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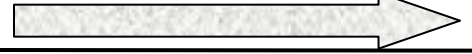
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**ishcare**

*Monthly Magazine*

*Department Of Computer Science  
&  
Computer Applications*



# Ishare

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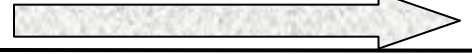
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## Editorial

We would like to wholeheartedly thank our honorable Chairman, Secretary, Executive Director and Principal for their continuous encouragement and constant support for bringing out the magazine.

We profoundly thank our Head of the Department for encouraging and motivating us to lead the magazine a successful one right from the beginning. Ishare serves as a platform for updating and enhancing upcoming technologies in Information and Communication. We are grateful to all the contributors to this magazine so far. The magazine has been sent to almost 60 Institutions in and around Tamilnadu. So far we have received feedbacks and appreciations from various Institutions.

We would be very pleased to receive your feedbacks. Please send your feedbacks to [ishare@ksrcas.edu](mailto:ishare@ksrcas.edu)

By,

Editorial Board



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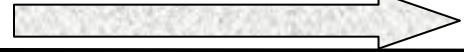


## 1. 5G TECHNOLOGY

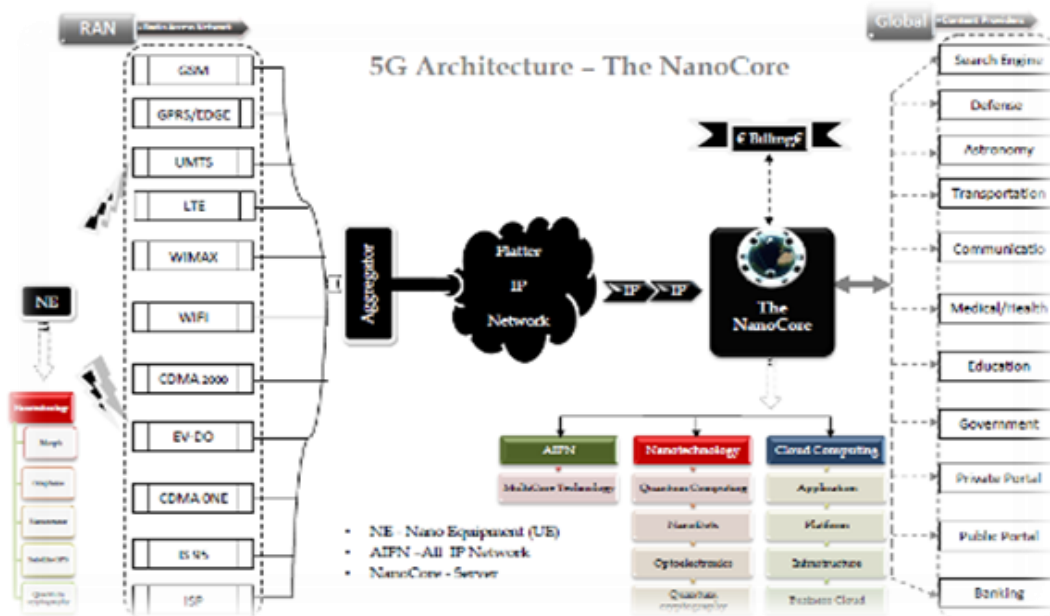
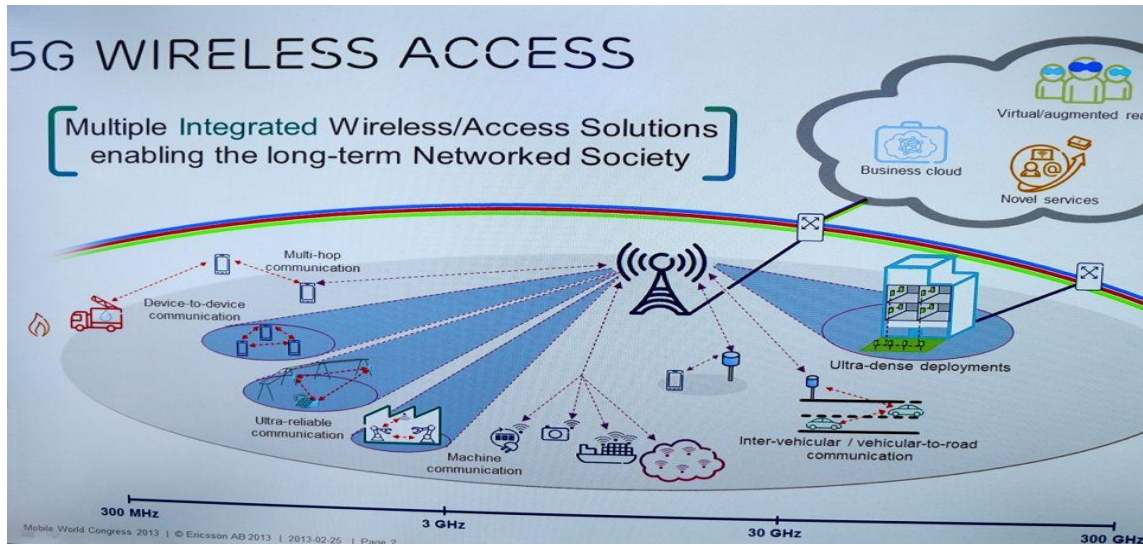
Nokia leads the way for **5G: Technology** is 40 TIMES faster than 4G - and it's so powerful your phone can't handle it yet. The Nokia Networks system reaches speeds of up to 10Gbps. **Tech** helps pave the way for **5G** networks - the next level in mobile internet.

**5G Technology** stands for **5th Generation Mobile technology**. **5G mobile technology** has changed the means to use cell phones within very high bandwidth. User never experienced ever before such a high value technology. Nowadays mobile users have much awareness of the cell phone (mobile) technology. The **5G technologies** include all type of advanced **features** which makes 5G mobile technology most powerful and in huge demand in near future.

The gigantic array of innovative technology being built into new cell phones is stunning. 5G technologies which are on hand held phone offering more power and features than at least 1000 lunar modules. A user can also hook their 5G technology cell phone with their Laptop to get broadband internet access. 5G technology including camera, MP3 recording, video player, large phone memory, dialing speed, audio player and much more you never imagine. For children rocking fun Bluetooth technology and Piconets has become in market.



# What 5G Technology offers?



**5G technology** is going to be a new mobile revolution in mobile market. Through 5G technology now you can use worldwide cellular phones and this technology also strike the china mobile market and a user being proficient to get access to Germany phone as a local phone.



With the coming out of cell phone alike to PDA now your whole office in your finger tips or in your phone.

5G technology has extraordinary data capabilities and has ability to tie together unrestricted call volumes and infinite data broadcast within latest mobile operating system. 5G technology has a bright future because it can handle best technologies and offer priceless handset to their customers. May be in coming days 5G technology takes over the world market.

5G Technologies have an extraordinary capability to support Software and Consultancy. The Router and switch technology used in **5G network** providing high connectivity. The 5G technology distributes internet access to nodes within the building and can be deployed with union of wired or wireless network connections. The current trend of 5G technology has a glowing future.

Features of 5G Technology

**Comparison of 1G to 5G technologies**

Technology	1G	2G/2.5G	3G	4G	5G
Deployment	1970/1984	1980/1999	1990/2002	2000/2010	2014/2015
Bandwidth	2kbps	14-64kbps	2mbps	200mbps	>1gbps
Technology	Analog cellular	Digital cellular	Broadbandwidth /cdma/ip technology	Unified ip & seamless combo of LAN/WAN/WLAN/PAN	4G+WWWW
Service	Mobile telephony	Digital voice, short messaging	Integrated high quality audio, video & data	Dynamic information access, variable devices	Dynamic information access, variable devices with AI capabilities
Multiplexing	FDMA	TDMA/CDMA	CDMA	CDMA	CDMA
Switching	Circuit	Circuit/circuit for access network & air interface	Packet except for air interface	All packet	All packet
Core network	PSTN	PSTN	Packet network	Internet	Internet
Handoff	Horizontal	Horizontal	Horizontal	Horizontal & Vertical	Horizontal & Vertical



- 5G technology offer high resolution for crazy cell phone user and bi-directional large bandwidth shaping.
- The advanced billing interfaces of 5G technology makes it more attractive and effective.
- 5G technology also providing subscriber supervision tools for fast action.
- The high quality services of 5G technology based on Policy to avoid error.
- 5G technology is providing large broadcasting of data in Gigabit which supporting almost 65,000 connections.
- 5G technology offer transporter class gateway with unparalleled consistency.
- The traffic statistics by 5G technology makes it more accurate.
- Through remote management offered by 5G technology a user can get better and fast solution.
- The remote diagnostics also a great feature of 5G technology.
- The 5G technology is providing up to 25 Mbps connectivity speed.
- The 5G technology also support virtual private network.
- The new 5G technology will take all delivery service out of business prospect.
- The uploading and downloading speed of 5G technology touching the peak.





