

Advanced ASE - 01 (6.5 LPA)

No.of Selections : 01

Package - 7.5LPA

Congratulations To All Conquerers



Technovert



INNOVASIA 2022 - A National Level Hackathon.

Event Organizer: Vasavi College Of Engineering (A), Hyderabad-31.

Event Date: December 2nd and 3rd, 2022.

Participated Members: Gajula Hema Naga Sri, 21761A4220

Aggunna Bhargavi, 21761A4201

Jadam Harika, 21761A4223

Marisetti Vagdevi, 21761A4236

Four of our students are participated in a National Level Hackathon conducted by Vasavi College of Engineering, with a team name of “Deadline Tech Team” and concept named as “AgriTech” and got a “Consolation Prize”.



Participation in INNOVATION FAIR

Event Organizer: Design Innovation Center, JNTUK Kakinada.

Event Date: December 27th and 28th, 2022.

Participated Members: A. Samuel, 21761A4220

K. Vinay Kumar, 20761A05G1

A.Vivek, 20761A5405

R. Naveen, 20761A5447

Four of our III year students are participated in a Innovation Fair Organized by Design Innovation Center, JNTUK Kakinada on December 27th & 28th 2022, with a title of “Virtual Health Care Management with Robotics”.



Title of the Innovation: Virtual Health Care Management with Robotics

Abstract:

People checking into the hospital face some problems such as appointment of a doctor when the case is emergency. Expecting to get better, some actually wind up getting worse. And also patients are just too passive when they check into the hospital. Taking an active role in health care can reduce many of these hospital risks.

So what can you do to cut your risks?

With the help of AI-powered virtual health assistants, new digital technology can improve the patient's experience by providing real-time access to medical knowledge. The virtual assistant responds to issues such as patients diagnoses, expected recovery experiences, and daily medication schedules. AI virtual health assistants and Chabot's that can enhance processes, services, optimize costs and moreover improves patient satisfaction.



Winner of SKILL AP (APSSDC), IES Hackathon

Event Organizer: Andhra Pradesh State Skill Development Center (APSSDC).

Event Date: 28th September 2022.

Participated Members: 12 students of Three Teams from CSE,
About Event:

Our students are participated in a 12 weeks program consisting - Live lectures from German University Professors from state universities, Live lectures from Industry experts and Industry oriented cases studies.

- ✚ Learn - Practice and Implement methodology
- ✚ ASSDC and International certification
- ✚ German quality and quantitative learning practices
- ✚ Competition/ Hackathon at the end of program
- ✚ Summer School, Internship, employment linked higher education opportunity in German universities
- ✚ Course funded by APSSDC and its course providers. Student will be encountering very minimum certification costs

AD **DATA SCIENCE** **CLUSTER**
Advanced Data Science Cluster

- Students solved challenges in Computer vision, predictive analytics and more
- Unique problem solving based competition in fields of Data Science

**DATA SCIENCE
FINAL HACKATHON**

28 SEP 2022 **11:00 AM - 03:00 PM**

Andhra Pradesh State Skill Development Corporation (APSSDC)
3rd floor, Infosight Building, Paathuru Road Junction, Tadepalli, Andhra Pradesh.

Hochschule Kempten University of Applied Sciences | Indo Euro Synchronization Education and Research Resources | IES ACADEMY | GERMAN INDUSTRY 4.0 CAMPUS | mittelstands campus



Students to be skilled with latest technology: Challa Madhusudhan

HANS NEWS SERVICE
TADEPALLI

ANDHRA Pradesh State Skill Development Corporation (APSSDC) has been developing the unique ecosystem of imparting best skills to engineering students across the State in order to make them industry-ready through their skilling activities, said Advisor to Government Challa Madhusudhan Reddy. Addressing the students' teams, who participated in Data Science Hackathon, at APSSDC headquarters here on Wednesday, Madhusudan Reddy said that in the new generation of industry requirements, robotics, digital and smart manufacturing, artificial intelligence are playing a vital role and it is necessary for us to skill our graduates in these technologies at international standards.



