

LITERARY
PLACEMENTS
CURRENT AFFAIRS
LATEST TECHNOLOGIES
DEPARTMENTAL EVENTS

THE BYTE

- An e-magazine of CSE department
of IMS Engineering College

ZK16





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the byte

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CURRENT AFFAIRS

THE BYTE TEAM





Vision of the Institution

Vision

Our vision is to impart vibrant, innovative and global education and to make IMS the world leader in terms of excellence of education, research and to serve the nation in the 21st century.

Mission of the Institution

Mission

-  To develop IMSEC as a centre of Excellence in Technical and Management education.
-  To inculcate in its students the qualities of Leadership, Professionalism, Executive competence and corporate understanding.
-  To imbibe and enhance Human Values, Ethics and Morals in our students.
-  To transform students into Globally Competitive professionals.

The vision and mission of the college are available at the college website. These statements are communicated to stakeholders through Information Brochure and have also been displayed at Reception and in each Department and other prominent location of the college.

Vision (Department)

To be recognized as a Centre of Excellence imparting quality education and creating new opportunities for students to meet the challenges of technological development in Computer Science & Engineering.

Mission (Department)

To promote technical proficiency by adopting effective teaching learning processes.—

To provide environment— & opportunity for students to bring out their inherent talents for all round development.

To promote latest technologies in Computer Science— & Engineering and across disciplines in order to serve the needs of Industry, Government, Society, and the Scientific community.

To educate students to be Successful, Ethical and Effective problem-solvers and Life-Long learners—who will contribute positively to the society

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

COLONISATION MOONBASE ❄



BY : DEEPAK KR. SINGH , 3RD YR CS1

Colonising the moon: A dream that come true

I was following Elon Musk since I obtained my case study on his automated company Tesla. A multitasking, billionaire not only a mere dreamer but has the capacity to build and complete dreams. In International Aeronautical Congress his announcement to send people on Mars is like a dream that come true. He presented SpaceX plan to reach Mars and colonising it by humans.

He came on the stage wearing a blazer over a white shirt, thus time unshaved (may be too busy these days with his work). I think he should be busy too as he has three responsible posts of interest. Firstly he is CEO of Tesla then secondly he is chairman of SpaceX and finally he is also has a major investment in building solar city another project on he is associated with. On coming to stage he steamed the show with his absolute and affirming logical presentation which has enough clips and videos to understand his

concepts. Now even an ordinary non technical man could also understand how we can travel to Mars.

What if the thought seems provoking, optimistic and loving but Musk clearly categorises the issues with the project. The cost involved in the project is billions of dollars and he says to charge \$200,000 for each trip. He compared this cost how an average American is trying to buy a house there. He compared the figures with those. He said to slice the prices by half if number of people started to opt for Mars.

He is also sure that one or two people may have to lose their lives before we can ensure success. So he may have been glorifying the deaths that may cause this project to be successful.

When some new concept is presented to this world for the very first time two of the things are sure to happen. Either they say the man has blown his mind and declare him lunatic or they

mistrust and laugh on their ideas. Same has also happened here. Many professors also think that his idea is vain as biologically there are not enough resources to make a life, questioning about colonising the earth. They call Musk unanimously enthusiastic but all vain since they briefed it will not be so cost effective and nobody would like to sacrifice his life for that.

Altogether we can say that its like a dream come true. Fictions like Martian and others are sure to come true once we reach there. On the other hand we have thoughts and emotions with Musk. We respect his ideas but that would lead to success if and only if people do invest and take interest in it. The case here can be of economy, interest and above all life that he discussed because no one is willing to leave earth to heaven in expectation to reach on Mars.

Bermuda Triangle Mystery

Bermuda Triangle mystery almost solved?

Bermuda Triangle mystery almost solved?

Strange clouds forming above the Bermuda Triangle could explain why dozens of ships and planes have mysteriously vanished in the notorious patch of sea.

The remarkable new theory suggests the clouds are linked to 170-mph "air bombs" -- capable of bringing down planes and ships, New York Post reported on Friday.

The riddle could finally be solved after meteorologists discovered bizarre "hexagonal" - shaped clouds between 20 and 50 miles wide forming over the dodgy patch of water.

Meteorologist Randy Cervený said: "The satellite imagery is really bizarre... the hexagonal shapes of the cloud formations.

"These types of hexagonal shapes in the ocean are in essence air bombs. They're formed by microbursts and are blasts of air."

The blasts of air are so powerful that they can reach 170 mph -- a hurricane-like force easily capable of sinking ships and downing planes.

For centuries, the notorious Bermuda Triangle -- located between Miami, Puerto Rico and the island of Bermuda -- has been linked with a high number of unexplained disappearances of aircraft and ships in its waters.





Ashok Leyland launches Circuit bus; first Made-In-India electric bus

Hinduja Group flagship Ashok Leyland on Monday launched - Circuit - the first "Made in India" electric bus.

The bus with minimum seating capacity of 35 to a maximum of 65 can run up to 120 kilometres on a single recharge under standard test conditions, according to Ashok Leyland MD Vinod K Dasari.

"The initial investment made for this product is about Rs 22 crore from the overall Rs 500 crore. It will be done in phases," he told reporters after launching the bus here.

"The Circuit series of buses is another testament to Ashok Leyland's commitment to leverage India's technological innovation to relevant and best in class solutions for India and the world," he said. The bus will cost between Rs 1.50 crore to Rs 3.50 crore, he said.