- The 5G technology network offering enhanced and available connectivity just about the world



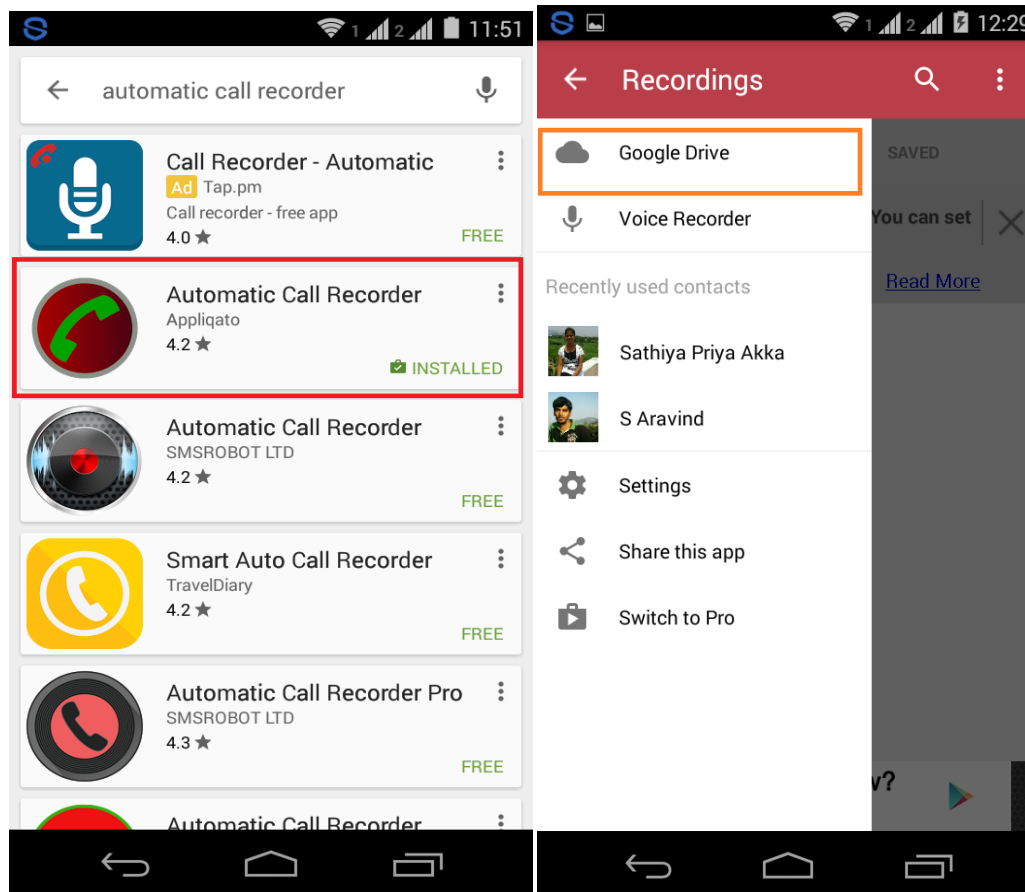
A new **revolution of 5G technology** is about to begin because 5G technology going to give tough completion to normal computer and laptops whose marketplace value will be effected. There are lots of improvements from 1G, 2G, 3G, and 4G to 5G in the world of telecommunications. The new coming 5G technology is available in the market in affordable rates, high peak future and much reliability than its preceding technologies.

## 2. AUTOMATIC CALL RECORDER

Record any phone call you want and choose which calls you want to save. You can set which calls are recorded and which are ignored. Listen to the recording, add notes and share it. Integration with Google Drive™ and Dropbox allows calls to be saved and synchronized to the cloud as well.



Google Drive integration works on Android versions 3.0 and above.



Please note that call recording does not work on certain handsets and can result in inferior quality recordings. Therefore it is suggested that you try the free version before purchasing the paid app.

If you encounter any recording issues or wish to improve voice quality, try recording from a different audio source, or use auto-on speaker mode.

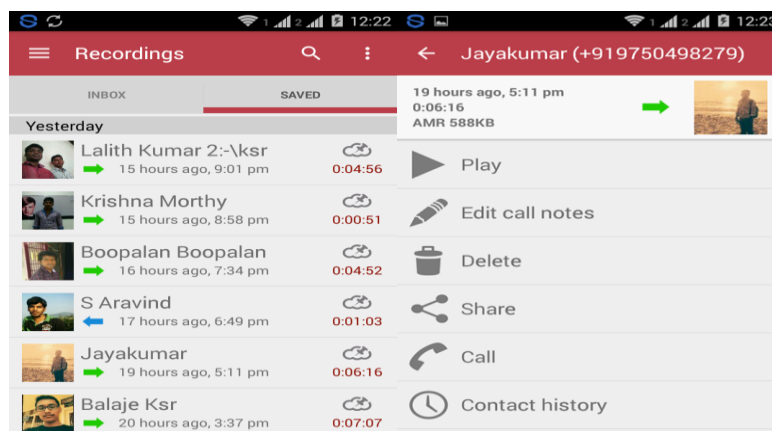
Recorded calls are stored in the Inbox. You can change the destination recordings folder to an external SD card as well. You can set



the size of the inbox. The number of saved calls is limited only by your device memory. If you decide that a conversation is important, save it and it will be stored in the Saved Calls folder. If not, old recordings will automatically be deleted when new calls fill up the inbox.

You can enable a Call Summary Menu with options to appear immediately after a call.

Search for recordings by contact, phone number, or note.



There are 3 default settings for automatic recording:

- Record everything (default) – This setting record all calls except for contacts pre-selected to be ignored.
- Ignore everything – This setting record no calls except for contacts pre-selected to be recorded.
- Ignore contacts – This setting record all calls with people who are not contacts, except for contacts pre-selected to be recorded.

In the Pro version only: You can set calls from particular contacts to be automatically saved, and they will be saved in the cloud.

This app contains ads.



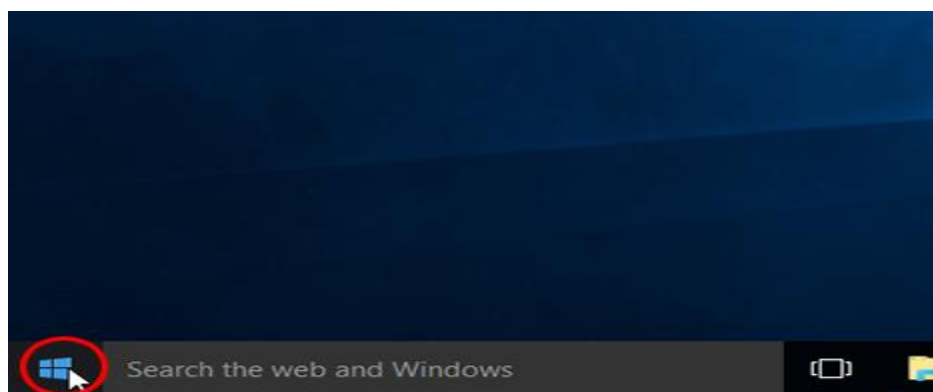
## 3. 7 WAYS TO SHUT DOWN OR RESTART WINDOWS PC

We need to turn off the computer and do some other things every once in a while. Or maybe you just need to get to a fresh start after installing some new software, or you need to pack up your computer or device to take it with you.

No matter the reason, we'll show you seven different ways you can shut down your Windows 10 PC or device. Don't worry, the number of options doesn't mean that this is a tricky task, there are a number of simple ways to shut down a Windows 10 PC or device.

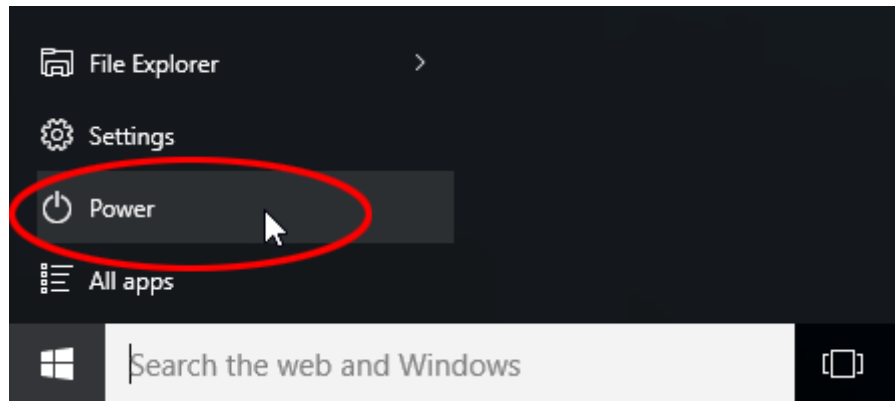
### 1. Shut Down Using The Start Menu

The simplest and most basic method of shutting down Windows 10 is by using the *Start Menu*, which is the default option in the latest Microsoft operating system. To do this, first open the *Start Menu* by clicking the *Start* button in the bottom left corner of the screen.