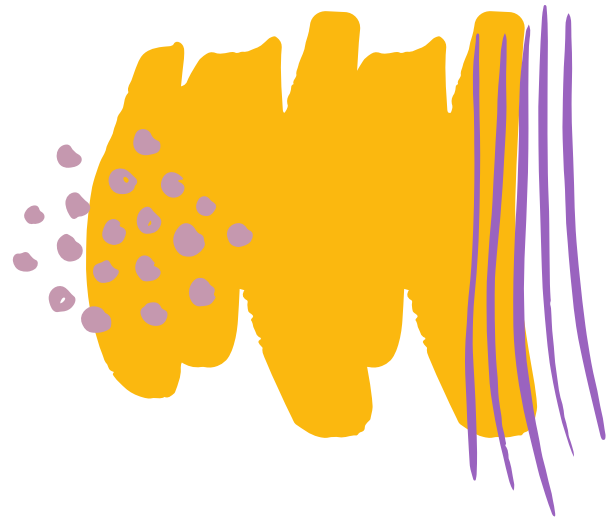
Advisor to Government Challa Madhusudhan Reddy and other dignitaries along with the winning teams of Hackathon in Tadepalli on Wednesday

Nearly 1,500 students across the State accomplished the certification on 'Data Sciences' under the emerging technologies certification initiative by APSSDC along with Indo-Euro Synchronisation

based out of India and Germany. These students are from various government and private universities and private engineering colleges from all the districts of the State.

In continuation with Data Science, 12 weeks Internship programme by IES in association with APSSDC aim in Hackathon, which is a social coding event that brings programmers and other interested people together to improve upon or build a new software programme. The top 15 teams are invited to attend the final hackathon to showcase their themes to the respective industries. This leads to the development of competitiveness in the students by solving the industry oriented.

The team of Lakireddy Bali Reddy College of Engineering won first prize with a cash award of Rs 25,000, followed by Acharya Nagarjuna University in the second place (Rs 15,000) and Rajiv Gandhi University of Knowledge and Technology, Nuzvid in the third place (Rs 10,000).



EXTENSION ACTIVITIES

- | | |
|----|--|
| 72 | ATC CAMP – I |
| 73 | ACTIVITY: ‘B’ CERTIFICATE DISTRIBUTION |
| 74 | ACTIVITY: WORLD ENVIRONMENT DAY CELEBRATIONS |



NCC – NATIONAL CADET CORPS



The National Cadet Corps is the youth wing of the Indian Armed Forces with its headquarters in New Delhi, India. It is open to school and college students on voluntary basis as a Tri-Services Organisation, comprising the Army, the Navy and the Air Force, engaged in developing the youth of the country into disciplined and patriotic citizens.

The soldier youth foundation in India is a voluntary organization which recruits cadets from high schools, higher secondary, colleges and universities all over India.

The cadets are given basic military training in small arms and drill. The officers and cadets have no liability for active military service once they complete their course.

The Various Activities participated by LBRCE NCC Wing as follows

ATC Camp - I

VENUE: Viswasanthi, Vuyyuru

DATE: 26th September 2022 to 3rd October 2022



ACTIVITY: INDEPENDENCE DAY CELEBRATIONS

DATE: 15-08-2022



ACTIVITY: 'B' CERTIFICATE DISTRIBUTION

DATE: 18-10-2022



ACTIVITY: ATC CAMP CERTIFICATE DISTRIBUTION

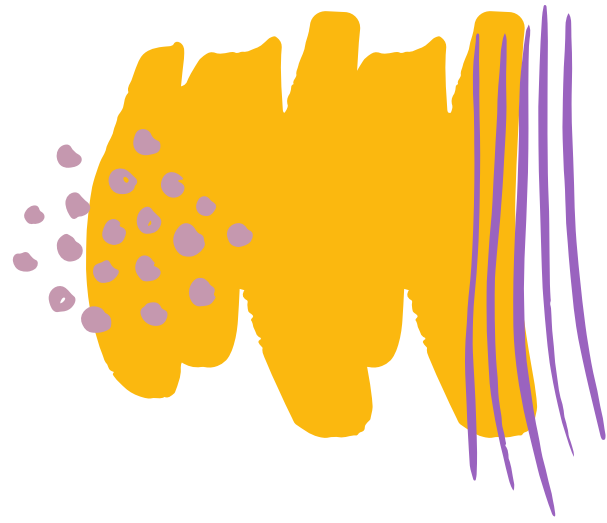
DATE: 20-10-2022



ACTIVITY: WORLD ENVIRONMENT DAY CELEBRATIONS

DATE: 05-06-2022





CLUB ACTIVITIES

- 76 | INDUCTION PROGRAM FOR FIRST YEAR STUDENTS - “
AWARENESS ON ICC-SAHELI ”
- 77 | ROLE OF EDUCATION IN THE EMPOWERMENT OF WOMEN
- 78 | DISCRIMINATION AGAINST WOMEN PAKWADA



CLUB ACTIVITIES

SAHELI: The girls club is a students club dedicated for upliftment of women and girl students. It aims at diversified social and economic activities involving women. The Girls club undertakes activities in the following fields with the objective of empowering women.