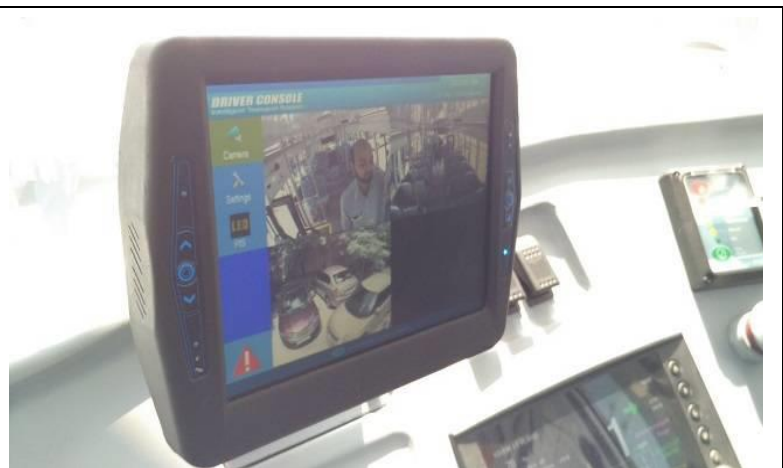
According to Ashok Leyland Senior VP Global Buses, T Venkataraman, the Circuit buses can be manufactured in all the seven manufacturing facilities owned by the company.

"These buses are right now manufactured in Alwar, Rajasthan and also in our Viralmalai facility (Tamil Nadu). But we have the capability to manufacture in all our seven plants," he said.

The bus can be used in hilly areas and heritage places, he said, adding that tendering process was going on between three to four state transport undertakings.

While 60 per cent of the total cost of the bus goes for the battery, the remaining is for other parts, he said.

"Currently, the batteries are imported from the United States," he said



SuperSuit - Live your Game

SuperSuit is the World's First Wearable Gaming Platform. It made an overwhelming debut at CES, where it got featured by 250 publications worldwide, including Wired & Mashable lists of Coolest Gear at CES 2016! SuperSuit is now coming to the people through a crowdfunding campaign on the popular Indiegogo platform. You can help spread the word by signing up for this Thunderclap.

WHAT DO YOU HAVE TO DO

Step 1: Support the campaign on Twitter, Facebook and Tumblr.

Step 2: Authorize Thunderclap to post once on Sep 27th.

WHAT IS SUPERSUIT

SuperSuit is the World's First Wearable Gaming Platform. It is made up of a SuperVest, SuperGlove and SuperBot.

- The SuperVest is its power core which acts as the target. It lights up, makes sound, and has haptic feedback letting you feel when you get hit.
- The SuperGlove is the tool to activate special abilities. It's ENGage gesture technology gives you the power to unleash shock waves, generate force fields, and many other SuperPowers.
- Inside every suit is a special SuperBot which act as allies zapping your opponents, boost your defense, or be the goal of the game.

Stocked full of a variety of games at launch gives SuperSuit the ability to be experienced single or multi-player. With SuperSuit, the more you play the more powerful you become. Instead of leveling up a character, YOU level up. Rewarding you with new powers and gestures as your abilities increase. And tracking those powers is done in the app where you can monitor current level, compare scores and active minutes, and download new games.

WHY SUPERSUIT

SuperSuit came out of a frustration of seeing how technology had ignored kids' play, specifically outdoor play. Screens are so powerful that they end up making kids passive and in the name of 'interactivity' all that kids end up doing is tapping the screen few times to move the narrative forward. All the so called 'future of gaming' tech of VR & AR are for adults. SuperSuit brings tech to outdoor play for the first time, without kids having to look at the world through a screen! Their bodies become the 'controllers' & the environment overlaid with an active imagination is the 'screen'.

It is backed by gritty entrepreneurs passionate about creating an active & balanced childhood, part of the Fortune #40under40 business leaders, with an experience of selling half a million units of physical games and hailing from CMU & IIT.

HOW DOES IT WORK

SuperSuit uses new Zi-Fi technology to communicate suit to suit, so they work anywhere. Zi-Fi had to be created to make SuperSuit truly screenless. SuperSuit doesn't need a phone or PC or a WiFi / Bluetooth connection to be around. With Zi-Fi you can take these suits to a park / beach or even a desert and they'll start talking to each other instantly OTB.

The second part, which is the ENGaGE gesture engine, unleashes the magic behind all the "superpowers", from activating Force Fields to unleashing Shock Waves with a swish of your hands in superhero style!

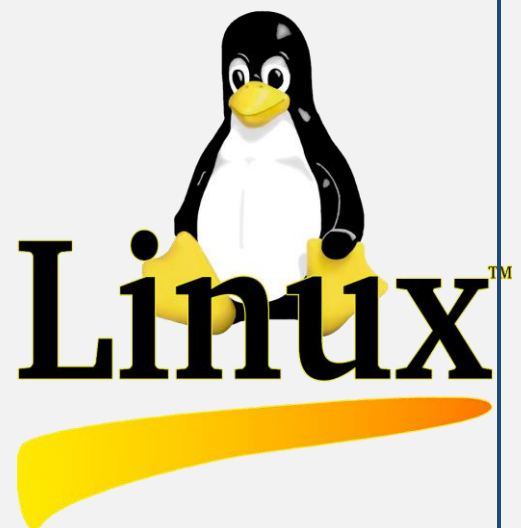


New to Linux? Learn the basic Linux commands with this cheat sheet

BY: Amit Kr. Gautam, Asst. Proff, Dept of CSE

Linux is the flavor for programmers and wannabe hackers today as it is slowly and steadily being adopted for standalone PCs in addition to networked PCs. One of the basic reasons it is so popular among coders and hackers is its rugged command line structure, unlike Windows and Mac based PCs.

