ARUNAI
Engineering College
Tiruvannamalai,TamilNadu

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

# THE BYTE

DEC
2019

www.arunai.org

# CONTENT

# Messages

# 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 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. 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

# 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.

# 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

# STUDENT EDITORS DESK

DHIVESH.B – IV th YEAR CSE

AMIT RAJ – IV th YEAR CSE

RUTHNA KUMAR – II nd YEAR CSE

PRAVEEN – II nd YEAR CSE

KALAIYARASAN– II nd YEAR CSE

ANBARASAN A – II nd YEAR CSE

KARTHIKEYAN S – II nd YEAR CSE


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**

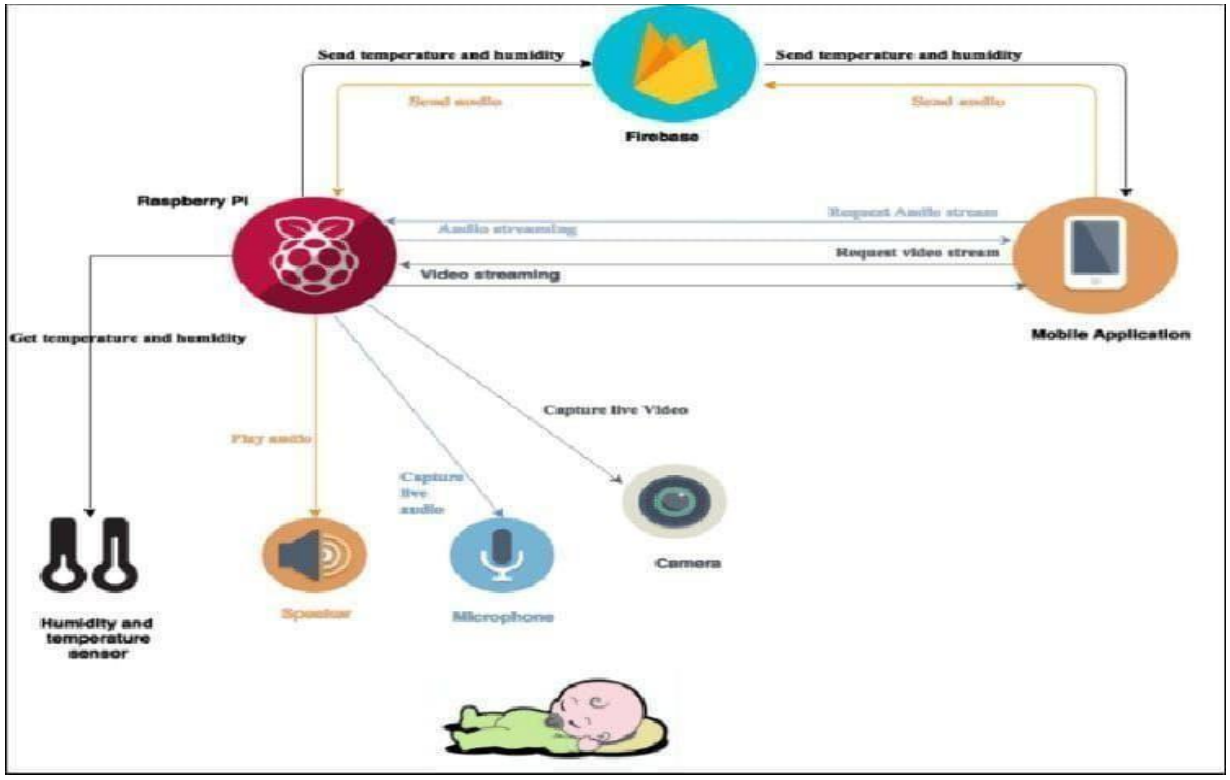
**PEO2-Graduates will have the ability and attitude to adapt to emerging technological changes.**

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

**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.

# IoT Based Baby Monitoring System Using Raspberry Pi




Taking care of a baby is a challenging task for working parents. In this paper, we present an intelligent baby monitoring system that allows parents to check on their baby remotely and in real time. The proposed system is based on the which will help the parents to monitor their child even if they are away from home & detect every activity of the Baby from any distant corner of the world. It is an innovative, smart & protective Cradle System to nurture an infant in an efficient way. In this proposed system, both sensors and forecasting cloud is used, so that resulting data having high accuracy about the children condition, also we are using surveillance of the children using camera from a Wide Area Network (WAN) which can be viewed in the Web Application and also can control the situation from a remote area anywhere from the world.

