ADAZINE

Computer Science Department

Miranda House

ADAZINE

"People who are crazy enough to think they can change the world are the ones who do."

- Steve Jobs

Computer Science Department - Miranda House

Welcome to the Department of Computer Science

Omnipresence of Information and Communication Technologies in contemporary lives and work places makes Computer Sciences a sought after area of study, vocation and research. Established in 1984, the Computer Science Department of the college is one of the youngest departments in Miranda House. Ms. Anju Kant Chawla and Ms. Lalita were the founder faculty members, both of them had done their Masters in Computer Applications from Delhi University. The department initially offered B.Sc. Programme (Restructured Course) with Computer Science along with Physics and Mathematics. Currently the department runs two courses namely, B.Tech Computer Science and B.Sc. (Physical Sciences) in collaboration with the department of Mathematics and Physics.

The department has a spacious laboratory with more than thirty computers connected in a LAN working fully on Open Source Software. The department also maintains a well-stocked library of computer science books which supplements the wide range of books available in the main library of the college.

The Department frequently conducts seminars and workshops for the students. The students are also encouraged to undertake and participate in MOOCs on the latest technologies. Not only technical workshops, we also hold workshops on Personality Development and Soft Skills Enhancement to help our students have an edge when they venture out in life. In view of motivating our young lady students to contribute innovatively to the knowledge revolution in this digital age, the technical society of the department, CompuAda, is named after Lady Ada Loverlace, a name credited with writing the first algorithm for a computer in 1840. The society CompuAda holds a yearly inter – college event Orrey, which sees large participation from students both within and outside Delhi.

Our students are able to compete successfully at various entrance exams for M.C.A/M.B.A. We can boast of a large number of our alumni doing wonders in their roles in the world of technology and management. To illustrate a few: Prachi Garg is the founder of Ghoomofiro.com and she has also written a book by the title – "Super Women" , Geetika Chadha is a Corporate Stylist and Chief Image Consultant at Imagenie, Nihita Goel is Scientific Officer and Head, Information Systems Development Group TIFR, Mumbai and Darpan is working at Wipro US. Many of our alumni are faculty at DU – Geeta Gupta at PGDAV College, Neetu Sanghi at SGTB Khalsa College, Priti Sehgal at Keshav Mahavidyalaya and Anuradha Khattar at Miranda House.

The Department is lead by a team of competent faculty members: Dr Seema Aggarwal and Ms. Anuradha Khattar and many others. The faculty is involved in different areas of research like analysis of microarray data, clustering of genomic data, clustering ensembles, digital water marking and image processing etc.

Thus, the Department believes in empowering women in all aspects of life.

EDITORIAL

ANISHA MALHOTRA
PRESIDENT

April 1, 2015 – April fool's Day. I was standing in front of the entire Computer Science Department and waiting for my seniors to tell me that it was a prank, that I hadn't been selected as the President of the Department. But it wasn't, I really had done it. And I was ecstatic.

July 2013 – Murphy's Law had been brilliantly implemented in my life. "Anything that can happen, will happen." I got admission in an all-girls college and I was pursuing B.Tech in Computer Science – two things that I never planned upon. I felt completely lost.

September 2014 – I have these eight exceptional girls with me, my group – they've helped me in every way. They've been there with me at my best and at my worst.

January 2016 – Lost? No. I'm just on my way. Miranda House has been one of the best things that have ever happened to me. Sometimes the things that appear to be the most negative things in our life, turn out to be the most beautiful. This describes my journey till now, here at Miranda.

This is how far I have come. And my paper boat feels so strong today that it can handle the mightiest storms. This position has made me put in my best even for the slightest things, this department has been something I've always felt the urge to take care of. Running around getting things done, bargaining with restaurant owners, sleepless nights prior to an event, solving last minute issues, being yelled at – still feeling glorious in the end seeing that smile on the faces of my teachers and all the students - the feeling was always inexplicable! I've learnt that these little experiences have accounted for who I am today, and I am glad.

