

KALEIDOSCOPE

Indraprastha Institute of Information Technology- Delhi

Volume 2
Issue 1

Is GOOGLE watching you?

A take on google
invasion of privacy

DIASPORA*

There is a new
facebook in town
A threat to
Mark Zuckerberg?

IIIT D Column -

Cloud Computing
ACM ICPC, IIITD OCX
Extempore, QUIZ!
Section of Fun!

IIIT-D ACM
Student Chapter
Initiative

EDITORIAL

Season's Greetings!

As IIIT-D gears up for another intense and riveting semester, we proudly present you the third issue of our newsletter, Kaleidoscope. This edition of Kaleidoscope brings to you numerous research projects undertaken by our faculty, Special Interest Groups (SIGs), and a dose of creativity by IIITians. The highlights of this edition are the words of wisdom by Dr. Pankaj Jalote, Director, IIIT-D and Kiran Karnik, BoG member.

This edition brings together all the events that made us proud, along with the technical section which spans articles from the field of Computer Security to Image Analysis to Botnets. In an once-in-a-lifetime opportunity, the students interacted with the face of Indian IT Industry, Kiran Karnik, where he stressed upon the need for more institutes on the lines of IIIT-D and why they have a huge potential in future. Featuring in this edition is an excerpt from Dr. Jalote's blog about the origins of our Institute.



This newsletter some of the most recent significant events of IIIT-D like the institute's first ever inter-college workshop in collaboration with IIT-Delhi, Microsoft Windows Azure Cloud Computing Workshop. We also organized the first edition of ACM Annual Research Showcase where students displayed their research in posters and demos. Winners of the Best Poster and People's Choice from the showcase have contributed articles on Image Processing techniques to detect video tampering and Botnets.

The IIIT-D News Log brings into light all the latest academic happenings from our Institute. The section is filled with applause for all those students and faculty who brought laurel and recognition to the Institute by receiving awards for Best Poster and getting research papers published in various conferences and journals. We also acknowledge and apprehend the several research grants and various consultancy projects which our distinguished faculty has managed to procure. IIIT-D also organized the second edition of its intra-college Cricket tournament and it's first-ever Pool tournament.

As is customary for Kaleidoscope, the students have filled the fun section with plenty of humor with their display of creativity. Check out the results of some cool polls, taken in the previous semester. We sincerely hope that you enjoy reading this edition as much as we enjoyed making it.

Have a nice read!

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IIIT-Delhi : THE EVOLUTION

Excerpts from Prof. Jalote's blog

{jalote.wordpress.com}

The Origin

At the time many state Governments, As well as Government of India, were considering starting IIITs to develop IT manpower and develop R&D capability. Delhi Govt. also decided to start an IIIT in Delhi. As first "I" cannot stand for "Indian" for any Institution that is not Govt. of India's, Delhi chose "Indraprastha" – the name with which Delhi was known in some periods. The IIIT-D Act is clearly a visionary one – giving tremendous autonomy to the Institute and vesting most of the powers for policy with the Board of Governors of the Institute. To provide financial autonomy, it envisaged some innovative financial engineering – the Institute

"The IIIT-D Act is clearly a visionary one – giving tremendous autonomy to the Institute and vesting most of the powers for policy with the Board of Governors of the Institute."

was to get interest free loan from the Govt. and no grants. As there were no grants from the Govt., it became free to decide its own salary scales. It was clearly a balancing act between keeping the Institute as a Government Institute, while still giving it full academic, administrative, and financial autonomy.

The Beginning

Someone then told me wisely: "Opportunities do not come at the time of your choosing – when you are most ready; they come when they come – you have to take it when it comes." I agreed to take the job if IIT Delhi will give me deputation for a few years, so I can complete my 20 years in IIT service. I officially joined IIIT-Delhi as its employee number 001 on Aug 29, 2008. It was decided that, while it will be desirable to start the new batch next year, it will be smarter to start that year itself, even though it was late and most students were already enrolled, since the elections were due later in that year and hence it would be "safer" to have the institute already functioning. To ensure that Institute is not perceived as "easy" to get in, we made a decision of having a "filter" for application based on AIEEE ranking for outside Delhi candidates and DCE-NSIT test for Delhi candidates, but have a separate entrance test of our own.

Event	Date
Govt.'s decision to start a IIIT in Delhi	July, 2007
IIIT-D Act passed in Legislature	April 2, 2008
Constitution of Board and appointment of the Chairman	May 1, 2008
The technical date of coming in existence of IIIT-D	May 28, 2008
Advertisement for Director's position	May 29, 2008
Release of prospectus and website by CM in a public function	Aug 3, 2008
Entrance exam	Aug 23, 2008
Counseling	Aug 26, 2008
First day of classes	Sept 8, 2008

IMPORTANT DATES IN IIIT-D HISTORY

Compiled by

Rahul Gautam and Sunpreet Arora

Quicker, Better, Cheaper And Different

You don't get an opportunity everyday when you are face to face with a person who is the guiding force behind the Indian outsourcing industry, a person who is a prominent figure in the Indian IT industry, a personality so powerful, a voice with authority and yet humility and doesn't call for respect but gains it. In short, it is not a daily routine when you have an opportunity to ask the face of Indian IT industry, Kiran Karnik questions.

We had so much to ask and a limited time span...and those words echoed in my mind when I got to know that we have only half an hour to interact with Kiran Karnik, "*Premise of a human being with a limited time span and a directed mind is not a gift; it's a curse*". But, we had to make the best of the opportunity given to us. Our question to him were not so complex, very basic but deep and his answers flew from his tongue and words formed in such a fashion as if they were magical and each word was hitting us where he intended those to hit us.. Maybe that is how you feel when you meet a man of power. We asked him "After running for 2 years, where do you see IIT-Delhi as an institute?" His immediate reply to that was that "I am a biased party" but still in 2 years time I see the institute has done a good progress. He described that the critical area for an institute is to get good faculty, attract bright students, work on projects that affect the common man and are usable and he was delighted to see that work was being done in all 3 directions and the progress was good. He even remarked that maybe for an institute two years is nothing but for students, two years is half of their undergrad life. He hinted that broader vision of the institute is to develop it into one of the leading I-school (Information Schools, like there are B-schools) and use IT for development, IT for environment, IT for economics, IT for sociology etc. Can we bring in people from different domains and look at problems and use IT to solve those problems? It is more of an interdisciplinary thing that we are aiming for. But he was happy given the fact that it has been able to attract both faculty and students because he described when a student goes to take admission he might have heard of IIT Hyderabad but what is IIT Delhi... I have never heard of it... it is just two years old... And the institute is still competing with other institutes that have been there for decades.

"Innovation model that is quite successfully followed in India is: Quicker, Better and Cheaper."