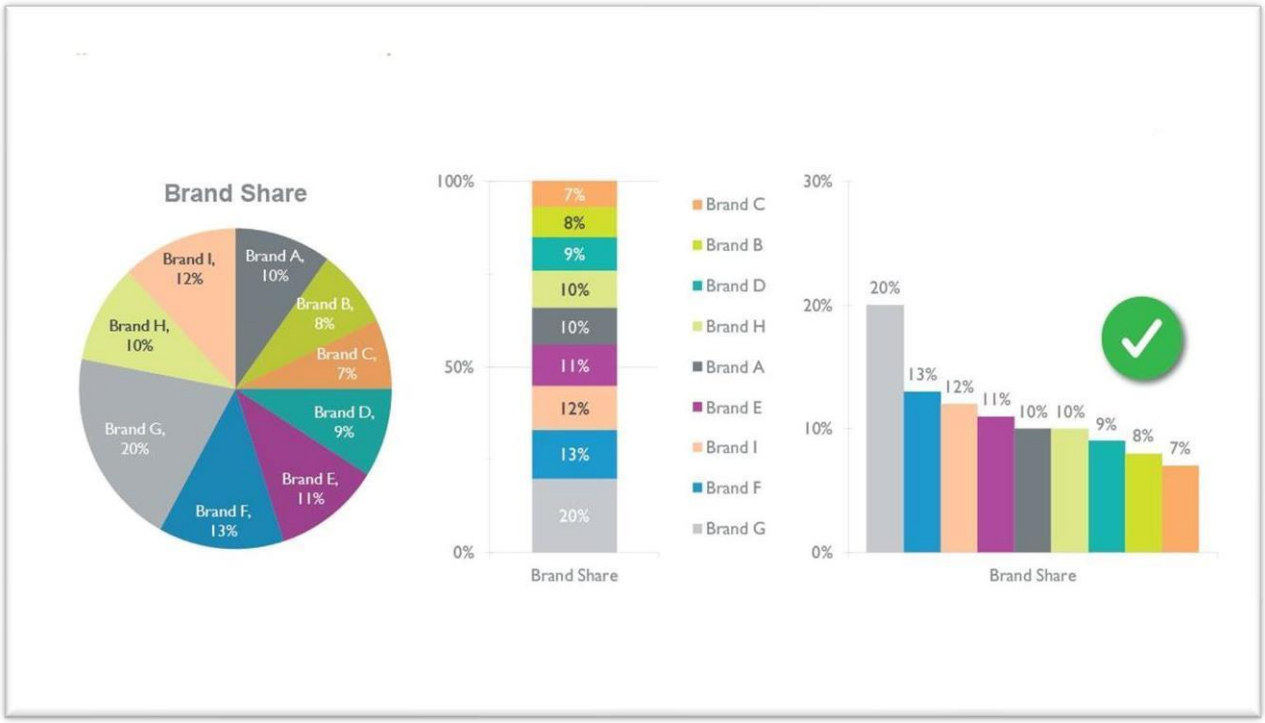
**Ruthna kumar S**
*Third Year, CSE*

# Human Speed Detection Project

This speed detection system is used to detect the speed of a moving person in real time. This system uses video manipulation along with a frame differentiation algorithm to capture and detect the speed of a person. The system works as follows, the system captures videos with the help of a webcam or a recording device. Now this video is manipulated upon. A video is made up of frames. These frames are now separated. A frame detection algorithm now works on these frames. The algorithm stores pixel values for each frame. It then tracks the motion of the persons pixels as it moves from one side of frame to another through a set of frames. Since the frames move at a constant predefined rate, the number of frames required for the person to move from one end of frame to another determines his speed using some formula. Thus, this system allows you to automatically detect the speed of a person using special algorithms and a simple web camera.

**Shivani C**
*Final Year,CSE*

# Graphical Share Market Data Represent Project




Graphical share market data represent project is a speculator on a Stock Market, aside from having money to spare, needs at least one other thing a means of producing accurate and understandable predictions ahead of others in the Market, so that a tactical and price advantage can be gained. This work demonstrates that it is possible to predict one such Market to a high degree of accuracy. Neural network predictions were obtained for the daily Market close 5 days ahead, and 25 days ahead, as measured in mean square error and in root mean square error. To measure percentage accuracy, each individual test case prediction was compared with the actual market outcome, and total percentage accuracy for the whole test set was similarly calculated. Comparisons were also drawn with predictions for the same test cases using four types of Multiple Linear Regression. The neural network results indicated that predictions based upon the lowest mean square error bear little relationship to the same test cases, when measured in terms of overall percentage accuracy.

**Kirubanithy G B**
*Final Year, CSE*

# Hospital management system project in java

Hospital management system project is aimed to automate the hospital management system. This project is developed mainly to administrate doctor's appointment with the patients. The purpose of the project entitled as HOSPITAL MANAGEMENT SYSTEM is to computerize the Front Office Management of Hospital to develop software which is user friendly, simple, fast, and cost – effective. It deals with the collection of patient's information, diagnosis details, etc. Traditionally, it was done manually. The main function of the system is to register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully.