Linux was designed around a strong and highly integrated command line interface. Windows and Mac don't have that. This grants hackers and coder far greater access and control over their system and awesome customization. This is the reason that most hacking and pen testing tools are built into Linux have greater functionality above and beyond their windows counterparts. In contrast, Windows was built around the graphic user interface (GUI). This restrict user interaction to point-and-click navigation (slower) and application/system menu options for configuration.



- **mkdir** – make directories
Usage: mkdir [OPTION] DIRECTORY...
eg. mkdir lhn
- **ls** – list directory contents
Usage: ls [OPTION]... [FILE]...
eg. ls, ls l, ls lhn
- **cd** – changes directories
Usage: cd [DIRECTORY]
eg. cd lhn
- **pwd** -
- print name of current working directory
Usage: pwd
- **vim** – Vi Improved, a programmers text editor
Usage: vim [OPTION] [file]...
eg. vim lhn.txt
- **cp** – copy files and directories
Usage: cp [OPTION]... SOURCE DEST...
eg. cp sample.txt sample_copy.txt
cp sample_copy.txt target_dir
- **mv** – move (rename) files
Usage: mv [OPTION]... SOURCE DEST...
eg. mv source.txt target_dir
mv old.txt new.txt
- **rm** remove files or directories
Usage: rm [OPTION]... FILE...
eg. rm file1.txt, rm rf some_dir
- **find** – search for files in a directory hierarchy
Usage: find [OPTION] [path] [pattern]...
eg. find file1.txt, find name file1.txt
- **history** – prints recently used commands
Usage: history
- **cat** –
concatenate files and print on the standard output
Usage: cat [OPTION] [FILE]...
eg. cat file1.txt file2.txt
cat n file1.txt
- **echo** – display a line of text
Usage: echo [OPTION] [string] ...
eg. echo I love India
echo \$HOME
- **grep** - print lines matching a pattern
Usage: grep [OPTION] PATTERN [FILE]...
eg. grep i apple sample.txt
- **wc** -
- print the number of newlines, words, and bytes in files
Usage: wc [OPTION]... [FILE]...
eg. wc file1.txt
wc L file1.txt
- **sort** – sort lines of text files
Usage: sort [OPTION]... [FILE]...
eg. sort file1.txt
sort r file1.txt
- **tar** – to archive a file
Usage: tar [OPTION] DEST SOURCE...
eg. tar -
cvf /home/archive.tar /home/original
- **kill** – to kill a process (using signal mechanism)
Usage: kill [OPTION] pid
eg. kill 9 2275
- **ps** – report a snapshot of the current processes
Usage: ps [OPTION]
eg. ps, ps el
- **who** – show who is logged on
Usage: who [OPTION]
eg. who, who b, who q
- **passwd** – update a user's authentication tokens(s)
Usage: passwd [OPTION]
eg. passwd
- **su** – change user ID or become super user
Usage: su [OPTION] [LOGIN]
eg. su remo, su
- **chown** – change file owner and group
Usage: chown [OPTION]... OWNER[GROUP] FILE...
eg. chown remo myfile.txt
- **chmod** – change file access permissions
Usage: chmod [OPTION] [MODE] [FILE]...
eg. chmod 744 calculate.sh
- **zip** – package and compress (archive) files
Usage: zip [OPTION] DEST SOURCE...
eg. zip original.zip original
- **unzip** – list, test and extract compressed files in a ZIP archive
Usage: unzip filename
eg. unzip original.zip
- **ssh** – SSH client (remote login program)
“ssh is a program for logging into a remote machine and for executing commands on a remote machine”
Usage: ssh [options] [user]@hostname
eg. ssh X guest@10.105.11.20
- **scp** – secure copy (remote file copy program)
“scp copies files between hosts on a network”
Usage: scp [options] [[user]@host1:file1] [[user]@host2:file2]
eg. scp file1.txt guest@10.105.11.20:~/Desktop/
- **fdisk** – partition manipulator
eg. sudo fdisk l
- **mount** – mount a file system
Usage: mount t type device dir
eg. mount /dev/sda5 /media/target
- **umount** – unmount file systems
Usage: umount [OPTIONS] dir | device...
eg. umount /media/target
- **du** – estimate file space usage
Usage: du [OPTION]... [FILE]...
eg. du
- **df** – report filesystem disk space usage
Usage: df [OPTION]... [FILE]...
eg. df
- **quota** – display disk usage and limits
Usage: quota [OPTION]
eg. quota v
- **reboot** – reboot the system
Usage: reboot [OPTION]
eg. reboot
- **poweroff** – power off the system
Usage: poweroff [OPTION]
eg. poweroff
- **kate** – KDE Advanced Text Editor
Usage: kate [options][file(s)]
eg. kate file1.txt file2.txt
- **vim** – Vi Improved, a programmers text editor
Usage: vim [OPTION] [file]...
eg. vi hello.c
- **gedit** -
A text Editor. Used to create and edit files.
Usage: gedit [OPTION] [FILE]...
eg. gedit
- **bg** – make a foreground process to run in background
Usage: type 'ctrl+z' and then 'bg'
- **fg** –
to make background process as foreground process
Usage: fg [jobid]
- **jobs** – displays the names and ids of background jobs
Usage: jobs
- **sed** -
stream editor for filtering and transforming text
Usage: sed [OPTION] [inputfile]...
eg. sed 's/love/hate/g' loveletter.txt
- **awk** -
pattern scanning and processing language
eg. awk -
F: '{ print \$1 }' sample_awk.txt
- **find** -
search for files in a directory hierarchy
Usage: find [OPTION] [path] [pattern]...
eg. find name file1.txt
- **locate** – find or locate a file
Usage: locate [OPTION]... FILE...
eg. locate file1.txt

