

Approved by AICTE Affiliated to Anna University An ISO 9001 : 2015 Certified Institution

# Department of Computer Science and Engineering

i - Grow Association

# THE BYTE



www.arunai.org







## 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.

Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues. 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.

I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine.

# **PRINCIPAL'S DESK**

Dr.R.Ravichandran Principal



#### Pearls from the Principal Pen...

It gives me immense pleasure to note that CSE department has come out with this e-magazine, in the name of "The Byte". The wide spectrum of articles in different sections shows that our students and professors have put in a great deal of hard work and original thinking in ample measures. Each article is entertaining, interesting and absorbing. I applaud the contribution from all concerned students and faculty for their innovative thoughts and varied hues in articles articulated by them.

The Editorial Board has done a commendable job in planning for and producing the magazine. My congratulations to the team who took the responsibility for the arduous task most effectively. I am hopeful that this small piece of technical work shall not only develop the taste for reading among students but also develop a sense belonging to the Institution as well. The importance of education and time is profoundly emphasized by Thomas Jefferson "Every day is lost in which we do not learn something useful. Man has no nobler or more valuable possession than time."

# 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.



## **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 transformed innovative ideas through disruption.

India Internet of things: - IIoT has emerged as one of the 'Future latest updated upgraded' technological developments to support the people. IIoT refers to the Multiple Multilingual ways in which the last mile available and affordable specific local taste wearable technologies developed and deployed through house hold local support services appliances, less occupy apps and KPIs defined for simple machines to use the open-source software and less bandwidth connectivity to collaborate and communicate amoung people. 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. The current and future plans are to adopt IIoT-based localized technologies earlier in their development stand to benefit significantly. IIOT E-commerce businesses 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. A company or a startup can better understand how they should adapt and evolve their offering over time money and efforts.

## **CSI CHAIRMAN'S DESK**

Artificial Intelligence in India: - In India AI is 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. Localized village used mobile's Multi-lingual apps or through home assistants by social media. Artificial Intelligence in India is being extensively used for identifying the entities specific in Cyber security fraud detection, for BFSI. 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: - I**AR & IVR has made the 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 services, new startups and both local and global entrepreneurs. This has enabled multiple developers 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 and acts as a tool that can infuse corporate and customer life into any failing future business. These IBCA data help to get timely insights for making decisions about fleeting opportunities, precise answers for challenging problems. 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. 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. Drones are the future and entrepreneurs will leave no stone unturned to capitalize on this technology. 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. In future the real demand for Technology is beyond the facilitates prosperity in various multi-dimensional market dynamics focusing on the best quality products.

#### STUDENT EDITORS DESK





#### VISION AND MISSION



To be a National Leader in Research and Technical Education.

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.



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

**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.

### **AUTOMATED FIRE DETECTION**



- ✓ A Fire Detection System is number of devices working together to detect and warn people through visual and audio appliances when smoke, fire, carbon monoxide or other emergencies are present. Development of automatic and intelligent video surveillance systems has been the core trend in the security and guard service industry.
- ✓ By observing and utilizing features of fire event, a fast and exact detection process is developed for early fire warning purpose thus to reduce the loss caused by fire accidents. The proposed Fire alarm system is a real-time monitoring system that detects the presence of fire and captures images via a camera installed inside a room when a fire occurs.
- The embedded system used to develop this fire alarm system is Raspberry Pi. The key feature of the system is the ability to remotely send an alert when a fire is detected. When the presence of fire is detected, a notification is sent through GCM to a custom app along with a URL of the webpage containing images of fire captured by the installed camera. The system will display an image of the room state in a web page.

KARTHIKEYAN S FINAL YEAR, CSE

I- GROW

## **SMART ASTHMA INHALER**



- ✓ The IoT allows objects to be sensed and controlled remotely across existing network infrastructure creating opportunities for more direct integration between the physical world and computer-based systems, and resulting in improved efficiency, accuracy and economic benefit. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing internet infrastructure.
- Untreated asthma limits the ability to live an active life, still many asthmatics does not have the level of control over their asthma as they could have. In addition, about 50% of the asthmatics use their inhaler incorrectly, which affects the result of the medicine negative. The asthma inhaler is central in an asthmatics living and has great potential for development towards a modern asthma monitoring tool and could possibly improve the user's overall asthma knowledge.
- ✓ The proposed system "Smart Asthma Inhaler" monitors the patients health conditions, tracks the location and the time the inhalers are used so as to provide suitable medication to the patients once the reports are analysed by the physicians involved.