But he was impatient about the campus because a building, own facility, infrastructure is very necessary to maintain the required ambience for learning. Duty of a student is to extract as much as possible from the infrastructure, facilities provided and if student is not being able to extract then the institute is at fault. It is the responsibility of the student as well to draw as much knowledge as he can from the faculty. But what usually has been seen is that Indian students are easy going... If a teacher is absent for a lecture, they enjoy shouting all around "Aaj Chutti Hai", instead they should be demanding from the teacher that "I want to learn", "I want to know about this...", he should be able to demand that if a teacher cannot come to the class then the teacher should make up for it in the future.

We obviously could not have spared him asking about the future of IT industry, so we asked him *After Recession, how well are the things going with Indian IT industry?*

To this question, he just quoted that day's newspaper and gave the example of Cognizant which had recorded the highest growth that quarter than any company in the world. Though this was enough as the answer but he wanted to detail us more about the IT industry as a whole. He said that IT sector will always be at a high position though nowadays getting into IT service is no longer interesting; it is actually entrepreneurship that is more interesting option for the newcomers. He remarked that IT industry is very few of those areas where one could get into with a very minimal input all you need is a room and a server. But the most important part to get into the industry and succeed in it is that one Brilliant Idea which will work. You exactly don't need to be Birla's grandson to get into the industry and succeed in it. IT industry is very broad and this helps given that your goal is to innovate.

He further explained that Innovation model that is quite successfully followed in India is: Quicker, Better and Cheaper. Cheaper because it is low cost, and it has to have *Better Quality and it has to be quicker because India has a large population to cater to. But this model is wearing out; the new model is Quicker, Better, Cheaper and Different. Different is the most important covariate added in the new innovation model.*

He started off giving us example of that "different", he stated that clichéd story of American Russian Space War where American Space Agency had rolled out a tender for coming up with a pen that could write in space. 3 companies applied and after years of hard work and many dollars being spent, finally one company achieved in creating the space pen, the pen that could write in space. And for the same purpose Russians

used the pencil.

There are three types of innovations

- When you develop something completely new e.g. The Space Pen
- When you use existing technologies in a different way to achieve something completely new e.g. Pencil
- And third is the most popular ones presently, the business models

The example of the 3rd one is a true story which is not an ideal story but still it is from Bombay. So he stated that as we all know Bombay locals are usually a lot crowded and obviously the queue to get a ticket is quite long, so if a passenger has a train leaving in 10 minutes and he wants to buy the ticket, it is quite certain that he is going to miss the train. And to catch the train, most people usually take a risk and travel in the train without the ticket, and sometimes they get caught and sometimes they don't the odds for this are certain and favorable in not getting caught. So, a young man with a bright idea came up with the idea of insuring people travelling ticketless at a nominal price. He promised that if you are caught travelling ticketless then he will pay the fine against the slip. Though it may seem a good buy for the passenger; that young man has already ensured his profit considering the odds and the number of people he has insured. This model might seem unethical but there is a silver lining as well, now the ticket checker's who have to fine the people travelling ticketless cannot take bribe as the passenger needs a full bill for which he will be insured. So, in a way corruption is also being handled...

Though for us, in the flow of words and the sheer amount of knowledge gain, we had stopped our time, but it did not happen in a more real domain. And it was time to actually drink up the coffees that were sitting in front of us, totally untouched and allow Kiran Karnik to leave.

Hemank Lamba

(Interviewed by: Vibhas Kumar, Siddharth, Ankit Sarkar, Hemank Lamba)

Diaspora—Thinking Big

diaspora*

As Facebook continues to engulf user after user throughout the world and with no competitor in near sight, four computer science students from New York University: Daniel Grippi, Maxwell Salzberg, Raphael Sofaer, and Ilya Zhitomirskiy have come up with a revolutionary idea which can well go on to be the "next Facebook". Facebook has been facing lot of issues with privacy

and how the information posted can be misused. This has given rise to "Anti-Facebook" kind of a movement which consists of people (some paranoid) who eye these privately owned social networking platforms as a threat to their privacy. Maybe such sentiments were behind the idea of Diaspora. Now what Diaspora aims to do is to hand the control to the user about the information he shares online.

Diaspora will be an open-source and 'privacy aware', distributed social network where users interact directly without the need to hand over the messages to a central hub. The network would consist of individual nodes called 'seeds' which would be owned and operated by the users of the network. Each seed will accumulate all the online information of the user and interact with other seeds by "friending" them. Users will be expected to install the Diaspora on their machines (or a pay and activate scheme for non-technical users) and choose the settings they are comfortable with it.

The underlying principle of Diaspora dashes Mark Zuckerberg's theory that sharing of information and privacy are mutually exclusive things. It will be interesting to see how people react to the idea of having more control over their information especially at a time when analysts have envisioned an era of over-sharing. So far the Diaspora team has received a warm response. The team managed to raise \$200,000 on a fund-raising site Kickstarter (initial target was only \$10,000!!) and there is a lot of buzz about it in the tech-world.

Rahul Gautam

Sicurezza- Special Interest Group, Security



Ever wondered how SECURE you are in the cyber world? You don't even bother right? Well, it is all in the cyber world; from your emails, your social networks, your friends, the chats..... and many more. Do you still think that you seldom use the internet??? What does all that have to do with SECURITY, isn't it? Well, THINK AGAIN! You are as vulnerable to THEFT on the internet as you might be with your house wide open!

Security by definition “means the degree of protection against danger, damage, loss, and criminal activity”. And mind you, the definition does not bind security with any particular domain. Whether it is your home, or the internet; security is crucial. Most people are very well familiar with physical security; you'd lock the door of your house before going away, you'd not give the keys to your house to anyone, you'd be vigilant if you find someone buzzing around your house, trying to monitor your day-by-day activities. In the modern day world where the internet is something you'd prefer over anything and depend upon more than your spouse, cyber security becomes an even more crucial aspect! Many of us unknowingly have so much personal information shared on the internet that in certain cases, anyone on the planet with access to the internet can track us down to our house, office or even our geographical co-ordinates! Through the medium of this group, we would like to make some effort to make people aware at least about the basic security issues that concern them. We plan to hold various activities in the upcoming months both inside & outside IIIT D to arouse the interest of students and faculty in the domain of security.



HUMAN AREA NETWORKS – THE FUTURE OF WIRELESS COMMUNICATION

Consider the following -

- Have you ever wished that Bluetooth was faster, and safer in terms of data confidentiality?
- Have you ever resented being confined to a single room while using Infrared?

If the answer to the above questions is yes, then Human Area Network is a concept you would find interesting. As the name suggests, Human Area Network (or HAN) or Personal Area Network (PAN) is a technology that could enable wearable computer devices to communicate with other nearby computers and exchange digital information using the electrical conductivity of the human body as a data network. The concept of a PAN first was developed by Thomas Zimmerman and other researchers at M.I.T.'s Media Lab and later supported by IBM's Almaden research lab.