The Father Of Fibre Optics : A Physicist Who Twisted Light

Father Of Fibre Optics

Dr Narinder Singh Kapany, known as the father of fibre optics, is an Indian-born American physicist who has been a pioneer in the development and innovation of optical fibres. Taking on the roles of a physicist, a philanthropist, an entrepreneur, a businessman and a sculptor, he has been a huge contributor to the world in all sectors.

Early Life

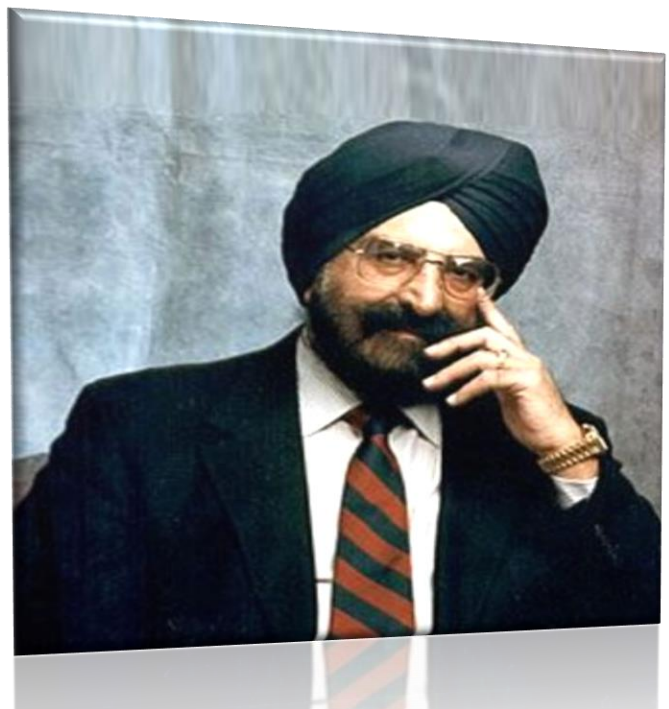
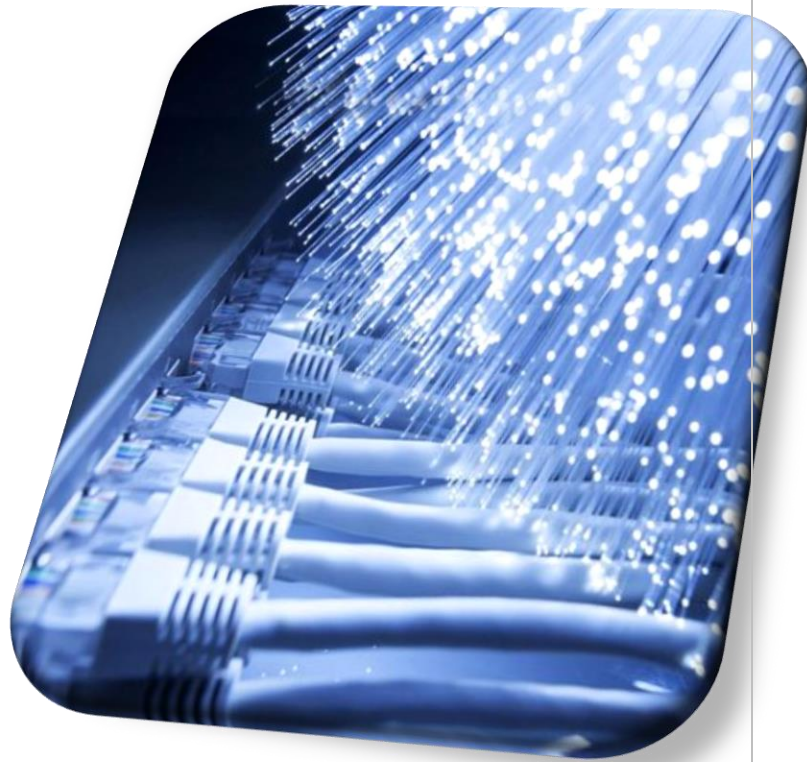
Born to a Sikh family in Punjab in 1926, his interest in physics was ignited while listening to a physics lecture as a young boy in India where his teacher taught him that light travels in a straight line. This claim by his teacher prompted him to wonder why light could not travel in a straight line. Kapany graduated from Agra University and went on to Imperial College of London for advanced study in optics where he earned his PhD in 1955. He then carried on his journey of innovation and research in the University of Rochester and later in Illinois Institute of Technology.

The beginning of fibre optics

Kapany's research leading towards fibre optics began in the Imperial College while he worked with the venerated Harold Hopkins, an English physicist. He demonstrated his breakthrough research in 1954 at the Department of Physics when he showed that light could travel in bent glass fibres. That demonstration paved the way for optical fibre communication that we utilize and take for granted today. He has published over hundred scientific papers in various international science journals leading to the establishment and colloquial usage of the term fibre optics.

Transforming technology, business, art and culture

He founded Optics Technology Inc. in 1960 where he was President, Chairman of Board and Director of Research for twelve years. A while after the company went public in 1967, he founded the Kaptron Inc. in 1973 and headed it until it was bought by AMP Incorporated in 1990.