HARISH R THIRD YEAR, CSE

## **BLIND AID - TRAVEL AID FOR BLIND**



- ✓ Visually impaired people face many problems in their day to day lives. Among them, outdoor navigation is one of the major concerns. The existing solutions based on Wireless Sensor Networks(WSN) and Global Positioning System (GPS) track ZigBee units or RFID (Radio Frequency Identification) tags fixed on the navigation system. The issues pertaining to these solutions are as follows:
  - 1. It is suitable only when the visually impaired person is commuting in a familiar environment.
  - 2. The device provides only a one way communication.
  - 3. Most of these instruments are heavy and sometimes costly. Preferable solution would be to make a system which is easy to carry and cheap.
- ✓ The objective of this paper is to break down the technological barriers, and to propose a system by developing an Android App which would help a visually impaired person while traveling via the public transport system like Bus. The proposed system uses an inbuilt feature of smart phone such as GPS location tracker to track the location of the user and Text to Speech converter. The system also integrates Google Speech to Text converter for capturing the voice input and converts them to text. This system recommends the requirement of installing a GPS module in buses for real time tracking. With minor modification, this App can also help older people for independent navigation.

ABDUL RAHEMAN.S SECOND YEAR, CSE

#### **VEHICLE MANAGEMENT SYSTEM**

0	Vehicle Management System	~ • ×
A REAL PROPERTY AND A REAL PROPERTY A REAL		
Vehicle Management System	Requests Vehicles	
	Persons Trips	
User: Hepburn, Audrey	Copyright © 2016 Maria Romanova	Version No.

- Vehicle Management System is software which is helpful for bus operators, who wants to operate many bus trips in a day. Vehicle Management System is a windows application written for 32-bit Windows operating systems which focused in the area of adding, editing and deleting the passengers, staff and the bus routes. In this software a person can be register as a user and he can manage the bus routes and the staff, passengers' details. He can add a bus and its details including bus route details. User can also add the details of the staff and their duty time in the system. Vehicle Management System is developed and customized for commercial fleet owners and organizations.
- ✓ Its modules support most type of vehicles (passenger, Truck, construction and other commercial vehicles). It really reduces your vehicles cost while increasing performance and dependability. Track your tax-deductible business miles and travel expenses Eliminate costly unscheduled maintenance. Increase the resale value of all your vehicles.
- Keep accurate records for any type of vehicle. Help you plan annual vehicle budgets faster, easier and more accurately Keep track of Party Ledgers Payment Receipt) Keep track of Driver and other employee ledgers.
- Project Developed in Single Servlet, with the Aim to get all request to a single servlet, with the Aim to get all request to a single servlet. It uses MySQL as a Database.

7

ANBARASAN A FINAL YEAR, CSE

#### **STUDENT INFORMATION SYSTEM**

STUDENT INFORMATION SYSTEM			
FIRST NAME:			
LAST NAME:			
SESSION:	Select Session 💌		
ROLL NO:	Primary Key		
BRANCH	Select Branch 💌		
YEAR:	Select Year -		
SEMESTER:	Select Semester 💌		
Date Of Birth(DD-MM-YYYY)	select day 💌 select mounth 💌 select year 💌		
ADDRESS:			
	UPDATE		

The Student Information System is a secure, confidential collection of data about students attending early college high schools throughout the United States. The SIS provides information and analyses to guide the development and improvement of early college high schools. It also provides evidence on how well early college high schools are achieving their mission: to help young people progress toward the education and experience they need to succeed in life and a family-supporting career.

- ✓ Jobs for the Future coordinates the SIS and analyzes school and student outcomes and trends. JFF is a non-profit organization with overall responsibility for coordinating the Early College High School Initiative nationwide. EDsmart, a leader in data systems for school districts, and Policy Studies Associates provide support for the development of the SIS, including the engagement of local school districts and higher education institutions in the effort.
- ✓ The SIS includes information about each student's academic achievement in early college high school, prior academic achievement going back to at least the eighth grade, and college attainment after graduation from early college.

