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Department of
Computer Science and Engineering
&
i - Grow Association

THE BYTE

**JUN
2020**

www.arunai.org

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VICE CHAIRMAN'S MESSAGE



**Er.E.V.Kumaran M.E.,
Vice-Chairman**

“The Byte” is particularly important as it encourages the students to share the knowledge they have acquired. Writing articles for the magazine also improves the communication skills of the budding engineers of the CSE department. It is common knowledge that representation of an idea is as important as, if not more important, than the idea itself. “The Byte” represents a cloud with a silver lining for the world of technology. It aims to inspire and nurture upcoming engineers to bring a revolution in this ever-evolving world of technology. The magazine captures the current technological advancements.

It is my pleasure to congratulate the team that has is taken the initiative for producing this magazine. It great to find a considerable number of technical articles that certainly prove that our staff and students are adequately equipped and possess necessary skill sets to express their talent.

Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues. I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine.

In the words of Our Great Visionary Former President of India Dr.APJ.Abdulkalam

**“Learning gives creativity, Creativity leads to thinking,
Thinking provides knowledge, Knowledge makes you great.”**

May the QUALITY EDUCATION we impart to our students and enlighten their minds and hearts towards always aiming high.

REGISTRAR'S MESSAGE



Dr.R.Sathiyaseelan
Registrar

It is my pleasure to congratulate the team that has taken the initiative for producing this magazine. It is great to find a considerable number of technical articles that certainly prove that our staff and students are adequately equipped and possess necessary skill sets to express their talent.

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Dr.L.Jayakumar
Principal

It is our effort to make AEC of Computer Science a top educational institution that can create IT professionals, who blend effectively, technological skills with management perspectives and to impart an inherent discipline that will help them face challenges in the future.

Consequently, the true education should deepen our insight, widen our horizon and create a meaningful outlook.

Equally the students are fortunate enough to have born in a free nation, with all the facilities to shape their career in such a way, that they should be part of a good and healthy society with progressive attitude towards divinity.

HOD'S MESSAGE



Dr.M.Jothish Kumar
HOD/CSE

It gives me immense pleasure to lead the department of CSE. The department has well qualified and eminent faculty. The main objective of department is to develop the students both personally and professionally to achieve successful career in Industry, Research and Academics. Consequently, great advances have taken place in the field of computer science and engineering, bringing together the understanding of the scientific and technological foundations of computing, the concepts of software and hardware as well as those of Computer Science and Engineering endeavors to contribute to these advances through teaching and research in this field. It gives us a great contentment to bring it to you the department magazine of CSE. This magazine is a platform to exhibit the innovative ideas of teachers and students. The E-magazine attempts to present the Department and its activities for general information to all concerned.

"The secret of success is to do the common thing uncommonly well."

-John D. Rockefeller Jr

"The Byte" magazine offers an existing platform for the students as well as faculty members to exhibit the knowledge they possess and a good change to develop the same.

SPECIAL MESSAGE



CSI CHAIRMAN'S DESK



Dr. Suresh A Shan
Chairman Computer Society of India
CSI Mumbai Chapter.

The Business Information Technology Secured Solution Redefine – Digital Enterprise.

In reality the Business Information Technology Secured Solutions follow the entrepreneurs own Power Mantra “Reach & Speed.” The Time efforts service is purely supported by Money. The way the customer demand supply end user centric options build Technological advancements which offer countless flexible options and end user GUI opportunities for maximizing effective and efficient ROI to support the organization in the specified agreed services time. Both corporate and customer has different set of goals, both operate under the same principle to transform innovative ideas through disruption. All similar output results in successful business outcomes.

India Internet of things: - IIoT has emerged as one of the ‘Future latest updated upgraded must-use to watch’ transformed bandwidth technological developments to support the people across the Nation. IIoT refers to the Multiple Multilingual ways in which the local supported largely used end user devices with the localized features every unique thing liked by the larger masses using all type of smart phones & last mile available and affordable specific local taste wearable technologies developed and deployed through to house hold local support services appliances and local used vehicles, to promote and use the lighter sensors, less occupy apps and KPIs defined for simple machines to use the open source software and less bandwidth connectivity to collaborate and communicate or exchange data to the last mile across the country.