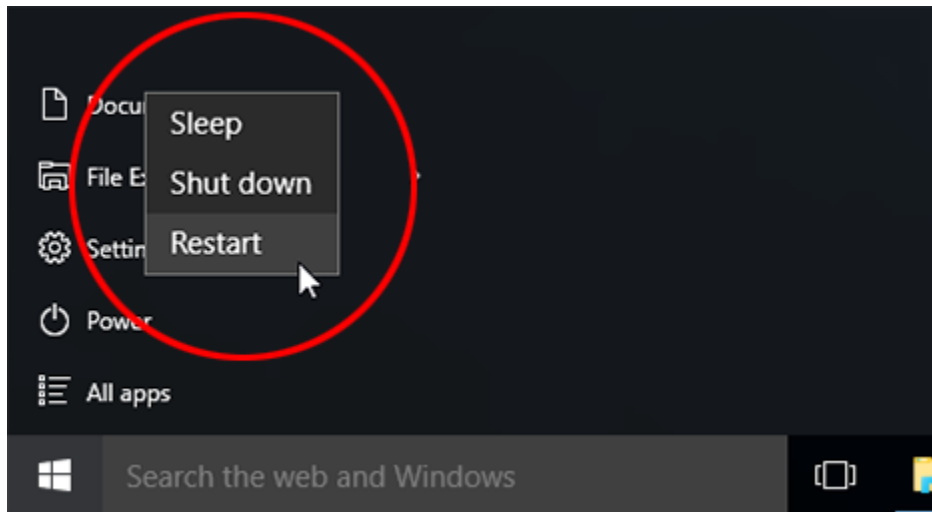




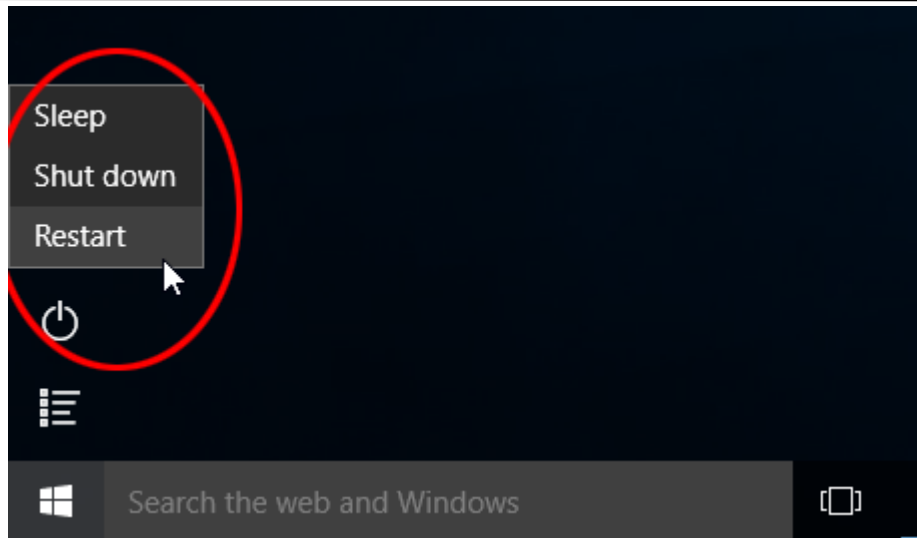
Then, click or tap *Power*.



Three options appear: choose *Restart* to restart your device, *Shut down* to shut it down completely or *Sleep* to put it into sleep mode.



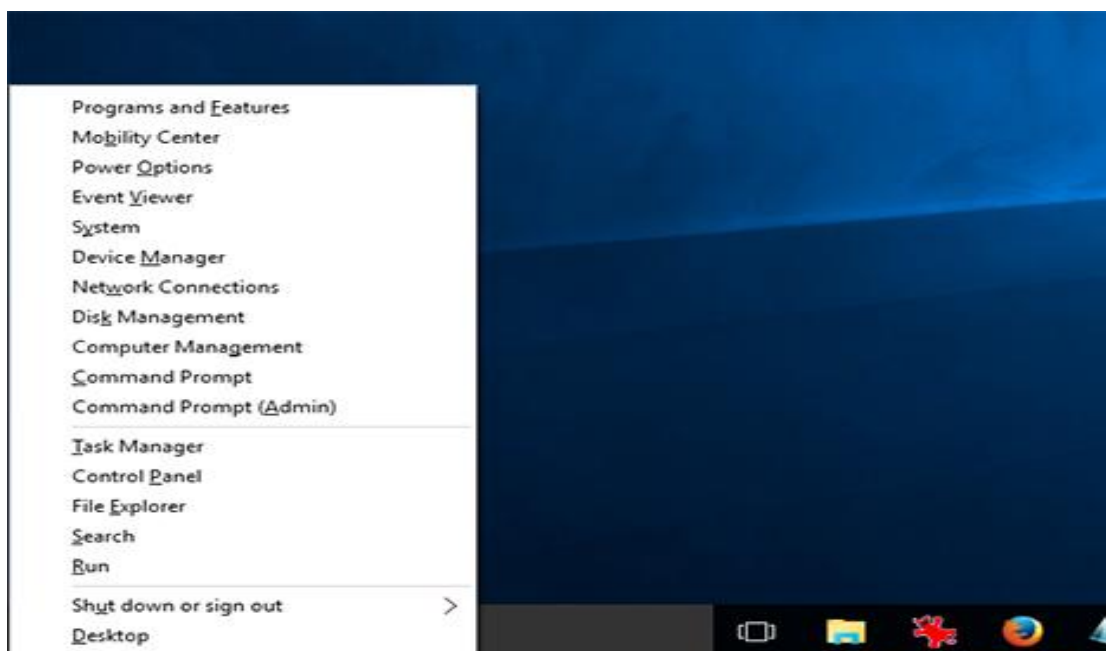
If the *Start Menu* is set to full screen mode, it will look a bit different when opened. In this case, click the I/O icon to access shutdown, restart and sleep.



If you're using Windows 10 in tablet mode, the *Taskbar* will be different, and you won't have a traditional desktop, but you still need to tap the *Start* button to access the full screen *Start Menu*.

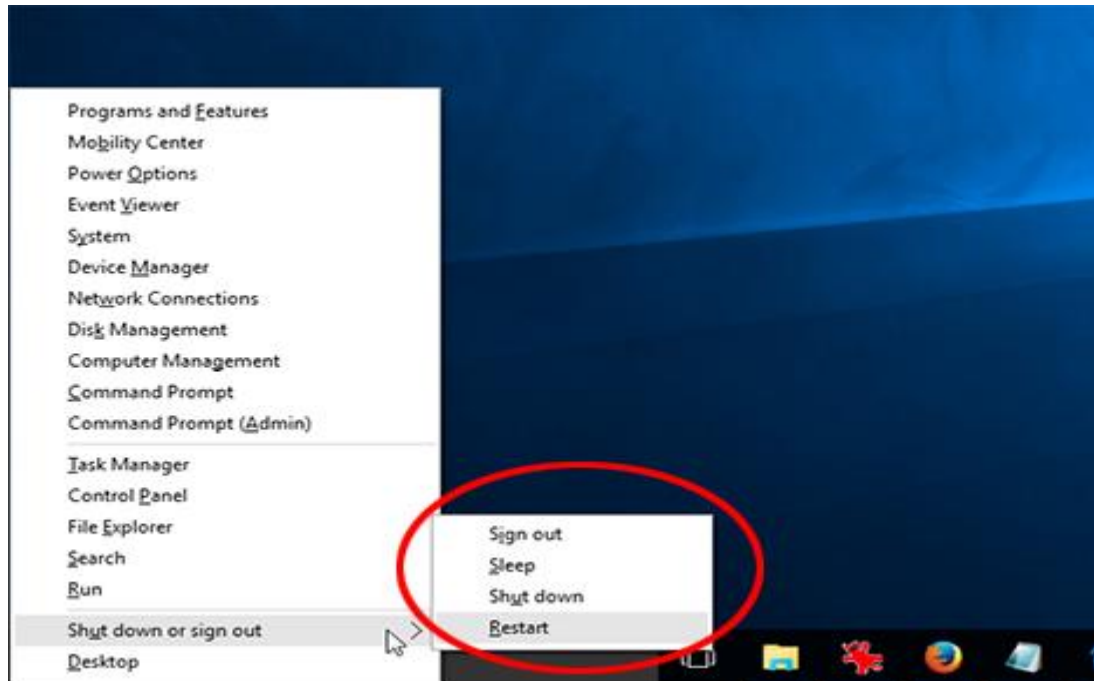
## 2. Shut Down Using The WinX Menu

You can access the power user menu, by pressing the *Windows* + *X* keys on your keyboard.





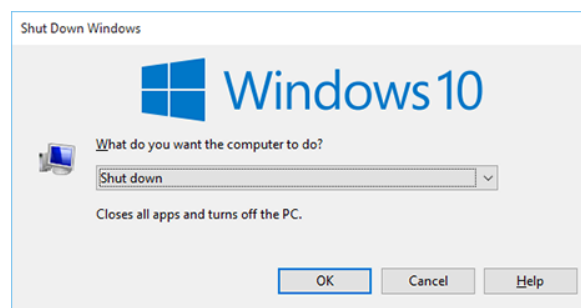
Here, just point to *Shut down or sign out* to access shutdown, restart and sleep.



