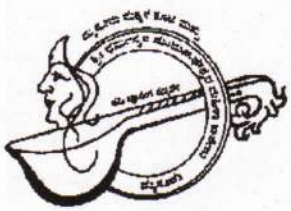
II Om Shree Manjunathaya Namaha II

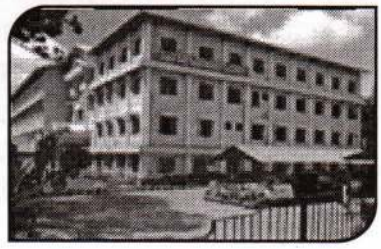
MMK & SDM MAHILA MAHAVIDYALAYA

Krishnamurthypuram, Mysore



GI Talk

Girls IT Talk...



Prof. K.V.DAMODARA GOWDA
Principal

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HOD of Computer Science

Faculty Editors
Mrs. S.K.Ramya
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May 15, 2015
Department of Computer Science
Issue 15

Student Editors
Aishwarya M.J
Maheshwari B.P

Editorial

The Department of Computer Science presents the Fifteenth issue of "GI Talk" to its readers. As usual the issue contains very good piece of information on the latest profiles of computers and their applications and the voice of innovative technologies have also been echoed in the pages of "GI Talk".

I am happy to state that the students have contributed very good articles under the guidance of their teachers. I hope that readers would receive them positively as usual. Constructive suggestions are welcome.

My best compliments to the contributors and readers.

Prof. K.V.Damodara Gowda
Chief Editor

Message by HOD

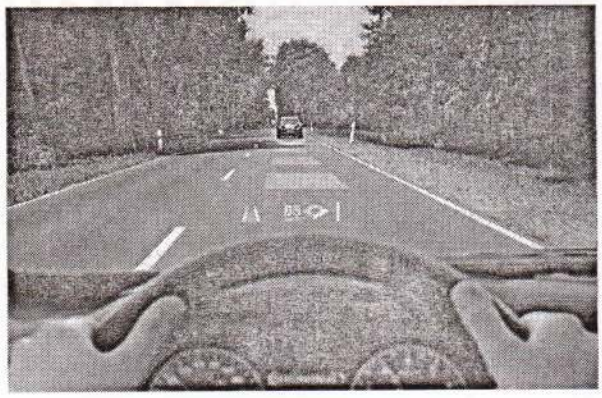
I am very happy that our BCA students have taken up the initiative to publish the fifteenth issue of the news letter GITALK. It is an opportunity to share their knowledge, express their diverse view and will be a tool to improve their skills in writing. I would like to express my gratitude and appreciation to all those who contributed their time and effort to bring this news letter on time. Students have done a remarkable job by submitting inspiring articles and meeting a difficult deadline. I wish the news letter all success.

K.S. Sukrutha
HOD,Computer Science

Pre-Collision Technology

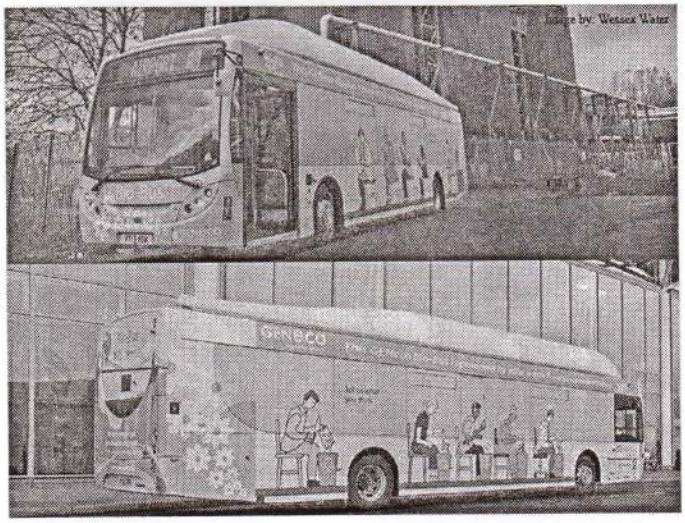
Top carmakers such as Ford and Hyundai have developed a pre-collision assist and pedestrian detection technology. Besides helping the driver detect blind spots, this technology also alerts the driver when he/she is not paying attention on the road. And if the driver falls asleep and does not respond to the warning, then the system applies the brakes on its own. The driver assist system has two types of sensors.

One is millimetre-wave radar located inside the front grille, and the other is a monocular camera mounted on the upper, inside part of the windshield. Its collision mitigation braking system delivers an audio and visual warning when there is a risk of a head-on collision.