In India, one out of every four persons is an engineer or is pursuing a course in science and the jobs are less. I'm sure we all have thought upon this at some point in our lives after entering college and it is true. But you know what drives one to the path of success? The passion, the need to be different. If you are passionate about something and you know being a part of it will make you happy, you'll definitely achieve it. Just listen to that little heart and you'll know what path to walk upon. And with the Digital India Programme and Start Up India, our success path is being laid. We just have to believe now!

This is our first edition of the department magazine, which has been interwoven with threads of love, dedication, experiences and many firsts! I would like to thank my friend Parmeet Singh Sethi for designing this magazine, and giving life to our thoughts. Our techies will tell you what's new and smart in the tech world and the talented lot will be recognised in 'Under the Limelight!'

Being the president has given me immense happiness, contentment and gratitude. But I'm not stopping, for I'm reaching for the stars!

Good luck, dear friends. I hope you all find your inner calling – all warm and full of love!

Happy reading!

EDITORIAL

MANSI GUPTA
VICE PRESIDENT

There I was standing in a long queue waiting for my turn to get the MH ID card, pretty sure that it will ultimately end in some neglected corner of a drawer while I use some engineering college's ID card . Yet, here I am writing a report about my experiences in Miranda. Life, has certainly turned out to be quite different from what I imagined it to be. However, I must say that it turned out to be much better than I could ever imagine.

The journey as the Vice President of Computer Science department has been an exhilarating experience with its own set of ups and downs. Waiting back after college hours to prepare for the events, long mind boggling sessions for new ideas, making a thousand trips just to get something done on time, this bed of roses definitely had its thorns. Nonetheless, it was all worth it. Probably Shakespare himself won't be able to perfectly express how changed I am as a person since the day I entered Miranda. The lectures after 3 pm have taught me how to be tolerant and stay awake when all the cells in my body are urging me to take a nap. The 8.30 am class has taught me how to get ready for college within 10 minutes. The strict attendence rules have taught me that even one lecture can make your attendence go below the criterion and cost you your precious marks. The dreaded external exams taught me how to be grateful to the people who publish 10 year question paper with answers.

More importantly, the teachers here showed me how easy it is to love a subject when you understand the concepts properly. Anushka and Kunika showed me how it is okay to let go of control once in a while and make memories by doing something not very responsible. Saloni Di showed me how a senior can be the most inspiring and the most friendly person you can ever meet. To all the people whose names I have failed to mention here, thank you for all your support sans which I would have never got the opportunity to write this report.

These three years of college life are "once in a lifetime" kind of chance. No matter how much you hate the stern rules of this college, you can't overlook the feeling of pride you get when you call yourself a Mirandian. Just being here is a privilege in itself. These three years also play a pivotal role in deciding your career and I would be lying if I say that all the marvellous things will be served to you on a silver platter without your hard work. Sometimes things won't fall into place but have faith that it eventually will. There is no point in being afraid of the dark times because the stars shine only at night. However, when you are too engrossed in the dogma of hard work and success, also remember that once in a while, it is perfectly fine to do something preposterous and have fun because years from now this is how you will describe your college life; make sure you have a glorious story to narrate.

"Zendagi Migzara"