**SUBASH B T**
*Third Year, CSE*

# IoT Connected Healthcare Applications

Health is the most important part of any human's life without health it is useless to any treasure of life. Most humans live a busy life in which going to a doctor for weekly or even monthly checkup is an impossible task. Without monitoring your health, it is not possible to whether you are a healthy or sick person. This problem leads to the design of a product which monitors your health every day without going to a doctor. In this paper, a system is designed as a prototype for monitoring alerting based on the health of a person. This system is fully automated little or no human help is needed. Any doctor can monitor this person from anywhere through the internet. This system consists of a number of the part. Controlling and data processing is done through the Arduino Uno board, all the sensors are connected to Arduino UNO.Through sensors, it is possible to measure all these values.Here all the sensors are powered using a solar power system. All these analog sensors can be connected to Arduino through any of the six analog pins. These values are then used for detectingany critical situation. In the case of a critical situation, an alert can be given as a message. Also, itis possible to monitor the person's health from any location in the world through the Thing speakcloud.

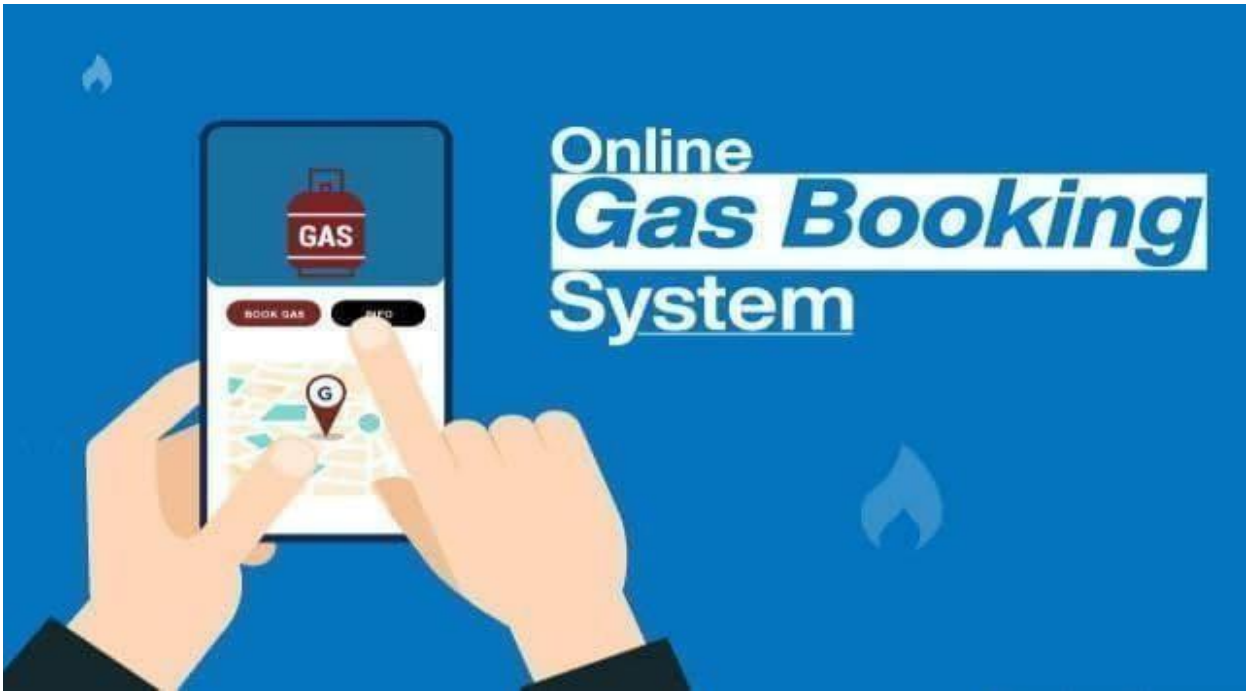
**MOHANASELVI S**
*Second Year, CSE*

# Smart Trolly for Easy billing using a Raspberry pi

A shopping trolley is a necessary tool for shopping in supermarkets or grocery stores. The trolley is the important thing is present in every supermarket to carry loads. On the other hand, if the trolley is full means, it difficult to carry by elderly people. And it is inconvenient and time wasting for customers when the Rush time in the supermarket to search particular Product. So, in this paper we propose one system it carries the Product and it acts as a Human-Follower it becomes more convenient for Elderly People. To perform obstacle avoidance mechanism the system is equipped with an ultrasonic sensor with human tracking and following to track the user. Raspberry Pi with the Camera system, which first analyzes the user by their dress color using Hue Saturation Value (HSV) with Open CV. Which follows the user until they reach the entrance and also which having obstacle avoidance technology using the Ultrasonic sensor to avoid a collision. So that trolley system becomes autonomous to become customer friendly.

**SUBASH B T**
*Third Year, CSE*

# E Gas system Java Project




E-Gas is a web application which user can apply and know the information about gas online. This project provides an interface for the users to book gas. By using this gas customers can be highly benefitted with vast areas of company's services. E-gas will provide a username and password to the users by with they can do all the service online. Customers can view all the services provided at all the locations. It is easy to put a request like gas booking or for new connection through our system. It is highly befitting to provide services to customers. The customer can easily communicate with the dealers for asking connections, accessories, transferring services from one location to another location. This project makes all the gas bookings easier. The report generation is, it generates the report on Delivery, Bookings, Gas. Provide filter reports on Payments, Customers, Connections. You can also exportthe report into csv format for Delivery, Bookings, Connections. Some limitations are that the excel export has not been developed for gas, Customers due to some criticality. The transactions are executed in off-line mode, hence on-line data for Delivery, Bookings capture and modification isnot possible.