If the driver fails to react, the car will automatically begin breaking itself to prevent or reduce the severity of a crash. This technology will debut in 2015 with Ford Mondeo in Europe. Hyundai would introduce it in

Bus Powered by Human Waste



In November, the world witnessed the first ever bus to run on human waste on the roads of Britain. According to researchers, the bus can provide a sustainable way of fuelling public transport - cutting emissions in polluted towns and cities.

The 40-seater Bio-Bus, which runs on gas generated through the treatment of sewage and food waste, helps to improve urban air quality as it produces fewer emissions than traditional diesel engines. The bus can travel up to 300 km on a full tank of gas.

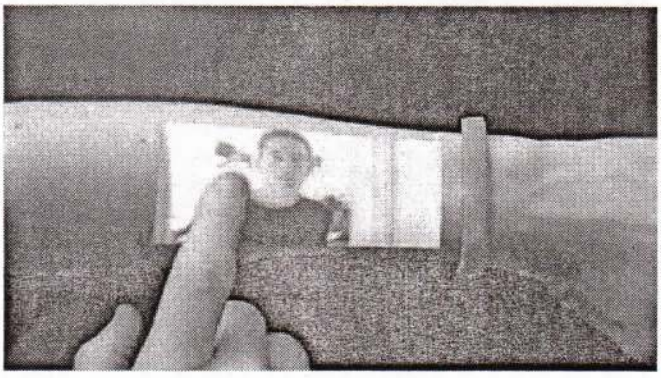
Kavyashree V, III BCA

THREE Dimensional Printing

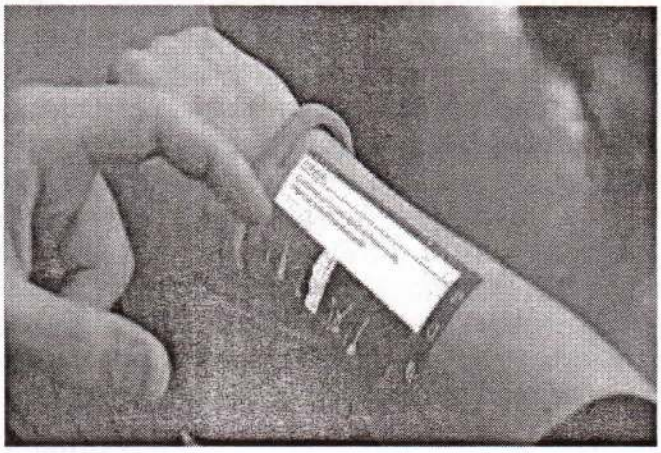
Inventors Max Bogue and Peter Dilworth have invented a unique pen that draws in the air. A colorful spool of plastic thread is fed into the pen. The thread is then extruded as heated plastic that cools and solidifies instantly as it exits the tip. This allows solid 3D structures to be drawn on any surface or from any surface into the air. The pen, called a 3Doodler, weights approximately 7 ounces (198 g) and is 7 inches (17.7 cm) long. It requires no technical knowledge or software and plugs into an electrical outlet. Max and Peter have received over 2.2 million dollars worth of advanced orders for their three dimensional printing pen. They expect to fulfill those orders and launch the product in the fall of this year. The co-inventors met while working for WowWee, a company based in Hong Kong that develops consumer technologies. Peter consulted WowWee as an independent inventor. He had previously worked on robotics at MIT and contributed to a number of innovations including the infamous Uno Dicycle motorcycle. Max was an R&D project manager with WowWee and has extensive experience in bringing products to market.

Rennel Menez, III BCA

Cicret wearable aims to turn your skin into your tablet - but is it hype or reality?



Paris, France design company Cicret aims to turn your arm into a tablet device promising a great future for wearables. Billed as "a tablet, but on your skin" the Cicret bracelet will project your phone onto the skin of your arm.



It will use a tiny 'pico projector' and eight miniature proximity sensors to replicate an image of your device screen on to your arm.

Low energy Bluetooth will communicate with your mobile device. A Wi-Fi component will connect you to the network. It will have a vibrate function and a micro USB charging port.

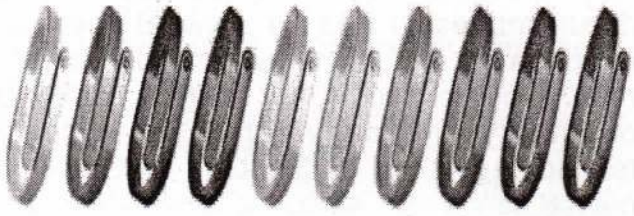
Touching your arm with your finger will interrupt one of the sensors and return the instruction back to the processor - the Cicret bracelet.