You can also access this menu, by right-clicking on the *Start* button, or, if you are using a touchscreen, long-press the *Start* button to open it.

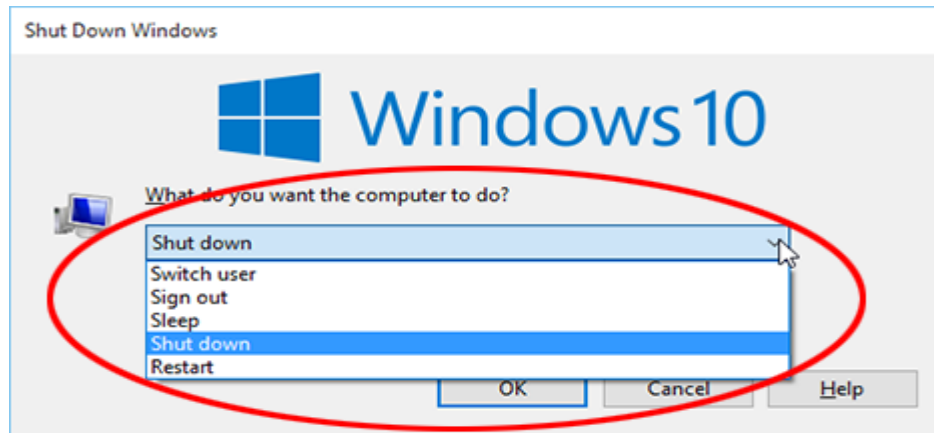
### 3. Shut Down Using ALT + F4

Whenever you are viewing the *Desktop*, you can press the *ALT + F4* key combination to open the shut down menu.



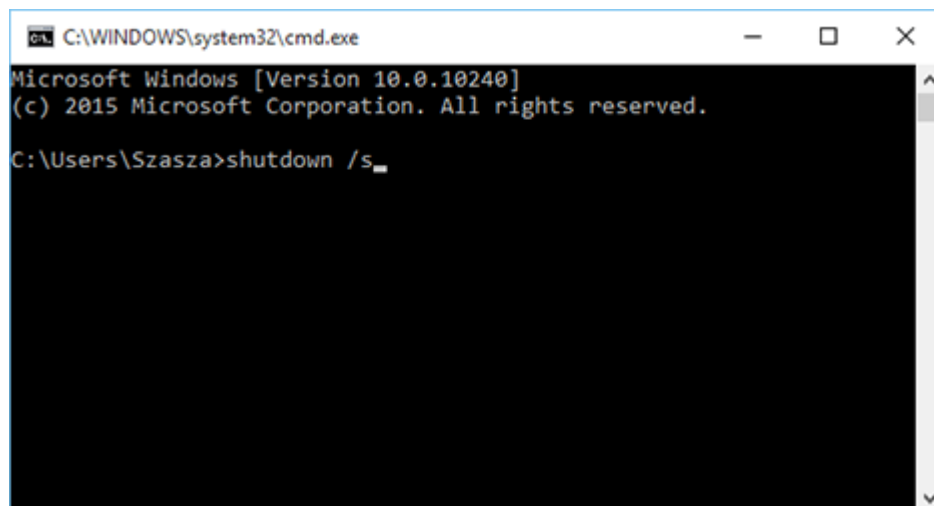


Here, you can open the drop-down list to choose whether to shut down, restart or put the device to sleep. You can also logout from your user profile or switch to a different one. Select the option you want, and click or tap *OK* to confirm it.



#### 4. Shut Down Using The "Shutdown" Command

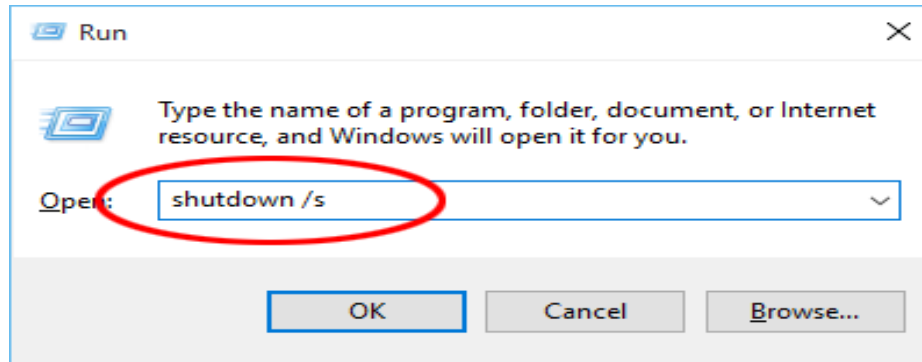
If you like a command line interface, you can use that too. Open a Command Prompt window, type `shutdown /s` and press *Enter* to shut down your device.







You can also issue this command from the *Run* window. Press the *Win* + *R* key combination to open it, then type the *shutdown /s* command and press *Enter* to shut down your device.



To restart the device, replace *shutdown /s* with *shutdown /r*. To learn about all the available parameters for this command simply type *shutdown* in the *Command Prompt*.

### 5. Shut Down From The Lock Screen

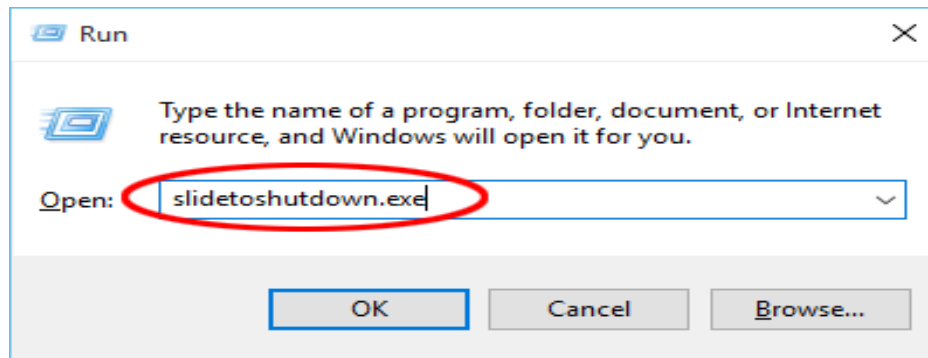
You can also shut down your device from the lock screen: you can see this screen before logging in to Windows, or if you sign out or lock your device. Here, press the I/O icon in the bottom right corner to access the usual shut down, restart and sleep options.



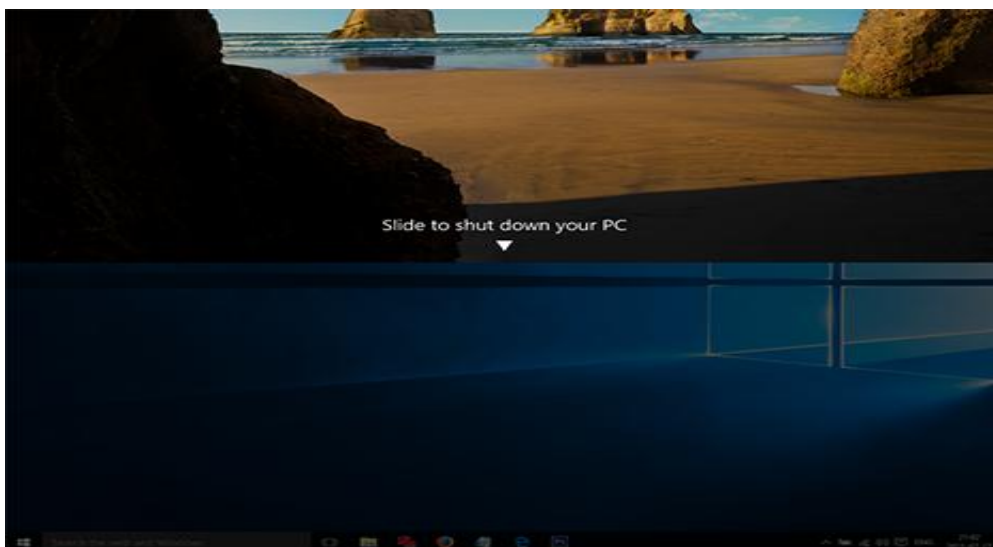


## 6. Shut Down Using "Slidetoshutdown" Command

It is not a very-well known feature of Windows, but you can still use it. Just open the *Run* window by pressing *Win + R*, type *slidetoshutdown.exe* and press enter or click *OK*.



This will drop in your lock screen image from the top that will cover half of your screen. Just slide the image to the bottom of your screen with your mouse (or your finger if using a touchscreen) to shut down your computer, or press any key or slide the image upwards to cancel shutdown.





You can also create a shortcut to this application, if you like this method.

### **7. Shut Down Using The Power Button On The Device**

If you're running Windows 10 on a touch device, like a smartphone, or a tablet, there is another, faster way you can shut it down. First, you need to long press your device's power button (the on/off button), which will drop your lock screen, in a way very similar to the “slidetoshutdown” command.

Now you just need to slide the screen down to shut down the device.