HAN essentially tries to bridge the “last meter” of communication, that is, communication between two “HAN Enabled” devices located very near to each other. Also, just like Bluetooth and Infrared, even HAN needs some hardware and software support. This is the reason this technology is being compared with Bluetooth and Infrared communication, which work on a small geographic range. But technically, HAN is completely different from either Bluetooth or Infrared communication. Its basic advantage lies in the fact that it can potentially provide for much higher data transfer speeds than Bluetooth or Infrared.

A considerable work has already been done in making wearable computing a reality. NTT, a Japanese organization that has developed a HAN prototype called RedTacton which consists of a transceiver which is the size of a smart card to be worn by any person who wishes to start or be a part of a RedTacton HAN.

Imagine a scenario where you have a “enabled” table, connected to the internet. You sit on this table, wearing a RedTacton transceiver yourself. Your laptop would now connect to the internet automatically! And you could transfer data to the PDA of your friend just by shaking hands with him!

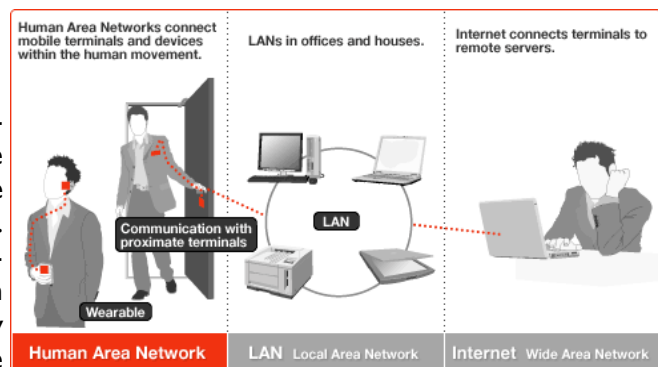
Imagine yourself as you take pictures from your “modified” digital camera”, and then as you look at the pictures, all you need to do is touch the “enabled” printer in your room, for the pictures to get transferred from the camera to the printer and get printed asap!

The underlying assumption of course is that all humans involved wear a RedTacton transceiver and all the devices are RedTacton enabled as well!!

Add to all these scenarios the information that all this data transfer could potentially be happening at a speed of 10MBPS, and the data transfer continues even through clothes and shoes! Weird (yet wireless!) magic isn't it??

So, how does it all work?

The implementations can be many, but RedTacton in particular works on the changes that the electric field of a human body induces on the optical properties of an electro-optic crystal. These optical properties can be sensed via a laser. After contact with a RedTacton Device, an electric field is induced on the human body by the transmitter worn by the user. Next, the transceiver on the device detects changes in the wearer's electric field which was caused by the device. The devices then communicate and send data by inducing fluctuations in the electric field of the human body. Data is received using a photonic electric field sensor that combines an electro-optic crystal and a laser light to detect fluctuations in the minute electric field.



↓
...RedTacton

The Challenge

RedTacton in particular conforms to the “Radio Frequency-Exposure Protection Standard (RCR STD-38) issued by the Association of Radio Industries and Businesses (ARIB). The levels produced by RedTacton are well below the safety limit specified by this standard. So, using it won't subject us to any additional harmful frequencies than what we are already accustomed to. But frankly, the idea of being constantly charged up is quite creepy to most people. What this might do to our organs in the long run is another question....

Another factor is market acceptability. Any new technology that demands existing devices to be modified in order to be used with itself means a lot of investment of time and money on part of the manufacturers of these devices.

“A set of five transmitters and one receiver goes for 800,000 yen, or about \$7,620. Compare this with an equivalent Bluetooth setup – the cost comes out to be around 1/1000th of the above!!!”

The major hindrance at present however, is the cost associated with this technology in itself. A set of five transmitters and one receiver goes for 800,000 yen, or about \$7,620. Compare this with an equivalent Bluetooth setup – the cost comes out to be around 1/1000th of the above!!!

To conclude, Human Area Network as a technology is quite an ingenious idea. What is needed is for it to be tested extensively over a long period of time, and for people to accept it and get accustomed to it knowing the pros and cons well. If this technology is pushed upon people like most technologies, environmentalists can have a field day taking it to pieces, and they would be right in doing so! But in that case, a potentially great idea would be lost. Widespread “ethical” marketing campaigns that highlight all aspects of the technology and facilitate its adoption over a period of time should be the ideal way to go!

Sneha Shukla

Are we headed for a Google Invasion ?

Google
IS WATCHING
YOU

What began as a research project of two PhD scholars in Stanford in March 1996, culminated into one of the giants in the sphere of Information Technology. Although the rise and rise of Google has been really awe inspiring; yet people have expressed their concerns on how the internet giant can muster enough information to track down any individual, especially in the wake of the privacy being touted as one the major concerns of the modern day era. Here's the trigger:

"Last week, a year after Google's Streetview was launched in the UK; a further 210,000 miles of the country's roads and streets were made available to internet users. In fact, it's now possible to investigate virtually any street in Britain. You can gawp at where you grew up, you can poke around old student digs, and you can even go carousing in Lincoln. Yet while this might sound like an innocuous, sometimes useful, sometimes fun, online tool, for some Google Streetview constitutes a serious invasion of people's privacy."

Google Streetview, which has been talked about here in this extract from a newspaper article, in fact never put in place any safeguards. People on the streets were identified quite easily because of the failure of the face-blurring technology used at the backend, and it spurred a series of debates amongst the community members regarding serious privacy breach. Google was peeking into houses and private places without even consulting people.

Google doesn't seem to be deliberately breaching privacy; rather it does so by default. It deploys its products like Streetview first and then considers privacy implications later. The process of consulting users before rolling out a product doesn't seem to be integrated into Google's ambitious plans to take on its competitors.

However in the wake of all this criticism, Google has introduced some measures to counter-attack the public-flak. But there are significant obstacles considering its sheer size and the range of services it offers to end-users from search to mail to other utilities. Since it aspires to monopolize over the internet, it is definitely an endemic threat to user privacy. Anyone who would combine a Google utility with his/her private things would be indirectly handing Google the ability to drill deep down into his/her private life considering the expanse of the company and its astonishing ever-growing stranglehold over the Internet. The problem is that most of us knowingly or unknowingly have already handed Google some kind of information, which can prove as ideal fodder for it to unravel anything and everything about us, to the extent of even tracing us down if needed. However, the real war would be when information reserves are combined in such a manner that the handle to each service would be unique for every individual. This is when all services would be accessible via a single sign-in or login. Although this process has already been initiated in some sense or the other, yet neither Google nor the end users have probably visualized the potentially drastic after-effects. The consequences certainly can breach user privacy to an unforeseen extent. It can in fact, erase the already thinning line between what we call public and private information on the internet.