Flicking your wrist will initiate the display on your arm. The Cicret bracelet will be water resistant and durable. Flick, swipe, pinch and zoom functionality will be supported along with tap to text. You will even be able to answer the phone with a flick of your wrist.

The Cicret will be available in two capacities, 32Gb and 16Gb and will be available in 10 colours.

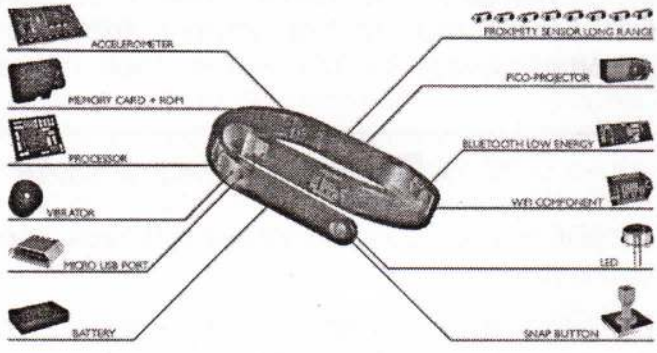
Cicret wants 700,000 euros (almost $810,000) to enable it to complete a working prototype but the company is optimistic about its success.

The Cicret Bracelet uses a Pico projector to



project your phone's screen onto your arm, and it's equipped with eight proximity sensors which makes it possible for the bracelet to detect your finger position whilst you control the device.

A few others were curious about how long the battery life would actually hold up, expressing how they have had bad experiences with small gadgets that cost a fortune but don't last that long due to lack of durability and weak battery



life.

The younger generation expressed mainly one genuine concern, "So will everyone be able to see what I do online? It looks like it's hard to hide if you want to type a message in private!" said 14-year-old Dhanya Lim from Sunway International School.

Source : Google

Ramya E.M,II BCA

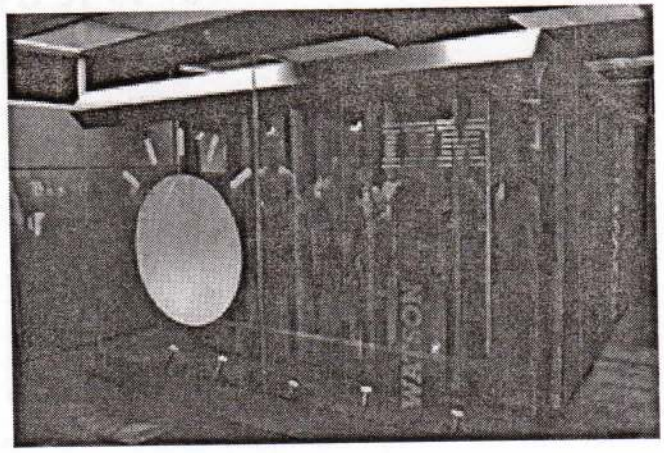
Watson (Computer)

Watson is an artificially intelligent computer system capable of answering questions posed in natural language, developed in IBM's DeepQA project.IBM announced that Watson software system's first commercial application would be for utilization management decisions in lung cancer treatment at Memorial Sloan-Kettering Cancer Center

The key difference between question answering (Q.A) technology and document search is that document search takes a keyword query and returns a list of documents, ranked in order of relevance to the query (often based on popularity and page ranking), while QA technology takes a question expressed in natural language, seeks to understand it in much greater detail, and returns a precise answer to the question.

Healthcare

In healthcare, Watson's natural language, hypothesis generation, and evidence-based learning capabilities allow it to function as a clinical decision support system for use by medical professionals. To aid physicians in the treatment of their patients, once a doctor has posed a query to the system describing symptoms and other related factors, Watson first parses the input to identify the most important pieces of information; then mines



patient data to find facts relevant to the patient's medical and hereditary history; then examines available data sources to form and test hypotheses and finally provides a list of individualized, confidence-scored recommendations. The sources of data that Watson uses for analysis can include treatment guidelines, electronic medical record data, notes from doctors and nurses, research materials, clinical studies, journal articles, and patient information. Despite being developed and marketed as a "diagnosis and treatment advisor," Watson has never been actually involved in the medical diagnosis process, only in assisting with identifying treatment options for patients who have already been diagnosed.

