ARUNAI
Engineering College
Tiruvannamalai,TamilNadu

Approved by AICTE Affliated to Anna University
Acrredited by NAAC and ISO 9001 : 2015 Institution


## Department of
## Computer Science and Engineering
&
## *i -Grow Association*

# THE BYTE

**JUN**
2019

"If you want something new, you have to stop doing something old."

www.arunai.org

# Content



# 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 moreimportant, than the idea itself. "The Byte" represents a cloud with a silver lining for the world of technology. Itaims to inspire and nurture upcoming engineers to bring a revolution in this ever-evolving world of technology.The magazine captures the current technologicaladvancements

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 bean 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 MESSAGE

**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

Department of CSE

**Mr.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.

# Student Desk

**Kalai Selvan P**
Final Year CSE

**Divesh B**
Third Year CSE

**Ajay Kumar E**
Final Year CSE

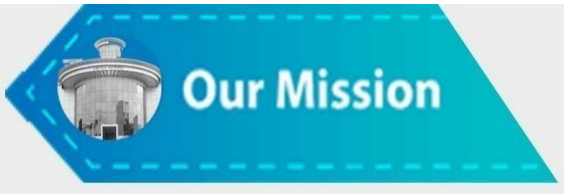
**Iswarya M**
Third Year CSE

**Manoj D**
Final Year CSE

**Arun Kumar T**
Third Year CSE

# 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

# 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.

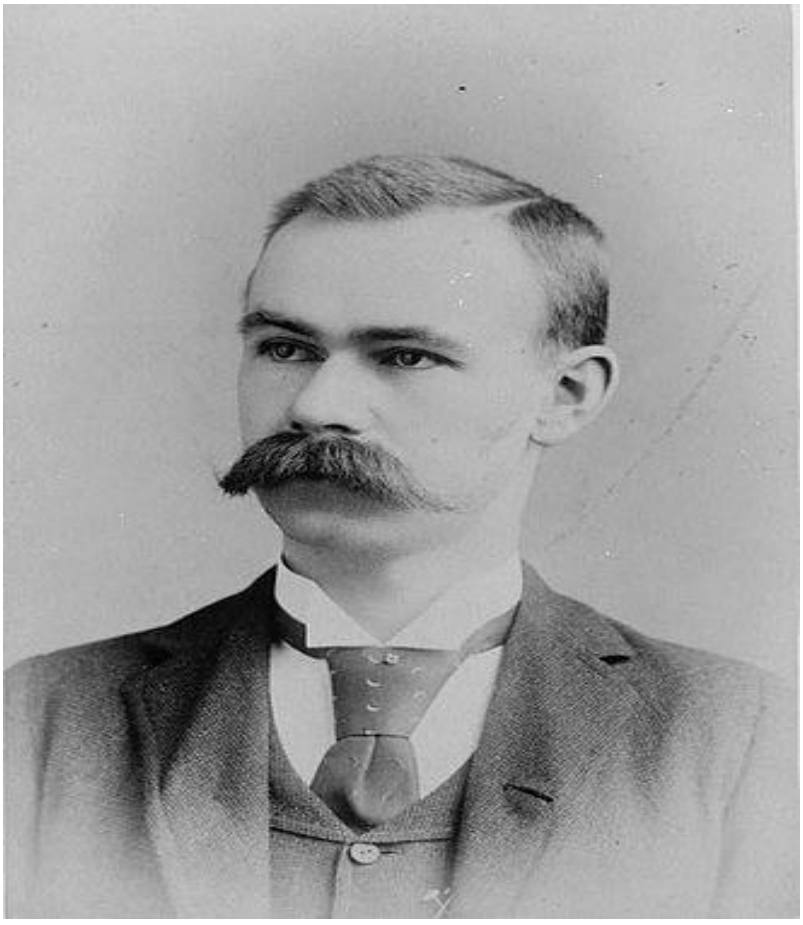
**Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**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.

# Scientist of the Quarters



Herman Hollerith

(February 29, 1860 – November 17, 1929) was an American businessman, inventor, and statistician who developed a method for machines to record and store information on punch cards for the US census. Hollerith's machine was approximately ten times faster than manual tabulations and saved the census office millions of dollars. Hollerith would later form the company we know today as IBM Company. The Hollerith Electric Tabulating System, specializing in punched card data processing equipment. Hollerith became an assistant to his teacher William P. Trowbridge in the U.S. census of 1880. During the next decade he taught briefly at the Massachusetts Institute of Technology, Cambridge; experimented on air brakes; and worked for the Patent Office in Washington, D.C. During all this time he was occupied with the problem of automating the tabulation work of the census. By the time of the census of 1890, he had invented machines to record statistics by electrically reading and sorting punched cards that had been numerically encoded by perforation position.