Although we cannot stop Google from spreading its wings, but certainly Google needs a long overhaul on its business model and definitely needs to consider user-privacy as an integral part of its ambitious expansion plans. It has to probably consider "trust" as a key element in its blueprint rather than a separate module outside of it. After all it's the consumers, who make any venture a success, and until now they have given their thumbs up to Google, but at the same time if they stop entrusting it with their private information, it would still affect its market as well as non-market image adversely.

Google 2020



Detecting Video Tampering

Amar Yadav, Yash Seth and Nikhil Shekhawat

Advisors: Mayank Vatsa and Richa Singh



In a world where video surveillance has become the need of hour, authenticity of these videos poses a major challenge. With the availability of several tools that can alter the contents easily, the reliability of video data is of paramount interest in video surveillance, forensics, law enforcement, and content ownership. In the court of law, it is important to establish the trustworthiness of any video that is used as evidence. Therefore, video authentication is a process which ascertains that the contents of a given video are non-tampered [1]. There are several possible alterations or attacks which can be performed to alter the contents of a video data. Among them, fame deletion, frame swapping, and object removal/addition are the popular ones. Figure 1 shows an example of the object alteration attack.

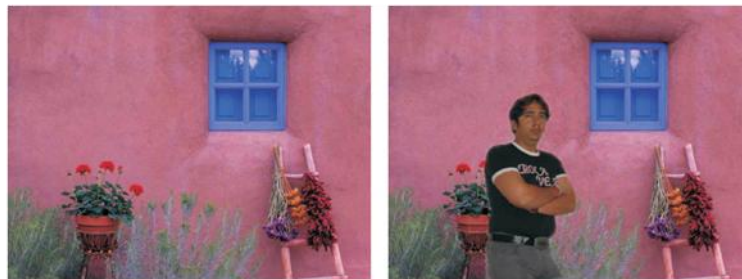


Figure 1. Example of object alteration attack when an object is added in the frame. The first frame is the original frame and second frame have been altered by inserting a human figure in the frame. Figure taken from [1].

In literature, there are two types of video authentication approaches: reference based and non-reference based. In reference based approaches, it is assumed that some information of the video, prior to tampering, is available. For example, a watermark inserted in the video while capturing is a reference based approach. In non reference-based video authentication, there is no reference to compare them and intrinsic video properties have to be utilized for authentication.

The algorithms proposed under this research aim to detect video tampering by using image processing techniques. We developed a reference based video authentication algorithm using secret sharing and a non-reference based authentication algorithm using change detection. The two algorithms have been developed to address frame addition, deletion, swapping, alterations and object alteration attacks. We also prepared a video database that comprises more than 70 high definition videos and over 8 hours of surveillance videos. The HD videos were used for reference based algorithm whereas the surveillance videos were used evaluating the performance of non-reference based algorithm. The reference based algorithm yields 100% results on all the above mentioned attacks and also detects the locations of malicious tampering. The non-reference algorithm was evaluated on frame deletion and swapping a minimum of 15 frames (about 1/2 sec) that clearly depicted the point tampering.

[This project was the winner of the IIIT-D ACM Research Showcase 2011]

Reference

R. Singh, M. Vatsa, S.K. Singh, and S. Upadhaya, Integrating SVM Classification with SVD Watermarking for Intelligent Video Authentication, *In Telecommunication Systems Journal - Special Issue on Computational Intelligence in Multimedia Computing*, Springer, Vol. 40, No. 1-2, pp. 5-15, 2009.

An Imperceptible Overlay Network On Online Social Networking Sites A Steganographic Botnet : DreamWalker

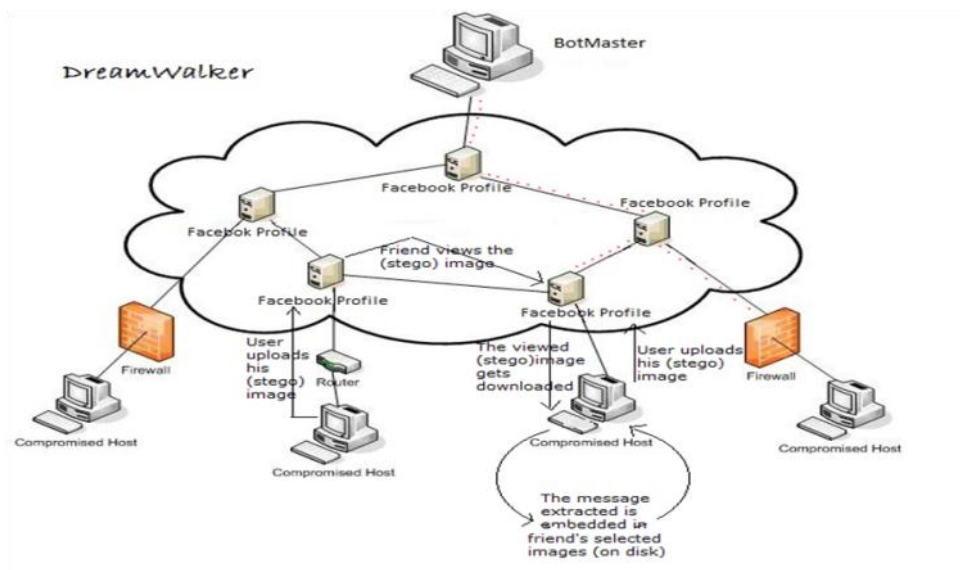


Sneha Shukla, Chandrika Bhardwaj and Siddhartha Asthana
Advisors: Shishir Nagaraja, Ponnurangam K

Botnets or Web Robots are the major threats on the internet today. They are omnipresent. They infect computers, turn them into “Zombies” and then use these compromised computers to do various kind of nefarious activities, including cyber crimes, spam generation, DDoS attacks, etc.

Social Networking Sites are another phenomena that have taken the internet by storm. OSNs, as they are commonly called are THE buzzword today. They are ubiquitous and addictive, for people of all age groups, and no wonder; these sites provide a way to stay connected with your old friends, make new friends – play games, share pictures and plan events, among others. People upload their pictures, and “tag” their friends. They comment and share thoughts on the pictures, and their “Social Network” (their “friends” on the social networking site) stays connected and happy. Pictures uploaded by a user are a considerable chunk of his/her social networking avatar.

We present a hitherto unheard attack on these social networking sites – A Botnet based on the pictures that users upload on these sites. The botnet, which we call DreamWalker uses the concept of Steganography (the practice/art of hiding data inside a carrier; in our case, pictures). The project is



about providing a proof of concept that such a Botnet can work, and this kind of an attack is possible.

We carry out the actual working of this idea on a popular OSN – Facebook.

The botnet uses pictures that users of the social networking sites themselves upload to propagate, so there is almost no fear of detection, unless someone knows about the algorithm, and tries to attack all the pictures that a user uploads. Also, the botnet generates no extra network traffic and is basically like an overlay network which resides on these social networking sites. Dreamwalker’s success also greatly depends on the steganographic algorithm used, which needs to be resistant against the drastic lossy compression done by OSNs in case of pictures.