-Komal.S
(2nd BCA)

RESEARCHERS BREAK INTERNET SPEED RECORD

LONDON: UK researchers have achieved record-breaking speeds of 1Tbps during tests of 5G data connections.

Researchers at the University of Surrey's 5G Innovation Centre (5GIC) managed speeds of 1 Tbps - thousands of times faster than current data connections. At 1Tbps, it would be theoretically possible to download a file 100 times the size of a feature film in about three seconds. The speed is more than 65,000 times faster than average 4G download speeds, 'BBC News' reported.

Previously, Samsung Electronics has set 5G speed record at 7.5Gbps, which is less than 1% of the Surrey team's speed. "We have developed 10 more breakthrough technologies and one of them means we can exceed 1Tbps wirelessly. This is the same capacity as fibreoptics but we are doing it wirelessly," 5GIC director Professor Rahim Tafazolli said.

The tests were conducted in lab conditions over a distance of 100m, according to news website V3. It remains to be seen whether it will be possible to replicate the speeds in real-world conditions but Tafazolli hopes to demonstrate the technology to the public in 2018.

Radika M.P, III BCA

10 New Innovations That Could Change the World

Agricultural Drones

Farmers have begun to use agricultural drones adorned with cameras to improve the treatment of their crops. The drones allow farmers a unique perspective that previously-used satellite imagery could not provide. They help to expose issues with irrigation treatment, soil variation, and distressed plants at a much lower cost than methods like crop imaging with a manned aircraft. The success of the drones is made possible by technological advances in GPS modules, digital radios, and small MEMS sensors. Together, these advances allow farmers to bring greater precision to their craft in order to reap greater rewards.

Ultraprivate Smartphones

As concerns over personal privacy grow, particularly in terms of new technology, a Maryland-based company seeks to provide an alternative. Silent Circle, encrypts clients' voice calls, text messages, and file attachments. Encryption prevents potential eavesdroppers from listening in on phone calls and protects metadata. Silent Circle has big plans for the future including a secure smartphone called Blackphone. Blackphone will utilize encryption tools currently used by Silent Circle, as well as other software that will help secure data.

Brain Mapping

Neuroscientists have worked for decades to better understand how the brain functions. Recent advances in brain mapping technology have made that ambitious task easier. An international team of researchers at the Human Brain Project have created a three dimensional atlas of the brain. The maps resolution is fifty times better than previous efforts. The atlas creators digitally stitched together thousands of brain cross-sections. The map shows details up to 20 micrometers in size-the estimated size of many human cells. While this is a huge advancement, scientists still aim to create a map that shows details at 1 or 2 micrometers, rather than 20.

Neuromorphic Chips

Many companies around the globe are working towards blurring the lines between biological systems and man-made creations. Qualcomm is making significant steps in developing artificial intelligence system with the use of Neuromorphic Chips. These chips blend neurology into traditional technologies like smartphone chips. Qualcomm is already testing chips in small robots that allow the machines to perform tasks that typically require a custom computer. The chips can process sensory data through sight and sound in order to respond in ways that are not explicitly programmed. For example, the chips could anticipate user needs.

Genome Editing

Researchers in China created a pair of monkeys with specific genetic mutations. The scientists used a new method of DNA engineering known as CRISPR. CRISPR allows scientists to modify fertilized eggs. This innovation has great implications for the field of biomedicine. The ability to alter DNA at specific locations on chromosomes makes it easier to study diseases. Researchers at MIT have expressed interest in studying brain disorders like autism and Alzheimer's disease. CRISPR has the potential to aid researchers studying such ailments, allowing them to identify what genetic mutations actually cause the disorders.

Microscale 3-D Printing

The potential of 3-D printing technology has many people excited about new applications. But current printers have important limitations. Up until recently, most 3-D printers can only use plastic. A group of researchers at Harvard University, led by Jennifer Lewis, have started to develop new 3-D printer inks. Her team prints intricate objects using materials that are chosen based on their mechanical properties, electrical conductivity, or optical traits. Eventually new inks will enable a wider variety of functions, including artificial organ creation.

Contd. in Page 6

Girl : Which computer do u have?

Boy : I have a computer with intel core i7 processor at 3.3 ghz, windows 7, 64 bit, 8gb ram & nvidia gtx 560 graphics card.

Boy : which computer do YOU have???

Girl : A PINK ONE !!

What to say now.

RAMYA P., II BCA

DIGITAL PEN

is a computer invention that transmits writing into digital media.