He provided tabulators and other machines under contract for the Census Office, which used them for the 1890 census. The net effect of the many changes from the 1880 census: the larger population, the data items to be collected, the Census Bureau headcount, the scheduled publications, and the use of Hollerith's electromechanical tabulators, was to reduce the time required to process the census from eight years for the 1880 census to six years for the 1890 census. In 1896, Hollerith founded the Tabulating Machine Company. Hollerith's machines were used for censuses in England, Italy, Germany, Russia, Philippines etc and again in the 1900 census. He invented the first automatic card-feed mechanism and the first keypunch. These inventions were among the foundations of the data processing industry and Hollerith's punched cards (later used for computer input/output) continued in use for almost a century.

# NFC Enabled Rings


Electronic payments company Visa is an official service provider at the Olympics, and it has also picked this event to introduce its Visa Payment Ring, the first ever NFC-enabled wearable. This will allow them to make purchases by simply tapping it at any of the 4,000 NFC-capable payment terminals that Visa has set up at all venues. The Visa ring uses a secure microchip with an embedded NFC antenna that enables contactless payment capabilities.

R Bhavana
Third Year, CSE

# Hykso


Hykso makes a device that boxers and MMA fighters can use to capture performance data, helping them to measure and improve their punching skills. The result was to enable a multi-user scenario by extending sensor data from the local device to the cloud via Azure Event Hubs, coupled with Stream Analytics. Hykso counts how many punches are thrown, along with details like type (jab, cross, left right power), time, speed and strike intensity. It uses a 3-axis accelerometer and gyroscope to record these metrics, while the app helps the coach reassess a boxer's technique and attacking strategy.

Yuvasri
Third Year, CSE

# Halo Sport


The Olympics are all about athletes performing at their optimum, and US' Halo Neuroscience is helping them achieve that top form. Their technology takes the shape of a pair of headphones called Halo Sport that sends pulses of energy to the wearer's brain to improve its response to training. This form of "neuropriming" enables the motor cortex to send stronger signals to muscles to help athletes see better results, faster.

Ruthna kumar S
Second Year, CSE

# Whoop 2.0


During these games, athletes will be using all kinds of sensor technology, including a wearable called the Whoop 2.0 wristband that monitors and the records its wearer's heart rate, ambient temperature, motion (via a 3-axis accelerometer), sleep patterns and more. its companion app converts this raw data into analytical advice about when the athlete should rest, warn him or her about strain and bring about a change in diet to reduce injury and improve recovery times. By providing me with actionable knowledge, it’s a device that has pushed me to make changes that have made a difference; changes I feel are sustainable. For me, that’s the difference between Whoop and every other wearable I’ve ever tested.

Sainivetha S
Second Year, CSE

# Vert Jump Monitor


There are sensors for specific sports like the Vert Jump Monitor for the US women's volleyball team and the Hykso Tracker for the Canadian boxing team. The Vert relays the number of jumps and the height achieved by a player to its companion app in real time. This helps the coach to observe which player is over exerting, make quick decisions to switch positions on the court and prevent injuries. The VERT device was demonstrated to be a very practical tool to assess jump performance. Not only does it provide real-time information to coaches, via wireless communication, but it also can record the data for further analysis. It is a valid and accurate tool to quantify the volleyball attack and block jump performances in the field, with acceptable validity and accuracy for use during training and competition.

