SYNERGY

WE CODE LIVES

AAWAAZ

3

Batch 14-18

SCMS School Of Engineering And Technology

"AAWAAZ" is a dreams portrait of all the thoughts and of the youth. This news letter is a distillation of the vivid and vibrant emotions that sparked in the enthusiastic young minds.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

I am extremely happy to know that the S4 students of Computer Science & Engineering is bringing out the third issue of the newsletter "Awaaz". A newsletter is an important medium to depict the college activities. It offers vast opportunity to young writers to express their view on various topics and creative talent. It helps to develop writing skills among students. The wide spectrum of articles indifferent sections gives us a sense of pride that our students possess creative potential and original thinking in ample measures.

Commendable job has also been done by the editorial committee in planning for and producing the newsletter in record time.

I congratulate the team and the students who have contributed articles and helped in the creation of the newsletter. Your efforts, your thoughts and your dreams will carry us all to places we can only imagine today.

I wish you all the best in your future ventures, efforts and careers.

Prof. P. Raghudas
Head of Department
Computer Science and Engineering
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

Knowledge is like a painter's palette. An artist uses the various colors in the palette and applies them on to a canvas with his imagination and skill to create a beautiful portrait. Similarly, the knowledge what we acquire over the years will remain just as plain colors, until it is applied on a canvas with creativity, imagination and skills. An engineer has no dearth of canvas as any kind of problems surrounding him or her; is a canvas to apply the skill and imagination.

"AAWAAZ" is a portrait of all the thoughts and dreams of the youth. This news letter is a distillation of the vivid and vibrant emotions that sparked in the enthusiastic young minds. "AWAAZ" provides a platform for the young minds to give a face to their ideas and expressions and it is their creativity that has brought life into these pages.

May this little ember of thoughts create further sparks in your minds too.

Ms. Sindhya K. Nambiar
Assistant Professor
Department of Computer Science and Engineering
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

Cyber Awareness Camp

Department of Computer Science inepted a Cyber Security cell, with the goal of raising awareness about computer security and safer Internet practices among students of schools and colleges. As a part of this cell, a workshop on "White Hat Hacking" was conducted for students of S8 Computer Science and Engineering. The primary focus of this hands-on workshop was to create awareness about operating system vulnerabilities, diverse exploits, social engineering attacks using Metsploit framework. Students of S4, S6 and S8 created a cyber security training action plan for the coming session- July 2016 to December 2016. The action plan include tips for all Internet users who leverage to practice cyber security, few to highlight are keeping personal information safe, creation of strong passwords, securely patching operating system and browsers.

Dr. Vinod P
Professor
Department of Computer Science and Engineering
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

DID YOU KNOW?

MyLeaon is Considered to be the 'Most Expensive VIRUS in The World', causing an estimated financial damage of $15.5 Billion

Sahanshah R

A Anand

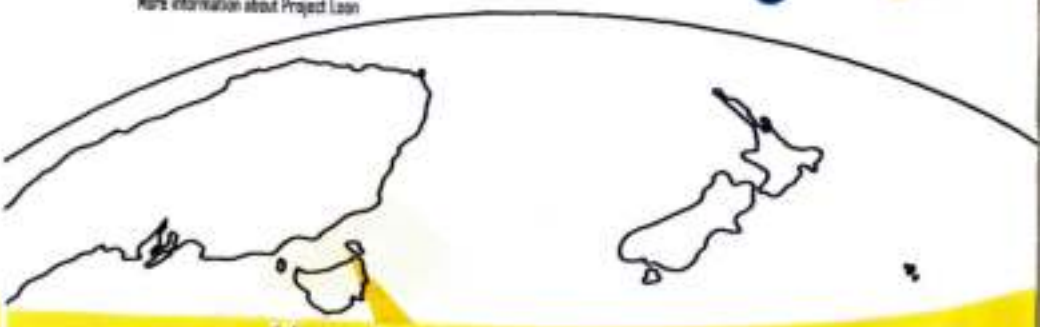
PROJECT LOON

Many of us think of the Internet as a global community. But two-thirds of the world's population does not yet have Internet access. Project Loon is a research and development project being developed by Google X with the mission of providing Internet access to rural and remote areas. It is a network of balloons traveling on the edge of space, designed to connect people in rural and remote areas, help fill coverage gaps, and bring people back online after disasters.