Although touch screen devices represent a movement away from paper, approximately eighty-percent of businesses still use paper based forms.

Many professions hand-write their notes, tables, diagrams and drawings instead of using tablets or other devices.

The computer pen is comparable to a regular ink pen (even uses refillable ink) that writes on regular paper, except it has an optical reader that records motion, images and coordinates. The recorded data is then transmitted to a computer via a wireless transmitter.

You can browse and edit your written notes, diagrams, tables, or drawings.

Another useful feature of this computer invention is that hand-written digital files can be easily converted into text fonts for use in word documents or emails.

Digital pen technology was first developed by the Swedish inventor and entrepreneur Christer Fåhraues.

Fåhraues is a physician and has an honorary doctorate degree in technology from Lund University in Sweden, and a M.Sc. degree in Bioengineering from the University of California San Diego.

Fåhraues served as the Chief Executive Officer and Chairman of Anoto Group AB, a company he originally founded in 1996 as C Technologies to license his digital pen technology.

This computer invention has been licensed to companies around the world for various commercial products. Applications include data/signature capture, completing forms, mapping, surveying, document management, paper replay, whiteboards, toys and education.

There are great expectations for digital pen technology over the next few years.

Chandini Kumari
III BCA

Contd. from Page 5

Mobile Collaboration : The current infrastructure for collaborating in a professional environment can be counterproductive to getting work done. This problem is one that new apps like Quip aim to solve. The intent is to develop a system where every step of the collaboration process happens in the same digital space. It aims to create a more intimate experience by implementing chat features and a Facebook-style news feed, in turn creating a more collaborative experience. These new platforms aim to improve the efficiency and productivity of current workflows.

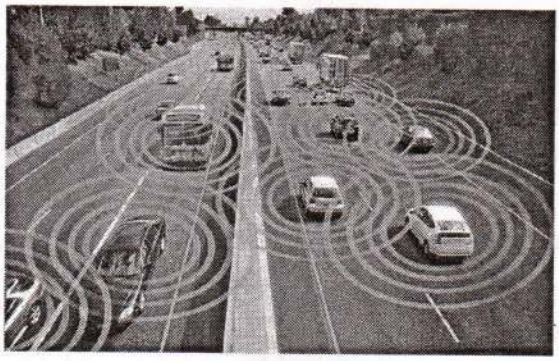
Oculus Rift : This spring, Facebook bought Oculus Rift for $2 billion, and for a good reason. The company was born out of the mind of Palmer Luckey, a kid with no engineering education who built the first prototype for the Rift when he was 16. Now 21, Luckey has created a product that makes immersive video game play a reality. The Rift is designed to make users feel as though they are actually inside the world of the game by following your movements in real time. While video games are the target market for the Rift, the technology also has implications for architecture design, emergency response training, phobia therapy, and much more.

Agile Robots : Taking a single step requires balance, coordination, force, and direction. Each of these factors has presented unique challenges for engineers designing robots that can walk. Enter Boston Dynamics who have experimented with the "dynamic balance"-a feature that allows robots to maintain balance while walking. Recently, they successfully created a robot that can walk across uneven and unsteady terrain. This new innovation opens doors for the greater use of robots in emergency operations or helping elderly and disabled individuals with chores and daily tasks. While the technology is still in the developmental stage, Boston Dynamics knows that the robots need to walk, before they can run.

Smart Wind and Solar Power : One barrier to mainstream use of renewables is integrating sustainable energy sources into the current power grid. Big data and artificial intelligence have made it easier to predict how much power wind turbines will produce. Anticipating power fluctuations is key to developing technologies for integrating wind and solar into the power grid.

Lavanya U , III BCA

V2V COMMUNICATIONS

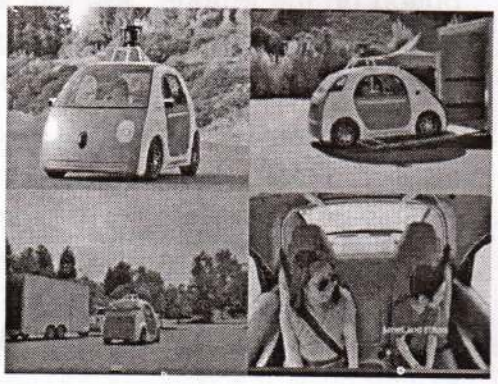


In February, US National Highway Traffic Safety Administration announced that it will begin taking steps to enable vehicle-to-vehicle (V2V) communication technology for light vehicles. This technology would allow vehicles to "talk" to each other and ultimately avoid many crashes altogether by exchanging basic safety data, such as speed and position, ten times per second, to improve safety.