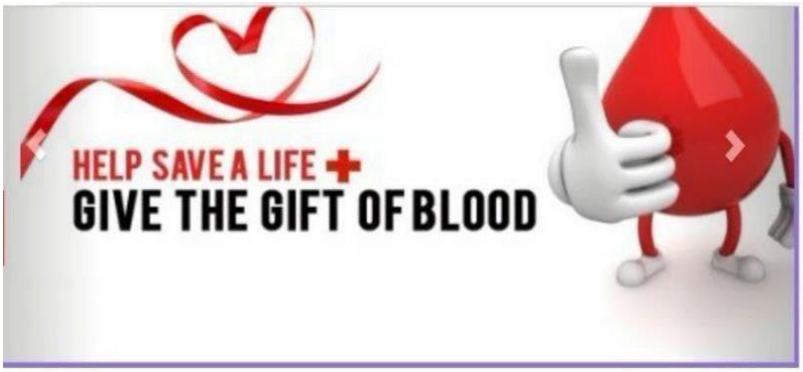
**Ajith Kuamr M**
*Second Year, CSE*

# Online Property Dealing System


The Online Property Dealing system is a web-based solution for managing all the property dealing processes in an automated and organized manner. It helps the property dealers, agents to effectively manage their property dealing business by maintaining a robust database of the sites and the customers. They can store information related to every property available for rent or sale. It provides a quick booking and account handling process. The clients or users can view all the details of the property along with its location, size, price, current owner name, registry details, etc. and can book the property just in a few clicks. They can also search the property according to the category, location, and price.

**BHARATHI P**
*Third Year, CSE*

# Blood Donation System





The Blood Donation System is a Java-based Web Application that manages the information of Blood in a hospital or in an inventory. The system consists of an interface that provides blood to the needy people that actually need blood and also contains an interface on which a healthy person can donate their blood. If we go in deep then the system also wants to communicate with the near hospitals to arrange the blood if an emergency occurs. Actually, if we talk about the system then it is just an interface that communicates with hospitals to exchange blood between the donors and the needy person. The system ultimately helps society and also provides a good understanding of the developer to learn new things in Java.

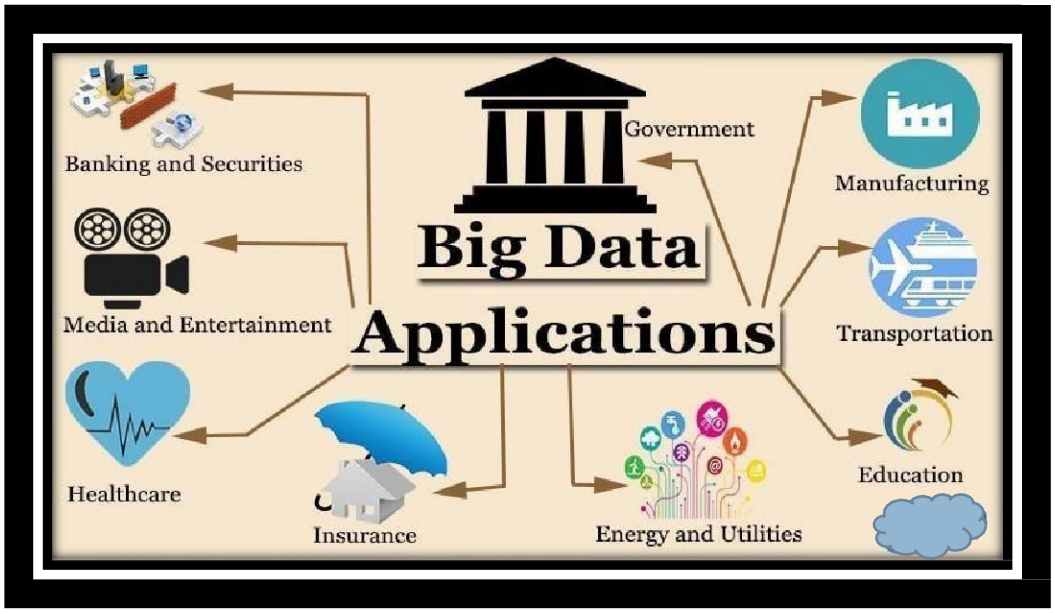
**Raja V**
*Third Year, CSE*

# AI Multi Agent Shopping System


An AI multiagent shopping system where system is fed with various product details. The system allows user to register and enter his details about a particular product. The system records all the details provided by user and checks for various items matching his search. The system comes up with a list of items best suited for user needs. The system also suggests other related items that the user may like. The system suggests these items which are likely to be bought by the user based on his previous requirements. The system handles multiple users at a time and provides accurate results. User can register on the system and get his online account on site. User can login to system and check various furniture data online. The multi agent guides and supports user through his entire shopping experience and sorts out products as per user preference. The electronic products are arranged and can be viewed in categories. Users can add products to cart. User may do a custom search. System takes user requirements and show products matching it. System also shows related products likely to bought by user. The agent gets products as per user preference but leaves the final decision up to the user before making any payments. After total bill is calculated user can pay via credit card online.