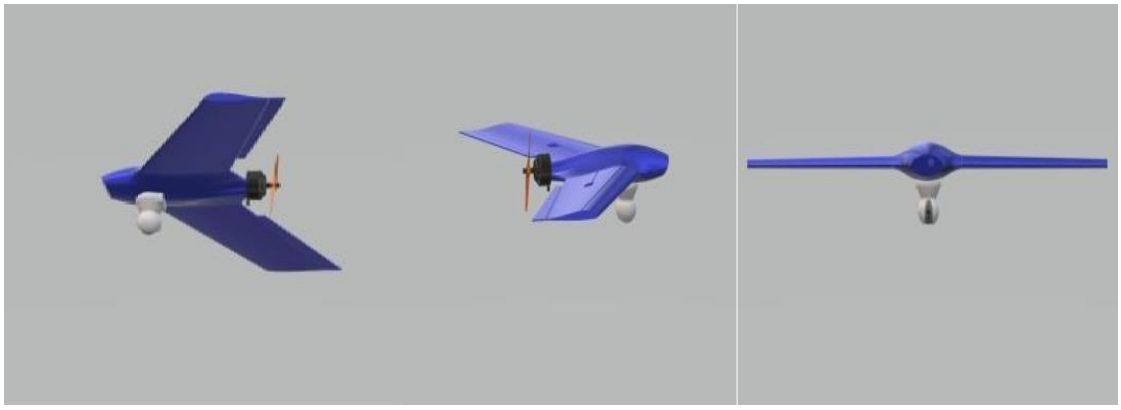
Kiruthika M
Final Year, CSE

# Night Patrolling Robot

Security is a common concern for all. As most of the crime occurs at night, so the IoT project comes up with a solution that is a patrolling robot the uses a night vision camera. This robot patrol over a predefined path and detects alarming sound. If found, it scans the area with its 360 degrees moving the camera and try to detect any human face. Then it transmits the image to the nearby user who is running this whole IoT project. The user gets the alarming notification to send by the robot.

Sangavi M
Final Year, CSE

# 360° Aerial Surveillance UAV Drone with IOT Camera



Aerial surveillance is the key to security and military based operations. It provides real time information on enemy movements which plays a key role in precision strikes. Large drones are very large in size which can be easily spotted by radars and are a high risk since they are very costly and incur huge losses if shot down by missiles. So here we propose to design a small UAV glider drone equipped with 360° Rotating surveillance camera that transmits live footage over to a mobile phone through internet. The system has following advantages over large drones. It is undetectable by radars as it is of the size of a birds. It can fly at low altitudes due to smaller size. It incurs a very low cost if shot down. It can record and transmit live enemy footage without detection. The glider is a single propeller UAV with 2 servo motors for wing control. All these motors are interfaced with a controller to manage the flight. We use a transmitter remote to get motion commands from the user. These commands and received decoded and used by controller to handle flight movements of the UAV. Also, we use a 360° motion camera using brushless motors to achieve a combination of vertical and horizontal motions. This allows for a complete all direction online live surveillance during the flight. The recorded footage is transmitted live over the internet so that it can be viewed at multiple locations. Thus, the system makes use of a single propeller system to drive the surveillance glider and achieve live surveillance over any area.

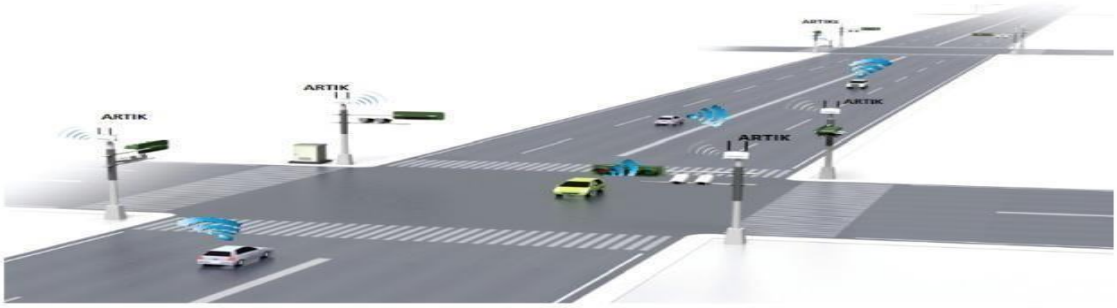
Valli N
Final Year, CSE

# Smart Garage Door


Gone are the days when you had to kick open the garage door or use the bulky electronic key which falls out of battery power every now and then. If you would like to keep up with the trend, this project is for you. Designing this project would help you put away that annoying clicker that keeps getting lost. Using a smartphone's built-in communication technology, this replaces the clicker with your smartphone.

Praveen S
Second Year, CSE

# Traffic Signal Monitoring & Controller System




Here we propose an IOT based automated traffic signal monitoring as well as controller system that automates complete traffic signalling system automation and also allows for manual override over internet. The system uses arduino based circuit system to monitor traffic signal densities and transmits this data online over internet to the controllers. We use IOT Gecko in order to develop the online GUI based system to monitor the traffic densities. The system shows current densities to help monitor traffic conditions on roads. Also, the system provides an option to the controllers to override any signal and make it green in case of any ambulance or important vehicles to pass through while keeping other signals red. This puts forth a traffic signal monitoring and controller system that can be operated remotely over the internet from anywhere with manual override ability.