It uses 'ad hoc network', where every car is free to associate with any other car available in the network and share equal status. V2V, which is also known as VANET (vehicular ad hoc network), is a variation of MANET (mobile ad hoc network). Many automobile manufacturers including are BMW, Audi, Honda, General Motors, Volvo and Daimler working and developing this technology to improve safety, overcome blind spots and avoid accidents.

GOOGLE DRIVERLESS CARS

On the onset of winter break, on December 23, Google announced its first fully functional driverless car, which is ready for testing on public roads. Prior to this, the Internet giant developed various prototypes that lacked on different fundamental and functional aspects.



The latest prototype has all the important elements like headlights, steering and brakes. The company has also created a self-driving system with sensors and computers that can be fitted to SUVs like Lexus. This new technology will not only be a breakthrough in tough traffic congestion but sensing technology can also increase road safety. Countries such as the UK and US are working on laws to allow driverless cars.

Smitha M.S.B, III BCA

LaCie Safe

This computer invention provides peace of mind for securing your information.

Storing your files on this mobile hard drive gives you multiple levels of protection because it uses advanced encryption and biometric authentication technology.

The Safe uses 128-bit AES encryption (Advanced Encryption Standard) which is the same standard usd by governments to protect top secret information. Encryption converts information that is readable into a mixture of unreadable characters. Decryption processes the encrypted unreadable characters back into a readable format. The algorithm that encrypts and decrypts the information is known as a cipher. The cipher allows access to the readable information when you enter a password. Most ciphers will use passwords that are four to eight characters in length, but a 128-bit AES cipher uses a 16 character password which is extremely difficult to hack. The AES cipher or "Rijndael" (pronounced Rein Dahl) is named after the Belgian inventors Joan Daemen and Vincent Rijmen. Biometric authentication is a technology that recognizes physical or behavioral characteristics such as fingerprints, palm geometry, retina patterns, voice and signature. Fingerprint recognition is the most popular because it's easier to use. Your finger is scanned for minutia, which are the points on a fingerprint where a ridge ends or splits into two. An algorithm extracts the minutia points and creates a template image that is used for authentication.

Jeevitha M, II BCA

5 TIPS TO GET MORE OUT OF YOUR SMARTPHONE BATTERY

1. Keep a check on what's eating up your battery: Nail the culprit. On the iPhone (iOS 8+), you can check battery usage under the sub-menu of general settings. On Android phones, you can go to the battery settings. Android offers detailed statistics including battery usage data for screen and Wi-fi. You can then regulate your usage and dismiss any apps open in the background when you're not actively using them. Most Android phones have an `open apps' menu which can be launched by short pressing or long pressing the menu navigation key. The same can be fired up by double pressing the home button on the iPhone. You can also turn off background app refresh for all apps you don't care about in the iPhone's settings.

2. Keep screen brightness on a comfortable level: You really don't need to put your phone display on full brightness.At times, even the auto-brightness setting is brighter than what you actually need. Disable that setting and set the brightness at a level that's comfortable to your eyes. Not only will you be saving your smartphone battery, you'll also prevent eye strain caused by screen glare. Although it will appear to be a bit cumbersome, but adjusting settings as per the ambient light in the room will really help in saving precious battery juice.Most Android phones have a brightness toggle in the notifications tray. iPhone running iOS 7+ has this settings in the control centre which can be pulled up from the bottom of the screen.

3. Control notifications, disable auto app updates: You really don't need to get notifications from all apps. A number of app notifications are just promotional messages or unnecessary updates. These wake up the phone and turn on the display reducing your smartphone's standby time. The iPhone offers granular notification settings for individual apps. Android also lets you disable notifications through the `Apps' settings.

   You should also dis able e-mail for ac counts that are not critical to your work. You can set email accounts to `fetch' instead of `push' and choose to receive e-mails only when you load the email app.

4. Turn off Bluetooth, Wi-fi and location services when not needed: Your phone's communication antennas keep scanning for devices and networks when turned on, taking a toll on battery life.Turning off Bluetooth when you're not transferring a file or using wireless headphones is a good idea. Turning off Wi-fi when you don't have access to a Wi-fi network will also help in conserving the battery. You should also turn off location services when not using a navigation app or checking-in on Facebook or Swarm. The phone's GPS receiver constantly looks for a signal if these are turned on. Some apps also use your location information even when they are running in the background.Thankfully, the iPhone lets you manage location settings for each app through the `location services' settings under `Privacy'.