MEIYAZHAGAN V THIRD YEAR, CSE



#### VEHICLE THEFT NOTIFICATION AND ENGINE LOCKING



- ✓ The main purpose of this project is to prevent vehicle theft. This functionality is achieved by detecting vehicle status in theft mode and by sending an SMS which is generated automatically. This SMS is then sent to the owner of the vehicle. The owner can then send back the SMS tin order to disable the ignition of the vehicle.
- ✓ How the system works is when a person tries to steal the vehicle, the microcontroller is interrupted and the command is sent to the GSM modem to send SMS. On the receipt of the message, the owner sends back the SMS to the GSM modem. This is done in order to stop the engine.
- ✓ This GSM modem is interfaced to the microcontroller. This microcontroller on the receipt of the message uses a mechanism that helps to stop the engine. Motor is being used in this project in order to indicate vehicle ON/OFF state. Further enhancement can be done to this project by using a GPS system.

AJITHKUMAR M FINAL YEAR, CSE

## **BIOMETRIC ATTENDANCE SYSTEM**



- ✓ Here we propose a smart fingerprint based biometric attendance system that works over IOT so that attendance can be monitored from anywhere in the world. Our system uses a microcontroller based circuit with fingerprint sensor, push buttons, power supply, power supply and wifi modem to interact with internet based system.
- We here use IOTGecko to develop the online attendance display system. Our system allows users/employees/students to first register their fingerprint on the system. After successful registration the print is stored in system with class assigned using push buttons.
- The system also displays these details over LCD display. Now the online system stores and displays the required data to users as per online login. Thus our system allows for remote monitoring of biometric based attendance from anywhere over IOT.

AADHITHIYA MURALITHARAN SECOND YEAR, CSE

#### UNDERGROUND CABLE FAULT DETECTOR



- This IOT technology that allows the authorities to monitor and check faults over internet. The system detects fault with the help of potential divider network laid across the cable. Whenever a fault gets created at a point shorting two lines together, a specific voltage gets generated as per the resistors network combination.
- This voltage is sensed by The microcontroller and is updated to the user. The information conveyed to the user is the distance to which that voltage corresponds to.
- The microcontroller retrieves the fault line data and displays over LCD display, also it transfers this data over internet to display online. We use IOTGecko to develop the online system that links with the system to display the cable faults online.

Gayathri B FINAL YEAR, CSE

#### RASPBERRY PI VEHICLE NUMBER PLATE



- This system uses a camera along with LCD display circuit interfaced to a Raspberry pi.
- The system constantly processes incoming camera footage to detect any trace of number plates.
- On sensing a number plate in front of the camera, it processes the camera input, extracts the number plate part from the image.
- Processes the extracted image using OCR and extracts the number plate number from it.
- ✓ The system then displays the extracted number on an LCD display.
- Thus we put forward a fully functional vehicle number plate recognition system using Raspberry Pi.

KAVIYARASU B THIRD YEAR, CSE



- ✓ Security is a big issue for all networks in today's enterprise environment.
- Many methods have been developed to secure the network infrastructure and communication over the Internet, among them the use of firewalls, encryption, and virtual private networks.
- ✓ Intrusion detection is a relatively new addition to such techniques.
- ✓ IDS protect a system from attack, misuse, and compromise.
- ✓ It can also monitor network activity.
- Network traffic monitoring and measurement is increasingly regarded as an essential function for understanding and improving. The performance and security of our cyber infrastructure.

Aadhi Narayanan M FINAL YEAR, CSE

I- GROW

## **AIR POLLUTION MONITORING**



- ✓ This is One of the best ideas to start experimenting you hands-on IoT projects for students is working on Air pollution monitoring system. Air pollution is a menace in all parts of the world, and monitoring air pollution levels is a challenge that we're facing. While traditional air pollution monitoring systems fail to monitor air pollution levels successfully and the contaminants, IoT-based air pollution monitoring systems can both monitor the level of air pollution in cities and save the data on web servers for future use.
- ✓ This smart air pollution monitoring system promotes a cost-efficient technique of determining air quality. The system is embedded with sensors that specially monitor five components of the Environmental Protection Agency's Air Quality Index ozone, carbon monoxide, sulfur dioxide, nitrous oxide, and particulate matter. Plus, the system also includes a gas sensor that can alert users in case of gas leaks or the presence of flammable gases. Apart from this, there's also a temperature and humidity sensor.