Project Loon balloons float in the stratosphere, twice as high as airplanes and the weather. In the stratosphere, there are many layers of wind, and each layer of wind varies in direction and speed. Loon balloons go where they're needed by rising or descending into a layer of wind blowing in the desired direction of travel. By partnering with Telecommunications companies to share cellular spectrum we've enabled people to connect to the balloon network directly from their phones and other LTE-enabled devices. The signal is then passed across the balloon network and back down to the global Internet on Earth.

More information about Project Loon

Google X



" You never lose a dream. It just incubates as a hobby "

- Larry Page

Anu S Kaimal

Spyware

Over the last several years, a loosely defined collection of computer software known as Spyware has become the subject of growing public alarm. Computer users are increasingly finding programs on their computers that they did not know were installed and that they cannot uninstall, that create privacy problems and open security holes, that can hurt the performance and stability of their systems, and that can lead them to mistakenly believe that these problems are the fault of another application or their Internet provider.

The term spyware has been applied to everything from keystroke loggers, to advertising applications that track users web browsing, to web cookies, to programs designed to help provide security patches directly to users. More recently, there has been particular attention paid to a variety of applications that piggyback on peer-to-peer file-sharing software and other free downloads as a way to gain access to peoples computers. This report focuses primarily on these so-called adware and other similar applications, which have increasingly been the focus of legislative and regulatory proposals.

Many of these applications represent a significant privacy threat, but in our view the larger concerns raised by these programs are transparency and user control, problems sometimes overlooked in discussions about the issue and to a certain extent obscured by the term spyware itself.

For More Details

Antony Leons

Malware

Malware is an abbreviated term meaning "malicious software." This is software that is specifically designed to gain access or damage a computer without the knowledge of the owner. There are various types of malware including spyware, keyloggers, true viruses, worms, or any type of malicious code that infiltrates a computer. Generally, software is considered malware based on the intent of the creator rather than its actual features.

Malware creation is on the rise due to the sheer volume of new types created daily and the lure of money that can be made through organized internet crime. Malware was originally created as experiments and pranks, but eventually led to vandalism and destruction of targeted machines. Today, much of malware is created for profit through forced advertising (adware), stealing sensitive information (spyware), spreading email spam or child pornography (zombie computers), or to extort money (ransomware).

Various factors can make computers more vulnerable to malware attacks, including defects in the operating system design, having all of the computers on a network run the same OS, giving users to much permissions or just using the Windows OS (due to its popularity, it gets the most malware written for it).

The best protection from malware continues to be the usual advice be careful about what email attachments you open, be cautious when surfing and stay away from suspicious websites, and install and maintain an updated, quality antivirus program.

For More Details

"Have No Fear Of Perfection, You'll Never Reach It"
- Salvador Dali

Akshay Shivadas

Build Your Own RC Car

- DID YOU KNOW? -

In a deck of cards the king of hearts is the only king without a moustache

Whether you are an engineering student building a multi terrain vehicle or an electronics hobbyist trying to impress people with your skills, making a RC robot car (wireless) is much better than the wired robot which you will have to tail while driving. This is not exactly a robotics project. By definition, a robot is something that makes a decision based on some external parameters.

Things you will need:
Most of the components that we will be using are really common and can be bought in local electronics stores. Here is an list of all the hardware items that you will need for this project.