Build the customer corporate engaging model for an existing business or whether a new local business, earn to survive support in their local occupations like agriculture, manufacturing, engineering or healthcare, kirana shop, education support supply space, there is a huge competitive advantage for the technology products, services, secured solutions. The current and future plans to use and develop, deploy to go & adopt IIoT-based localized technologies earlier in their development stand to benefit significantly. IIoT E-commerce businesses can keep a real-time record of similar data belief behaviour business best benefits stock levels, which means they are able to more accurately track what they need to re-order and simultaneously save money, time, & efforts on performing automated tech support stock checks. Being able to collect and analyses real-time data from localized automated sensors within the product means that a small shop, or company or a startup can better understand how they should adapt and evolve their offering over time money and efforts.

Artificial Intelligence in India: - In India AI is data lake defined as “A Known Ethics to understand unknown Epics.” The purity of Machine learning & AI is already making easy and simple to keep our volume of data connecting our own lives easier & exciting through Belief behaviour. whether it is through automated Vehicles, self-driving smart cars, all in one tractors, Localized village used mobile’s Multi-lingual apps or through home assistants by Social media like Amazon, Google etc., Besides all these, Artificial Intelligence in India is being extensively used for identifying the entities specific in Cyber security fraud detection, for BFSI in personalized shopping experience & customer centric support in the ecommerce sector and many others. The original development in the AI Indian arena is driven locally and using multi-lingual by hundreds of local and global startups, which are collectively exploring what we can do and benefit with this futuristic technology.

Indian Augmented Reality and Virtual Reality: - IAR & IVR have been around for quite some time now, these futuristic technologies have significantly narrowed down the difference between the real rural & the virtual world. It will encourage developers to create more innovative IAR based on the localized apps. As a ROI result, it drives growth and benefits of the new business new products, new solutions, new services, new startups and both local and global entrepreneurs. It is also revolutionizing the whole mobile smart phone experience in the process. This has enabled multiple developers with more and more options of information capture and re-use to understand the future I (AR/VR).

Indian Business Customer Analytics: - In India Business Customer Analytics is an elegant digital ease demonstration of the multiple given choices of number-driven world. It is the tool that can infuse corporate and customer life into any failing future business we are living in a data-driven social society where numerous tools are available to track beyond boundaries the customer belief behaviour, habits, preferences, and purchases. These IBCA data help to get timely insights for making decisions about fleeting opportunities, precise answers for challenging problems and uncover new growth opportunities. On account of digital Transformation India campaign, there is a huge opportunity for such unique data-driven models for start-ups & entrepreneurs. In reality the new era Entrepreneurs, after analyzing this data, use this data as the foundation of new business new ventures, new marketing, new products secured services solutions and for much other purpose. **Indian Drones:** - In India, Drones are largely used to cover up the space to ensure both in rural and urban to track and service the track and trade business very successfully. we are living in the world where an entirely different & probably even bigger transportation revolution is happening using Drones. We can see multiple business benefits where people can’t reach Indian drones can do miracle. Now day’s drones are being extensively used for good deliveries across the world. Drone are also used for firefighting, policing, delivering, search & rescue operations, agriculture, filming remote rural locations. In India all of which previously required helicopters / cranes and considerably more human efforts. Drones are the future and entrepreneurs will leave no stone unturned to capitalize on this technology. Many of the above mentioned technologies have already been around for a few years, but these technologies are still in their nascent stage.

In future, it will provide bundle of opportunities to the current and the future generations of entrepreneurs. Serious efforts in these technologies will give livelihood to many entrepreneurs and transform the world for better. With recent smart technological upgraded updated advancements, the current approach towards both customer and corporate has gone through a great unique change. In future the real demand for Technology is beyond the facilitates prosperity in various multi-dimensional market dynamics set part of the new businesses focusing on the best quality products with localized services for both the individuals, Corporate & the nations.

Technology driven products services security solutions focus mostly on the current and future demand which is driving the force behind national economics and entrepreneurial societies. Based on such Basics technologies piloting the entire growth of corporate and customer creating new ideas, new products, new services, new industries, new areas altogether along the future digital transformational way.