These approaches, combined together give the proof that Botnets that are part of an imperceptible overlay network on OSNs are indeed possible, and that we might be seeing more sophisticated versions of the same in future.

[This project was the People's Choice winner of the IIIT-D ACM Research Showcase 2011]

TIMES IIT-Delhi

~CONGRATULATIONS!!~



- > Anuda, Anush and Paridhi (PhD 2010): For winning TCS fellowships.
- > Samarth, Himanshu, Richa, Mayank (and collaborator Dr. Sanjay Singh from IT-BHU): Paper titled "Face Recognition for Newborns" by them won the best poster award at IEEE BTAS 2010 (September 27-29, Washington DC)
- > Dr. Mayank Vatsa: For receiving DST Fast project award on simultaneous latent fingerprint recognition.
- > Denzil Correa, Aditi Gupta, and Paridhi Jain: For being awarded the Nixi Fellowship.
- > Dr. Ashish Sureka: For receiving international conference travel award (for presenting a paper at APSEC 2010) from SIGSE, Computer Society of India (CSI) and for being granted a United States Patent on September 21, 2010. This is amongst the First 15 granted patents from Infosys.
- > Kuldeep Yadav: For receiving UNESCO travel award to attend ICTD 2010 conference in London, UK and student travel grants to attend APSYS(SIGCOMM'10), Middleware'10 (Bangalore), and COMSNETS'11 (Bangalore).
- > Dr. Ponnurangam Kumaraguru: For receiving travel and participation grant to attend "Terrorism and New Media : Building a Research Network" workshop at Dublin City University.
- > Prof. Pankaj Jalote: For being elected a Fellow of the Indian National Academy of Engineering (INAE) in recognition of his distinguished contributions to "Engineering" and giving a keynote address in the 29th IEEE International Symposium on Reliable Distributed Systems on 3rd November 2010.

MAJOR EVENTS @ IIT-D

- > 13th August 2010 - **IIT-D Get Together 2010**
- > 7th September 2010 - **Microsoft Azure Cloud Computing Workshop**
- > 21st & 22nd September 2010 - **OCX Programming Contest**
- > 22nd & 23rd September 2010 - **Science and Technology Quiz**
- > 22nd & 23rd September 2010 - **Spic Macay Concerts**
- > 27th September to 1st October 2010 - **Spic Macay Bamboo Workshop**
- > 15th November 2010 - **Windows Phone 7 Development Workshop**

B.TECH/M.TECH PAPER PUBLICATIONS

1. N. Sharma, P. Mehndiratta: Botnet Detection System using DNS behavior and clustering analysis. In *Proceedings of the International malware conference Malcon 2010, Mumbai, India*.
2. K. Yadav, P. Kumaraguru, A. Goyal, A. Gupta, V. Naik, "SMSAssassin: Crowdsourcing driven Mobile-based System for SMS spam filtering", Accepted at HotMobile'11 (Phoenix, USA)
3. A. Sureka, P. Kumaraguru, A. Goyal, and S. Chhabra, "Mining YouTube to Discover Extremist Videos, Users and Hidden Communities," in *Information Retrieval Technology, ser. Lecture Notes in Computer Science, Springer Berlin / Heidelberg, 2010, vol. 6458, ch. 2, pp. 13-24*
4. A. Sureka and A. Goyal, "Insights on Transferability of Dialog-Act Cue-Phrases Across Communication Domains, Modality and Semantically Similar Dialog-Acts", *8th International Conference on Natural Language Processing (ICON), 2010*
5. A. Sureka, A. Goyal and A. Rastogi, "Using Social Network Analysis for Mining Collaboration Data in a Defect Tracking System for Risk and Vulnerability Analysis", *Fourth India Software Engineering Conference (ISEC), 2011*

IIIT-D TALKS!

Speaker (s)	Date	Talk details
Prof. Venu Govindaraju, University of Buffalo	Dec 21, 2010	Title: Biometrics Security
Prof. Deborah Estrin, UCLA	Dec. 13, 2010	Title: Participatory mHealth
Pramod Chandra P. Bhatt, Vidha Software Solutions	Nov. 4, 2010	Title: Systemic Thinking for Design

Dr. Aaditeshwar Seth, IIT Delhi	Oct. 28, 2010	Title: Social Media Tools for the Bottom of the Pyramid
Prof. Andreas Zeller, Saarland University	Oct. 21, 2010	Title: Learning from 6,000 projects: Mining Models in the Large
Dr. Thomas Zimmermann, Microsoft Research	Oct 19, 2010	Title: Empirical Software Engineering and Measurement at Microsoft
Dr. Mausam, University of Washington	Sept. 23, 2010	Title: Compiling a Massive, Multilingual Dictionary via Probabilistic Inference
Dr. Subodh Kumar, IIT Delhi	Sept. 9, 2010	Title: Cache Friendly Compressed Representation of Geometry
Dr. Veena Bansal	Aug 26, 2010	Title: Experiments with Extended Technology Acceptance Model (ETAM)
Prof. Vijay K Vaishnavi	Aug 19, 2010	Title: Design Science Research in Information Technology
Faculty @ IIIT-D	Aug 5, 2010	Presentations by research groups at IIIT-D: Security and Privacy, Image Analysis and Biometrics, and Theory
Prof. Somenath Biswas, IIT Kanpur	Aug 4, 2010	Title: Necessary and Sufficient Conditions for Success of the Metropolis Algorithm for Optimization
Faculty @ IIIT-D	July 29, 2010	Presentations by research groups at IIIT-D: Software Engineering, Information Management and Data Analytics, and Mobile and Ubiquitous computing

Projects and Grants!

SI No.	Project Title	Granting Agency	Principal Investigator
1	Research and Design of face Recognition Algorithms for face Images with Variations in pose, Illumination and Expression	Dept. of Information Technology	Dr. Mayank Vatsa & Dr. Richa Singh
2	Analyzing quality of fingerprint images for Indian population	UIDAI	Dr. Mayank Vatsa & Dr. Richa Singh
3	Analyzing online content using data mining techniques to counter Cyber Crime	Dept of Information Technology	Dr. PK & Dr. Ashish Sureka
4	Research in location-based services in India	Nokia Research Centre, Palo Alto USA	Dr. Vinayak Naik
5	Set up a Nokia Lab at IISc and IIIT-D	Nokia Research Centre	Dr. Vinayak Naik
6	Work on the problems localization using mobile phones	Nokia Research Centre, Palo Alto USA	Dr. Vinayak Naik
7	Wireless Structural Health Monitoring of Impact Damage and Vibration in Spacecraft Structures	ISRO-IISc Space Technology Cell	Dr. Vinayak Naik
8	Process Review and Re-engineering	IFFCO Kisan Sanchar Limited	Dr. Vinayak Naik, Dr. Amarjeet Singh & Dr. Pushendra
9	Privacy in India	Intl Dev Research Centre, Canada & Privacy Intl, UK	Dr. Ponnurangam Kumaraguru
10	Video analysis for law enforcement and intelligence agencies	Palladion, Intelligence & Security Informatics	Dr. Ponnurangam Kumaraguru
11	Review of their existing system, recommendations for technology advancements for scaling up the operations, developing the software requirements for efficiently managing their operations and prototyping and piloting a new technology for exploring new services in this domain	IFFCO Kisan Sanchar Limited	Dr. Pushendra Singh