5. Carry a portable charger: Most modern smartphones last just about a day with moderate use and less than that if you're a power user. If you want to stay constantly updated with the latest tweets or your Facebook feed, play mobile games in your free time, read the news and still manage to click a few selfies, we'd recommend carrying a good portable charger with you.Almost all smartphones are powered by lithium-ion batteries that don't need to be completely discharged before charging. Carry a car charger so that you can feed your phone while it's not in use.

Maheshwari , II BCA

C QUIZ ANSWERS

1) B	2) D	3) C	4) B	5) C
6) A	7) B	8) A	9) B	10) D

Sterilizing Spray

This latest science invention is a spray-on invisible thin glass coating that sterilizes, protects and strengthens surfaces.

The coating also repels water, dirt, stains, mildew, fungus, bacteria and viruses.

A liquid coating invented at the Saarbrücken Institute for New Materials in Turkey and patented by Nanopool GmbH Germany, is a flexible and breathable spray-on glass film.

The film is approximately 100 nanometres thick (500 times thinner than a human hair) and has multiple applications and uses in numerous fields.

The coating is environmentally friendly (Winner of the Green Apple Award).

It can be applied within seconds to make any surface very easy to clean and safe from anti-microbes (Winner of the NHS Smart Solutions Award).

The special glass coating known as "SiO2 ultra-thin layering" protects practically any surface against water, uv radiation, dirt, heat, acid, stains, mildew, fungus. bacteria and viruses.

Trials by food processing plants in Germany have concluded that surfaces coated with liquid glass only need hot water for cleaning. In fact, the coating provided higher levels of sterility than surfaces cleaned with bleach or other chemicals.

A year long trial at a British hospital in Southport, Lancashire is to be published soon with very promising results for a wide range of coating applications used on medical equipment, implants, catheters, sutures and bandages.

Trials for in-vivo applications are confidential, but Neil McClelland, the UK Project Manager for Nanopool GmbH, describes the results as "stunning".

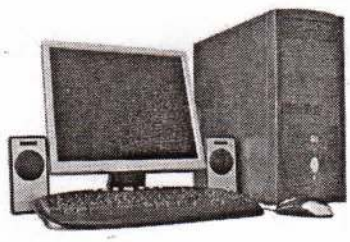
"Items such as stents can be coated, and this will create anti sticking features. Catheters and sutures which are a source of infection, will also cease to be problematic," he says.

Colin Humphreys, a professor of materials science at Cambridge University, commented that liquid glass appears to have a wide range of applications and that the product 'looks impressive'.

The investment opportunities for this latest science invention seem endless - buildings, vehicles, appliances, clothing etc. can have dirt and germ free surfaces without using toxic coatings or chemicals.

Rennel Menez, III BCA

Computer Jokes !!!



INCREDIBLE

Ek 5th class ka bacha

Bill Gates ko letter likhta hai,

Sir, Mujhe kuch sawal poochne hai

1. Keyboard ke letters sahi jagah nahi hai, Keyboard ka sahi Version kab ayega..??
2. Windows Main START ka button hai, STOP ka nahi!!
3. Hum Ms-Word use karte hain, Mr-Word kab Release hoga..??
4. Keyboard main ANY KEY ka button Nahi to computer kyun maangta hai..??

   Aakhir main ek zati Sawal
5. Aap ka naam GATES hai to aap WINDOWS kyun banate hai..??

RAMYA P., II BCA

C QUIZ

1) What will be the output of following program ?

```
#include<stdio.h>
int main( )
{
    int i=2,j=3,k,l;
    float a,b;
    k = i/j * j;
    l =  j/l * j;
    a = i/j * j;
    b = j/l * i;
    printf("%d %d%f%f\n",k,l,a,b);
    return 0;
}
```

a. 3, 0, 0, 0
b. 0, 3, 0.000000, 2.000000
c. 0,0,0,0
d. Error

2) What will be the output of following program ?

```
#incllude<stdib.h>
int main( )
{
   int a,b;
a  = -3 - - 25;
b  = -3 - - (-3);
    printf("a=%d b=%d\n",a,b);
    return 0;
}
```

a. a = 22 b = -6
b. a = -6 b = 22
c. a = 3 b = 3
d. Error

3) What will be the output of following program ?

```
#include<stdio.h>
int main( )
{
    float a=5,b=2;
    int c,d;
    c =a%d;
    d =a/2;
    printf("%d\n",d);
    return 0;
}
```