Praveen Kumar S
Second Year, CSE

# IOT Based Person's Wheelchair Fall Detection


When it comes to old age, it becomes necessary to monitor our old ones for their health and safety. Due to weakness and weak joints, they have a great risk of falling down. Now it is important to know if an old age person has fallen so that he/she can be helped on time. Also, people on wheelchair need to be checked for fall detection. For this purpose, we propose a smart fall detection system. The system uses accelerometer and gyro sensor to detect person movements, it can be mounted on persons hand or wheelchair for detection. The sensor is connected to a microcontroller in order to constantly transmit the acceleration data. Now the system keeps monitoring for fall detection and abrupt movement changes in person. A sudden abrupt change with jerk in the system is treated as a fall. Now in case the person did not fall and alarm was false, the system allows to snooze the alert if person presses snooze button in 5 seconds. If person does not press the snooze, system detects person has fallen and automatically triggers alert through wi-fi connection to alert the loved ones of the person about the situation instantly.

Dhivesh B
Third Year, CSE

# Smart Mirror with News & Temperature


Smart mirrors are the mirrors of the future. A part of the connected world where we would be able to see news, temperature, weather and more just while looking and grooming in front of mirrors. Our proposed system allows to build such mirrors that allow for mirrors to receive news online and display it on the mirror screen along with other details including current temperature of the room for a futuristic and modern lifestyle. Our system uses a raspberry pi-based processor board along with display and IOT based circuitry and temperature sensor interfaced together. We use a precisely modelled panel to construct the outer frame. Then we use specialized glass with a back frame to encase the system. The frame cavity is now fitted with precisely positioned mounts for the display housing to be fitted in the mirror. This is necessary to achieve the desired effect. Now we use raspberry pi to connect with internet using IOT circuit through the use of a Wi-Fi module. This allows us to receive data through the IOT platform. We use IOT Gecko in order to connect our system to the internet and get news feeds. The temperature interfaced on the circuit is used to display temperature and display it on the mirror fitted display. Thus, we demonstrate a futuristic IOT smart mirror with news and temperature display.

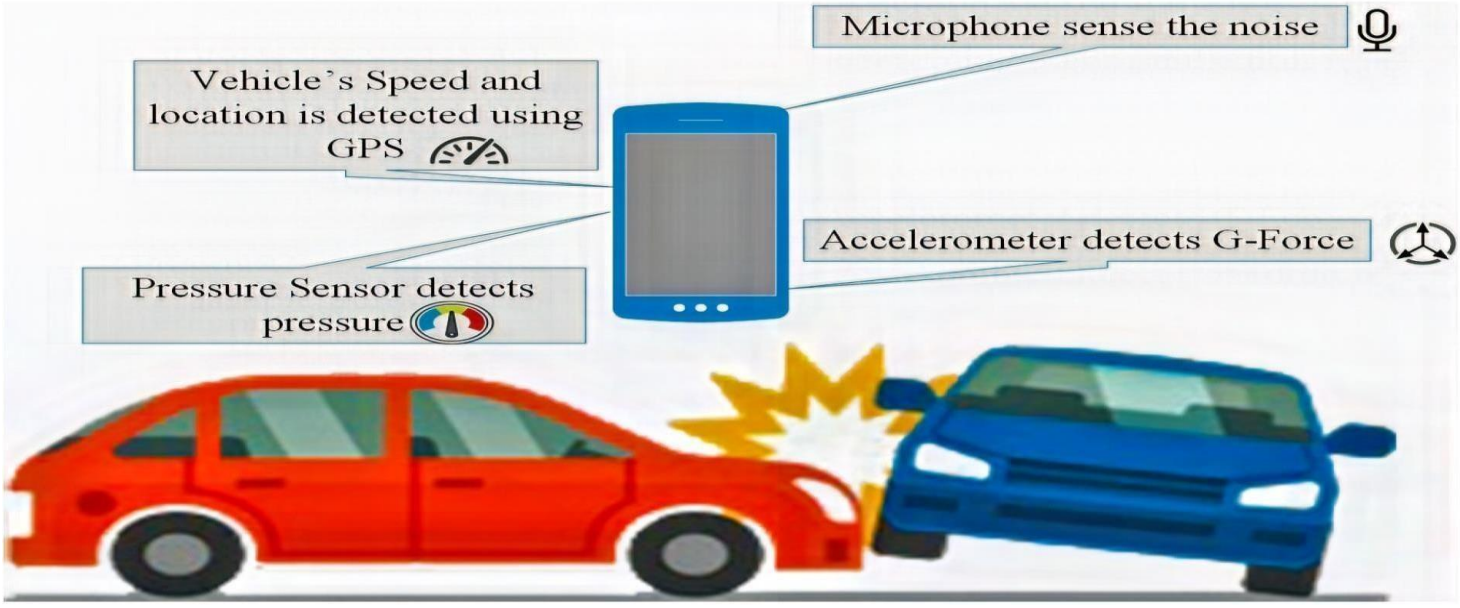
Shivani C
Third Year, CSE

# IOT Alcohol & Health Monitoring System


Factories, Offices, Hospitals, Military and other such industries need to monitor their staff/personnel follow all work ethics that include, not coming to premises under the influence of alcohol or under bad health conditions. This ensures proper work ethics are followed. So, our proposed system allows for alcohol & health monitoring plus reporting system that monitors this and reports it to concerned personnel remotely over internet. Our system consists of an IOT based circuit system that uses a microcontroller-based circuit system. The system has alcohol as well as blood pressure monitoring sensors to check for alcohol consumption as well as inappropriate blood pressure monitoring.