WHY DO HACKERS PREFER LINUX OVER MAC, WINDOWS, AND OTHER OPERATING SYSTEMS?

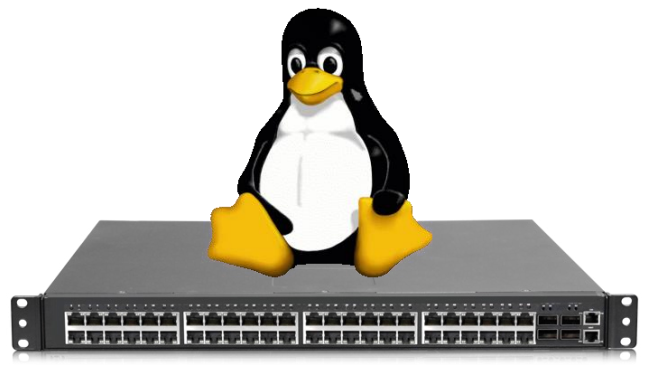
We have published many tutorials for hackers and security researchers. You may have noticed that most tutorials are based on Linux operating systems. Even the hacking tools out there are based on Linux barring a few which are written for Windows and Mac. The moot question here is that why do hackers prefer Linux over Mac or Windows?

Today we look at the reason why hackers always prefer Linux over Mac, Windows, and other operating systems. You may have your own reasons for choosing Linux but what do hackers really look forward to while working with Linux.

Reason #1: Command line interface vs graphical user interface

Linux was designed around a strong and highly integrated command line interface. Windows and Mac don't have that. This grants hackers and Linux far greater access and control over their system and awesome customization. This is the reason that most hacking and pentesting tools are built into Linux have greater functionality above and beyond their windows counterparts. In contrast, Windows was built around the graphic user interface (GUI). This restrict user interaction to point-and-click navigation (slower) and application/system menu options for configuration.

Windows has a command line structure, such as command prompt and Power Shell, however, these don't give hackers/developers the complete functionality and integration compared with Linux. This hampers their work as hacking is usually going beyond the well-defined command lines. This is the reason that though hacking tools like Metasploit or nmap are ported for Windows, they don't have capabilities like Linux. Compared to Windows, Linux is more granular. That means Linux gives users infinite amount of control over the system. In Windows, you only can control what Microsoft allows you to control. In Linux, everything can be controlled by the terminal in the most miniscule to the most macro level. In addition, Linux makes scripting in any of the scripting languages simple and effective.



Reason #2: Linux is lighter and more portable

This is arguably the best reason for choosing Linux over Mac and Windows. Hackers can easily create customized live boot disks and drives from any Linux distribution that they want. The installation is quick and its light on resources. To memory, I can only think of one program that lets you create Windows live disks and it wasn't nearly as light or as quick to install. Linux is made even lighter as many distros are specifically customised as light-weight distros.

Reason #3: Linux is typically more secure

Ask a pro hacker or security researcher which operating system is the most secure of them all, and perhaps 101 out 100 will unflinchingly swear by Linux. Windows is popular because of its reach among average users and popularity amongst programmers because it is more profitable to write a program for Windows. In more recent years, popularity has grown for UNIX based operating systems such as Mac OS, Android, and Linux. As a result, these platforms have become more profitable targets for attackers. Still, Linux is a great deal more secure than Windows and Mac out of the box.

Reason #4: Linux is pretty much universal

Just about everything runs some form of UNIX (Internet of Things, routers, web-servers, etc.). Doesn't it make sense that you would target those systems from a device running the same platform? After all, the goal is to make things easier on yourself. You don't want to worry about compatibility problems.

Reason #5: Linux Is Open Source

Unlike Windows or Mac, Linux is open source. What that means for us is that the source code of the operating system is available to us. As such, we can change and manipulate it as we please. If you are trying to make a system operate in ways it was not intended, being able to manipulate the source code is essential.

Think of it this way. Could you imagine Microsoft giving us a plug-in/MMC or whatever to

manipulate or change the kernel of Windows for hacking? Of course NOT!

Reason #6: Linux Is Transparent

To hack effectively, you must know and understand your operating system and to a large extent, the operating system you are attacking. Linux is totally transparent, meaning we can see and manipulate all its working parts.

Not so with Windows. Actually, the opposite is true. Microsoft engineers work hard to make it impossible for users or hackers to find the inner workings of their operating system. On Windows, you are actually working with what Microsoft has given you rather than what you want. Here Linux differs philosophically from Microsoft. Linux was developed as an operating system to give users more control over it rather than make them do what the developers want.

Summary : Linux vs Windows and Mac

You have to understand that hackers and security researcher are here to make money. Hackers hack platforms that are profitable. Windows has been the preferred choice within enterprise environments and with the average consumer. It's the preferred choice for developers (apple licensing costs and restrictions), which is why Windows is so compatible. Apple has been too expensive for consumers and Linux is frankly not that user-friendly (buggy, lack of GUI, etc.). You don't have an average Joe just switching on a Linux PC/laptop and doing what he wants.

However, this is changing. With the arrival of Android smartphones, there has been a paradigm shift in user's preferences. As more users switch to Mac/iOS and Android/Linux, attackers will shift to targeting these platforms. With Internet of Things predicted to be the next game-changer in tech, Linux will emerge as a formidable challenger to Microsoft's Windows or Apple's Mac. As of today, most Internet of Things connected devices are powered by Linux and given the transparency and control available in Linux, it will remain so.