Induction Program for First year students - “ Awareness on ICC-Saheli ”

Executive Members: Dr. S. JayaPrada Assoc.Prof, CSE,
Dr. K. Naga Prasanthi Assoc.Prof, CSE,
Dr. B. Manaswini, Assoc.Prof, CSE..

Event Date: 1st November 2022

About Event

ICC-Saheli Coordinators have given awareness on the activities and events being Organised in club, Dr.S.Jayaprada, Dr.K.NagaPrasanthi, Dr.K.DeviPriya Executive Members, have given instructions for girl students about rules, regulations, dress code and discipline..



Role of Education in the Empowerment of women

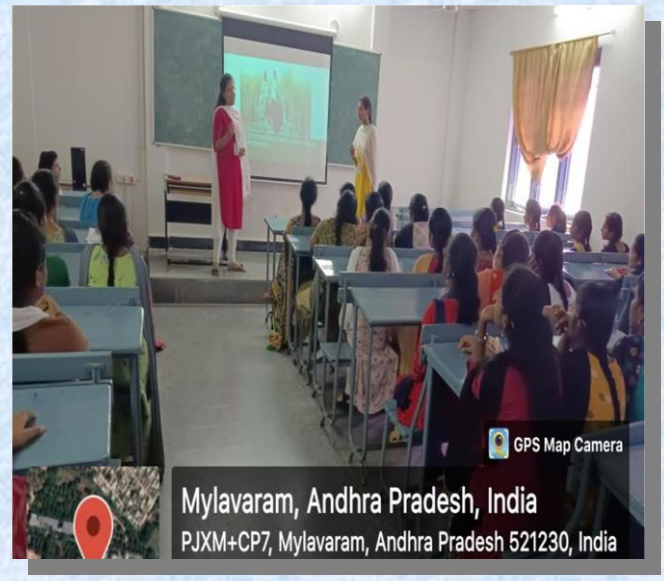
Executive Members: Dr. S. JayaPrada Assoc.Prof, CSE,
Dr. K. Naga Prasanthi Assoc.Prof, CSE,
Dr. B. Manaswini, Assoc.Prof, CSE..

Event Date: 1st November 2022

About Event

Executive Member, has interacted with students and motivated the way education plays an important role in women empowerment and given suggestions for their development.

Department co-ordinators has given instructions about the events conducted by Saheli club in various extra-curricular activities along with academics. Some students participated and presented their ppt about the event.



Discrimination against Women Pakwada

Executive Members: Mrs. P. Girija Satya Kumari,
(Enforcement Inspector), Mylavaram.

Event Date: 25th November to 10th December 2022

Objective of the Event: To make awareness among the students about Discrimination against Women in the society.

Outcome of the Event: All the Girl students attendend the Program and participated in different activities like Essay writing, Poster presentation, Elocution.

Description/ Report on Event: Mrs. P. Girija Satya Kumari, (Enforcement Inspector) have given awareness on the Discrimination of Women in the Society and about the Women pakwada.



QUIZ WINNERS Ms. G. Tabitha , Ms. M. SWATHI(CSE), Ms. T.Raja Rajeswari(AI&DS) with Mrs P.Girija Satya Kumari, Enforcement Inspector, special Enforcement Bureau Mylavaram



Ms. P.Sarala, Dr. K.Naga prashanthi & Dr. S.Jayaprada (Quiz winners)



Ms. B.Swathi, Ms. B.Usha rani, Dr.B.Manaswini(Quiz Winners).



LAKSHYA 2K22 EVENTS

81	ABOUT 16TH NATIONAL LEVEL TECHNICAL & CULTURAL FEST
83	EVENT: SRUJANA
85	EVENT: PRAGNA
87	EVENT: MEDHA
89	EVENT: NIPUNA
91	EVENT: WHO IS KGF ?
94	LAKSHYA 2K22 CULTURAL



Lakshya-2K22

16th NATIONAL LEVEL TECHNICAL & CULTURAL FEST

Our flagship National level annual Techno-Cultural Fest was organized on December 28th, 2022 with the participation of 2000 + students from various engineering colleges within A.P. This highly innovative, competitive, and fun-filled Techno- Cultural Symposium provided a wide spectrum of events to bring out the latent technical and aesthetic talents of students and their creativity, innovation, and originality in thinking. It included Technical Events like Paper Presentation (SRUJANA), Poster Presentation (PRAGNA), Quiz (MEDHA), Project Exhibition (NIPUNA) and some highly creatively designed cultural events in Music & Dance. Total prize money of 3,00,000 /- given to the winners & runners of all the events. All the students were excited and inspired by the events.