Manoj D
Final Year, CSE
10

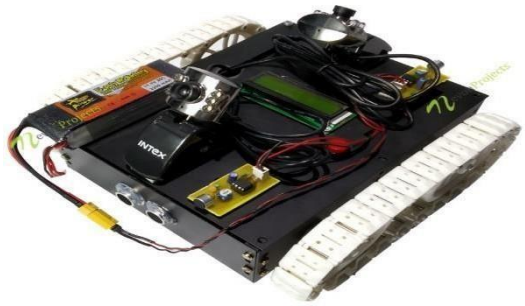
# IOT Based Automatic Vehicle Accident Detection and Rescue System




The rapid rise of technology and infrastructure has made our lives easier. The high demand of automobiles has also increased the traffic hazards and road accidents. Life of the people is under high risk. The delay in reaching of the ambulance to the accident location and the traffic congestion in between accident location and hospital increases the chances of death of the victim. To overcome this problem our automatic ambulance rescue system comes to the rescue. This proposed IOT based accident detection system helps to reduce the loss of life due to accidents and also reduces the time taken by the ambulance to reach the hospital. To detect the accident there is accelerometer sensor present in this rescue system and the GSM module included sends messages about the location to the respective guardian and rescue team. With the help of accelerometer sensor signal, a severe accident due to an obstacle can be recognized. Microcontroller used, sends the alert message through the GSM module including the location to guardian or a rescue team. So, the emergency help team can immediately trace the location through the GPS module, after receiving the accident location information, action can be taken immediately. This accelerometer-based accident detection system is powered by at mega 328 microcontroller it consists of display, accelerometer sensor, GSM module and alarm. This automatic ambulance rescue system project is useful in detecting the accident.

Priyanka E
Third Year, CSE

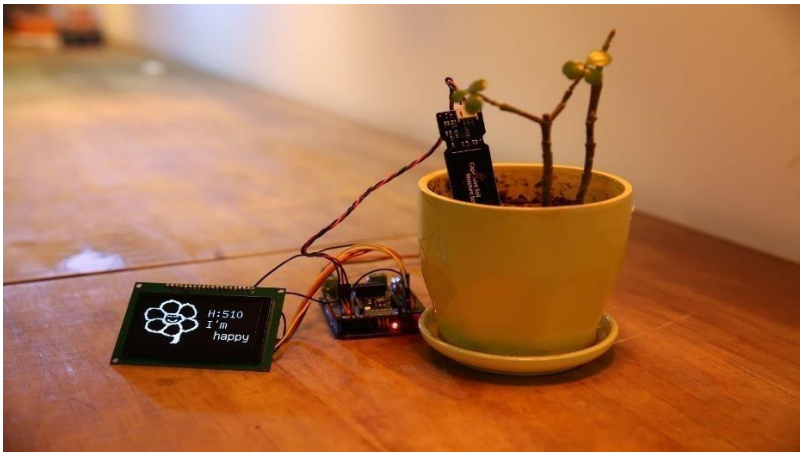
# Women Safety Night Patrolling Robot



Nowadays Women Safety is the biggest concern in many parts of the world. There is still a fear in alone areas for women as well as men. So here we propose a security patrolling robot using Raspberry PI. The system uses cameras and mic mounted on robotic vehicle for securing any premises. The robotic vehicle moves at particular path and is equipped with camera and sound sensors. It uses a predefined line to follow its path while patrolling. It stops at particular points and moves to next points if sound is detected. The system uses IR based path following system for patrolling assigned area. It monitors each area to detect any problem using combination of two HD cameras. It has the ability to monitor sound in the premises. Robot hears Any sound after area is quite and it starts moving towards the sound on its predefined path. It then scans the area using its camera to detect any human faces detected. It captures and starts transmitting the images of the situation immediately to the IOT website. Here we use IOT gecko for receiving transmitted images and displaying them to user with alert sounds. Thus, we put forward a fully autonomous security robot that operates tirelessly and patrols large areas on its own to secure the facility.'

