



MALINENI PERUMALLU

EDUCATIONAL SOCIETY'S GROUP OF INSTITUTIONS

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(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada)

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CSE TODAY

Half yearly Newsletter

Feb 2019

Vision of the Department

- ❖ To become center of excellence in Computer Science and Engineering with values and life-long learning..

Mission of the Department

- ❖ Providing a strong theoretical knowledge and practice in computer science and engineering with an emphasis on software development.
- ❖ Imparting the skills necessary to continue education to grow professionally.
- ❖ Empowering the youth in rural community with computer education.
- ❖ Inculcating professional behavior, ethical values, innovative research capabilities and leadership abilities.

Editorial

Dear Readers,

It is with great pleasure that we bring you of our department newsletter “**CSE TODAY** “.The current newsletter highlights the activities of the department, achievements of faculty and students during the past six months. It also features workshop organized and attended, paper publication details and other social activity undertaken from CSE Department.

Your valuable comments and suggestions are appreciated. We wish all the readers an enjoyable reading.



Director Message

*MPESGI has emerged as a prominent institute offering quality education. All round continuous changes in infrastructure and academics standard have helped us to build a brand name. It gives me immense pleasure to release the of the half yearly newsletter “**CSE TODAY**” of Computer science Department. I am pleased to know that the newsletter will showcase the activities and credentials of CSE department. I hope this will become a platform for students and staff to exhibit their talents in science and technology. On behalf of management, I appreciate the newsletter committee for their efforts in bringing out this edition.*

I wish the editorial all success!

Regards

Dr. P Nageswara Rao

Message from Chief Editor



Department of Computer Science & Engineering commits to work towards developing dedicated professional with a rich blend of competent, technical, managerial and social skills to contribute nation building. I am happy to inform all the wishers that our department newsletter “**CSE TODAY**” is being released in the month of Feb 2019. The newsletter encourage departments technical activities and also motivate students to bring out their innovative ideas , hidden talents and also provide a common platform to share their knowledge, in turn gain technical knowledge.

I wish all the readers an enjoyable reading!

Regards

Dr. IVSJ RAMARAO
(HOD, CSE)

TOPPERS LIST

Hearty Congratulations to all the toppers!!

4-1 Semester toppers		
Reg. No	STUDENT NAME	%age
157W1A0519	J REVATHI	85
157W1A0527	K LAKSHMI PRASANNA	84.8
157W1A0557	V ANURADHA	83

3-1Semester toppers		
Reg.No	STUDENT NAME	%age
167W1A0521	R SRAVANTHI	82
167W1A0508	G.SUPRIYA	81.5
167W1A0511	K. BHU LAKSHMI	80.2

2-1 Semester toppers		
USN	STUDENT NAME	%age
177W1A0507	G NAGA LAKSHMI	82.2
177W1A0508	K. HARIKA JYOTHI	81
177W1A0503	CH KAVITHA	80.98

Editorial Team

Chairman:

Dr. P. Nageswara Rao Director, MPESGI

Chief Editor:

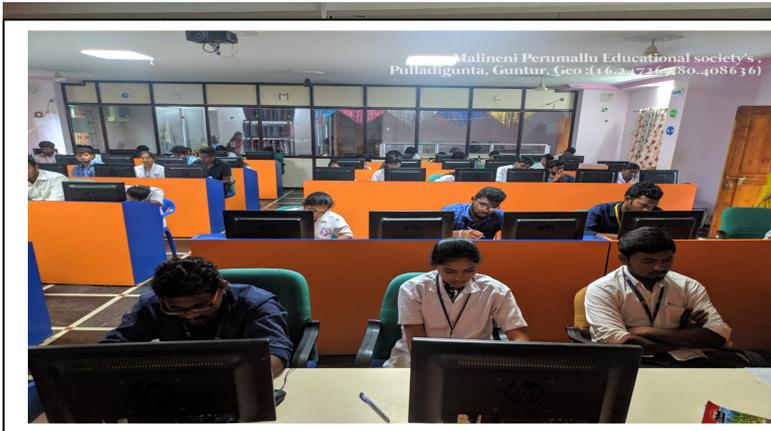
Dr. IVSJ RAMARAO HOD, CSE

Editor:

Dr D Ravikiran Associate Professor, CSE

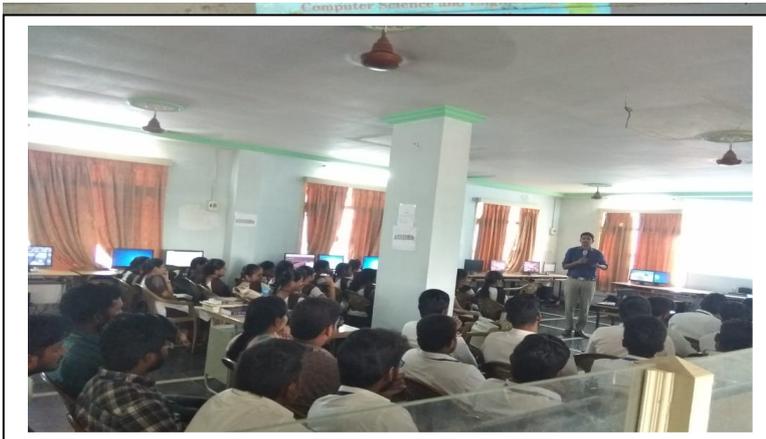
Workshop Details

Two-Day Workshop on “Internet of Things”



Department of Computer Science and Engineering, MPESGI college organized a A two day workshop on “Internet of Things” Mr mahan, from chat boats from 08/01/2019 to 09/01/2019 3-2 semester students.

FIVE- DAY WORKSHOP ON AWS TECHNICAL ESSENTIALS



Department of Computer Science and Engineering, MPESGI college organized a five days workshop on “**AWS technical essentials**” by APSSDC from 18-02-2019 to 22-02-2019 for 4-2 students.

Three-day workshop on Gamification by using AR & VR Buildbox



Department of Computer Science and Engineering, MPESGI college organized a three days workshop on “**Gamification by using AR & VR Builbox**” by APSSDC from 11-02-2019 to 13-02-2019 for 2-2 students.

Student Achievements

Our students Won 2nd prize in KL HACK LEAGUE which is held between 3rd to 5th January,2019 in KL University, Vijayawada.



Five days FDP on data science and Big Data Analytics

Department of Computer Science and Engineering, MPESGI college organized a 5-day FDP on “Data science and Big Data Analytics” by ICT Academy from 27-09-2018 to 31-09-2018.

WORKSHOPS/CONFERENCES ATTENDED

- Dr. D Ravikiran, Associate professor, Department Of CSE Attended Five Days Workshop On Data Science & Big Data Analytics By ICT Academy In Association With Dellemc In Mpesgi,Guntur.
- Mr.P.Srinivasa Rao, Assistant Professor, Department Of CSE Attended Five Days Workshop On Data Science & Big Data Analytics By ICT Academy In Association With Dellemc In Mpesgi,Guntur.
- Mr.CH.AMARESH, Assistant Professor, Department Of CSE Attended Five Days Workshop On Data Science & Big Data Analytics By ICT Academy In Association With Dellemc In Mpesgi,Guntur.

TECHNICAL ARTICLES

IoT - Internet of Things is the internetworking of physical devices like vehicles, buildings, electronic devices, sensors, actuators etc that are capable of communicating among themselves (sensor1 to sensor2, sensor 2 to sensor3 and so on) or with the external environment(sensor to vehicles, vehicles to humans) that are equipped with devices capable of communicating over a network.

Open the garage door when a car approaches. (communication between a sensor 1 on garage door and a sensor 2 on the car)



WHAT IS A.I.?

In AI, a machine will be equipped with a learning mechanism and a neural network something similar to a Brain which enables a cognitive ability, where the machine will learn by understanding and adopting to the environment that it is surrounded with and making rational decisions.

Here the machine/devices is **not** coded with *what to do and what not to* but coded with an **ability to learn** and understand itself *what to do and what not to*.

- In IoT, you can know what a device is capable of doing.
- In AI, you can never know what a machine is capable of until it actually does that.

According to the **father of Artificial Intelligence, John McCarthy**, it is “*The science and engineering of making intelligent machines, especially intelligent computer programs*”. Artificial Intelligence is a way of **making a computer, a computer-controlled robot, or a software think intelligently**, in the similar manner the intelligent humans think. While exploiting the power of the computer systems, the curiosity of human, lead him to wonder, “*Can a machine think and behave like humans do?*” “Thus, the development of AI started with the intention of creating similar intelligence in machines that we find and regard high in humans.