LAKSHYA-2k22

16th NATIONAL LEVEL TECHNICAL & CULTURAL FEST

An Invocation to True warriors

Registration 28th December 2022
Registration Fee :300/- (per Event)

Prizes 3 Lakh +

CHIEF PATRONS
Sri Lakireddy Jaya Prakash Reddy, Honorary Chairman
Sri L.R.N.K. Prasad Reddy, Chairman
Sri Lakireddy Vijay Kumar Reddy, Vice Chairman

PATRONS
Sri. G. Srinivasa Reddy, President
Dr. K. Appa Rao, Principal
Dr. K. Harinadha Reddy, Vice-Principal

CONVENERS
Dr. S. Pichi Reddy, Professor & HOD - MECH
Dr. J. Siva Vara Prasad, Professor & HOD - EEE

STUDENT CO-ORDINATORS

BRANCH	MOBILE
Aero Space	6300625543
A&DS	8639469570
CE	9121377080
CSE	7901006141
CSE(A&ML)	8179390932
EEE	8688941005
ECE	9032230131
EIE	9912468642
IT	7013817748
ME	9032068229
MBA	8185893238

FACULTY CO-ORDINATORS

BRANCH	MOBILE
Aero Space	9492924159
A&DS	8985652558
CE	9553736699
CSE	7893644427
CSE(A&ML)	9492057199
EEE	9703878093
ECE	9494515698
EIE	9866421987
IT	9494838390
ME	9865827526
MBA	9866870181

EVENTS
SRUJANA, PRAGNA, MEDHA, NIPUNA

SPECIAL EVENTS
Cruize 7.0, Brain Expeditions, CIR'KIT, Art Expo, Who is KGF?, Wage India Consk, Creative Minds, Yanthraora, Bulls vs Bears, Bug Hunter

For more details :
www.lkrce.ac.in/Lakshya2k22.php
Lakshya2k22@lkrce.ac.in

The details and broad objectives of the four major technical events are as follows:

SRUJANA: Paper Presentation

- To promote, showcase and reward the technological developments taking place in the world.
- To exhibit the creative ability in identifying and communicating the views and ideas.

PRAGNA: Poster Presentation

- To collate, compile, analyze and communicate the technical assessments in one's own technological domain.

MEDHA: Quiz Competition

- To develop thinking ability, general awareness and sharpness in diagnosing the problem.
 - To test the technical quotient of students.

NIPUNA: Technical Project Exhibition

- To formulate, plan, develop and execute technical models or prototypes.

KGF: King of Genius coders in Fest

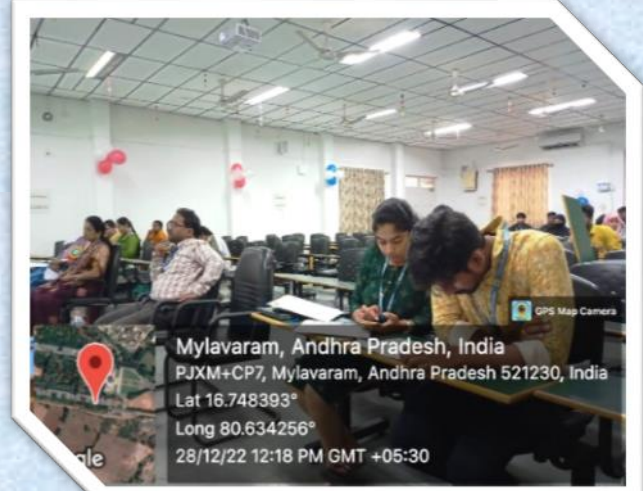
- To assess a candidate's ability to create or debug code in a specified language within a certain time limit.

EVENT:

The purpose of a paper presentation is to enhance a particular student's ability in the art of academic writing or making papers in English and to present it. It also helps broaden the minds of the participants a little more.

The main advantage or motto of the presenting paper is to bring students out of stage fear and also improve their communication skills. It also provides you an opportunity to learn in detailed about a core subject which is a part of curriculum and develop effective presentation skills.