Amit Raj
Third Year, CSE

# Soil moisture sensor




According to reports probably 50% for the farm produce never reach to the consumer due to wastage. Thanks to IoT for bringing a revolution in the agricultural field. In agriculture, soil moisture is very important to grow a crop. It helps the farmers to manage their irrigation system efficiently. Soil moisture sensor measures the volumetric water content in the soil. Knowing the water content of the soil, farmers can adjust the water quantity to yield more and efficient crops production.

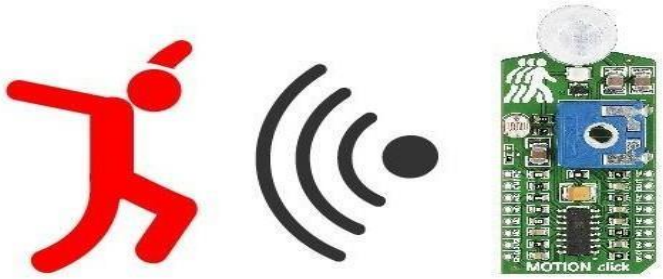
Abubakkar Siddique
Third Year, CSE

# Smile detection using Raspberry Pi camera

Smile detection is the technology for detecting human smiles in the form of digital images. It is becoming the most attractive technology because of its wide range of application. Smile detection technology is used in many mobile cameras. The technology is such that if a person doesn't smile the camera will not click the snap. Using a raspberry pi camera. The camera first detects a face, then waits to see a smile by recognizing deformation in the face, visible teeth, and other criteria. Smile detection is used in biometrics for security purpose.

Pavan Pawar
Final Year, CSE

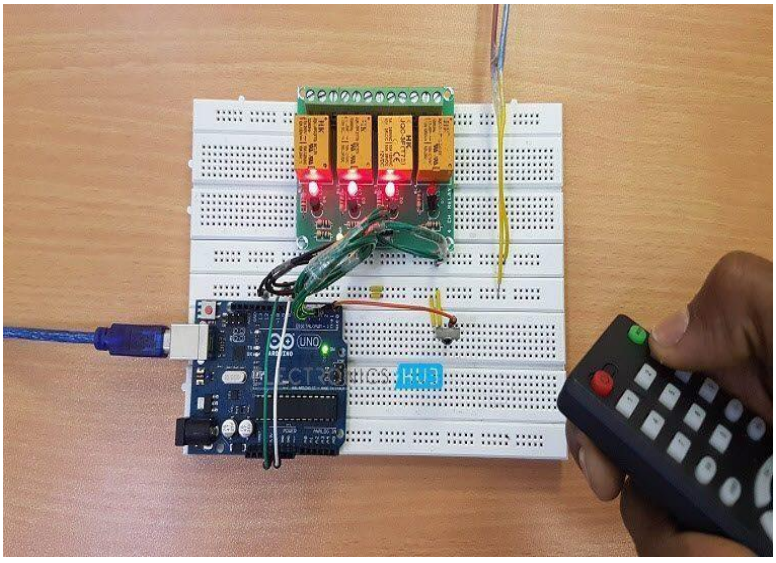
# Motion detecting system




Motion detectors have a wide range of applications on domestic as well as commercial use. The sensors in the motion detecting system can sense the motions of an object particularly people. Therefore, if a motion detector is placed in your home then it can sense the movement of an unauthorized person and will send a signal to the security system. Passive infrared, microwave, ultrasonic and vibration are some types of motion detectors. A simple motion detection circuit can be integrated with the help of a PIR sensor (able to detect motion), piezo buzzer and Arduino Uno

Amit Raj
Third Year, CSE

# Arduino Based Home Automation Using TV Remote



Arduino based Home Automation using TV Remote is a simple project, where an old TV Remote is used to control different appliances. Home Automation is a concept where a single device is used to control many aspects of a home like switching on and off different appliances, monitoring temperature, fire alarms, garage doors etc. In this project, a remote control is used to control (simply ON and OFF) several appliances or devices, thus achieving a simple home automation system. Remote controls are one of the commonly found devices in almost all homes. They help us operating an appliance like TV, Air Conditioning, VCR, etc. The main feature of a remote control is that it is specific to a device. For example, a TV remote control unit can only be used for that corresponding TV. But in this project, we have designed an Arduino based Home Automation using TV Remote, where a single remote is used to control 4 different devices (possible to control more devices).