12	Reengineering existing applications for the Multicore servers	Dept of Science and Technology	Prof. Pankaj Jalote
13	Statistical Evaluation and Recognition of Simultaneous Latent Fingerprint Impressions	Dept of Science & Technology	Dr. Mayank Vatsa & Dr. Richa Singh
14	Building a CMM like model for assessing the maturity of E-Governance	NISG	Prof. Pankaj Jalote
15	Rapidly developing software using globally distributed teams	SAP Labs	Prof. Pankaj Jalote
16	Grant for research in computer sciences	Microsoft	Prof. Pankaj Jalote
17	Microsoft/CSE/20040029 Microsoft/CSE/20040052	Microsoft	Prof. Pankaj Jalote

CONSULTANCY PROJECTS

SI No.	Project Title	Granting Agency	Principal Investigator
1.	Consulting IFFCO Kisan Sanchar Limited for voice based value added services for farmers.	IKSL	Dr. Amarjeet Singh
2.	Advisory services for educational initiatives	NASSCOM	Prof. Pankaj Jalote
3.	For consultancy and training	System Consultant	Prof. Pankaj Jalote

The A+ League!

B.tech 2008:

Aastha Nigam– Linear Algebra and Advanced Calculus

Ashish Gupta– Distributed Systems and Security

Shrey Jairath– Image Analysis

Yash Seth– Integration and Data Analytics



B.tech 2009:

Mayank Pundir– Linear Algebra and Advanced Calculus

Mayank Pundir– Probability and Statistics

Raghav Sethi– Operating Systems

Ramjot Singh– Operating Systems

Tarang Chugh- Linear Algebra and Advanced Calculus

M.tech 2010:

Niharika Sachdeva– Distributed Systems and Security

Prateek Dewan– Distributed Systems and Security

You are addicted to FACEBOOK when...

You log onto facebook, check your notifications, you look at each and every notification and comment if required. Oh no, sorry, it doesn't matter whether comment is required or not.

You updated a new status message, about doing the smallest thing ever possible, about 1 minute ago.

ABC commented on your status.

45 seconds ago

LMN commented on your status.

32 seconds ago

PQR commented on your status.

15 seconds ago

XYZ commented on your status.

1 second ago

Everytime you click a picture, you wonder if it would be worth putting it on Facebook.

You are excited to leave the parties early so that you can upload all the

pictures that you clicked on facebook and then tag your friends.

You just like random pages, because you have to pass your time 'Facebooking'.

ABC likes "this page".

You like "this page".

10 seconds ago

ABC, XYZ, PQR, LMN and 10 other friends

like "this page".

About 0 second ago

People change their relationship status on regular basis and you get to know what exactly is happening in their personal lives.

Most interesting! You talk to walls. You post anything on somebody's wall in some secret language and others wonder what the conversation is all about.

You are crazily addicted to games like Mafia wars, Farmville, Fashion World etc..

You start communicating with anyone about anything on anybody's status or post.



Even if you are doing something extremely important, you just go to facebook in every couple of minutes to check if there is any new notification again.

-Priyanshi Mittal

Loneliness...

Standing in the room, I try to look outside;
Searching for someone in whom I can confide.
Stretching my hands out, begging for some company;
Remembering all the happy times, now a distant memory.
Lying down alone, tired and cold;
With nothing and no one to hold.

Trying to get up, looking for reassurance;
Feeling worn out and frustrated, happiness seemed a huge distance.
Realizing that it was my mistake;
Eyes filled with sleep, but mind fully awake.

Till this date I really don't know;
Why did then my face glow.
There was surely something on my mind;
Something which I have sadly left behind.
I do hope someday my face does again shine;
Because that is the only happy memory of mine.

-Karan Kalra



I am in love with you...

Please don't go away
i really wanna tell
you the truth

every pain we been through
is like a dream for me
as you and i together for true

without you life is just hollow
with my tears crawling beneath my pillow
without you life is just not life
like only shadow in the light
like dusk in my sunrise
without you life is just not life

i swear i feel you to the core of my soul
every day i love you from the day before
now i realize i am in love with you.....

-Naman Jain



The Get-Together Party 2010 :D

Soon out of school, every young mind yearns to be a free soul, and experience and enjoy the college life with all its fancies. To commemorate with this spirit, was held the rocking Get-together Party, 2010 on 13th August on the much loved terrace of IIIT-D. The zealous preparations for the much awaited event had begun way before the night, with perfect outcomes assured! A contest for Mr. and Ms. Personality 2010 had been organized, which had two rounds, written and interactive, before the final gala round on the night of the get-together.

The party kicked off with the performances by the finalists competing for the titles of Mr. /Ms. Personality 2010. Delight to the ears was the melodious song by Astha Solanki and the cool rap by Sushant Mehta. Rhea Goel tap her feet on the track Waka-Waka, setting up the perfect party mood. Yash Lamba performed a monoskit, followed by another rocking band performance by some freshers, which made everyone groove along.

Batch 2010 had much more talent to showcase. A skit directed by Yash and a song by Ayushi Goyal. And finally, the M.Tech students hit the stage with a bhangra performance, which turned into a mob dance in no time at all! Further, some titles were given away to the students in their own ceremonious ways. Rhea and Sushant were announced the Miss and Mister Personality 2010 respectively and were felicitated with exclusive IIIT-D gift hampers.

Now was the time to disco! The foot tapping numbers played by the DJ, pulled the complete IIIT-D family to the dance floor. Soon, the rains started pouring in, turning it into a Rain Dance, making the evening all the more memorable.

All in all, with its huge success, this was an unforgettable event for the IIIT-D family; special thanks to Ishita Jain (the then cultural coordinator) and her team.

IITians study hard, and party harder!