Gallery of SRUJANA: Paper Presentation

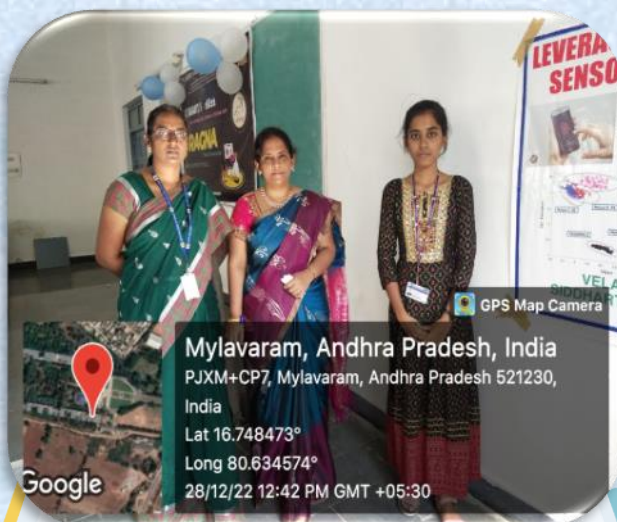


Winners for SRUJANA Event:

S.NO	Name of the Student	College Name	Prize
1.	Shaik. Gousiya	Nimra College of Engineering	I prize
2.	P. Charan Nagadeep	Gudlavalleru College of Engineering	II prize
3.	Ch. Sravanthi	Lakireddy Bali Reddy College of Engineering	III prize

EVENT:

A poster presentation is a formal, research-based presentation of your work. A poster presentation provides a visual representation of your research through text, charts, graphs, and other visual aids. A poster presentation allows viewers to read your research material at their own leisure and to interact with you—perhaps asking questions about your methods or your findings.

Gallery of PRAGNA: Poster Presentation



Winners for PRAGNA Event:

S.NO	Name of the Student	College Name	Prize
1.	Sk. Shabeena	VR Siddhartha	I prize
2.	B. Manjusha	Vikas Group of Institutions	II prize
3.	G. Divya	Lakireddy Bali Reddy College of Engineering	III prize

EVENT:



A quiz can be defined as a game or brain teaser to test knowledge. It can contain an element of competition when participants play against each other to get the highest score, which makes helps participants become more engaged.

Gallery of MEDHA: Quiz Competition





Winners for MEDHA Event:

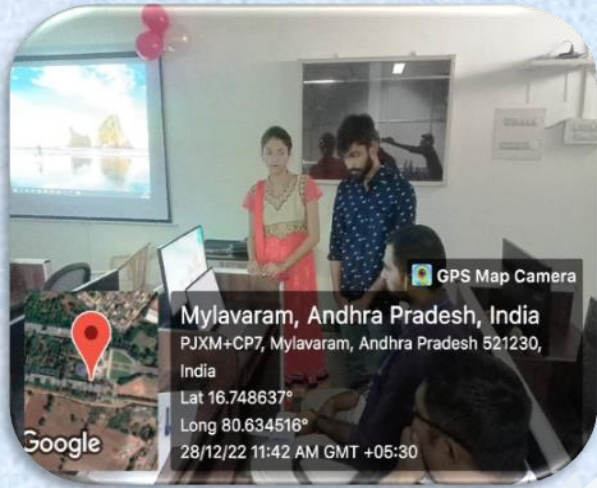
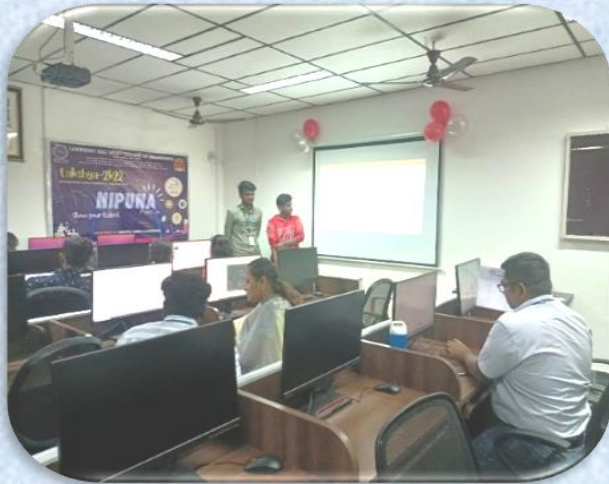
S.NO	Name of the Student	College Name	Prize
1.	D. Vamsi Krishna A. Jai Krishna	Lakireddy Bali Reddy College of Engineering	I prize
2.	G. Mani Durga Siva Sai A. Gowthami	VR Siddhartha	II prize
3.	G. Navya Sri D. Siva Ram	Lakireddy Bali Reddy College of Engineering Vikas Degree College	III prize

EVENT:



The main agenda behind the competition was to explore the technical skills among our students and give more exposure towards technical knowledge which is very much required in building their career. The event mainly focused in developing interest among students toward new innovation and rapidly growing technology.