STUDENT EDITOR



ABUBAKAR SIDDIQUE S – IVth YEAR



AMITH RAJ – IVth YEAR CSE



RUTHNA KUMAR – IIIrd YEAR



RAVI KUMAR K.S – IIIrd YEAR CSE



NAVEENKUMAR – IIIrd YEAR CSE



LOGESHWARAN.M – IVth YEAR CSE



AJITH KUMAR.M – IIIrd YEAR CSE

VISION AND MISSION

To be a National Leader in Research and Technical Education

Our Vision



Strive to prepare computing graduates who are highly wanted for productive and well-respected work to contributed in the field of computing areas in tune with state of art technology. Strive to carry out innovative research which adds to understanding of basic concepts. Strive to provide services to hardware and software industry through technology transfer and applied research.

About Department

Computer Science and Engineering was established in the year 1993. Currently the Department offers an under-graduate program (B. E) in Computer science and engineering with an intake of 120 students and post graduate program (M.E) in computer science and engineering with an intake of 18. The primary goal of CSE is to provide best IT infrastructure, world class learning & research environment, adopt industry practices through industry collaborations and inculcate moral and ethical values. The department also focuses on infusing confidence in the minds of students and to develop them as entrepreneurs. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them

PEOS

PEO1-Graduates will have successful career in Computer Science and related industries or pursue higher education and research or evolve as entrepreneurs

PEO2-Graduates will have the ability and attitude to adapt to emerging technological changes.

PEO3-Graduates will excel as socially committed engineers with high ethical values, leadership qualities and empathy for the needs of society

Program Outcomes Pos

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one 's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Emotion-Based Music Player



Everyone wants to listen music of their individual taste, mostly based on their mood. Average person spends more time to listen music. Music has high impact on person brain activity. User always face the task to manually browse the music and to create a playlist based on the current mood. This project is very efficient which generate a music playlist based on the current mood of user. However, the proposed existing algorithms in use are comparably slow, less accurate and sometimes even require use of additional hardware like EEG or sensors. Facial expression is a easy way and most ancient way of expressing emotion, feelings and ongoing mood of the person. This model based on real time extraction of facial expression and identify the mood. In this project we are using Haar cascade classifier to extract the facial features based on the extracted features from haar cascade, we are using cohn kanade dataset to identify the emotion of user. If the user's detected emotion is neutral then the background will be detected and the music will play according to the background. for example. If it detects gym equipment, the algorithm will automatically create a workout song playlist from the captured image of the background.

Abubakkar Siddique

Final Year, CSE

Online Parking Booking System



The proposed project is a smart parking booking system that provides people an easy way of reserving a parking space online using web portal. It overcomes the problem of finding a parking space in important areas that unnecessary consumes time. Hence, this project offers a web application-based reservation system where people can view various parking spaces and select nearby or specific area of their choice to view whether space is available or not. If the booking space is available, then people can book it for specific time slot. The booked space will be marked and will not be available for anyone else for the specified time. This system provides an additional feature of cancelling the bookings. People can cancel their reserved space anytime. people can also view previous parking booking details using the web portal.

Amit Raj

Final Year, CSE

Text-To-Voice Android Application



A Text-to-speech synthesizer is an application that converts text into spoken word, by analysing and processing the text using Natural Language Processing (NLP) and then using Digital Signal Processing (DSP) technology to convert this processed text into synthesized speech representation of the text. Here, we developed a useful text-to-speech synthesizer in the form of a simple application that converts inputted text into synthesized speech and reads out to the user which can then be saved as an mp3. file. The development of a text to speech synthesizer will be of great help to people with visual impairment and make making through large volume of text easier.