-Rhea Goel



IIIT-Memorable Past 2 Years

Two memorable years back, I was standing there,
In the counseling line, to take admission here,
So called IIIT-D, a brand new college,
I was confused after school, in the life's new page,

College kicked off with a bang,
while the subjects attacked like a gang,
No time to relax, as the first Semester flew,
Mid-semesters were on head, before I knew,

Along with the Class, came quizzes and assignments,
To copy or not, so hard was that judgment,
First semester was over with a blink of an eye,
Second semester was on the door saying Hi,

To this wonderful journey, hostel life got added,
Pool and T.T. table helped the fun to be aided,
Playing LAN games till late night,
Sleeping in class was a regular sight,

Chatting and surfing social networking sites,
End-semesters turned the color of the faces white,
As one day you have to pay,
That is what my GPA had to say,

And one part of the degree completed,
Still three parts were left to be treated,
With 2nd year, came some more students and faculty,
And, IIIT-D announced the programme for PhD,
Some advanced topics were standing in front of us,
Along with plagiarism, copyright and some marks in bonus,

Once again assignments and quizzes spread their wing,
Presentations and projects were the most important thing,

And with the end-semesters, ended the 3rd semester,
Winter break brought some projects with them,
Many fellow mates received their first salary cheques,
Happy faces were there :), I could check,

Once again, another semester was knocking at the door,
4th in the line, ready to knock us at floor,
The concept of electives was introduced,
Which one to leave, so hard to be deduced,

Semester again showed his devil face,
No time to sleep, as CGPA was lacking in the race,
This time end-semesters finished with a note in hand,
Saying Mr.HalfEngineer give us a party grand,

With the 3 month holidays came offers for Internship,
Which gave loads of experience, and for some, another city trip,
3rd Year had arrived with more fellow IITians,
And IIIT-D announced programme for MTech,

With the electives, honors, and TA-ship in mind,
There were too many things to bind,
Though the above lines may seem pain bearing but,
When I look back, each moment was worth remembering,

Being a part of IIIT-D is an awesome experience,
Where every student is an instance of brilliance!

-Tuhinanshu

TRAIN JOURNEY...

The young man boarded the train alone. He was a student in a University and traveling for an interview. He uncomfortably waved to his family as the train left.

He quietly looked at the scenery through the barred and small window, which he partly did to avoid interaction and eye contact with other people sharing the two opposite berths.

After a while, even though, the scenery was pretty despite being repetitive, the man opened a novel and started reading.

A somewhat older man sitting on the opposite berth, after a while, asked "It is a good book, isn't it?"

Hesitatingly, the young man replied "Yes, you liked it?". The older man replied "Yes, he is one of my favorite authors. Slightly heavy and serious, but I like him. You must read the precursor to this book - it is simply mind boggling."

The young man somewhat excitedly replied "Oh, I have read it and loved it too. It is truly amazing how he brings out contemporary values through his characters."

Soon they were animatedly talking about the books of the author. The discussion moved to personal and they shared what they do and where they live. The older man had recently started a job in a company.

He asked "Was that your parents who came to drop you?" "Yes", replied the younger man. He had not noticed who had come to drop the older man.



"You are not married, right?" asked the older man, even though the answer was obvious. Almost taking the cue, the younger man asked "No. And you?"

Soon the older man explained how he had married only a year ago, how he had met his wife, how they had a courtship, and how satisfied he was, even though he married at a young age. The older man, as it turned out, was only a few years older than the other. The younger man listened to him with interest, asking small questions from time to time.

They continued talking in animated and friendly tones. A station came. Both ordered cold drinks. The older man took out some money and was paying the vendor, when the younger man also took out a note.

The older man laughingly said "Don't worry; I'll take care of it".

The younger man, for some strange reason, felt uncomfortable. Even though in his university friends frequently bought each other soft drinks, he resisted and almost awkwardly stated "let me pay for mine". The older man said "No really, don't bother". The younger man insisted. They paid for their respective drinks. An awkward silence descended. Soon the younger man returned to reading his book. The older man opened a magazine.

Another station came and they both ordered tea. This time, the younger man, in a vain attempt to rekindle what they had, paid for both the teas. The older man took out a two rupee coin from his pocket and repaid the younger man for the tea.

They did not talk for the rest of the journey. The final station came and both got down. There was muted bye without looking at each other and without any eye contact, as they both started walking in opposite directions, even though they had to go towards the same exit gate.

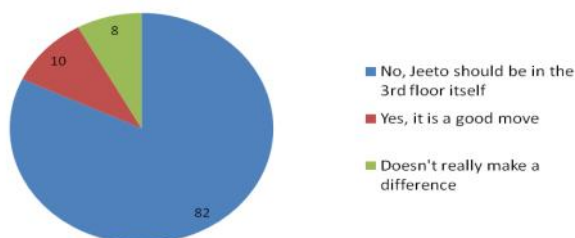
-Pankaj Jalote



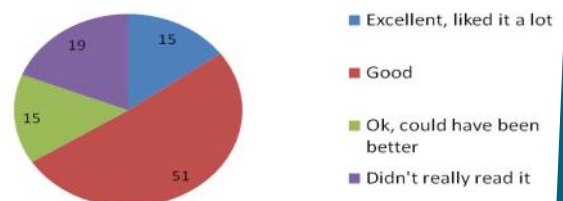
JANTA KI AWAAZ



Relocating Jeeto



Kaleidoscope - Readers' response for previous issue



'GIVE IT A THOUGHT'

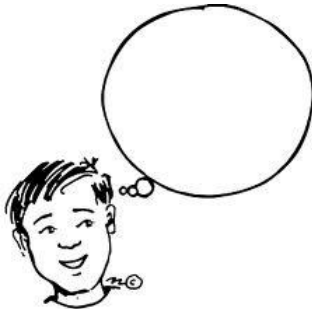


Have u ever given a THOUGHT
what life has become all ABOUT
our WINDOWS open on the face of GATES
when it should be our LIFE-MATES
we play around with MOUSE
when it should be our SPOUSE
always our hands are on the KEYS
when it should be on our 'WOULD-BE es'

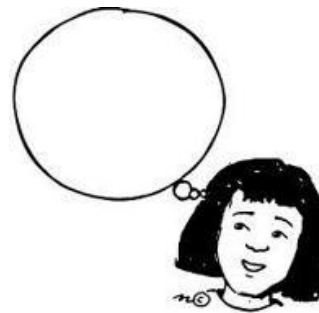
how long can u go on CODING
when u should be at Ooty, BOATING
hey u robots running after CAREER
listen to this carefully DEAR

'BEHIND EVERY SUCCESSFUL MAN IS A WOMAN'
and that u cannot get fiddling alone with LAN-WAN
Life is not just COBOL,
it is also PYAR-KE-DO-BOL
ife is not just C-PLUS-PLUS
it is also PYAR-PLUS-PLUS
life is not just DEBUGGING
it is also HUGGING.....

SO once in a while, think TWICE
life will be so NICE
if one gets out of 'if-then' LOOPS
and goes out with friends for dates, FRUIT-SALADS & SOUPS.