Gallery of NIPUNA: Technical Project Exhibition





Winners for NIPUNA Event:

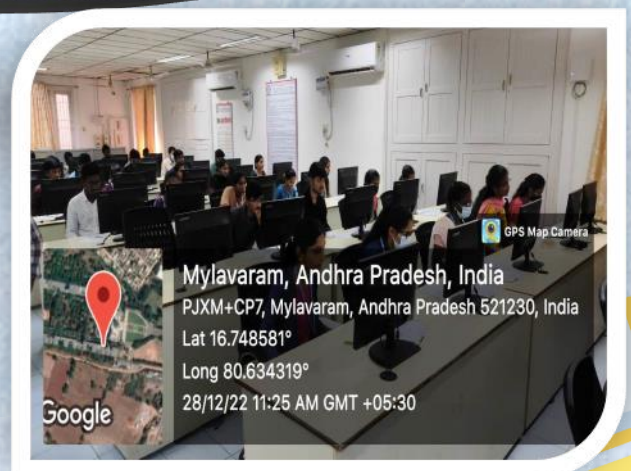
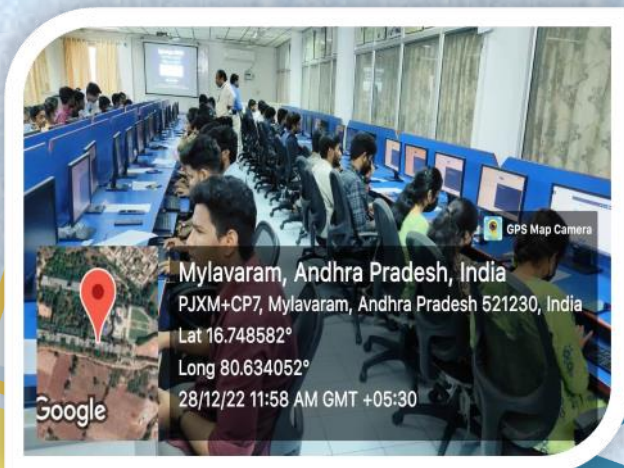
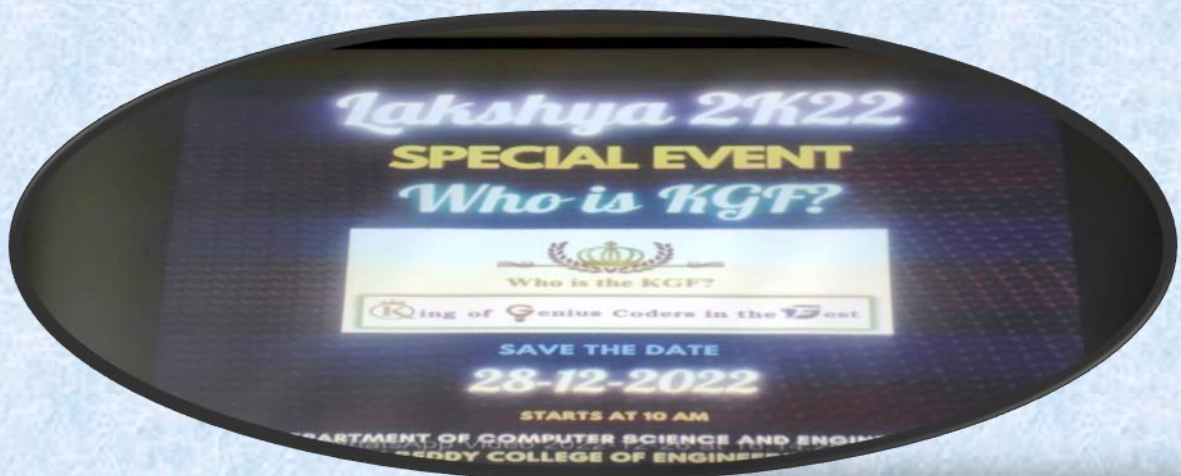
S.NO	Name of the Student	College Name	Prize
1.	T. Gopikanth Ch. Manohar	Lakireddy Bali Reddy College of Engineering	I prize
2.	K. Vamsi G. Ganesh	Lakireddy Bali Reddy College of Engineering	II prize

EVENT: KGF



Coding tests are programming assessment tools used to objectively evaluate a candidate's programming skills across parameters such as problem-solving, coding aptitude, and de-bugging.