**Vishnu Priya U**
*Third Year, CSE*

# Applications in Big Data




## Government

The use and adoption of big data within governmental processes allows efficiencies in terms of cost, productivity, and innovation but does not come without its flaws. Data analysis often requires multiple parts of government (central and local) to work in collaboration and create new and innovative processes to deliver the desired outcome. Below are some examples of initiatives the governmental big data space.

## United States of America

In 2012, the Obama administration announced the Big Data Research and Development Initiative, to explore how big data could be used to address important problems faced by the government. The initiative is composed of 84 different big data programs spread across six department.

## Real Estate

Windermere Real Estate uses location information from nearly 100 million drivers to help new home buyers determine their typical drive times to and from work throughout various times of the day.

## India

Big data analysis was tried out for the BJP to win the Indian General Election 2014. The Indian government utilizes numerous techniques to ascertain how the Indian electorate is responding to government action, as well as ideas for policy augmentation. International development Research on the effective usage of information and communication technologies for development (also known as ICT4D) suggests that big data technology can make important contributions but also present unique challenges to International development. Advancements in big data analysis offer cost-effective opportunities to improve decision-making in critical development areas such as health care, employment, economic productivity, crime, security, and natural disaster and resource management. Additionally, user-generated data offers new opportunities to give the unheard a voice. However, longstanding challenges for developing regions such as inadequate technological infrastructure and economic and human resource scarcity exacerbate existing concerns with big data such as privacy, imperfect methodology, and interoperability issues.

## Healthcare

Big data analytics has helped healthcare improve by providing personalized medicine and prescriptive analytics, clinical risk intervention and predictive analytics, waste and care variability reduction, automated external and internal reporting of patient data, standardized medical terms and patient registries and fragmented point solutions. Some areas of improvement are more aspirational than actually implemented. The level of data generated within healthcare systems is not trivial. With the added adoption of mHealth, eHealth and wearable technologies the volume of data will continue to increase. This includes electronic health record data, imaging data, patient generated data, sensor data, and other forms of difficult to process data. There is now an even greater need for such environments to pay greater attention to data and information quality. "Big data very often means `dirty data' and the fraction of data inaccuracies increases with data volume growth." Human inspection at the big data scale is impossible and there is a desperate need in health service for intelligent tools for accuracy and believability control and handling of information missed. While extensive information in healthcare is now electronic, it fits under the big data umbrella as most is unstructured and difficult to use.

## Retail banking

FICO Card Detection System protects accounts worldwide. The volume of business data worldwide, across all companies, doubles every 1.2 years, according to estimates.

## Education

A McKinsey Global Institute study found a shortage of 1.5 million highly trained data professionals and managers and a number of universities including University of Tennessee and UC Berkeley, have created masters programs to meet this demand. Private bootcamps have also developed programs to meet that demand, including free programs .The Data Incubator or paid programs like General Assembly.

## Media

To understand how the media utilizes big data, it is first necessary to provide some context into the mechanism used for media process. It has been suggested by Nick Couldry and Joseph Turow that practitioners in Media and Advertising approach big data as many actionable points of information about millions of individuals. The industry appears to be moving away from the traditional approach of using specific media environments such as newspapers, magazines, or television shows and instead taps into consumers with technologies that reach targeted people at optimal times in optimal locations. The ultimate aim is to serve or convey, a message or content that is (statistically speaking) in line with the consumer's mindset. For example, publishing environments are increasingly tailoring messages (advertisements) and content (articles) to appeal to consumers that have been exclusively gleaned through various data-mining activities. Targeting of consumers (for advertising by marketers), Data-capture, Data, publishers and journalists use big data tools to provide unique and innovative insights and infographics.


**Divesh B**
*Final Year, CSE*

# Google Glass Technology


Most of the people who have seen the glasses, but may not allowed speaking publicly; a major feature of the glasses was the location information. Google will be able to capture images to its computers and augmented reality information returns to the person wearing them through the camera already built-in on the glasses. For moment, if a person looking at a landmark, then he could see historical and detailed information. Also comments about it that their friend's left. If its facial recognition software becomes moderate and accurate enough, the glasses could remind a wearer and also tells us when and how he met the foggy familiar person standing in front of him at a function or party. A computer which is spectacle based operated directly through your eyes rather than your pouch or pocket.