a. 3
b. 2
c. Error
d. None of above

4) What will be the output of program ?

```
#include<stdio.h>
int main( )
{
   printf("nn /n/n nn/n");
   return 0;
}
```

a. Nothing
b. nn /n/n nn
c. nn /n/n
d. Error

5) What will be the output of program ?

```
#include<stdio.h>
int main( )
{
    int a,b;
    printf("Enter two values of a and b");
    scanf("%d%d",&a,&b);
    printf("a=%d b=%d"a,b);
    return 0;
}
```

a. a = 0 b = 0
b. a = 1 b = 1
c. Values you entered
d. None of above

6) A character variable can at a time store ?
   a. 1 character
   b. 8 character
   c. 254 character
   d. None of above

7) The maximum value that an integer constant can have is ?
   a. -32767
   b. 32767
   c. 1.7014e + 38
   d. -1.7014e + 38

8) Which of the following is false in C ?

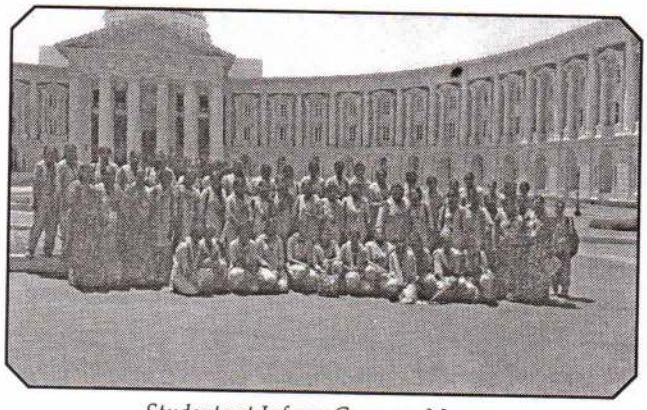
a. Keywords cannot be used as variable names
b. Variable names can contain a digit
c. Variable names do not contain a blank space
d. Capital letters can be used in variable names

9) On which if the following operator can % operator NOT be used ?
   a. int variable
   b. float variable
   c. int constant
   d. All of above

10) A C variable cannot start with ?
   a. An alphabet
   b. A number
   c. A special symbol other that underscore
   d. Both B and C

Answer to the above QUIZ is in page No. 8

Photo Gallery



Students at Infosys Campus, Mysore

Mr. Vinod Kumar, Business Develoment Executive, Sapthagiri Academy, Mysore giving awareness about PGCET, Banking and Gate Examinations

Newly elected Office bearers of Tech Amateur IT-Club for the academic year 2014-15 with staff members

"Internet Awareness Programme" for Government High School students, Lakshmipuram , Mysore

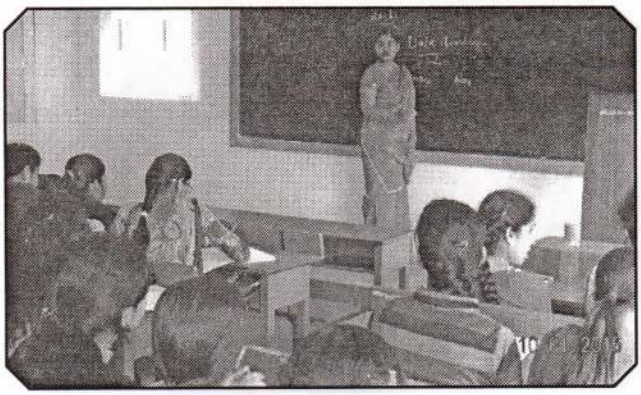
Student Faculty Programme by Miss Farah Sultana of III BCA

Inaguration of Tech Amateur IT Club by Miss Marina Mathew, System Engineer, Infosys, Mysore

Students participating in IT Cross word Competition organized by Tech Amateur IT Club

Google Apps Training Programme for faculties

Photo Gallery



Student Faculty Programme by Miss Aishwarya M J of II BCA

Wall Magazine competition

Students attending short term Certificate Course on" Assembly Language with Microprocessor 8085"

Students at TED-Lecture Programme

Students with Principal and Staff members during Inauguration of Wall Magazine "Tech World"

Visit to Centre for Proficiency Development and Placement Service -CPDPS

Paper presentation competition on the topic "Cryptography"

Project presentation by final year BCA student Miss. Priya K P