### ***Conclusion***

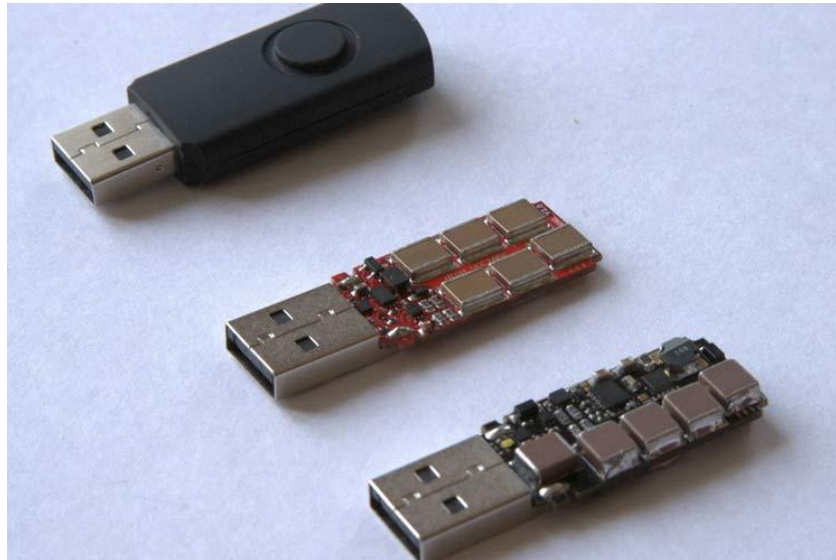
If, for some reason, you want to shut down or restart your device, Windows gives you quite a number of ways to do it. Of course this is a simple task, so there's no reason to overcomplicate it if there's no need.

## **4. USB DRIVE THAT CAN KILL COMPUTER IN SECONDS**

USB sticks for long have been the agents of malware and spreading infection to unsuspecting computer systems making them dysfunctional but still curable. However, a new type of USB device has the potential to damage your computer, completely.



A researcher who goes by the name Dark Purple has built a USB stick that fries up the internals of a computer system within seconds of being plugged.



By appearance, the USB Killer 2.0 looks like any other normal stick but delivers a negative 220-volt electric surge into the USB port and moves from the notion of software damage to a whole new concept of physical destruction of victim computers.

Dark Purple's blog post explains that the new version of the USB device has been improved with twice the output voltage and is more compact than the earlier version.

The killer device isn't only meant to burn down computers or laptops, but capable enough to destroy all devices with USB ports like TVs, routers, modems, and even smart phones with OTG support.

It is not clear how much internal damage is done to the device as shown in the demo video below. While there is an obvious possibility of



the USB port and motherboard getting damaged, the hard drive or CPU have a chance of surviving.

## 5. nanu



### *About nanu*

We are a mobile app created that will end your phone bills forever. Developed by the father-and-son duo, Martin and Daniel Nygate, nanu is the only app in the world that takes advantage of the ultra-low bandwidth technology, allowing users make quality calls even on 2G connection. In fact, compared to other VoIP apps which requires up to 875 kb of data per minute, nanu needs up to 80 percent less bandwidth at 105 kb of data per minute for quality voice calls across all networks.

At the same time, nanu also boasts of clearer calls because it does not rely solely on peer-to-peer (P2P) networks, which degrades quality as the call goes through different access points before getting to the



recipient. Instead, it runs on a different architecture that routes calls either through dedicated lines or P2P networks.

Singapore-based Gentay Communications Pte. Ltd., the firm behind nanu, doesn't want to elaborate on their technology but says it was developed originally for use with ship-to-shore voice communications that the maritime industry uses.

- **High voice quality** Unlike Skype or Viber, nanu uses up to 80% less bandwidth that works perfectly well even on 2g and congested networks. In other words, it works anywhere your phone does. Plus nanu sounds crisper and clearer.

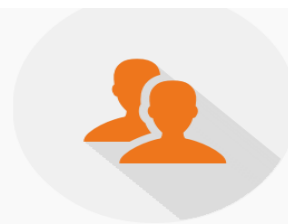
#### *Why nanu?*

nanu is a clever little app that allows you to make free calls on your mobile phone. It is available for both android and iOS phones. nanu doesn't need a fast network, so unlike skype or viber, it works on 2g and congested networks. In other words, it works anywhere your phone does. Plus nanu sounds crisper and clearer.



#### **high voice quality**

Unlike Skype or Viber, nanu uses up to 80% less bandwidth that works perfectly well even on 2g and congested networks. In other words, it works anywhere your phone does. Plus nanu sounds crisper and clearer.



#### **nanu calls**

Nanu to nanu calls are always free and unlimited. Save your free credits when you call your family and friends who are already on nanu.





### nanu-out calls

End your phones bills today! Experience a free voice-call to any landlines or mobile phones anywhere in the world without the need for you to pay. The more free Tapjoy apps you download, the more free credits you get.



### messaging

Missed a call? We got your back, nanu offers free and unlimited one-to-one messaging exclusive to all nanu users. Start sending messages today!



#### *Nanu's mission:*

nanu's mission is to provide free calls to everyone, everywhere, even on 2G!

## 6. BLUE EYES TECHNOLOGY

Blue Eyes is a technology conducted by the research team of IBM at its Alma den Research Center (ARC) in San Jose, California since 1997. Blue eyes technology makes a computer to understand and sense human feelings and behavior and also enables the computer to react according to the sensed emotional levels.

The aim of the blue eyes technology is to give human power or abilities to a computer, so that the machine can naturally interact with human beings as we interact with each other. All human beings have some perceptual capabilities, the ability to understand each other's emotional level or feelings from their facial expressions. Blue eyes



technology aims at creating a computer that have the abilities to understand the perceptual powers of human being by recognizing their facial expressions and react accordingly to them.

Imagine, a beautiful world, where humans collaborate with computers!!

The computer can talk, listen or screech aloud!! .With the help of **speech recognition and facial recognition systems**, computers gathers information from the users and starts interacting with them according to their mood variations. Computer recognizes your emotional levels by a simple touch on the mouse and it can interact with us as an intimate partner. The machine feels your presence; verifies your identity and starts interacting with you and even it will dial and call to your home at any urgent situations. This all is happening with this “**Blue Eyes**” technology.

The main objective of Blue eyes technology is to develop a computational machine having sensory and perceptual ability like those of humans. The Blue Eyes technology system is a combination of a set of hardware and software systems.

The hardware consists of a central system unit (CSU) and data acquisition unit (DAU). Microcontroller- ATMEL 89C52 is the heart of the data acquisition unit. Bluetooth technology is provided for the coordination and communication between the two units. We can adapt this Blue Eyes technology in all working places, where the operator’s attention is continually available. Using the Blue eyes Technology it is





able to record and monitor the user's physiological condition by a technical approach. The aim of this Blue Eyes technology is to provide a machine or system having sensory and perceptual abilities like human beings thus it will support healthy stress free surroundings where the computers and humans can work together as intimate partners.

Blue eyes technology consist of,

1. Mobile measuring device or Data Acquisition Unit (DAU)
2. Central System Unit (CSU)
3. The Hardware

***Mobile measuring device or Data Acquisition Unit (DAU) of Blue Eyes technology:***

The DAU used in the Blue Eyes technology is the mobile component of the system. The main function of DAU is to gather the physiological information from sensors and forward to the CSU for processing and verification purposes.

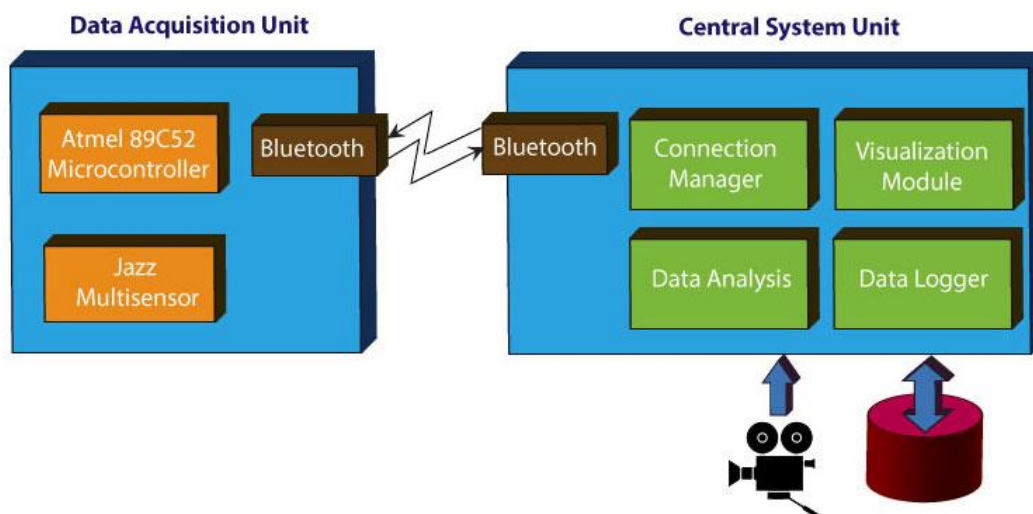


Fig: Over view of Blue Eyes systems



The blue tooth module, which is integrated with the mobile device (DAU), provides a wireless interface between the Central System Unit (CSU) and the user or operator having the sensors. PIN codes and ID cards are assigned to the entire operator's for authentication purposes. The device uses a five-key keyboard, beeper and LCD display for the interaction with the operators and if, any unwanted situation occurs, the machine uses these devices to inform the operators.