1. *Chassis*
2. *DC Motor*
3. *L - Clamps(Motor Mount)*
4. *Wheels*
7. *RF Transmitter*
8. *RF Receiver*
9. *Encoder And Decoder*
10. *Motor Driver*

Ziyad Zageer
2nd Best Male Model of Ignis

Scan The QR Code For More Info

Outgoing Students Of S8 CS

Joffin Joy

Technological Singularity

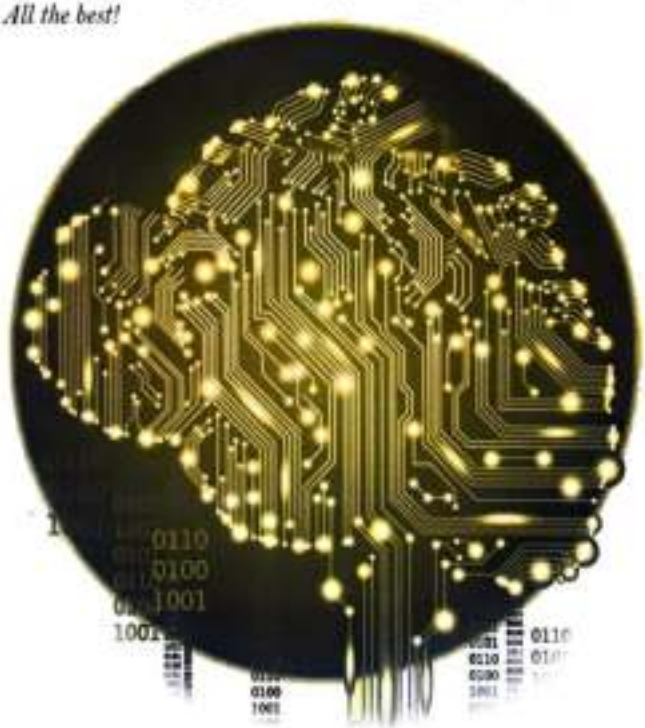
Technological Singularity is that phenomenon in 'not so distant' future that is going to strip us of any last percentage of chance in finding a job, especially now that we have already decided to take Computer Science Engineering (Ouch!). Well! Basically it's that point in time when computers advance so much that they can recursively keep reprogramming themselves to be better. It's pretty much the birth of actual Artificial Intelligence as we know it. Programs will look at themselves, find flaws in what we were able to so frustratingly code, look at us humans in pity, marvelling at how lowly our programming skills are at global level. And then fix them all by themselves. Every iteration of the program will keep developing itself to become something even smarter. Programs wouldn't be limited by whatever limitation that human brain is subjected to, and voila! We have the perfect intelligence in the universe. Does this sound more like science fiction than something actually plausible? If so, you are not entirely wrong. Look! The problem with such a concept is that it's like trying to find all the possible branching of a huge non-deterministic automata (I know guys! I blew it… Didn't I? That was my last story at sounding nerdy… Sorry) or more like trying to find what existed before The Big Bang. We just can't understand what will happen once the Singularity takes place. Even with all the cornucopia of bright minds in technological field we have, we come up awfully short of deciphering it. Think about it, the moment we attain technological singularity, we create a chain reaction of exponential intelligence explosion (I didn't make that one up). So it begs the question, how much time would it take to reach absolutely perfect intelligence. It should basically depend on how much processing power we have. But given how more and more powerful our mobile phones, mainframes, supercomputers are becoming year after year, it should be possible to have enough to sustain the explosion at a healthy rate. Maybe a few seconds, maybe few minutes or hours or years. And then we all lose jobs (ouch Again!). Don't take me for a pessimist sono, even though my heart says it will happen in our life time, brain still stumbles us way to that conclusion. (Nope! I haven't got enough of a philosophical mood to care about what Singularity will do to mankind after we are gone). First of all, we don't really understand what intelligence is. What drives the 'kind of artificial intelligence' we are after? All we have ever been able to achieve is something that mimics artificial intelligence. Hyper database management and processing to find all the possible answers to a question, followed by a self-learning algorithm to choose the right answer. But these kinds of intelligence mimicking systems work relatively poorly when there is just no enough data to process. And intelligence is not just processing information, it's creating form out of nothing. Kind of like why you decided to wear that yellow shirt back in 22nd July 2009. It's bit about intuition, feelings, instinct, art etc. And funny enough, we all hold the key to that actual artificial intelligence, yes! Right between your ears Human Brain. If we need to understand AI, we need to look no further. Human Brain is the key to Singularity, and that is the exact same reason why we still don't understand intelligence well enough. We know brain does a series of stuffs when it is subjected to some sensory inputs, but not why it is the way it is. Many of the artificial intelligence research projects have been flirting around this concept for quite some time now. Like for example Google's Artificial Brain. Google recently build a neural network with 16,000 Microprocessors and 1 billion connections. This monstrously morfed YouTube and started picking up cat videos (Who wouldn't?). It was not instructed to do so, but it did anyway using some seriously complex self-learning algorithm. So why cats? We don't know. Maybe those videos were a set that was easier to differentiate from others, more distinct. This has been one of the instances of us being closer to proper AI, but it is still being regarded as not enough of a definitive proof of impending singularity by many experts. So it is pretty much safe to assume that, by the time science explains why we fall in love or wore that white shirt(Or was it yellow?), they will be more close to realistically achieving Singularity. So keep the optimism and continue doing what you are doing right now. There is a reason why it is called HYPOTHETICAL phenomenon. And guess what, you could be one of those rare brilliant minds that actually find the key to singularity. So either way, Don't Quit College (Lol!).