Pavithra G
Second Year, CSE

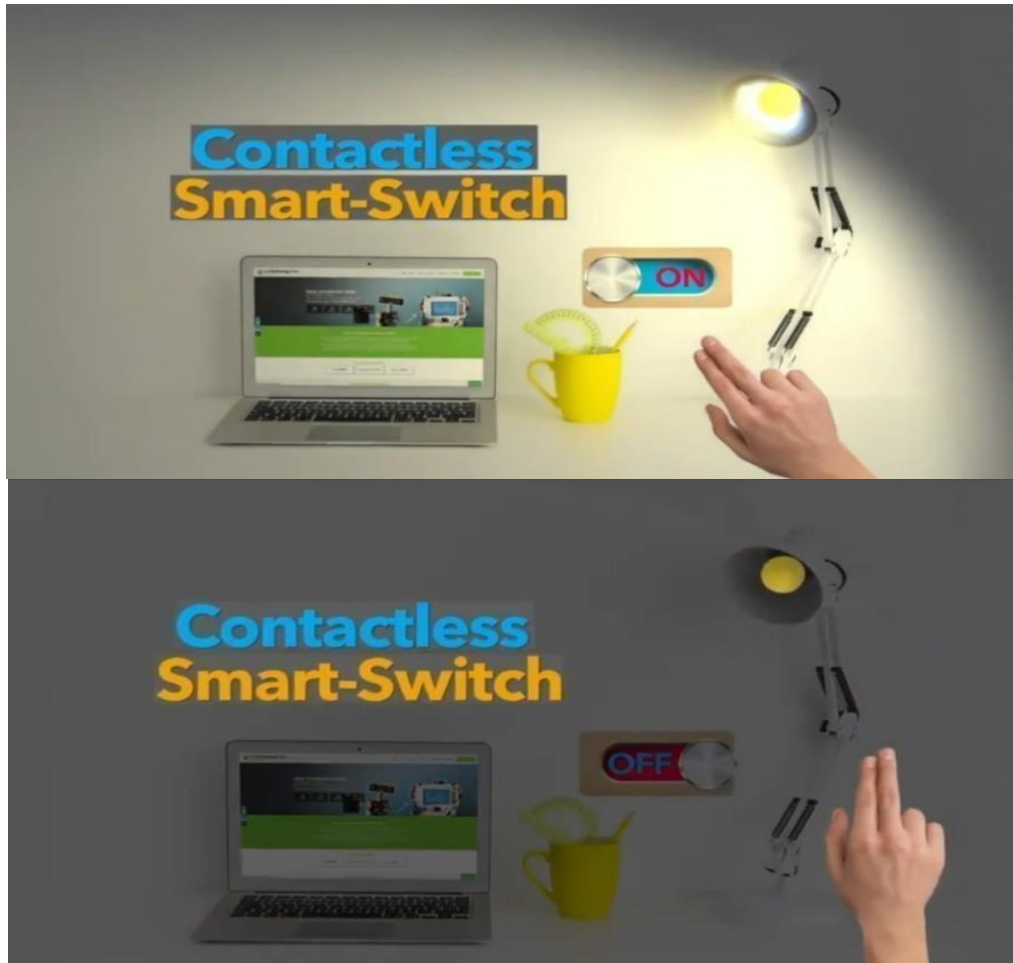
Hospital Sanitizing Robot



Service robots are increasingly present in all fields of medicine. This paper presents a review of the service robots in medicine with an emphasis on service robots for disinfection in medical institutions. It is shown and described how more and more disinfectant service robots are contributing to a very simple, fast and effective disinfection in medical institutions. Work of the service robot with all necessary components for its function as well as its good and bad sides are in details elaborated and clarified. The aim is to demonstrate the application and use these service robots in medical institutions. Use of these service robots reduces the risk of infection, cost of traditional cleaning and disinfection, and most importantly acquires confidence and security in medical facilities.