C'mon end this life of ROBOTISM
and fill it with ROMANTICISM
C'MON all the software Romeos (and Juliets) lets take a VOW
all boring ROUTINES, SUB-ROUTINES, PROCEDURES out will we THROW



-Sahil Jain

Andar Ki Baat

IIIT is where fun never ends
coz here the rule never bends
u cant set the trend...
warna authorities karde tumhein suspend

poore semester khelte hain football ...
aur exams mein karte hai ghissuon ko call
semester ho chahe winter ya fall
end mein sabka hota hai LOL

haan agar karo apni marzi ke bina ...
to padai kardega sabka mushkil jeena
ab kya batayen padai mein kaisi marzi
agar nahi karoge to banoge darzi....

ab HW mile to ... darr nahin satata hai
itne kiye ek aur hi sahi, apna kya jata hai
profs ne kaha same hua to zero denge ...
humne puchha words badlenge to kya karenge :P

deadline jab ayega pass
to lagaenge koi jugaad khass..
warna kaun kare kaam karke time pass

HW pehle karle koi to
unpe hassenge, ghissu kahenge ...
par exam ke dino mein unhi ke pass pade milenge..

google aya to kya chhaya...
sabki samasya ko suljhaya...
profs ko sataya...
bachon ko hasaya...

ab agar FB pe koi sawal ka jawab mangega
to badle mein Justfreakingoogleit.com hi reply payega..
exam mein koi puchhe - Q5 ka ans batao
iitian hoga to kahoge - melody khao khud hi jaan jao
wo bhi kya din the jab kehte the ki exam mein to bhagwan
hi bachayega ...
aur aaj bhi wahi hai dost ... kyunki google exam mein
kuchh nai karpayega ... :P

-Charvi Puri



HOROSCOPE...

Sagittarius: Nov 23 - Dec 21

Lucky Hideout : The NSIT Library
Lucky OS : Windows 2.0

Pressure from relatives to solve their tech-related woes will add to your insanity. But some relief is expected when you find love with a bot that you found on a chat site. Orange is a colour to stay away from this semester. Especially if that is the colour of your pants.

Capricorn: Dec 22 - Jan 21

Lucky colour : #87CEEB
Lucky Drink : Iced Tea

Sitting at Nescafe, trying to stare down passing NSIT-ians bodes you ill. This is not a good year for this activity. Even your lucky drink will not be able to protect you from herds of charging NSIT-ians. But you can wear silicon for better semi-conductivity.

Aquarius: Jan 22 - Feb 19

Lucky Programming Language : Perl
Lucky Pastime : Attending ACM Meetings

ACM meetings will prove to be a spiritual balm for your assignment-ravaged soul. You will find yourself wishing for coffee vending machines during all-nighters in the lab. Be forewarned though; putting too many hours into studying will only enhance your reputation of being a nerd.

Pisces: Feb 20 - Mar 20

Lucky Binary Number : 00101010
Lucky Comfort Food : Lip Chip ("Taste ka TIGHT slap")

You will install Linux wrongly this week. And then post about it on the SM blog. Wearing pen drive jewellery will reduce your love life woes. But in case you don't have a love life, wearing a bunny suit to class has a slight possibility of helping you get one.

Aries: May 21 - Apr 20

Lucky Lab : IP Lab
Lucky Anime Series : Inuyasha

You will suddenly discover, one fine day in November, the futility of taking notes in class. Right before the finals. And the Moodle server will thwart all your attempts to download the course material by remaining down until the end sems are over. Beware of Capricorns. Their pwnage isn't restricted to FPS games.

Taurus: Apr 21 - May 20

Lucky Logic Gate : XNOR
Lucky Hair Color : Dabur Amla Kesh Kala

You will find out that you have short-term memory loss during an important quiz. You will be unable to remember anything that you stayed up last night, studying. You may be tempted to tattoo information Ghajini-style, but we advise you against it as it will only result in a cheating case being registered against you.

Gemini: May 21 - Jun 21

Lucky Song : Cloud Number 9 (by Bryan Adams)
Lucky Webcomic : Abstruse Goose

Early next August, you will overcome your fear of heights and start taking an active interest in cloud-computing. It will give you a high that will keep you on cloud nine for quite a few days. Under influence of the moon's cosmic rays, you will develop tendencies to procrastinate. Something you had been putting off for many weeks.

Cancer: Jun 22 - Jul 22

Lucky Screensaver : BSOD
Lucky Antivirus: AVG Free 9.0

During the winter break, your computer will come down with a virus. It is advisable to not feed it chicken soup in an attempt to nurse it back to health. If you try to find Schrodinger's cat, you will, and you will not. Nightmares of Skynet taking over the world will haunt you, night after night.

Leo: Jul 23 - Aug 23

Lucky Parity: Odd
Lucky Firewall: Cyberoam

We foresee a segmentation fault ruining your grade. You can attempt to prevent that by singing "Hakuna Matata" 12 minutes, 3 seconds before the lunch break, every Tuesday. We cannot guarantee results, however. You will feel that your current internet service provider doesn't do enough to satisfy your broadband needs. Fair usage policies will be the bane of your existence.

Virgo: Aug 24 - Sep 23

Lucky Charm : Samosas from Jeeto
Lucky Time-Wasting Website : StumbleUpon

Stay away from trojan horses, they do not bode well for you this semester. Playing pool with TT balls can cause your computer hard drive to crash. On the other hand, it could be due to eating golgappe on the streets. Stay away from both. Especially if you do not know how to back-up your favourite movies.

Libra: Sep 24 - Oct 23

Lucky Restaurant : The Restaurant at the End of the Universe
Lucky Sorting Algorithm : Selection Sort

You will discover the awesomeness of xkcd. Going through its archives will cause you sleepless nights and dark circles. Wear a CD everyday to protect against the evil forces out there. Its shininess will blind any evil eye that is looking in your direction.

Scorpio: Oct 24 - Nov 22

Lucky Reptile : Python
Lucky Semester : 5th

Dreams of mass bunks will haunt you all year. Dreams that will never be realized. And if you are visited by Shinigami Ryuk in your dreams, it is a sure sign that you really need to listen to your mother and stop watching Death Note. Reading slashdot will increase your knowledge of all things tech, but reading Facebook Wall posts will only make you more retarded.

Predicted by -
Amol Verma
Nishant Jain
Sampoorna Biswas



CLOUD AS WE SEE

First ever inter college event organized in IIIT-D. Attended by 105 students in 42 teams. Workshop was supported by Microsoft & organized by IIT-D & IIIT-D ACM Student Chapter.

Selected teams were from 17 different colleges.

Including IIT-D, BITS, IIIT etc.



IIIT-D ACM Research Showcase-11

Over 40 submissions

Selected 20 poster/demos + 9 research group projects.

1st- Video Authentication (Yash Seth, Amar Yadav, Nikhil Shekhawat).

2nd- Image search based on visual similarity (Ankit Sarkar, Vibhas Kumar).

3rd- Disha (Ashish Gupta, Gaurav, Gaurav Saluja, Aman Gupta).

Peoples Choice Award- DreamWalker (Sneha Shukla, Chandrika Bhardwaj, Siddharth Asthana).







f

**Shortest word in English
containing abcdef
is FEEDBACK!**

Your feedback is valuable

drop a feedback @

editorialboard@iiitd.ac.in