Android

Irina Blok designed the **Android Logo**. Irina Blok, who was part of the launch campaign, designed the green robot. Initially, the **logo** was intended to be for developers only but consumers loved it and so it became the official **logo** Jun 26, 2013.



Android as we know is the world’s most popular mobile platform. Till now we have seen many versions of Android being released, but did you notice that these versions have been released in alphabetical order. Also all the versions are named after desserts.

These versions have been released in alphabetical order:

Cupcake, Donut, Éclair, Froyo (frozen yogurt), Gingerbread Honeycomb, Ice Cream Sandwich, and Jelly Bean.

Android versions history involves the versions updates from 1.0 till date. Here is the list of different Android version with their releasing date:-

1. **Android 1.0** – Release Date: September 23, 2008
2. **Android 1.1** – Release Date: February 9, 2009
3. **Android 1.5 Cupcake** – Release Date: April 30, 2009
4. **Android 1.6 Donut** – Release Date: September 15, 2009
5. **Android 2.0/2.1 Éclair** – Release Date: October 26, 2009
6. **Android 2.2 FroYo** – Release Date: May 20, 2010
7. **Android 2.3 Gingerbread** – Release Date: December 6, 2010
8. **Android 3.0 Honeycomb** – Release Date: February 22, 2011
9. **Android 4.0 Ice Cream Sandwich** – Release Date: October 19, 2011
10. **Android 4.1 Jelly Bean** – Release Date: July 9, 2012.
11. **Android 4.4X :Kitkat**
12. **Android 5.0: Lollipop**
13. **Android 6.0: Marshmallow**
14. **Android 7.0: Naugat**
15. **Android 8.0: Oreo**

Cybersecurity is the body of technologies, processes and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access. In a computing context, security includes both cybersecurity and physical security.



Elements of cyber security include:

- Application security
- Information security
- Network security
- Disaster recovery / business continuity planning
- Operational security
- End-user education



An ethical hacker is a computer and networking expert who systematically attempts to penetrate a computer system or network on behalf of its owners for the purpose of finding security vulnerabilities that a malicious hacker could potentially exploit.

Ethical hackers use the same methods and techniques to test and bypass a system's defenses as their less-principled counterparts, but rather than taking advantage of any vulnerability found, they document them and provide actionable advice on how to fix them so the organization can improve its overall security.

Need of Advanced Cyber Security for Digital India, new India.

There has been a very vast use of internet in recent days, with this there is a question that raises proportionally with the use of internet “How much safe is our data in the internet”. Figure 1 explains the need of Advanced Cyber Security for Digital India, new India.

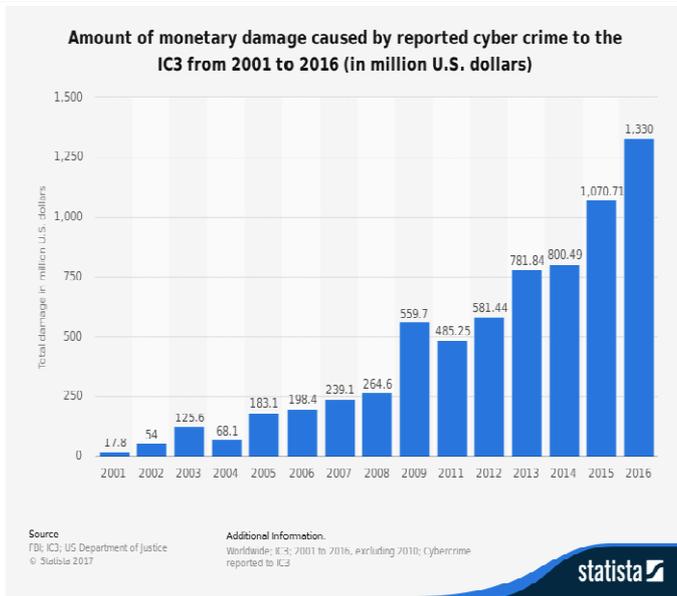


Figure Courtesy: US Department of Justice

As we are aware of digital India, digital India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improved online infrastructure. This motivates the researchers to think of a need of a improved and a very fast quality research in the field of Cyber Security. The Main motive of this program is to connect 42300 villages, Very good Broadband to the people, Information to All etc. In the process of this tremendous work there is a need for data security and this can be provided by data encryption at the sender end, data encryption at the network end and data encryption and decryption at the receiver end. In this regard I was motivated to write a research paper on data security named “Mathematical Logic and Logical equivalence implementation to find the intermediate key