HEMANTH S THIRD YEAR, CSE

#### **SMART PARKING SYSTEM**



- ✓ Smart parking system with cities and urban areas getting crowded by the minute, finding a parking space is nothing short of a challenge. It is not only time-consuming but also quite frustrating. Thanks to IoT, there's a solution for solving the parking problem crisis.
- ✓ This IoT-based smart parking system is designed to avoid unnecessary travelling and harassment in the search for an appropriate parking area. This is an excellent IoT projects for beginners.
- ✓ So, if you are at a parking space, this system uses an IR sensor to monitor the entire area during the run time and provide you an image for the same.
- ✓ This allows you to see any free spaces in the parking lot and drive straight to it without wasting any time in looking for a parking space.
- ✓ Also, the system is tuned to open the car gate n only if there are empty slots available in a parking space.

Raja Simmon P FINAL YEAR, CSE

### **SMART ANTI - THEFT SYSTEM**



- Security is one of the primary choices for homes, businesses, and corporations. Having a robust security system helps to keep unwanted intruders at bay. The IoT-based anti-theft system is the perfect solution for safeguarding homes as well as industrial enterprises.
- ✓ This IoT-based security system is programmed to monitor the entire floor of the building for tracking any kind of unusual movement. When turned on, a single movement could trigger an alarm, thereby alerting the owners of the property about unwanted visitors.
- ✓ It works something like this whenever you vacate a house or a building, the Piezo sensor is turned on for tracking any movement in and around the property. This is one of the best IoT projects to practice.
- ✓ So if an intruder were to enter the property, the sensor would send the data to the microcontroller, which then converts it into a signal for the camera to snap a picture of the intruder. This picture is then automatically sent to the users on their smartphone. Mentioning IoT projects can help your resume look much more interesting than others.

16

HEMADHARSHINI G THIRD YEAR, CSE

#### **DEPARTMENT OF CSE**

I- GROW

## **SMART AGRICULTURE**



- One of the best ideas to start experimenting you hands-on IoT projects for students is working on smart agriculture system.
- ✓ As the name suggests, this IoT-based project focuses on developing a smart agricultural system that can perform and even monitor a host of farming tasks.
- ✓ For instance, you can schedule the system to irrigate a piece of land automatically, or you can spray fertilizers/pesticides on the crops wirelessly through your smartphone.
- ✓ Not just that, this IoT-based project can also successfully monitor soil moisture.
- ✓ Such an advanced system can handle the routine agricultural tasks, thereby allowing farmers and cultivators to focus on more manual-intensive agricultural tasks.

17

#### **GOKUL R**

SECOND YEAR, CSE



## **SMART ALARM CLOCK**



- I- This is one of the interesting IoT project ideas. This IoT-based alarm clock functions not only as an alarm clock to wake you up every morning, but it can convert into a fully-functional device capable of performing other tasks as well. The features of this smart alarm clock include.
  - Voice command option to execute standard commands and also to initiate a video chat.
  - A text-to-speech synthesizer
  - Automatic display brightness adjustment
  - Audio amplifier volume control
  - Alphanumeric screen for displaying text
- II- Apart from these features, you can also add customizable features on the smart alarm clock. Interestingly enough, the alarm clock offers three ways of waking you up – by playing local mp3 files, by playing tunes from the radio station, and by playing the latest news updates as podcasts.

ABARNA K FINAL YEAR, CSE

#### **DEPARTMENT OF CSE**



#### **Smart Garage Door**



- ✓ Yes, you can use IoT technology to control and operate your garage door!
- ✓ The IoT-based smart garage door eliminates the need for carrying bulky keychains.
- ✓ All you need is to configure and integrate your smartphone with the home IoT network, and you can effortlessly open or close your garage door with just a few clicks of a button.
- ✓ This smart garage door system incorporates laser and voice commands and smart notifications for monitoring purposes, and also IFTT integration that allows you to create custom commands for Google Assistant.
- ✓ The smart notification option can trigger alerts in real-time to notify as and when the garage door opens or closes, which is a nifty addition.
- ✓ This is one of the most straightforward IoT project ideas for you to work on.