Hacking isn't for the uninitiated. Hacking is an elite profession among the IT field. As such, it requires an extensive and detailed understanding of IT concepts and technologies. At the most fundamental level, Linux is a requirement for hackers and security researchers.

List Of Project Participated In SPARK 2016

Discussion Blog
Event Diary
Video Game For Blind People
Application Based On Travelling Expense Manager
Maze Solving With Object Detection
Abhikshmtaa(Online Aptitude Test)
Appointment System
Magic Mirror Using Raspberry Pi
Robotic Hand
E-Dustbin
Wall Following Robot
Touch Less Tech For Health Care
Radio Frequency Identification
Phone Prototype
Smart Agriculture
Online College Event Portal
Android App
Virtual Blood Bank
Touchless 3D Tracker
Happening2world
Thief Detector
Motion Dectection Using Web Cam
White Line Follower
Security Message System
Online Book Management System
Arduino Obstacle Avoiding And Removing Robot
Virtual Learning
Socialnetwoprking
Sixth Sense Prototype
Information Transfer Utility With Encription
Mobile Controlled Robot
Blind Vision
Newstar Application
Home Automation Using Voice Commands
Social Networking Site
College Guy Application
Data Analysis Using Hadoop
2d Air Drawing
Neural Network Analysis
Tech Spin Android App
Asteroid Game - Rice Rocks Using Python
Sentimental Analysis
Vehicle Emission Control System
Fun And Learning 3d Game
Gesture Driven Robo Control
College Rank Analyser
Lets Talk
Mobilr Traking Device
Cancerpedia
Movie Success Preditor
Stereocopy
Working Of Atm Machine
MOBILE TRACKING APPLICATION

SPARK 2016

The project marathon is organized on 3rd Oct, 2016. There are 55 project participated by the computer science students. The project Smart Agriculture won 1st prize , e-dustbin won 2nd prize and Lazer Gun bag 3rd prize.

FACULTY COORDINATORS :

Vijai Singh
Amit Kumar Gautam
Anurag Mishra

GLIMPSE OF SPARK 2016





HOW TO START PREPARING FOR CAT (IIM)???

How to start preparing for CAT? As mentioned by many, CAT (Common Admission Test) is one of the toughest exams to crack. It is the gateway to getting into prestigious IIMs and other top B-schools of India. A lot of CAT aspirants ask me how to prepare for CAT. Here I am sharing a few tips which I feel helped me in cracking this exam.

Understand the syllabus

This is a useful tip for almost any exam. Understand the syllabus by going through past year's papers and official guidelines. CAT can be segmented into four broad parts-

- Quantitative Ability
- Data Interpretation
- Logical Reasoning
- Verbal Ability

The concepts used in this examination are broadly of class 10 level. However, the questions are little bit tricky to solve and require good amount of logical thinking. But it can be developed by practice.

Begin with the end in mind

Start your preparation with sheer determination. Whenever you feel demotivated, you can dream about the day when you will crack the exam and it will definitely motivate you. March-April is a good time to start preparation for the exam which will be held in October-November.

Should you join coaching?

This is based on a lot of things. If you have a lot of time, you can go for coaching. However, if you are into a hectic job and get very little time to study, you can prepare on your own without wasting that time in going to coaching. Coaching will only give you guidance. Rest depends on how sincerely you practice.

Books and material

First of all, get CAT preparation material of some good coaching institute.

For Quant, there are two good books- Arun Sharma & Sarvesh Varma. You can refer to any of these. I referred the latter one as suggested by one of my friends. However, I think the former is more popular with the students. Both the books are good. But don't buy both. No need to unnecessary

collects a lot of books & material. If you have limited time, solving one book is enough. Go for the second book only when you have finished the entire syllabus.

No special book for concepts of Data Interpretation, Logical Reasoning and Verbal Ability. You can rely on the coaching material for all the concepts and can solve all the practice questions. However, you can refer to some books on these topics only after you finish the entire syllabus.

For verbal, you also need to read “Word Power made Easy” by Norman Lewis. It is a very good book which helps in increasing vocabulary not by memorising stuff, but by understanding the ideas behind the words. It is distributed into 45-47 sessions meant to be read one at a time. It is a must-read book and should be completed within two months of starting your preparation.

Reading, reading & reading

Many students, specially engineers are already good at quant but perform badly in verbal. Earlier, CAT was heavily based on vocab and grammar concepts. But these days, it is more of a general English exam which tests one’s command over English in common usage. You should be very much familiar with English.

The only way to improve your verbal score is to read a lot of good books written in standard English. These can be fiction, non-fiction or anything, just written in good English. I have already written a blog post regarding this.

Test Series

This is like the Holy Grail of CAT preparation. Subscribe to one good Test Series and write all the tests very sincerely in simulated environment. Fix a day, say Sunday, fix a time, say 9 AM, and give the test every week at the same time. Sit in proper position while attempting the test and tell all your roommates or family members not to disturb you at that time.

Once you write 15-20 such tests, CAT will no longer be a stranger to you. When you will sit for actual CAT, you will feel as if you have done this a lot of times and it will help you to remain confident during the exam.

Most coaching institutes try to set the Mock Question paper to be as near to the real exam as possible. Subscribe to a test series which is more difficult than actual CAT. You may find it difficult to score good in the mock tests. But it will boost your confidence when you will find the actual CAT to be easier than the mock tests. Many good test series are available.