Gallery of KGF: King of Genius coders in Fest





Winners for KGF Event:

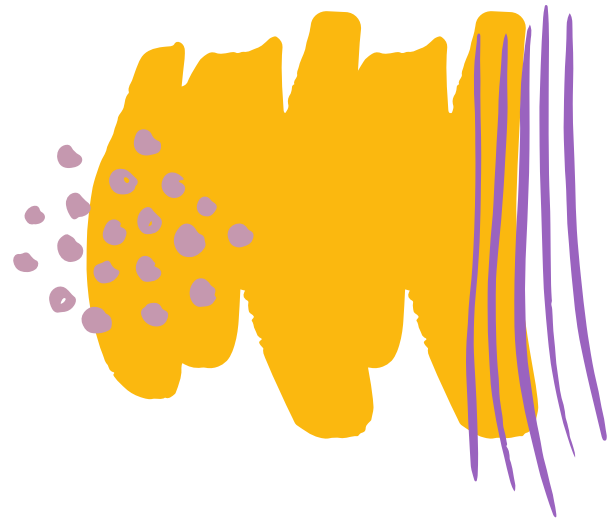
S.NO	Name of the Student	College Name	Prize
1.	K. Srikanth	Lakireddy Bali Reddy College of Engineering	I prize
2.	Siva Sai Subrahmanyam	Lakireddy Bali Reddy College of Engineering	II prize
3.	Amariah Panam	Lakireddy Bali Reddy College of Engineering	III prize
4.	D. RamiReddy	Lakireddy Bali Reddy College of Engineering	IV prize

LAKSHYA 2K22 CULTURAL

Cultural events are events designed for entertainment and enjoyment of a more or less wide audience. They are events of some importance related to some branch of art, culture, or values. These events aim to propagate and disseminate cultural themes.







CODING PUZZLES - CAN YOU CRACK IT !!!

97	CODING PUZZLE-I: EVEN OR ODD DIGITS' SUM
98	CODING PUZZLE-II: BOY OR GIRL
99	CODING PUZZLE-III: UPGRADE TO UPPERCASE
100	CODING PUZZLE-IV: NEARLY LUCKY NUMBER
101	CODING PUZZLE-V: IS PALINDROME POSSIBLE?



Coding Puzzle - I

Even OR Odd Digits' Sum

Puzzle Description:

In Mathematics, the “digit sum” of a given integer is the sum of all its digits, e.g., the digit sum of 84001 is calculated as $8+4+0+0+1 = 13$,

The digit sum of 158 is $1+5+8 = 14$.

Rohan’s teacher has asked him to write a function (method) that takes as input a positive number and performs digitSum of either only the even digits or only the odd digits in the given number, based on the option “even” or “odd”.

The function will takes two input parameters -

- The first parameter will be an integer number representing the number whose digitSum needs to be found.
- The second parameter will be a string representing the option, which will be either “even” or “odd”

Example 1: If the given number is 9625, and the option is “odd”, we must add only the odd digits, i.e., $9+5 = 14$

Example 2: If the given number is 2134, and the option is “even”, we must add only the even digits, i.e., $2+4 = 6$

Assumptions:

- The input number (input1) will be a positive integer number ≥ 1 and ≤ 25000 .
- The input string (input2) will always be either “even” or “odd”.

Coding Puzzle - II

Boy or Girl

Puzzle Description:

Those days, many boys use beautiful girls' photos as avatars in forums. So it is pretty hard to tell the gender of a user at the first glance. Last year, our hero went to a forum and had a nice chat with a beauty (he thought so). After that they talked very often and eventually they became a couple in the network.

But yesterday, he came to see "her" in the real world and found out "she" is actually a very strong man! Our hero is very sad. So he came up with a way to recognize users' genders by their user names.

This is his method: if the number of distinct characters in one's user name is odd, then he is a male, otherwise she is a female. You are given the string that denotes the user name, please help our hero to determine the gender of this user by his method.