Mahesh C
Final Year, CSE

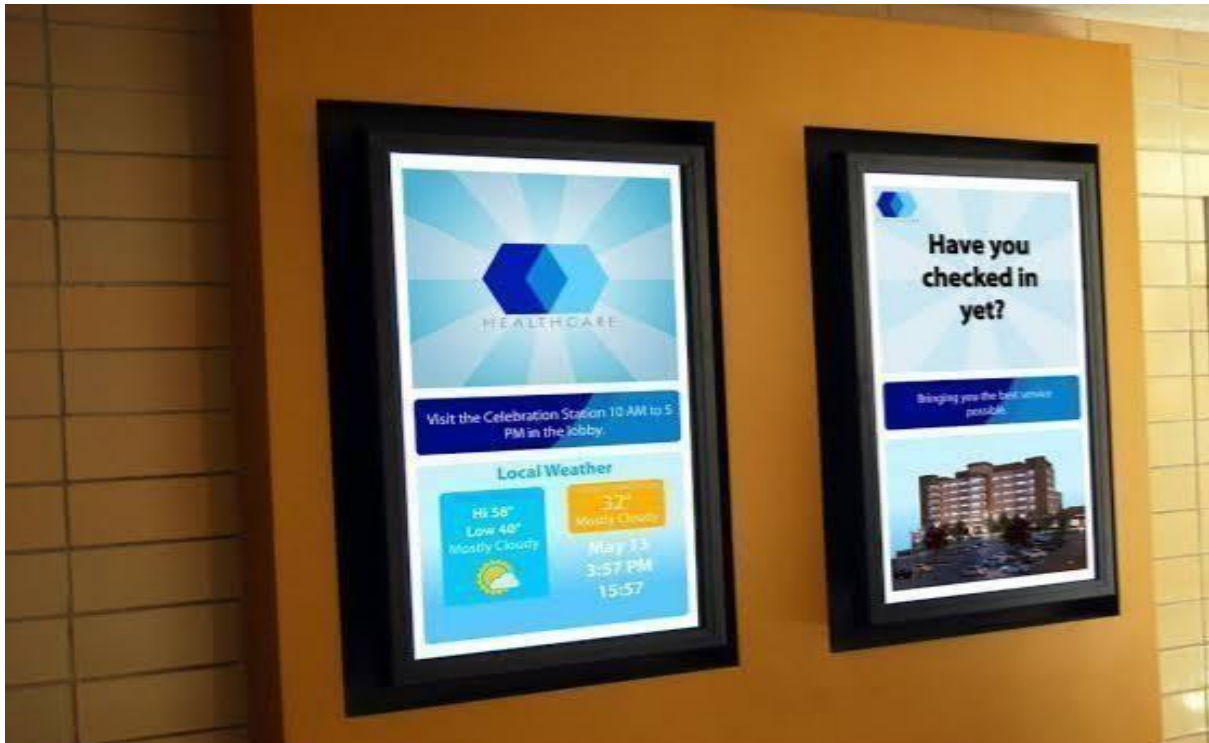
Automatic Contactless Switch



With increased technological advancements, switches require updating with current times. To innovate the switching technology for replacing a hand-operated switch, we will design a notouch switch that works entirely on hand gestures. Our smart switch includes a sensor that is capable of detecting hand movements and translates them into commands for controlling lights, fans and various home appliances. Now power the device and relay. When you will move your hand in an upward direction, the relay will be moved and lights will switch ON. Similarly, a hand gesture in downward direction will switch OFF the lights.

Divya S
Second Year, CSE

Smart electronic wireless notice board display over IOT



Notice boards are commonly used in variety of institutions which we come across in a daily basis. In the present generation the advertisement notice boards are being managed manually. This process is difficult to involve in order to put a notice on the notice board. This waste a lot of things like paper printer ink, manpower and also brings the loss of time. In this paper we have proposed a system through wireless transmit notices on a notice board using Wi-Fi. WiFi can pass information for about 100meter distance Wi-Fi data rate has 1 or 2 Mbps. It accesses numerous points and to support network interfaces. It also makes the system compatible with more than one wireless technology. In this wireless technology is used to transmit the notice on to the digital display. In this an authorized user sends the image of notice via personal computer using a client-based server over the Wi-Fi network towards the raspberry pi. Raspberry pi receives the notice and stores it in its memory and then display the images according to the program. The notice can be modified and altered according to client needs.