News coverage for post-CAT preparation

Once you clear CAT, you need to qualify the Personality Test rounds of various colleges which include Group Discussions, Written Tests and Personal Interviews. Qualifying CAT makes you eligible to attend this stage and its your performance in these rounds which finally help you getting selected.

Preparing for this stage immediately after CAT result can be difficult. Try to follow the basic news in your daily life from today itself. This will ease down the load of preparation for Personality Test rounds and boost up your confidence as well.





Current Affairs

BY : MR. MUKESH KR. SINGH , ASST. PROFF. ,DEPT. OF CSE

October 31: Rashtriya Ekta Diwas

Rashtriya Ekta Diwas (National Unity Day) is observed across India on 31 October to commemorate birth anniversary of Independent India's first Deputy Prime Minister Sardar Vallabhai Patel. Observance of the day provides an opportunity to re-affirm inherent strength and resilience of our nation to withstand actual and potential threats to unity, integrity and security of our country. 2016 Theme: "Integration of India".

Himachal Pradesh declared India's second Open Defecation Free State

The State of Himachal Pradesh was officially declared Open Defecation Free (ODF). Every individual household in the state has functional toilet under the 'Swachh Bharat Mission'. With this, Himachal Pradesh becomes the second State in the country after Sikkim to achieve the feat. However, among bigger states Himachal Pradesh is the first state to become ODF. Himachal Pradesh has successfully achieved total rural sanitation coverage of 100% in the state. Besides, all 12 districts in state were declared as well as verified as ODF.

DoPT launches Employees Online Application

The Department of Personnel & Training (DoPT) under the Ministry of Personnel, Public Grievances and Pensions has launched Employees Online (EO) App. The mobile application aims to update on Appointments Committee of the Cabinet (ACC) appointments and postings on real time basis and to bring transparency. The EO App has been developed keeping in mind the spirit of maximum Governance, minimum Government and meet the need of the hour to bring high-tech systems in the governance

Sunil Bharti Mittal appointed as Chairman of GSMA

The Founder and Chairman of Bharti Enterprises Sunil Bharti Mittal was appointed as Chairman of GSM Association (GSMA). He succeeds Jon Fredrik Baksaas who will step down at the end of 2016. In his new role, Mittal will oversee the strategic direction of the organisation. Besides, Mari-Noëlle Jégo-Laveissière, Executive Vice President, Innovation, Orange Group was re-elected as Deputy Chairman of GSM Association. It also elected the new members of the 26-member Board of the company.

India, Russia agree to double the range of BrahMos Missile

India and Russia have agreed to double the range of the BrahMos supersonic cruise missile from 290 km to over 600 km. The decision in this regard was taken during the meeting between Prime Minister Narendra Modi and Russian President Vladimir Putin in Goa on the sidelines of the BRICS summit.

Antartica's Ross Sea declared as world's largest Marine Protected Area

Antartica's Ross Sea was declared as world's largest Marine Protected Area (MPA) to protect the Earth's most pristine marine ecosystem. It was declared after landmark international agreement among 24 countries and European Union in Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) meeting in Hobart, Australia.

Microsoft launches India's first Cybersecurity Engagement Center in Delhi

Technology giant Microsoft has launched its first full-scale Cybersecurity Engagement Center (CSEC) in Delhi. It is first-of-its-kind Cybersecurity Centre in India and overall 7th in the world including in Tokyo, Seoul, Beijing, Singapore, Berlin and Washington DC.

Union Cabinet approves establishment of National Academic Depository

The Union Cabinet approved establishment and operationalisation of a National Academic Depository (NAD). Under it all academic degrees, certificates and awards in the country will be made digitally available for verification on single spot.

28 October: National Ayurveda Day

The first National Ayurveda Day was observed on 28 October on the occasion of Dhanwantari Jayanti. The theme for this year is 'Ayurveda for Prevention and Control of Diabetes'. Ayurveda is the traditional Hindu system of medicine based on the idea of balance in bodily systems and uses diet, herbal treatment, and yogic breathing. It has been incorporated in Atharva Veda, the last of the four Vedas.

Two-thirds of wild animals may go extinct by 2020

According to recently released study, global wildlife populations have fallen by 58% since 1970 and if the trend continues then two-thirds of wild animals may go extinct by 2020. The study was published as The Living Planet assessment by the Zoological Society of London (ZSL) and the World Wildlife Fund (WWF).

Life expectancy highest in Jammu and Kashmir: RGI Data

According to the data given by the Registrar General of India (RGI), Jammu and Kashmir has the highest life expectancy (i.e. post-60 life expectancy), except life expectancy at birth. With this, Jammu and Kashmir has surpassed Kerala which used to be the leader in life expectancy in almost all categories of age till 2010.

India ranks 130th in 2017 Ease of Doing Business index

India has been placed at 130th position among the 190 countries in the recently released World Bank's ease of doing business index for the year 2017. The index was released as part of the World Bank's annual report Doing Business 2017: Equal Opportunity for All. This report had revised India's rank to 131 from earlier 130th for the year 2016. Thus, India has improved its place by one spot in the 2017 index and its place remained unchanged from the previous original ranking of 130 in the year 2016.

India ranks 87th on the WEF's Global Gender Gap Report 2016

India has been ranked 87th out of 144 countries on the World Economic Forum's (WEF) Global Gender Gap Report 2016. India has climbed 21 spots from 108th position in 2015. The report measures gender gap as progress towards parity between men and women in four areas (i) Educational attainment, (ii) Health and survival, (iii) Economic opportunity and (iv) Political empowerment.