The 'voice' information from the user is transferred with the help of a headset, which is interfaced with the Data Acquisition Unit using a mini jack plug. DAU incorporates various hardware modules like system-core Bluetooth section, Atmel 89C52 microcontroller, EEPROM, Beeper, LCD display (HD44780), LED indicator, voltage level monitors and 6 AA batteries.

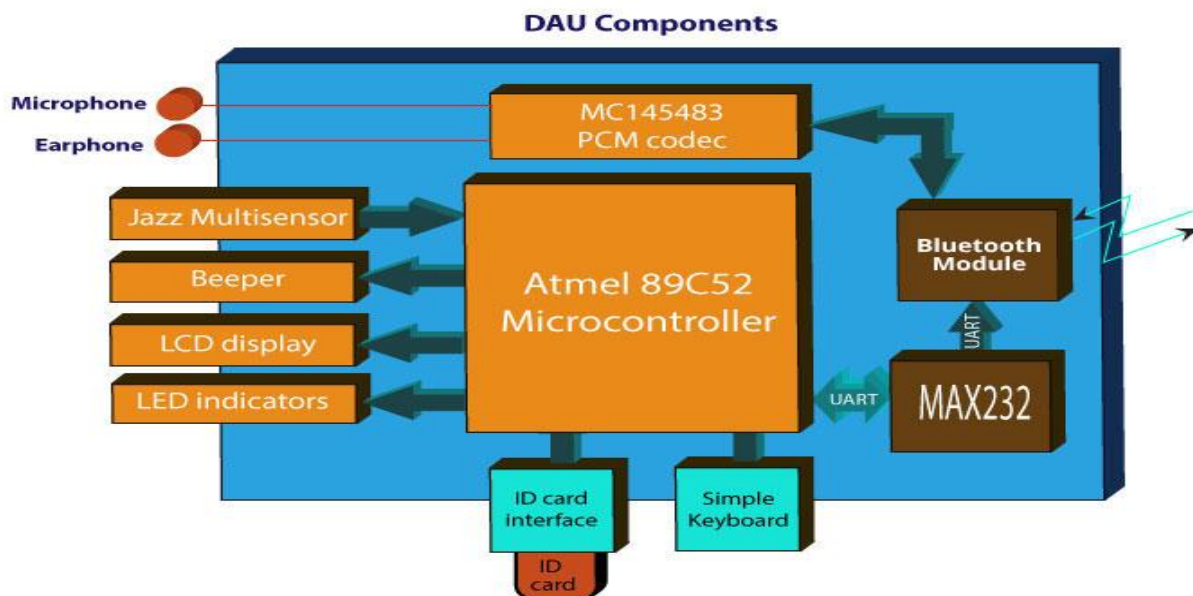


Fig: Data Acquisition Unit (DAU) Components



### ***Central system Unit (CSU) of Blue Eyes technology:***

CSU is the next quint of wireless-network connection in the Blue Eyes technology. The CSU mainly contains codec (PCM Codec commonly used for voice information transmission) and a wireless blue tooth module. This CSU section is integrated to a personal computer using USB, parallel and serial cable.

The mini-jack socket is used for audio data accessing. The program containing the operators personal ID is amalgamating to the personal computer through the serial and power ports. The microcontroller (Atmel- 89C2051) inside the unit handles the I2C EEPROM- programming and UART transmission.

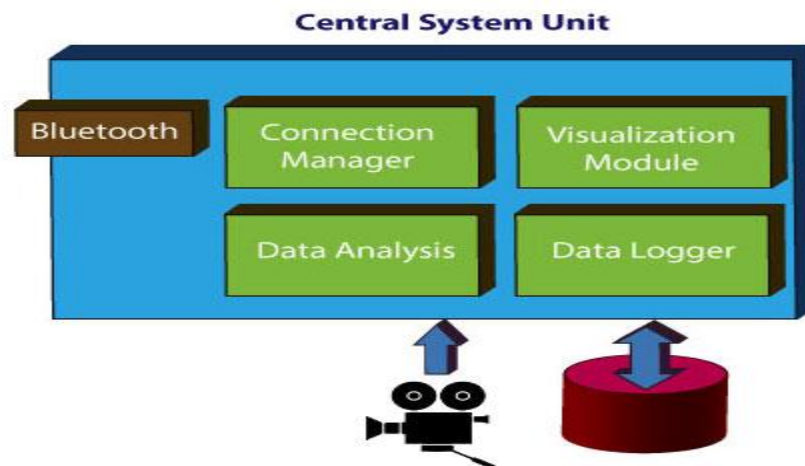


Fig: Central system Unit (CSU) Components

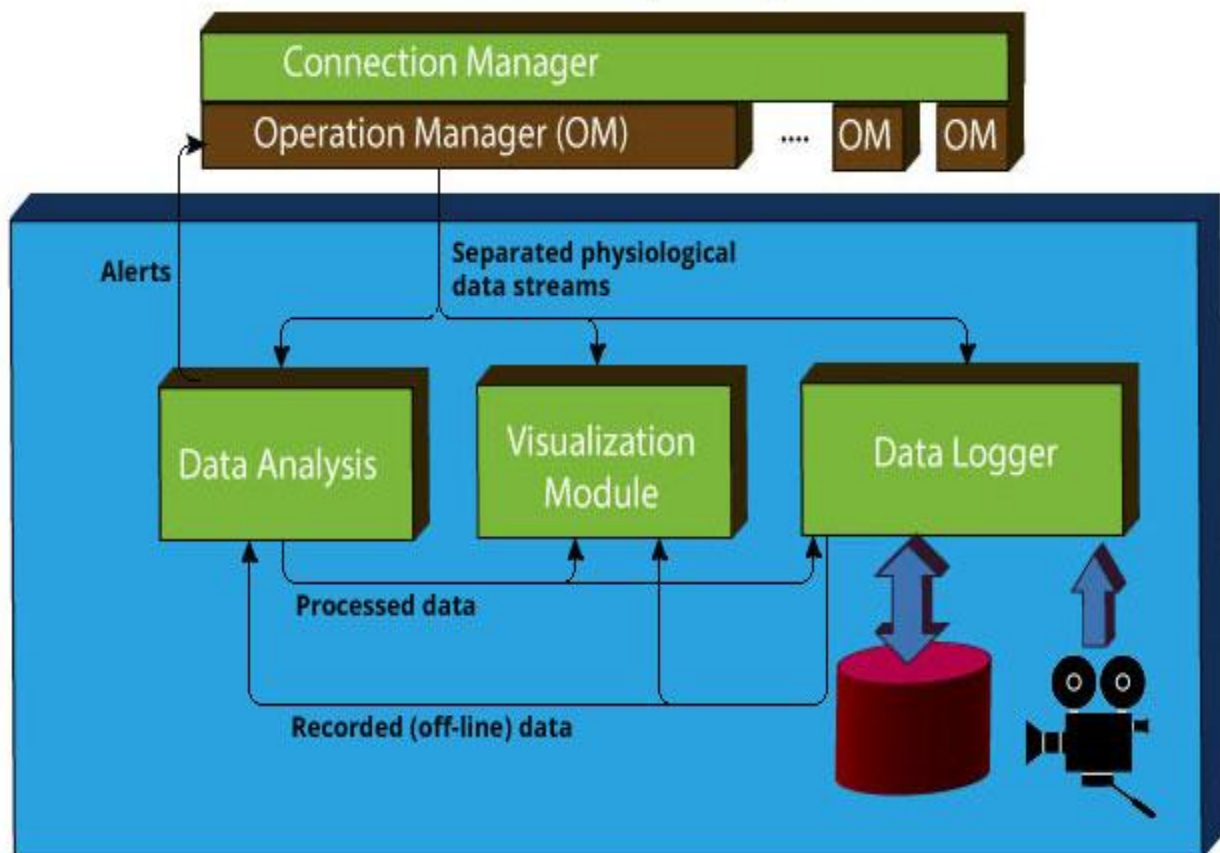
### ***The Software used in Blue Eyes Technology:***

The operator's physiological condition is continually supervised by this Blue Eyes technology software. The software will respond in real time according to the operator's physiological condition. This software helps to transfer the data or information from managers to the data



analyzers. Then it transfers the processed information from this data analyzers unit to the GUI controls and data analyzers. At last, the data visualization module supports a user supervisor interface section. The visualization module is in the off-line mode and it will continually fetch the information from database and also records the video, audio and physiological parameters. Thus 'Blue Eyes' software enables the supervisor to know about the physiological condition of the operators.