Priyanka E
Final Year, CSE

Smart Medicine Pill Box



Many medical errors are due to the fact that people in charge of patient or elder's medication have to deal with sorting huge amounts of pills each day. This paper consists on the conception, design and creation of a pillbox prototype intended to solve this deficiency in the medical area as it has the ability of sorting out the pills by itself as well as many other advanced features, with this device being intended to be used by hospitals or retirement homes. This medication pill box is focused on patients who frequently take medications or vitamin supplements, or attendants who deal with the more seasoned or patients. Our smart pill box is programmable that enables medical caretakers or clients to determine the pill amount and timing to take pills, and the service times for every day. Our shrewd pills box contains nine separate sub-boxes. In this manner, medical caretakers or clients can set data for nine distinct pills. At the point when the pill time has been set, the pillbox will remind clients or patients to take pills utilizing sound and light. The warning of pills should be taken will be shown by an android application which is held by the patient. Contrasted and the conventional pill box that requires clients or attendants to stack the crate each day or consistently. Our shrewd pill box would essentially discharge medical attendants or clients' weight on much of the time preloading pills for patients or clients and overlook the measurements which must be taken.

Ruthna Kumar S
Third Year, CSE

E-Ball Technology



The E-Ball concept pc is a sphere-shaped computer which is the smallest design among all the laptops and desktops. This computer has features of traditional computer elements like keyboard, mouse, DVD, large screen display. E Ball is designed such that pc is placed on two stands, opens by pressing and holding the two buttons located on each side of the E-Ball pc. This concept PC will measure 160mm in diameter and it was designed for Microsoft Windows OS. It is designed by APOSTOL TNOKOVSKI. E Ball concept pc doesn't have any external display unit. It contains wireless optical mouse, laser keyboard, and LCD projector. It has around 350600GB of Hard Disk Drive. It contains 5GB RAM. It has two 50W speakers. It has LAN and WLAN card and a Web cam. This device has an optical keyboard and a holographic display. So, you don't have a physical keyboard and no monitor! Still, the mouse is physical but it fits in to the computer when you want to carry it around. E Ball concept pc don't have any external display unit, it has a button when you press this button a projector will pop and it focus the computer screen on the wall which can be adjusted with navigation keys. If there is no wall then it has a paper sheet holder that divides into three pieces like an umbrella just after popping up, and it will show desktop on the paper sheet. Also, the E-Ball PC supports a paperholder and the paper sheet on the holder could act like a screen where you can watch movies or something. E-Ball concept pc has a laser keyboard that is fully a concept keyboard that is visible when the pc is in working. The keyboard is not physical - it is interpreted by lasers that appear after press the respective button. It recognizes your fingers with the help of an IR sensor when you are typing at a particular place, while the mouse is a pop out wonder making this an

existing piece of technology. The software interface of E-Ball concept pc is highly stylized with icons that can be remembered easily that support all type of windows operating system.

E-Ball concept pc work very easy while you are making video presentations, listening music watching large screen movies, and chatting on the net. There are five simple steps to ON pc, they are: press and hold the power button for 5 second, adjust the LCD Projector, detach the optical mouse, activate the virtual mouse and do whatever you want.

The Features of E-Ball are

PROCESSOR: Intel Core is a brand name. It is used for various mid-ranges to highend consumer and business microprocessor which are made by Intel.

RAM: RAM stands for Random Access memory. It gets the word random because the information can be accessed in non-sequential order. Though the data itself is stored, it could be anywhere in the amount of RAM available. RAM is measure in bits, and 8 bits equal to 1 byte. A kilobyte is equal to 1024 bits, and a megabyte is equal to 1024 kilobytes. The E-BALL pc uses 2 GB of RAM. It contains two types of RAM which are SRAM and DRAM.

HARD DRIVE: It is a secondary storage device. Hard drive is non-volatile in nature. It consists of metal plate covered with oxide that can be magnetized to represents data. Data can directly access from hard drive. The E-ball pc mostly consists of 350-500GB hard drive. **GRAPHIC & SOUND CARD:** A video card, display card, graphics card and graphics adapter are an expansion card which generates output images to the display. Most video cards offer various functions such as accelerated rendering of 3D scenes and 2D graphics, MPEG 2/MPEG-4 decoding, output, or the ability to connect multiple monitors. Other current high performance video cards are also used for more graphically demanding purposes like PC games. Video hardware is often integrated into them, all modern motherboards provide expansion ports to which a video card can be attached. In this design it is sometimes referred to as a video controller, a video card, graphics card, or graphics adapter is an expansion card controller There is no wall. Suppose, there is no wall in the place where you work on E-Ball, you can use a paper sheet provided to the PC as the screen. When the projector is pop out, the paper sheet holder will be divided into three pieces like an umbrella and you can see the desktop on the paper sheet. You can also watch movies, make presentation or any other thing on the paper sheet that is held by the paper holder of the E-Ball PC.