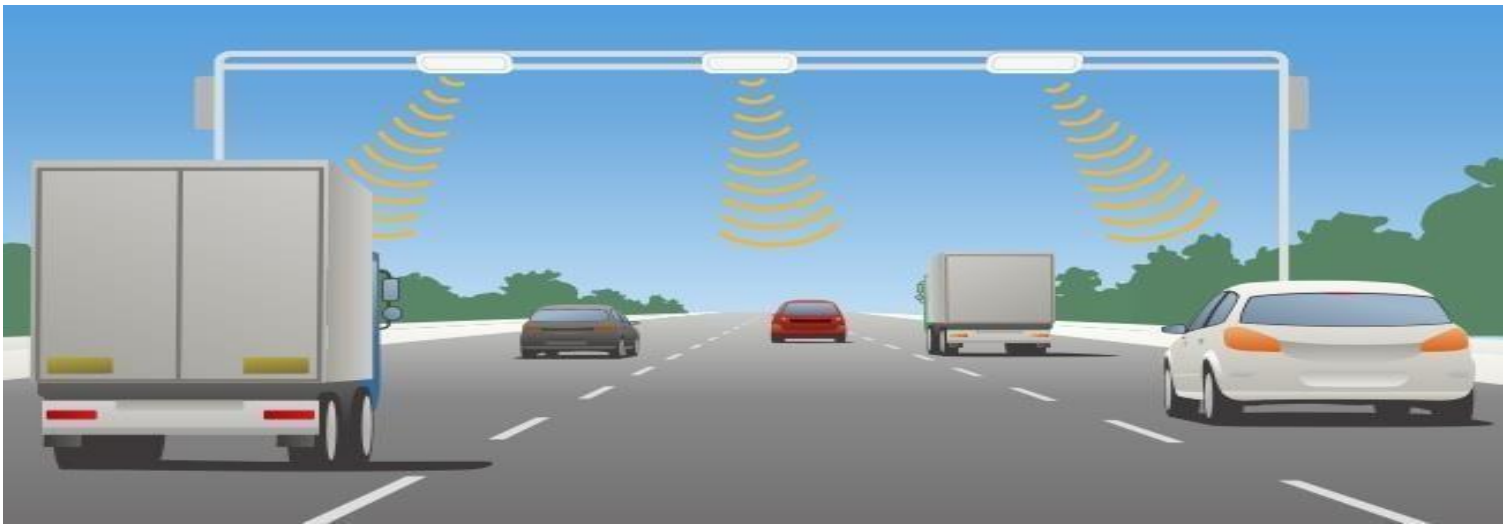
Kalki V
Third Year, CSE

# 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.

Nandhini M
Final Year, CSE

# Toll Booth Manager System



Managing multiple toll booths is a very complicated task. We here propose a smart card-based toll booth system that is monitored over IOT. The Internet server maintains all the data of user accounts and also their balance. All vehicle owners would possess an rfid based card that stores their account number. Our system at toll booths will monitor the cards scanned when a car arrives at the toll booth. The system now connects to the online server to check if the card is valid and if valid what is the balance. If user balance is sufficient, the user balance is deducted online and web system sends signal back to the card scanner system that the user has been billed. On receiving this signal, the system operates a motor to open the toll gate for that car. The system is controlled by a microcontroller to achieve this purpose. The microcontroller uses Wi-Fi connection to connect to the internet through which system interacts with web server to perform the online verification process. Also, system allows to store data of all the vehicles passed at particular time intervals for later reference and surveillance. This system thus automates the entire toll booth collection and monitoring process with ease using RFid plus IOT based system.

Deepamary J
Third Year, CSE

# IOT Theft Detection Using Raspberry Pi

Here we propose IOT based theft detection project using Raspberry Pi where we use image processing on live video to detect theft using motion and also highlight the area where motion occurred. This system secures offices/homes from theft by instantly detecting theft as well as allowing user to view the theft details thereby highlighting the theft details and saving the video in a USB drive. In this system we use a camera along with raspberry pi along with a circuit with LCD display IR for night vision and USB drive for storage. The system is powered a 12V power supply. As soon as camera motion is detected in camera footage the system uses image processing to detect exact area of motion occurrence and highlights it accordingly. The system now transmits the images of the occurrence over IOT to be viewed by user online. We here use IOT Gecko to develop the online system. Also, it stores the footage in a USB drive for further reference. The user can now decode the data sent online using IOT Gecko IOT system to view the images of the motion occurrence live remotely over internet. Thus, the system provides an innovative approach to theft detection using IOT.

Prabu M
Third Year, CSE

# RIDDLES

1. How many months of the year have 28 days?

2. What has hands and a face, but can't hold anything or smile?

3. It belongs to you, but your friends use it more. What is it?

4. I can fill a room, but I take up no space. What am I?

5. Which word becomes shorter when you add 2 letters to it?

6. What's the capital of France?

7. I go all around the world, but never leave the corner. What am I?

8. A bus driver was heading down a busy street in the city. He went past three stop signs without stopping, went the wrong way down a one-way street, and answered a message on his phone. But the bus driver didn't break any traffic laws. How?