DID YOU KNOW?

Women blink twice as much as men

"Intelligence is the ability to adapt to change"
- Stephen Hawking

The concept of singularity is entwined with many other concepts like immortality, semi-organic brain-like computers, mind uploads etc., stuffs I barely understand that even mentioning them opens a can of worms that can't be dealt with-in this article. My whole understanding of singularity is some of the pages that I stumbled upon (Yup! Stumbledupon.com) and YouTube videos by some Japanese theoretical Physicist (Michio Kaku or something) almost 3 years ago. So if you are still reading this (congrats! You are a wolverine), and finds it interesting, go the way of Google yourself (I know I never did). All the best!



DID YOU KNOW?

Everyday, more money is printed for Monopoly suits than for the U.S. Treasury

Cogratulations
New IEEE Chairman

"Everyone should know how to program a computer, because it teaches you how to think!"
- Steve Jobs

Arun Sen

Cyber Economics

Datas stored using pen and paper are long gone.In this digitized world everything including the datas are digital.this is where cyber economics began its explorations and expansions.the data stored can be private or public.It is for this very private data or technology the cyber economics play its part.

Highly classified datas has its its own importence taking in both perspective views of both of an individual as wellm as of a nation as well.cyber war is not a new word to the world .we hear it almost everyday.attempts to steal private datas of axy7 organisation and sellin it is basic economic principle behind it.however things get serions when datas such as pf highly classified types get stolen.

Such as that concerning the defence of a nation.hackers try to grab highly confidential defence datas such as strategic points of a nation its patrol points and points of military importence are classified datas.

The economics of cyber threats are simple: cyber attacks are easy to organize and cheap to enact. Any computer anywhere can become the front line of an attack, which is not only difficult to defend against but leads to the need for constant vigilance and flexible defensive moves-both of which are rather more costly.

Unfortunately, the economics behind cyber threats overwhelmingly favor attackers. For one thing, the investment needed to launch an attack is low and the yield from a successful attack is high, but attackers enjoy other benefits as well. Hacktivists gain widespread visibility and notoriety, criminals earn large profits by selling private information, and attackers of nation states target leading financial institutions as a means to gather valuable IP and make political headlines.

Increasingly, such threats apply to individuals as well. Data sets rich with identity information are the new gold-they are important enough to be included in estate and divorce documents and certainly important enough to steal. Stealing just one piece of information can open a thread that unravels a person's financial, medical, social, political, and professional identity and enables criminals to hold digital identities for ransom or wipe out valuable online assets such as music or pictures in seconds.....

What cyber warfare does is expose this datas or classified technologies to whomsoever concerned. We are talking about countries as well as organizations and even individuals who does this. Cyber economics has paved way for cyber division systems for most nations to protect and defend it from cyber threats.its economically wanting as the world need professionals who could execute this tasks. However jobs paved way through cyber way is not something you could enjoy with a social status.it has its own protocols to follow.especially if you are hired by your government .

DID YOU KNOW?