**Software Analysis Diagram**



***The Blue Eyes Technology and Its Basic Structure:***

The objective of Blue Eyes technology is to design a computational machine having sensory and perceptual abilities like



human beings. Blue Eyes technology uses most modern cameras, microphones and advanced non-obtrusive sensing techniques to interact with humans and understand the emotions of human beings. The machine has the ability to grasp the eye movement of the user, the needs of the user and also can understand the emotional and physical states of a user in front of the machine. The process of making a computer having sensing and emotional capabilities is known as “Affective Computing”.

*The steps involved for designing such type of computers are given below.*

1. Process of giving sensing capacity.
2. Human Emotion detection or Affect Detection.
3. Respond appropriately and properly.

***1. Process of giving sensing capacity:***

Blue Eyes utilizes many sensor mechanisms, which is equivalent for the ears, eyes and other sensory organs that human beings used to express emotions and recognize each other. Blue Eyes uses voice recognition software, cameras and biometric sensors to understand and respond to the emotional levels of humans. The voice recognition software can perceive not only what is being spoken but also the tone how it is said. High resolution cameras are used for tracking the minute facial expressions, hand gestures and eye movements. Biometric sensors are used for measuring and analyzing the muscle tension, body



temperature, blood pressure and other physiological gesture correlated with emotions.

## ***2. Detecting human emotions/ Affect Detection:***

In Blue Eyes technology, the machines have the ability to identify the minor variations in the moods of human beings. Say a person may strike the keyboard hastily or softly depends on his mood like happy or in angry. The Blue Eyes enables the machines to identify these minor emotional variations of human beings even by a single touch on the mouse or key board and the machines started to react with the users according to this emotional levels. This is done with the guidance of intelligent devices like “Emotion Mouse”.

Along with this Emotion Mouse, Simple User Interest Tracker (SUITOR) and Artificial Intelligent Speech Recognition are equipped with the Blue Eyes technology to understand the speech and identify the interest of the peoples at that instance of time.

For implementing the Affective Computing we need Emotion Sensors.

### ***Types of Emotion Sensors used in Blue Eyes Technology:***

- ***For Hand - Emotion Mouse:***

The major aim of Brain Computer Interface (BCI) is to develop a smart and adaptive computer system. These types of project must include speech recognition, eye tracking, facial recognition, gesture recognition etc. software and hardware. Similarly in Blue Eyes technologies, we need to build a system have the ability to identify all



these perceptual abilities of human beings. In Blue Eyes, the machines have the ability to identify the minor variations in the moods of human beings. Say a person may strike the keyboard hastily or softly depends on his mood like happy or in angry.

The Blue Eyes technology enables the machines to identify these minor emotional variations of human beings even by a single touch on the mouse or key board and the machines started to react with the users according to this emotional levels. This is done with the guidance of intelligent devices like “Emotion Mouse”.

Actually this Emotion Mouse is an input device to track the emotions of a user by a simple touch on it. The Emotion Mouse is designed to evaluate and identify the user’s emotions such as fear, surprise, anger, sadness, happiness, disgust etc. when he/she is interacting with computer. The main objective of the Emotion Mouse is to gather the user’s physical and physiological information by a simple touch.





- **For Eye - Expression Glass:**

Expression Glass is an alternative for the usually available machine vision face or eye recognition methods. By analyzing pattern recognition methods and facial muscle variations, the glass senses and identifies the expressions such as interest or confusion of the user. The prototype used for this glass uses piezoelectric sensors.



### ***MAGIC Pointing***

The Eye gaze tracking methods explores a new way for handling 'eye gaze' for man machine interfacing. The gaze tracking has been deliberated as an excellent pointing method for giving input to computers. But many drawbacks exist with this traditional eye gaze tracking methods.





To overcome these difficulties an alternative approach – termed as MAGIC - Manual and Gaze Input Cascaded – is projected. In this approach, eye gaze pointing appears to the user as a manual job, utilized for fine selection and manipulation processes. Even so, a large amount of the cursor movement is removed by bending the cursor to the eye gaze portion, which surrounds the target. The selection and pointing of the cursor is primarily controlled by manual means but also guided by a gaze tracking mechanism and is commonly known as MAGIC Pointing.

The main aim of MAGIC pointing is to use ‘gaze’ to warp the previous position (home) of the cursor to the locality of the target, reasonably where the user was looking at, so as to reduce the cursor motion amplitude required for target selection.

When the cursor position is identified, only a small movement is needed by the user to click on the target by a manual input device that is to accomplish Manual Acquisition with Gaze Initiated Cursor or Manual and Gaze Input Cascaded (MAGIC) pointing.

Two MAGIC Pointing methods – conservative and liberal –in terms of cursor placement and target identification, were outlined, analyzed and executed with an eye tracker unit.



Fig: Liberal MAGIC pointing Technique



Fig: The conservative AGIC pointing Technique

### Advantages of MAGIC Pointing Technique:

- Reduced physical effort compared with the traditional manual pointing techniques.
- Greater spontaneity than traditional manual pointing.
- Greater accuracy.
- Faster speed of operation than manual pointing.

### Drawbacks of MAGIC Pointing Technique:

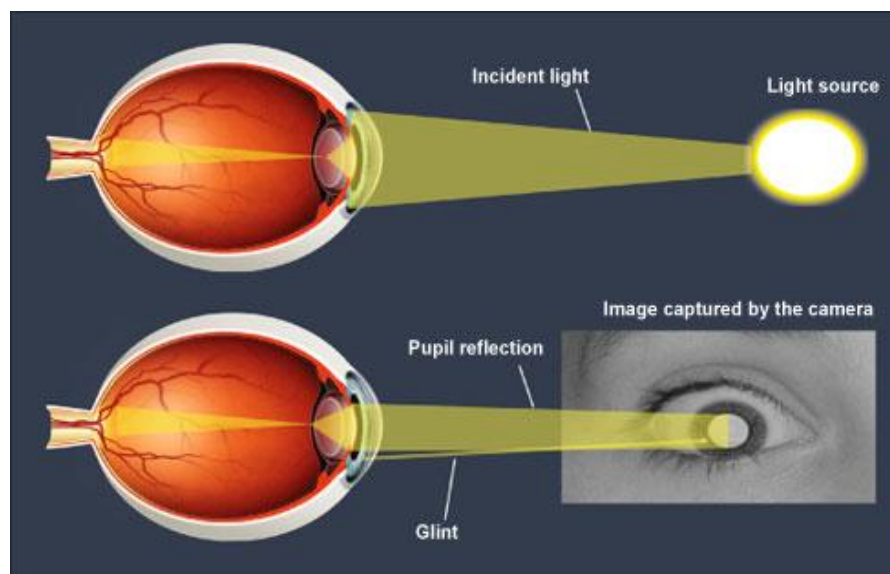
The unconscious jittery movement that an eye continually makes and also the one degree size of the fovea, eye gaze method is not accurately enough to perform UI widgets such as slider handles, scrollbars and hyperlinks on the Graphic User Interfaces. Sometimes the movement of the eye is spontaneously controlled while sometimes it is uncontrollable.



In MAGIC pointing many methods such as eye blinking and continuous looking etc. are used for target selection procedures. But sometime it is not working properly because if a user does not look at a particular target continuously for a predetermined threshold value, the target will not be selected. Thus there are more chances for false selections.

### **The Simple User Interest Tracker (SUITOR):**

The Simple User Interest Tracker is revolutionary approaches towards the design of machine having the ability to maintain an intimate relationship between the humans and the computers. The SUTOR continuously analyzes the user that where his eye focus on the personal computer screen. The SUTOR has the ability to determining the topic of interest of the user and also according to this it can able to deliver the appropriate data to a handheld device.





## *Artificial Intelligent Speech Recognition used in Blue Eyes Technology:*

For implementing the Artificial Intelligent Speech Recognition system in Blue Eyes technology, the working environment should be very important. The manner of the user's speech, grammar, noise type, noise level and the position of the microphone are some important factors that may influence the features of speech recognition system. In Artificial Intelligent Speech Recognition system, an automatic call handling method is implemented without any telephone operator.

### **Two basic ideas are included in the Artificial intelligence (AI),**

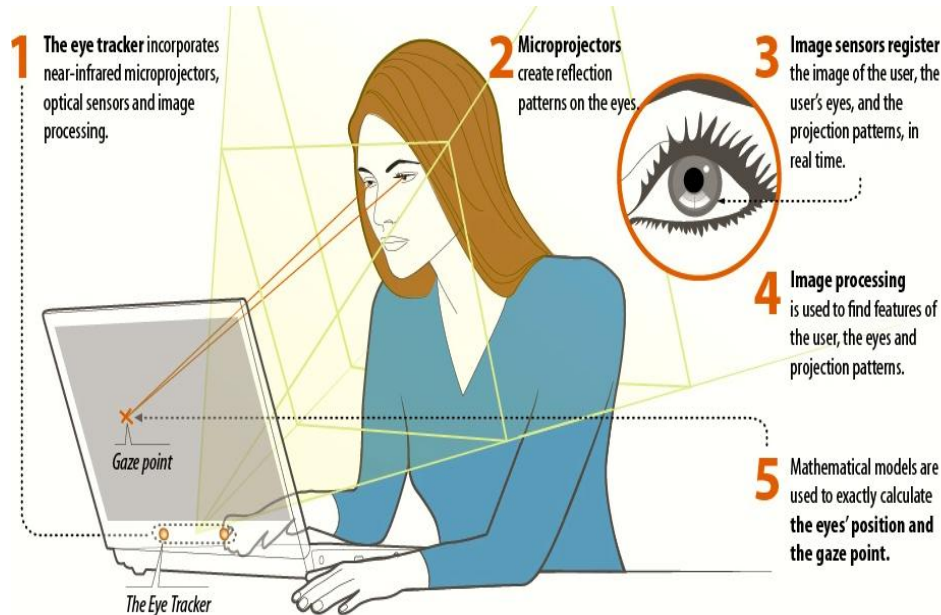
- Study the thought of human beings.
- Represents the thought process of human beings through robots, computers etc.