9. It has keys, but no locks. It has space, but no room. You can enter, but can't go inside. What is it?

10. A railroad crossing without any cars. Can you spell that without any R's?

# Answers

1.All of them! Every month has at least 28 days.

2.A clock

3. Your name

4. Light

5. The word "short."

6. The letter "F." It's the only capital letter in France.

7. A Stamp

8. He was walking, not driving.

9. A keyboard

10. T-H-A-T (This one is tricky! It makes readers think they're supposed to describe the scenario without using the letter "R." But the first sentence was actually used to distract the reader from the real question.)

# IMPORTANT WEBSITE

- Khan Academy- Provides coursera on a wide range of subjects especially math
- MIT open Courseware- Important for students pursuing careers as computer scientists
- GitHub- Best online destinations for open-source code
- Code academy-Most innovative educational sites in computer science field
- Python - Geeks for Geeks; Udemy
- C#-Tutorials point; W3schools
- Geeks for Geeks- Include C, Java and python
- PHP- W3Schools; Geeks for Geeks; Udemy
- Studytonight- Include CSS, SQL, Computer network, OS
- W3Schools- Help for programming and coding language like HTML, PHP, AJAX and JavaScript
- StackOverflow- Get a solution on how to go about the problem
- Computer Hope- Gives free tips on various issues affecting a computer
- JavaTpoint-Gives technical solutions for computer Science interviews

# Alumni talk

Treat the campus like a community in which you live. You go to work every day in the classroom, but outside of that there is so much more to discover. This new adventure is an opportunity to learn about yourself through taking part in new experiences, but also a time of challenges. My advice, think of the challenges as falling forward. No matter what, you are always learning and growing, which better prepares you for tomorrow.

**Ramalingam R**
***Engineer, Mindtree Ltd***

I remember when I was entering my first year of college, I was extremely excited but at the same time extremely nervous. Reflecting back on the whole experience now, I would encourage incoming students to recognize that like anything in life, you'll face both ups and downs throughout your college experience. The important thing to remember is to always try your best and not let the instances where you may have fallen short hold you back from continuing to work hard and reach your full potential. Speaking more specifically about Arunai Engineering college, it is a massively rich campus with both great people and amazing opportunities. Take these next few years to really make the most of it.

**Arutprakasam A**
***Assistant system Engineer, Tcs Ltd***

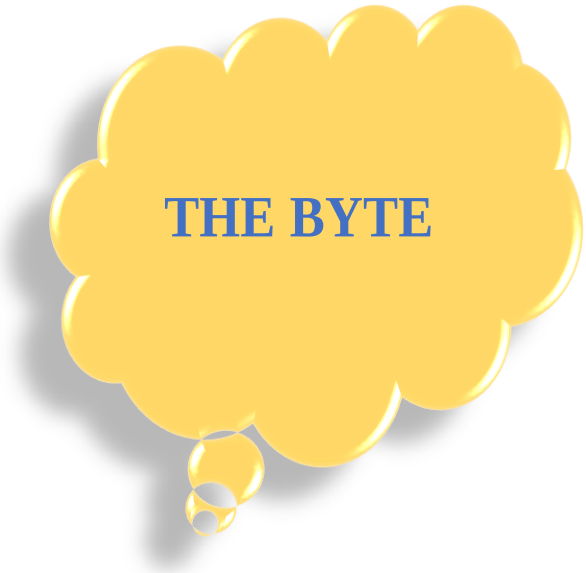
Finding the right path to success at the right time is really very important and for that way I had selected Arunai Engineering college. The friendly environment, the systematic approach towards imparting education at our college made me a competent individual. The wide range of activities- both curricular and co-curricular- along and the support from college is really very helpful for my future. The faculties are really very kind and approachable when any need arises. we are trained for our placements and because of that I was placed in one of the reputed companies for my internship. Today, if I am in good position it's because of what I have learnt from Arunai Engineering college.

**Kalai Selvan P**
***Software Engineer,***
***GoDB Tech Pvt Ltd***

When I joined here in my 1st Year, I had lot of expectations from college and also career but this college has given me more than What I have expected and today I am Proud to be an Arunai Engineering College. We have spent almost 4 years of our life which make us learn everything which is important for rest of my life. I explored my life in that building, played with my fate and still able to win. I would thank my principal and all my lecturers who made me eligible to achieve success. Best wishes to my college and my college students.

**Shahul Hameed**

***Blockchain Engineer, Origin Protocol***




INNOVATION NEVER ENDS...