Management for DES Encryption Algorithm.”. This was a research paper presented in the 6th World Conference on

7 Technology Trends That Will Dominate 2019

1. AI permeation. Artificial intelligence (AI), largely manifesting through machine learning algorithms, isn't just

Applied Science Engineering and Technology 2018 held at Goa. In this paper the data encryption algorithm was used at the sender end, data encryption algorithm was used at the network and data encryption and decryption algorithm was used at the receiver end. The objective of the study is to look into a new method to generate an intermediate key for a symmetric key given in DES encryption algorithm. Using the concept of Mathematical Logic and Logical Equivalence an intermediate key is generated. Intermediate key used at sender and the receiver side .There are two equations used one on the sender side and another on the receiver side both giving the same intermediate key.

Mathematical logic is the science dealing with the methods of reasoning; these are the statements that are called propositions.

Propositions are the statement which in a given context said to be true or false .These propositions are connected by the logical connectives and they are “not”, “and”, “or”, “if then”, “if and only if”. The propositions formed using this logical connectives is called compound propositions. Two propositions u and v are said to be logically equivalent whenever u and v have the same truth value. This is denoted by $u \Leftrightarrow v$ and its represented as u and v are logically equivalent. During the generation of the intermediate key u is used at the sender side and v is used at the receiver end to provide the same intermediate key

.This paper proposes a new method in generating an intermediate key for DES algorithm.

Compiled By,

Dr P RameshBabu
Associate professor



getting better. It isn't just getting more funding. It's being incorporated into a

more diverse range of applications. Rather than focusing on one goal, like mastering a game or communicating with humans, AI is starting to make an appearance in almost every new platform, app, or device, and that trend is only going to accelerate in 2019. We're not at techno-pocalypse levels (and AI may never be sophisticated enough for us to reach that point), but by the end of 2019, AI will become even more of a mainstay in all forms of technology.

2. Digital centralization. Over the past decade, we've seen the debut of many different types of devices, including smartphones, tablets, smart TVs, and dozens of other "smart" appliances. We've also come to rely on lots of individual apps in our daily lives, including those for navigation to even changing the temperature of our house. Consumers are craving centralization; a convenient way to manage everything from as few devices and central locations as possible. Smart speakers are a good step in the right direction, but 2018 may influence the rise of something even better.

3. 5G preparation. Though tech timelines rarely play out the way we think, it's possible that we could have a 5G network in place—with 5G phones—[by the end of 2019](#). 5G internet has the potential to be almost 10 times faster than 4G, making it even better than most home internet services. Accordingly, it has the potential to revolutionize how consumers use internet and how developers think about apps and streaming content. 2018, then, is going to be a year of massive preparation for engineers, developers, and consumers, as they gear up for a new generation of internet.

4. Data overload. By now, every company in the world has realized the awesome power and commoditization of

consumer data, and in 2019, data collection is going to become an even higher priority. With consumers talking to smart speakers throughout their day, and relying on digital devices for most of their daily tasks, companies will soon have access to—and start using—practically unlimited amounts of personal data. This has many implications, including reduced privacy, more personalized ads, and possibly more positive outcomes, such as better predictive algorithms in healthcare.

5. White collar automation. Is your job likely to be replaced by a machine? How certain are you of that answer? AI has been advancing enough to replace at least some white collar jobs for years; even back in 2013, we had algorithms that could write basic news articles, given sufficient inputs of data. Is 2019 going to be the year all humans are finally replaced by their new robot overlords?

Almost certainly not, but I do think we'll see the fledgling beginnings of radical job transformations throughout the United States. I think it's naïve to think that jobs will be fully replaced, but they will be more heavily automated, and we'll have to adapt our careers accordingly.