India-Sri Lanka joint military exercise Mitra Shakti 2016 begins

The fourth edition of the India-Sri Lanka Joint Military Exercise 'MITRA SHAKTI 2016' began at Sinha Regimental Centre in Ambepussa, Sri Lanka. The main focus of this edition of joint exercise is to enhance inter-operability while carrying out Counter Terrorism (CT) and Counter Insurgency (CI) operations under the UN Mandate

Paul Beatty wins 2016 Man Booker Prize

Paul Beatty (54) has won the 2016 Man Booker Prize. With this he becomes the first US author to win this prestigious literary award. He was bestowed with this award for his racial satirical novel 'The Sellout' at a ceremony held in London's Guildhall. His novel tells the story of a young black man who tries to reinstate slavery and racial segregation in a suburb of Los Angeles.

Uranus may have two more moons: Study

According to study conducted by researchers from University of Idaho, US Uranus may have two tiny, previously undiscovered moons orbiting near two of the planet's rings. These two moons were detected by researchers after analysing decades-old images of Uranus' icy rings taken by NASA's Voyager 2 spacecraft which had flown by the planet 30 years ago.

Cyrus Mistry removed as Chairman of Tata Group

The board of India's largest conglomerate Tata Sons Ltd has removed Cyrus Pallonji Mistry (48) as Chairman. However he will remain a director of the individual companies. The board has replaced him with his predecessor Ratan Tata as interim chairman for four months. Mistry had shortest tenure as Chairman so far at the group.

CO2 level reaches record high in 2016: WMO

According to the World Meteorological Organization's (WMO) annual Greenhouse Gas Bulletin level of carbon dioxide (CO2) emissions in the atmosphere has reached a record high. The globally averaged concentration of CO2 in the atmosphere reached to 400 parts per million (ppm) for the first time in 2015. It is expected to surge again to new records in 2016 on the back of the very powerful El Niño event.

ISRO starts landing tests for Chandrayaan-2 mission

The Indian Space Research Organisation (ISRO) has started a series of ground and aerial tests linked to the critical Moon landing of Chandrayaan-2. These tests were started as ISRO's new site at Challakere in Chitradurga district, 400 km from Bengaluru. This site has simulated craters. ISRO Satellite Centre (ISAC) is the lead centre for the second Moon mission. It has artificially created close to ten craters to simulate the lunar terrain and test the Lander's sensors. ISAC will conduct many tests including on avionics and electronics, testing the Lander's legs, followed by a combined full test.

PM Narendra Modi launches Urja Ganga in Varanasi

Prime Minister Narendra Modi has laid the foundation stone of Urja Ganga, the highly ambitious gas pipeline project in Varanasi, Uttar Pradesh. The gas pipeline project aims to provide piped cooking (PNG) gas to residents of the eastern region of the country and CNG gas for the vehicles.

India falls short in female literacy compared to its neighbours: Study

As per new study, India's school education system is under-performing in terms of quality in female literacy when compared to its neighbours, Pakistan, Bangladesh and Nepal. These findings were released by International Commission on Financing Global Education Opportunity (or Education Commission). It shows that India's education system is under-performing.

India wins 2016 Kabaddi World Cup

India has won the 2016 Kabaddi World Cup by defeating Iran by 38-29 score in the final match played at the Arena By TransStadia in Ahmedabad (Gujarat). It was India's third consecutive Kabaddi World Cup in the Standard Style version of Kabaddi. Earlier India had won in 2004 and 2007. Captain of Indian team: Anup Kumar Captain of Iranian team: Meraj Sheykh

Union Government launches UDAN Scheme for Regional Air Connectivity

The Union Government has launched the regional air connectivity scheme UDAN (Ude Desh ka Aam naagrik) which seeks to get more people to fly in the smaller towns. The scheme was launched by the Union Civil Aviation Minister Ashok Gajapathi Raju in New Delhi. It will be rolled out by January, 2017 and will be in operation for a period of 10 years.

IIL develops CYSVAX, world's first vaccine to fight against tapeworms in pig

The Indian Immunologicals Limited (IIL) has launched CYSVAX, world's first vaccine to fight against Taenia solium Tapeworms in pigs. The vaccine has significant potential benefit to reduce the incidence of epilepsy in humans.

IUNC to declare Kashmir's Red Stag as Critically Endangered

The International Union for Conservation of Nature (IUCN) is going to declare the Kashmiri Red Stag (also known as Hangul) as a Critically Endangered species. The critically endangered status to the Kashmiri Red Stag will help it to get more protection and enhance the conservation efforts to increase its rapidly declining population.

India signs pact with Russia to lease second nuclear submarine

India has signed agreement with Russia to lease second Akula-II class nuclear attack submarine (SSN). The deal is believed to be worth about \$2 billion. The lease to transfer a multipurpose Project 971 nuclear submarine to India from the Russian Navy was signed in Goa on the sidelines of 8th BRICS Summit. The second nuclear submarine is expected to arrive in Indian waters in 2020-21.

India, China conduct second Joint tactical Exercise in Ladakh

India and China have conducted second joint military exercise "Sino India Cooperation 2016" in Ladakh region along the Line of Actual Control (LAC) in Jammu and Kashmir. The exercise compliments Hand in Hand series of India-China joint military exercises that aims to enhance cooperation and maintain peace and tranquility along border areas of both countries.

The BYTE



Chief Editors



Prof. Amit Kr. Gautam
Dept of CSE



Prof. Lipika Goel
Dept of CSE

TEAM LEADERS



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