Input: The first line contains a non-empty string, that contains only lowercase English letters – the user name. This string contains at most 100 letters.

Output: If it is a female by our hero's method, print "CHAT WITH HER!" (without the quotes), otherwise, print "IGNORE HIM!" (without the quotes).

Examples:

Input: wjmbzmr

Output: CHAT WITH HER!

Input: xiaodao

Output: IGNORE HIM!

Note: For the first example. There are 6 distinct characters in "wjmbzmr". These characters are: "w", "j", "m", "z", "b", "r". So wjmbzmr is a female and you should print "CHAT WITH HER!".

Coding Puzzle - III

Upgrade to UpperCase

Puzzle Description:

Read Second Word and Change to Uppercase:

Write a function (method) that takes as input a string (sentence), and returns its second word in uppercase.

For Example:-

If input1 is “Wipro Technologies Bangalore”,

The function should return “TECHNOLOGIES”

If input1 is “Hello World”,

The function should return “WORLD”

If input1 is “Hello”,

The function should return “LESS”

NOTE 1: if **Input 1** is a sentence with less than 2 words, the function should return the word “LESS”

NOTE 2: The result should have no leading or trailing spaces.

Coding Puzzle - IV

Nearly Lucky Number

Puzzle Description:

Petya loves lucky numbers. We all know that lucky numbers are the positive integers whose decimal representations contain only the lucky digits 4 and 7. For example, numbers 47, 744, 4 are lucky and 5, 17, 467 are not.

Unfortunately, not all numbers are lucky. Petya calls a number nearly lucky if the number of lucky digits in it is a lucky number. He wonders whether number n is a nearly lucky number.

Input:

The only line contains an integer n ($1 \leq n \leq 1018$).

Please do not use the `%lld` specifier to read or write 64-bit numbers in C++. It is preferred to use the `cin`, `cout` streams or the `%I64d` specifier.

Output:

Print on the single line "YES" if n is a nearly lucky number. Otherwise, print "NO" (without the quotes).

Examples:

Input: 40047 Output: NO

Input: 7747774 Output: YES

Note

In the first sample there are 3 lucky digits (first one and last two), so the answer is "NO".

In the second sample there are 7 lucky digits, 7 is lucky number, so the answer is "YES".

In the third sample there are no lucky digits, so the answer is "NO".

Coding Puzzle - V

Is Palindrome Possible?

Puzzle Description:

Write a function to find whether it is possible to get a palindrome number from a given number by re-arranging the positions of the digits. If yes, the function should return 2, else it must return 1.

Example1:

If the given number is 21251, it is possible to form a palindrome by re-arranging the digits, as 21512 or 12521. So the function must return 2.

Example 2:

If the given number is 2125, it is not possible to form a palindrome by re-arranging the digits. So the function must return 1.

Note

All the digits of the given number should be retained while deciding whether they can together form a palindrome.

Assumption:

The input number will be a positive number ≥ 1 and ≤ 25000 .

TECH-TALK TEAM

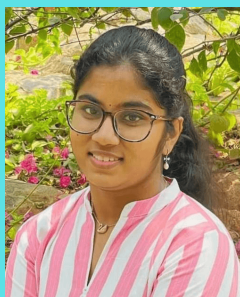
EDITOR-IN-CHIEF



EDITORS



STUDENT COORDINATORS





ACKNOWLEDGEMENT

We would like to extend our sincere gratitude to our management for their constant support. Also, we would like to thank our Principal, Dr. K. Appa Rao Dean Dr. M. Srinivasa Rao, and HOD Dr. D. Veeraiah for the innovative thoughts for the additions made to our magazine, and faculty for sharing the TECH-TALK. Lastly, we would like to thank all the faculty members, students and stake holders for their valuable inputs.

**DIGITALLY
INNOVATIVE**

TECH-TALK 2022-23 ISSUE-1

CONTACT NOW!



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NTR Dist.



And visit our website for
more details www.lbrce.ac.in

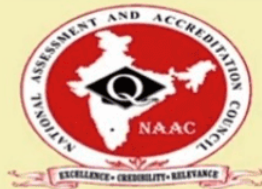
LBRCF



100 ACRES GREEN POLUTION FREE CAMPUS



ACCREDITATIONS & RECOGNITIONS



CAREERS 360

AAA+



NPTEL



University Grants Commission



NATIONAL INSTITUTIONAL RANKING FRAMEWORK