6. Seamless conversation. A few years ago, voice search was decent, but unreliable. Today, voice search might as well be flawless; Microsoft's latest test gives its voice recognition software a 5.1 percent error rate, making it better at recognizing speech than human transcribers. Similarly, robotic speech and chatbots are growing more sophisticated. In 2019 with these improvement cycles continuing, I imagine we'll see the manifestationsolidification of seamless conversation. We'll be able to communicate with our devices, both ways, without any major hiccups or mistakes.

7. UI overhauls. I also think 2019 is going to be a major year for UI; we're going to have to rethink how we interact with our apps and devices. The onset of smart speakers and better voice search has made it so it's no longer necessary to look at a screen to input data. Desktop

devices are becoming less and less used as well, with mobile continuing to take over. New types of visuals and more audible clues will likely be included in next-generation UI, and consumers will adapt to them quickly, so long as they serve their core needs

Compiled By,
Dr P Ramesh Babu
Associate professor

Top 3 highest paying IT certification courses

The best way to assure a great career in IT is the certification courses. There are plenty of certification courses to choose from. Depending upon the field in IT that you want to choose, you can choose from a host of courses.

The IT top certifications not only assure a great job but also help you advance the knowledge. You can choose from a number of IT certification courses to boost your career. Global Knowledge has shared the data that shows the salary data of professionals after finishing a certification program. The top 5 IT certification courses are:

1. Certified Risk and Information Systems Control (CRISC)

The exam covers major risk subjects. You can sign up for this course if you want to work in risk management field. The exam consists 150 multiple-choice questions. While the exam cost is \$420, you will end up spending quite a bit in preparation for the exam. The exam covers major risk subjects like identification, assessment, response and mitigation, control monitoring and reporting. The average salary earned by CRISC certified IT professional is \$127,507 (Rs 81.07 lakh)

2. Certified Information Security Manager (CISM)

The exam focuses on the niche of information security management. As a professional, you will be involved in designing and developing security protocols. The position will help you access different lines of business outside of IT. You will be working directly with the business team to achieve overall business goals. The test exam costs \$415. The exam preparation cost may go higher. CISM certified professional earns an average salary of \$122,448 (Rs 77.85 lakh) per year.

3. AWS Certified Solutions Architect

Amazon Web Services has changed the way organizations and product companies store their data. The companies are moving away from traditional infrastructure set up to cloud. Amazon's AWS Certification Course for Associate Architect can help you find a well-paying job. Candidates appearing for the course need at least one year of AWS experience and expertise in major programming languages. The exam has 60 multiple choice questions, which you have to finish in 80 minutes. The test costs \$150, the average salary earned by AWS Certified Solutions Architect - Associate is \$119,085 (Rs 75.72 lakh).

Compiled By,
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Bitcoins

It is a new currency in fact crypto-currency that was created in 2009 by an unknown person using the alias Satoshi Nakamoto. Bitcoin Transactions are made with no middle people – meaning, no banks! Bitcoin can be used to book hotels on Expedia, shop for furniture on Overstock and buy Xbox games. But

much of the hype is about getting rich by trading it. The price of bitcoin skyrocketed into the thousands in 2018.

Why Bitcoins?

Bitcoins can be used to buy merchandise anonymously. In addition, international payments are easy and cheap because bitcoins are not tied to any country or subject to regulation. Small businesses may like them because there are no credit card fees. Some people just buy bitcoins as an investment, hoping that they will go up in value.

Owning Bitcoins



Bitcoins are stored in a “digital wallet,” which exists either in the cloud or on a user’s computer. The wallet is a kind of virtual bank account that allows users to send or receive bitcoins, pay for goods or save their money. Unlike bank accounts, bitcoin wallets are not insured by the FDIC (Federal Deposit Insurance Corporation).

Anonymity

Though each bitcoin transaction is recorded in a public log, names of buyers and sellers are never revealed – only their wallet IDs. While that keeps bitcoin users’ transactions private, it also lets them buy or sell anything without easily tracing it back to them. That’s why it has become the currency of choice for people online buying drugs or other illicit activities.

Future in question

No one knows what will become of bitcoin. It is mostly unregulated, but some countries like Japan, China and Australia have begun weighing regulations. Governments are concerned about taxation and their lack of control over the currency.

Compiled By,
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Associate professor

PHOTO GALLERY



CSE TODAY NEWS LETTER RELEASE FEB'19

Dear readers, your advice or suggestions will be much appreciated and are most welcome!
Please mail your articles mpescsehod@gmail.com