## INTRODUCTION

### 1.1 Project glass

Google has given research and development about Project glass to develop an augmented reality Head Mounted Display (HMD). The main agenda of Project Glass products would be the hands-free displaying of information that is vastly and currently available to most smart phone users. Also allows interaction with the Internet via voice commands of natural voice. Glasses will feature with augmented reality and virtual reality. Google glasses are basically wearable computers that will use the Android software that powers Android smart phones and tablets.

**1.2** Google Glass Google Glass is a wearable computer with a head mounted display (HMD) that is being developed by Google in the Project Glass research and development project with the mission of producing a mass-market ubiquitous computer. The frames do not currently have fitted lenses; Google is on the process of considering sunglass

**1.3** Retailer's partnership such as Ray-Ban or Warby Parker, wish to open retail shop to try on the device for users. People who wear prescription glasses cannot use explorer edition, but Google has confirmed that Glass will be compatible with frames and lenses according to the wearer's prescription and possibly attachable to normal prescription glasses. Google X Lab developed this Glass, which has experience with other futuristic technologies such as driverless cars. Fig: Google Glass

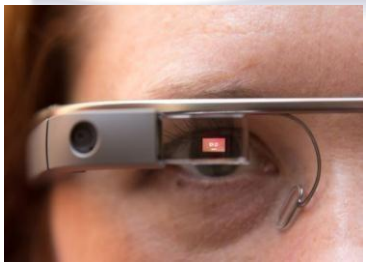
**1.4** Virtual reality (VR) Virtual reality is a term that applies to computers imulated environments that can simulate physical presence in places in the real world and also well as an imaginary world. Remote communication is covered in an environment which provides virtual presence of users with the telepresence and telexistence concepts or a virtual artifact. The simulated environment can be similar to the real world in order to create a life like experience. Virtual reality is often used to describe a wide variety of applications with highly visual, immersive, 3D environments. And also, it gives development of graphics hardware acceleration, CAD software, database gloves and miniaturization head mounted displays.

**1.5** Augmented reality (AR) Augmented Reality is direct or indirect, a live view of a physical, real-world environment whose elements are augmented by generated input having sensors such as video, sound, GPS data or graphics. It is related to a more general concept called mediated reality, which is a view of reality is modified (possibly even diminished rather than augmented) by a computer. As a result, the technology functions by enhancing one's current perception of reality. By contrast, virtual reality replaces the real world with a simulated one. Augmentation is conventionally in real-time and in semantic context with environmental elements.

## 2. TECHNOLOGY USED

**2.1** Wearable Computing Body-borne computers i.e., Wearable computers are miniature electronic devices that can worn by the bearer body part with, under or on top of clothing. It is wearable technology has been developed for special or general-purpose info technologies and media development. Applications of more complex computational support than just hardware coded logics can be given by wearable computers. Consistency is one of the main features of wearable computers so that there will be constant interaction between the computer and user i.e., it doesn't need to turn the device on or off. Another feature as it is multi-tasking device.

**2.2** Eye Tap Technology Eye Tap is also the name of an organization founded by inventor Steve



Mann to develop and promote Eye Tap related technologies such as wearable computers. An Eye Tap is a model that is to worn in front of the eye which acts as a camera to capture the scene available to the eye also displays it to superimpose a on the original scene available to the images generated by computer. The structure acts as a monitor and a camera for user's eye as the Eye Tap. The Eye tap uses beam splitter to send same scene to both eye and camera. It is a hard technology that categorize into three main headers for wearable computing (i.e., Augmentation, Constancy, M edition) for reality of the user perceives.

**2.3** 4G Technology 4G is the fourth generation of cell phone mobile based on communications standards. It is an advance version of the third generation (3G) standards. It provides mobile the ultra-broadband Internet accessing, for example to smart phones, to laptops with USB wireless modems and to other mobile devices.

## 3. DESIGN

**3.1** Video Display, Camera, Speaker, Button: It has features with the small video display which is

used to display the hands-free information by pop up. It also has the video camera with front facing through which we can take photos and videos in a glimpse. Google glasses are designed to be hands free wearable device that can be used to make or receive calls via a bone conduction transducer. Single button on the side of the frame sophisticates the glasses to work with the physical touch input.

### 3.2 Other components

A facility of microphone is there, that can take the voice commands of user with telephonic communication. It's possible that a 3G / 4G module could end up in production devices, Wi-Fi hotspots or relying on a wireless tether with Smartphone will be provided. Recognition of voice commands cues from the right sidebar. Gestures will be understood by touch sensitive pad. Glass has an Accelerometer and a Gyroscope, enabling wearers to tell the glass what to do by nodding, shaking one's head, etc. Behind the ear on the right-side internal battery is fitted, the capacity and longevity will last a day. The recording facility available locally, but the idea is to have 'most everything' streamed live to the web. Battery and Touchpad of Google Glass.