Advantages of E-Ball

It is portable and hand free, it has large memory i.e.,5 GB, it is useful for making video presentation, it supports user defined keyboard layouts, it is efficient, it is very easy to use and understand and it is more secure than other computers due to its shape.

Bharathi P
Third Year, CSE

Ethical Hacking



Ethical hacking, as the name suggests a hacking which is ethical. It is also called as penetration testing. This is the technique which is being used by number of professionals to do hacking but that is not illegal it is rather ethical. That is the reason it is to be called as ethical hacking. Though all the tools, tricks and techniques are used in this regard are the same as being used in hacking, but it is done with the consent of the target, that's why is not hacking it is ethical hacking. It is the way through which an ethical hacker will discover some vulnerability from the hacker's point of view so that the system can be made more secure and safe.

WHAT IS ETHICAL HACKING?

Ethical hacking is the term which is being used by professionals in order to make the system more secure and safe. A person will be called as an ethical hacker when he will not destroy the security of the system rather, he will take care of the security and safety of the system from the view point of the hacker. The person who is doing all these efforts are to be known as ethical hacker or white hat hacker. In the ethical hacking we have to make sure about the security of the system as far as information technology is concerned. As the name says itself ethical hacking, it has two meanings or definitions one which is the hobby or profession of a particular person who is interested to make career in this field. Another one who is breaking one's system for a purpose. Well, the first definition has become older in today's scenario whereas the second one has a meaning. The hacker culture began in the 1960s and 1970s as an intellectual movement: exploring the unknown, documenting the arcane, and doing what others cannot. Ethical hacking perfectly fits into the security life cycle as mentioned. It is actually a way to do the security assessment which can be checked from the technical point of view.

WHO ARE ETHICAL HACKERS?

Ethical hackers are mostly people with a good knowledge of operating systems and computer networks technology. An ethical hacker's knowledge is very much comparable to the one of a "real" hacker. It is known, that some black hats have been converted to white hats and are now using their knowledge on how to hack a system in an ethical way. Hiring ex-hackers as ethical hackers is very controversial. After all, an ethical hacker will see sensitive information and needs to be extremely trustworthy. During his assignment an ethical hacker may get access to sensitive and confidential customer information where he will see and discover customers' weak points. Therefore lot of companies don't believe to hire previous hackers to do their ethical hacks. As per their understanding by doing so the risk and insecurity level is very high. According to them previous employees know each and every thing from the root so they can easily destroy the present system. As already pointed out, one of the main requirements for an ethical hacker is its trustworthiness. The customer needs to be 100% certain that information found by the ethical hacker won't be abused. Another very important ability is patience. An ethical hacker is most trustworthy employee for the organisation who is hired to check about the vulnerabilities and other issues in the computer network system to maintain its security and safety. One another truth is lying in this case that gaining access to Somebody's computer system or network without his consent is a crime whereas the penetration testing with the consent of target is not a crime rather in this case target is interested to make proper arrangement and other security for his system. There are so many certified ethical hackers are in the IT.

TYPES OF HACKERS

There are basically three types of hackers on the basis of their way of doing and what their intentions behind for hacking are.

A. WHITE HAT HACKER

White hat hackers are those hackers who are gaining access into the system or computer network with the consent of the target to find out the vulnerabilities and security flaws in the present system. They are actually helping the organisation or individual by making them aware about such flaws. These types of professionals are hired by computer security companies. White hat hackers are also called as sneakers. In the company when there are more than one sneaker then the group of such professionals are called as "tiger team". So, we can say that white hat hacker is actually an ethical hacker who is opposing all exploitation in the computer system, ethically.