Actually Artificial intelligence (AI) denotes the behavior of a computer or any machines but it is carried out by the humans is called as 'intelligent'. This AI makes machines more power full, useful, and smarter and also it is less expensive compared to natural intelligence. Natural language processing (NLP) makes artificial intelligence systems to communicate English.

The main goal of the Natural language processing (NLP) is to understand the users input and react according to these inputs. The input



data or words are continuously scanned and finds matches against inside stored known data or words. And after identifying the key words, the corresponding actions are carried out by the machine. In this way the Blue Eyes technology enables the users to communicate with the machines with their own languages.



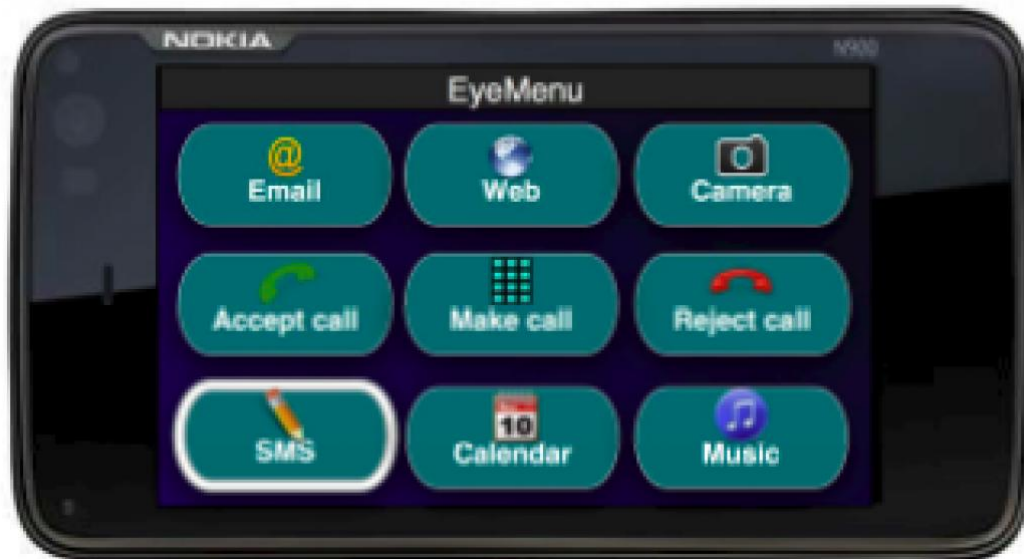
### ***Conclusion:***

BLUE EYES technological approach assure a convenient technique, that simplifies the life by supporting more elegant and user friendly provision in computing devices. The day is very near, that this Blue Eyes technology will advance its way towards your house hold devices and makes you lazier. In future, even this Blue Eyes will reach as your hand held mobile device.



## 7. EYEPHONE

***EYEPHONE: NEW CELLPHONE SOFTWARE TRACKS USERS' EYE MOVEMENTS FOR CONTROL***



Dartmouth College researchers are giving a whole new meaning to the word iPhone. *Ahem* Make that Eye-Phone.

Eye-tracking could soon be coming to cell phones, allowing hands-free control of mobile devices that goes way beyond voice activation, Technology Review reports.

While eye-tracking is nothing new — it's been used for years to allow people with disabilities to use computers, by advertisers, and by the military — eye-tracking is difficult on a small, moving device like a cellphone.



The Dartmouth team, led by Professor Andrew Campbell, devised a new algorithm that learns to identify a person's eye movements under different conditions.

First, you have to calibrate the system by snapping pictures of your eyes both indoors and outdoors. During a learning phase, the software is trained to recognize eye movements in various lighting situations.

Running on a Nokia N810 tablet, EyePhone tracks the position of the user's eye relative to the screen, rather than where a person is looking. The software divides the camera frame into nine regions and looks for the eye in one of those regions, Tech Review reports.

The user has to arrange the phone so a virtual "error box" is situated around his or her eye; the system can recognize the eye as long as it stays in this box. Blinking equates to a mouse click, allowing users to choose an application.





The team will present a paper (PDF) on their findings at a workshop in New Delhi, India, in August.

It's a pretty basic system, but the researchers hope to develop more advanced methods. That shouldn't be too hard for Campbell, whose lab has previously dabbled with something it calls NeuroPhone — an iPhone that taps into your brain. That system uses an off-the-shelf wireless EEG headset to control an iPhone. A mind-controlled contact app flashes photos of contacts, and when the user sees the person she wants to call, her brain activity triggers the system and tells the iPhone to dial that person.

## Department Activities

### BCA Alumni Meet

The Department of Computer Applications had conducted Alumni Meet on July 17, 2016. The students of 2007-2009 Batch attended the meet.







The Alumni honored the faculty members and shared many memorable moments took place in the class. They interacted with the faculty members and existing batch students about the latest trends in the IT Industries.



They also honored the institution by donating books for the college library.





On the previous day, our Alumni of the same batch, Mr.A.Anirudh Patil, SAN Administrator, Wipro Technologies, Mysore and Mr.S.Murali Krishnan, Associate Quality Analyst, EBIX Software India Pvt. Ltd., Chennai, interacted with Final year BCA students about Personality Development and current IT trends. They had a wonderful time spending with their Juniors.

## Department Activities

### Department Club

TechSavvy – The Name of a Club formed by the students of Bachelor of Computer Applications (UG).



The objective of starting this club is to train the students to participate in Project/Software Development, relevant events/contests and to apply for funded projects.

The club is inaugurated on July 16, 2016. As an initiative, competitions are conducted for the first and second year students. The event is organized by the Final year BCA Students. The Inauguration started with a prayer song. Ms.S.Padma, Head, Department of BCA, Event In-charge and the Club President and Members honoured our beloved Principal Dr.V.Radhakrishnan with Nosegay.



Three competitions were conducted and the students participated actively in those competitions. Technobuzz (Quiz), Logo Quiz and Photoshop events along with some fun events in between were conducted on that day.

In the valedictory function, Head of the department distributed the certificates to the winners and runners of the events. Students, who witnessed the events, shared their valuable feedback.



## Department Activities

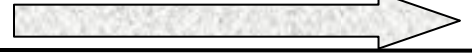
### Short Film making

To bring out the creativity and enhance the thinking capacity of students, the Department of Computer Science thought of conducting a workshop for short film making. This idea gathered momentum on 2<sup>nd</sup> July 2016 which had its inauguration by the Department Head where other college students [Paavai College of Arts and Science, Mahendra Arts and Science College, Erode Arts and Science College, etc] of 75 members participated. The instructors were the alumni students who are now working their passion as Assistant Director in cinema industry. Adobe Photoshop, Adobe Premiere, Adobe After Effects and Audacity were the tools discussed for editing the film. The session started around 09.30am and concluded at 04.30pm with certificate distribution.

As an added measure and massive requests from other college students the workshop had its Phase - II on 16<sup>th</sup> July 2016 with around 90+ participants were trained on the editing softwares. As the same way the session concluded with certificate distribution where our college principal Dr.V.Radhakrishnan had the interest in giving away the certificates and also had a discussing chat with participants.

**Primary Objective** : To bring out the interest towards cine industry and editing softwares.

**Outcome** : Involving alumni students to train on the softwares and create awareness about cine industry.



## MAILING LIST - To Whom We Send



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- Dr.Pannir Selvam, HOD of CS, Erode Arts College (Autonomous), Erode - 09.
- Mr.S.SureshBabu, HOD of CS, Thiruvalluvar Government Arts College, Rasipuram.
- Dr.K.Thangavel, HOD of CS, Periyar University, Salem-11.
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  - Dr.R.AmalRaj, Prof. Dept Of CS, Sri Vasavi College, Erode - 16.
  - Dr.R.Pugazendi, Assistant Professor, Dept. of CS, Government Arts and Science College, Salem-7.
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# iPHONE & APPLE WATCH

*Body Temperature is a fantastic app for iPhone and AppleWatch, by Which you can measure your body temperature via heart rate.*

*You can calculate the temperature with the Apple Watch sensor or With iPhone Camera*