## 4. HOW DOES IT WORK?

Communication is probably done with the mobile phone through Wi-Fi and displays of contents on the video screen as well as the voice commands responding of the user. Google put together a

short video demonstrating the features and apps of Google glasses. It mainly focuses on the social networking, communication and navigation. The video camera senses the environment and memorizes the people and objects around. Google glasses depends upon the user voice commands itself for the whole working.

**5. SPECIFICATIONS** It runs Android 4.0.4 Ice Cream Sandwich. It has a Texas Instruments OMAP 4430 chipsets. The OMAP 4430 was been used in devices like Samsung's 7- inch Galaxy Tab 2.0, the original Motorola Droid RAZR, solid devices during their prime, but now the chipset is far from new that powered them. The Glass has 1GB ram and 16GB of flash storage on-board, with 12GB actually usable, and it will sync with "Google cloud storage", presumably Google Drive. Google states that the "equivalent of a 25-inch-high-definition screen from eight feet away" given by Glass features a 640 x 360 display. It has a 5-mp camera features 720p video. Bone conduction transducer projects audio Adjustable nose pads in a frame that Google says will "fit any face," +- is featured by Glass. Connectivity-wise, it is compatible with any Bluetooth-capable phone and supports 802.11b/g Wi-Fi, though functionality will vary. The Glass will enable GPS and SMS support through an app called "My Glass" for phones with Android 4.0.3.

## 6. ANALYSIS OF PROBLEM

Google needs to avoid "The Segway problem" There is a reason that video glasses haven not taken off yet. And, for lack of a better term, we will call it "The Segway Problem". The Segway failed in part for its cost. So, Google need to choose different way such as the stylishness or the invisibility of video glasses to sell us and to get succeed

## 7. PROPOSED WORK

GOOGLE NEEDS TO FIND A KILLER USE-CASE Google is digging new ground; they are working apart from their comfort zone. Google has no data mine for how much notification. If ever there's is been a product develops for Google Labs field testing, it is Project Glass. A better counterexample is the iPad. Many people dismissed it when firstly it came out, saying, "No doubt, it is cool, but for what anyone need another computer?" Well, it turns out, people did not need another computer to handle so much as they wanted one, people will love a computer that would make surfing the web from your couch or bed a lot with less efforts, clunky and more fun. No one is sure that they have that use-case yet with Project Glass i.e., the perfect scenario where it could make a sense in people's lives. There may be possibility that some set of features, applications and interactions that have not quite appeared yet.

## 8.ADVANTAGES & DISADVANTAGES

### ADVANTAGES

Easy to handle, use and wearable. Responsive and sensitive into the presence of people. Fast accessing of documents, chats, maps, videos and much more. An innovative technology will bring the new trend of fashion. A computer which is spectacle based operated directly through your eyes rather than your pouch or pocket. A gifted technology for all kinds of Handicapped/disabled people.

### DISADVANTAGES

Broken or damaged chances are more. Though Google is expecting these glasses to be as modest as achievable, they are kind of breakable. Users will have to handle it with care. Retrieved data can be shown in front of user's eyes so while user is focusing on data, user will eventually miss the surroundings and it may lead accidents while driving. Privacy of people may fissure with new glasses.

### 9. FUTURE SCOPE Google

Glass is as futuristic, nowadays a gadget we have seen. Its scope is right now, but Google believes in the future it, is bright and the incredibly compelling device. Google is trying their hardest to push the Project Glass through the FCC this year. Reports show that Google is trying to get the approval by the FCC this year but there are already several hundred glasses made for testing internally.

### 10. CONCLUSION

Google glasses are basically wearable device computers which uses the evolving familiar technologies. Also brings the ease of communication, sophistication and information access even for the physically challenged or handicapped class of people those literally could not use general way of palmtops and mobiles.

**Arun Kumar T**
*Final Year, CSE*

# Riddles

1. I can write without a pen, without the number 10, what am I?
2. I have a tail and two flat ears. I move with no feet.
3. A box to anywhere. Just watch for my glare.
4. I move slower than molasses, if you use me, you probably wear glasses.
5. 25 years old, but only turned 8.
6. There are 50 bikes, each with a tank that holds enough gas to go 100 km. Using these 50 bikes, what the maximum distance that you can go? How many trailing zeros are in the number 5! (5 factorial)?
7. What do you get if you stuff your computer's disk drive with herbs?
8. What is an alien's favorite place on a computer?
9. Why did the cookie complain about being sick?
10. Why did the computer go to the nurse?

## Answers

1. Keyboard

2. Mouse

3. Monitor

4. Internet Explorer

5. Windows

6. 1 trailing zero

7. A Thyme Machine

8. The Space Bar

9. He Was Feeling Crummy

10. It Had a Virus

# Alumni Talk

Many of you have gone to various cities for their higher education. Some are also working. I am certain about the fact that you are all doing your best, whether you are in any field. In fulfilling the responsibilities of a good facilities, never leave behind and have always taught you with our full strength that you perform better, whether it be an academician, play or activity of any other area. I wish you never give up in life and earn fame, name and a promising career and come to us to tell your success stories and to reward this college with your achievements.