B. BLACK HAT HACKER

A black hat hacker is a person who is exploiting the computer system or computer network without the consent or permission from any authorised party. His main goal is to do any kind of mishap to the system. Basically, black hat hacker is a kind of person who uses his knowledge of vulnerabilities to exploit any system. He is much more concerned with his private gain.

These persons are not interested to reveal them in the public. They may write their own code to destroy the entire system and its security for their private interest and gain.

C. GREY HAT HACKER



A grey hat hacker is a person who is skilled enough to act as a good or bad in both ways. At times grey hat hacker can act legally and at times he may act illegally. Grey hat hackers generally do not hack the system for their personal gain. They normally don't have any kind of nasty intentions, but they may commit a crime while using technology. A grey hat hacker will not report to the system administrator for any kind of dissemination. Hacking may be defined as legal or illegal, ethical or unethical. As we all know that technology is growing so fast and it will continue to do so. With the technological development there are many faces of one technology. Human mind is very powerful tool and actually has no control. Hackers will always find some way out to get into the system, irrespective of seeing good or bad intentions. It is my hope that in future Hackers and ethical hackers will have different ways out for doing the things. They will be differentiated according to the work given to them. No ethical hacker will be considered as hacker. But as an end user we also make sure for few things like we have to keep ourselves updated and have sufficient knowledge about that software which are being used for official purpose. We have to use only that software which is coming from reliable sources. We have to use every potential security dealing like Honey Pots, Intrusion Detection Systems and Firewalls etc. We also make sure that every time our passwords must be strong and difficult to crack by any hacker.

Dhivesh B
Final Year, CSE

RIDDLES

1. I'm tall when I'm young, and I'm short when I'm old. What am I?
2. What is always in front of you but can't be seen?
3. A man dies of old age on his 25 birthdays. How is this possible?
4. What's long and hard and has cum in it?
5. Two in a corner, 1 in a room, 0 in a house, but 1 in a shelter. What am I?
6. When does $11+3=2$?
7. What word is pronounced the same if you take away four of its five letters?
8. What English word has three consecutive double letters?
9. A is the brother of B. B is the brother of C. C is the father of D. So how is D related to A?
10. The answer I give is yes, but what I mean is no. What was the question?

ANSWERS

1. a candle
2. The future
3. He was born on February 29
4. A cucumber
5. The letter "R"
6. On a clock
7. queue
8. Bookkeeper
9. A is D's aunt
10. "Do you mind?"

ALUMINI TALK

Firstly, ARUNAI COLLEGE OF ENGINEERING is not a college, it is a brand. It is unique in its field. Discipline is like in the air of its environment. I am so grateful to be a part of this college. There are so many opportunities to develop one's personality in any field like, cultural, sports and many more. It was very precious and golden phase of my life. The entire faculty and other members of this institution are very cooperative. I got a lot of love and support from my teachers & colleague and it made my 4 yrs. memorable for me.

Manoj D

(2015-2016 Batch)

My College days are unforgettable and in fact those days are the happiest & fruitful days in my life. I proudly feel that I cherished every moments of my college. Being a "cseian" make me feel proud. My experience in AEC was just amazing. I got infinite love & lessons from my teachers, there teachers made me do "Work Hard" for the way to success. Miss those days of AEC. Just want to thank to the wonderful faculty of AEC....I am proud to be a ARUNAI Student.

Sangavi M

(2015-2016 Batch)

As I walk across the empty hall I look back, count my steps in this college, my sanctuary. I have walked this path many times but it's different every day. With each step, each sound.... I have here a memory, a laugh, a cry, a part of myself. As I open the door, I pause for a moment, and I think to myself.... I'm going to start a new, a fresh, another begging!

Ajay Kumar E

(2015-2016 Batch)

"Pursuing a course from ARUNAI was the best thing that happened to my career. My stint here proved to be a turning point in my life. The institute emphasizes on sharpening basic fundamentals while enhancing the student's communication skills. The course taught me the nuances of visualizing my final product and making a winning presentation to the client. I look back at my days at ARUNAI as building blocks to my career. As a successful interior consultant, I am proud to be an AEC Alumnus."

Nandhini M

(2015-2016 Batch)