AADHITHIYA MURALITHARAN SECOND YEAR,CSE

#### Weather Reporting System



- ✓ This is one of the excellent IoT project ideas for beginners. This IoT-based weather reporting system is specifically designed to facilitate the reporting of weather parameters over the Internet.
- ✓ This is one of the best IoT projects where the system is embedded with temperature, humidity, and rain sensors that can monitor the weather conditions and provide live reports of weather statistics.
- It is an always-on, automated system that sends data via a microcontroller to the webserver using a WIFI connection.
- ✓ This data is updated live on the online server system. So, you can directly check the weather stats online without having to rely on the reports of weather forecasting agencies.
- The system also allows you to set threshold values and alerts for specific instances and notifies users every time the weather parameters cross the threshold value.

HEMANTH S THIRD YEAR, CSE

#### THINKING OUT OF BOX



A gentleman was walking through an elephant camp, and he spotted that the elephants weren't being kept in cages or held by the use of chains. All that was holding them back from escaping the camp, was a small piece of rope tied to one of their legs. As the man gazed upon the elephants, he was completely confused as to why the elephants didn't just use their strength to break the rope and escape the camp. They could easily have done so, but instead, they didn't try to at all.

Curious and wanting to know the answer, he asked a trainer nearby why the elephants were just standing there and never tried to escape.

**The trainer replied:** "when they are very young and much smaller we use the same size rope to tie them and, at that age, it's enough to hold them. As they grow up, they are conditioned to believe they cannot break away. They believe the rope can still hold them, so they never try to break free."

The only reason that the elephants weren't breaking free and escaping from the camp was that over time they adopted the belief that it just wasn't possible.

#### Moral of the story:

"No matter how much the world tries to hold you back, always continue with the belief that what you want to achieve is possible. Believing you can become successful is the most important step in actually achieving it."

#### RIDDLES

- ✓ What has to be broken before you can use it?
- I'm tall when I'm young, and I'm short when I'm old. What am I?
- ✓ What month of the year has 28 days?
- ✓ What is full of holes but still holds water?
- ✓ What question can you never answer yes to?
- ✓ What is always in front of you but can't be seen?
- There's a one-story house in which everything is yellow. Yellow walls, yellow doors, yellow furniture. What color are the stairs?
- ✓ What can you break, even if you never pick it up or touch it?
- ✓ What goes up but never comes down?
- ✓ A man who was outside in the rain without an umbrella or hat didn't get a single hair on his head wet. Why?

### ANSWERS

- ✓ An egg
- ✓ A candle
- ✓ All of them
- ✓ A sponge
- ✓ Are you asleep yet?
- ✓ The future
- ✓ There aren't any—it's a one-story house.
- ✓ A promise
- ✓ Your age
- ✓ He was bald.

## ALUMNI TALK

I had the pleasure of completing my graduation from AEC under the guidance of highly efficient Professors and Management. From the first day itself the institute has surprised me with such a phenomenal step by step learning process. I am proud today that I was student of AEC. Well experienced and well qualified teaching faculty encourage and guide students through their sound card and systematic methodology.

My college had provided a basic foundation so that I could create my career the way I would want to and the credit shall go to my college for that what I am now, Whatever heights I have reached. I thank my college teachers and all my friends without whom I would not have been here. Engineering course is not just a process of earning a bachelor's degree. It is a period which defines your life.

AEC is a college with a very good environment. Ground of college is well maintained. Teaching facilities in the college are excellent. The college provided us air conditioned transport facility. The library of the college is also well equipped with all types of books. The college also conducts extra curricular activities to unearthed the hidden talents of the students.

When I first entered AEC I was anxious about my future. Over the four years, so many doors were opened for our personal and academic development that I became confident. The college aims at enhancing our knowledge, skills and abilities. It, in fact, didn't leave the attitude part behind as well. These years at AEC are the best years concerning learning, experience and gaining exposure to fields relevant to my discipline, all due to my faculty member.

ISWARYA M (2016-2020)

ABUBAKKAR SIDDIQUE.S (2016-2020)





www.arunai.org





I- GROW

#### CONCLUSION



# INNOVATION NEVER ENDS...