Shakespeare invented the words 'assassination' and 'bump'

#include Winners
Igniz 2K16

Samanvitha K

Faiz K T

Bivin Pradeep

Project ARA

Project Ara , which in theory will let users swap in different components on the phone instead of replacing the whole phone when it's time to upgrade. Ara encourages hardware manufacturers to build modules that will slot into a metal "endoskeleton," which serves as the basic core of a phone. The camera, screen, and any other feature that you'd traditionally associate with a smartphone exist only as a modular tile — even the processor and the power jack are removable.

When it comes to keeping the modules in place, physical latches are fiddly and can easily break. Instead, Ara phones will use electropermanent magnets to hold them in place. It's kind of a cross hybrid between a permanent magnet and an electromagnet, in that it has an on state and an off state. It uses an electrical pulse to switch between those two states, but it is a passive component, meaning it consumes no power in both the off state and the on state. An app on the phone will let you toggle the magnets on and off, and the 80 newtons of force in the on state should keep the modules from flying off when you drop the phone.

• DID YOU KNOW? •

Isaac Newton invented the cat door

Scan to watch a full demonstration video

" Move fast and break things unless you are breaking stuff, you are not moving fast enough "
- Mark Zuckerberg

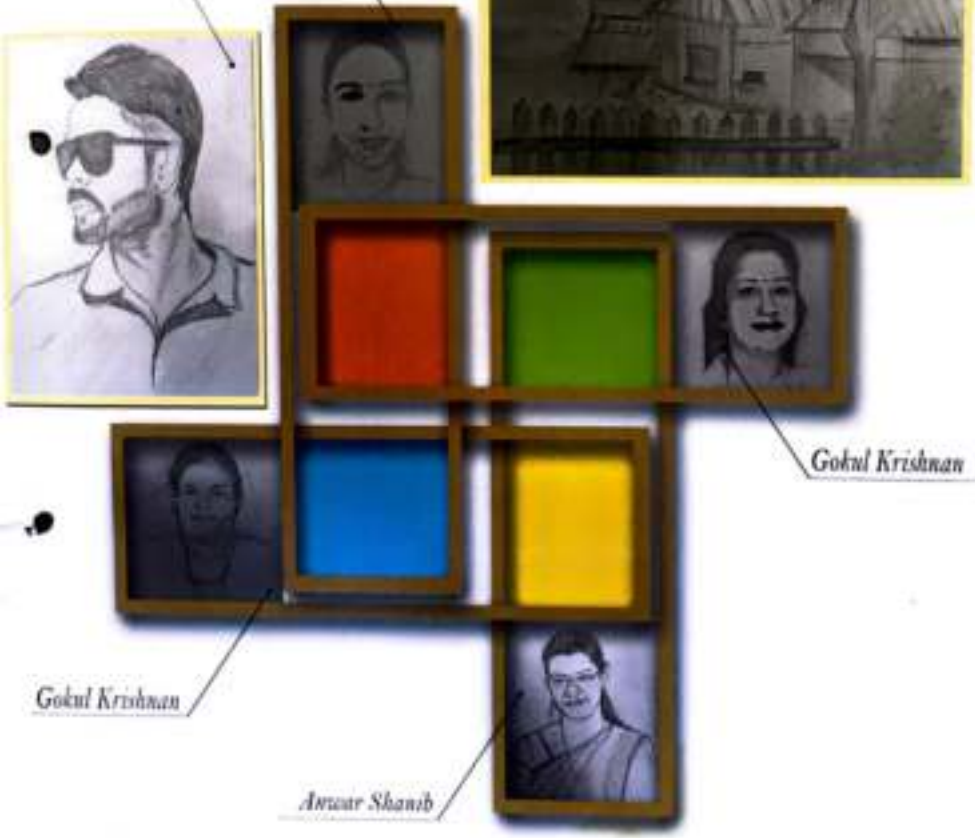
Graphite Shades

By S4 Students

Priyanka Prakash

Anwar Shanib

Akash Nandi



Gokul Krishnan

Gokul Krishnan

Anwar Shanib

Thank You

Design And Postprocessing: A Anand, Sahanshah K

Editorial Committee: Gokul Krishnan M, Rahul

Special Thanks To Vinod Sir And S4 Co-Ordinators