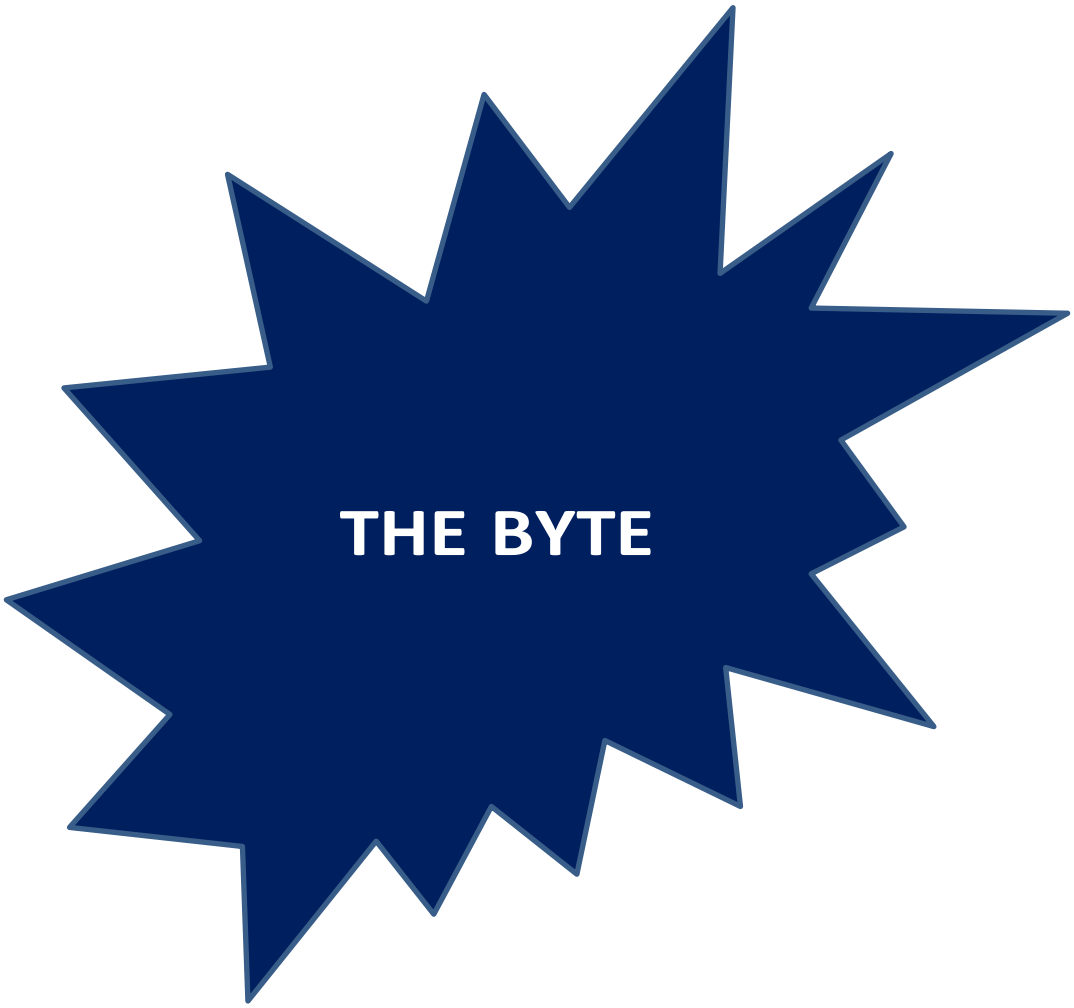
NANDHINISRI S
(2015-2016 Batch)

This college has given us an unforgettable impression. Competitions and extra-curricular activities organized by the college increased our exposure and assured us and today we are very supportivein forming. The wide range of works done by us have given us a sense of responsibility towards our society and have raised our conscience. Not only this college has given us a tremendous learning experience, but has also given us the opportunity to participate in various social and cultural programs. Except non-scholarly activities, the lessons taught by our proficient professors have given us inevitable knowledge and guidance throughout the session. I am grateful to my teachers and professors that they helped us to support the better persons during college visits and certainly helped us score good grades for all our efforts. I wish you all the best wishes and successfor your future.

VALLI N
(2015-2016 Batch)

With great honour and pleasure, I welcome you all to this auspicious occasion of Arunai Engineering College's Alumni meet. This day is very important, it provides an opportunity for everyone to meet each other after so many years. It also provides a chance for every graduate from the previous years to meet their farmer teachers and other staff members. It also helps the alumni to notice the various changes through which the college has gone through over the past few years. Our college has established a tradition to stay with their contacts. To continue the tradition, our college has again organized an alumni meet. I thank you for taking time out of your busy schedule to attend this event but I can assure you one thing that at the end of the night you all will go home with memories that you would cherish forever.

PAVAN PAWAR
(2015-2016 Batch)




**INNOVATION NEVER ENDS…**