EDITORIAL

RICHA DEWAN
TREASURER

It all started just 3 years back from now. Yes, I'm talking about the most crucial yet dilemmatic year of my life, the year 2013!
The year in which I had to sit in for some of the most valuable exams in my life from career perspective, the year full of anxiety and stress, the year I had to resolve my various career dilemmas, and the year I finally entered Miranda House.
I became a part of Miranda House, enrolled in a course I once decided not to ever pursue as I had different career plans and also in a university, I neverthought I would land up into.
This clearly shows how unpredictable life can get. Yes, life has always been like this to me and it took time for me to accommodate and adjust with all these things happening to me all this while.
I initially thought, I would never be able to study a course I'm completely alien to and that this place is not just meant for me and that I am meant to be a doctor. Yes, I was a medical student back then. And I thought I should rather leave all this and take a drop in my career. But you know, things are not always the way you want them to and that everything that happens to you has a purpose untold.
Now, after these 3 years I am here, writing the editorial article for the Computer Science Department pf Miranda House.
Computer Science department? Yes, I've reached here. And I feel a sense of great pride while mentioning the same. I've really conquered the environment I once thought I would never be able to fit in!
This Department, this college has made me who I am today.I look at things more differently now. And I'm really proud to call myself as a MIRANDIAN!
When I stood for the departmental elections, I never imagined I would be able to make it. And once I got in, I felt more responsible, more positive and these things can only be infused with such experiences.
My experience as a Treasurer has been wonderful so far. Me with my amazing team members have done a great job so far. Working and organizing department events from scratch with zero knowledge of how it goes about still making it turn successful, running around to get things done on time, spending sleepless nights working for the department, coordinating with department people, managing and creating funds for the department, resolving all the last minute issues, all this seems hectic but was all a fun in itself. Because the sense of appreciation you feel at the end of the day is worth all the hard work.
And I'm really proud of being able to grab and manage such a responsibility which has taught me so many different things I would have not thought of initially.
So, I believe one should always feel positive for everything in life because the story at the end has always got a lesson for you and that too a fruitful one. I've got mine! ;)
Cheers, keep working hard!

EDITORIAL

PREETY ANTIL
GENERAL SECRETARY

Experience is never limited,and it is never complete; it is an immense sensibility, a kind of huge spider-web of the finest silken threads suspended in the chamber of consciousness, and catching every air-borne particle in its tissue.

As a kind, many people get asked different variations of the same question: "What has been your best experience?" And even at that age,there are many joyful moments.

Personally though, I consider my time as a General Secretary as my most valuable experience. Chairing the talks and workshops is observed and learnt by being a union member of department. Experienceof leading a group properly is a delight.

I learnt that "Technology can become the wings that will allow educational world to fly farther and faster than ever before- if we will allow it. Keeping calm and quiet is not neccesarily pushing the world forward.

Technology brings the excitement, helps look into the future, and make us brave enough to try to shape it. That is why I loved my post and my post: if I used it right than it will give me power. The whole world is not about the choice between using or not using technology. The challenge is to use it right which I experienced after attaining that post.

Because of this, I realized I still had a lot to learn despite what I thought, but this allows me to sharpen and improve my skills more. And as a result, I know one day this valuable experience will help me in my search for another one- a rewarding career.

In addition to learning practical skills, being a general secreatary has also taught me a lot about social sciences. My experience as general secretary; has also allowed me to gain knowledge in many sectors. As it is rightly said that the purpose of life is to live it, to taste experience to the utmost, to reach out eagerly and without fear for newer and richer experience. It has enriched my life in many ways.

After being a part of the representative body of the Computer Science department, its my duty to develop the necessary support in my department.

If I could go back in time and speak to my much younger self when I was first asked the question, "What has been your best experience?" the baby-faced version of me certainly have been surprised by what my answer is now.

RECAPTURE

ORREY '14
WOMEN IN IT
3rd March '14
We Can Do IT!!

ORREY '14
IT Quiz
Movie Mania
Cat Dancing
IT Debate
LAN Gaming

KHEECH ORREY

Binary Painting
LAN Gaming
Women in IT

DEPARTMENT OF COMPUTER SCIENCE
ORREY
Orrey
ORREY 15
ORREY '15
ORREY 15
CompuAda
MIRANDA HOUSE
Invites
Dr. Neelima Gupta
Associate Professor
to
Orrey 2015
Emerging Interdisciplinary
Avenues in Computer Science
Meet The Department

EVENTS

FAREWELL 2015
ADIEU, Farewell of Computer Science Department

College Farewell parties are always an exciting affair and bring alive a lot of happy memories. Students organized a Farewell Party to bid adieu to the outgoing students of 2012-2015 batch on April 19, 2015.

The seniors were all dressed up beautifully in their attires. The juniors welcomed the seniors with warmth and greeted them with beautifully made reminiscence cards that they'll cherish for lifetime.

The event was given a kick start by a heart touching portrayal of their journey being a "Mirandian" so far in the form of a short PPT presentation and a video made by the juniors of their best moments in college life which will never be forgotten.

This was followed by a glamorous fashion show and a host of engrossing games to get the fun part out of it. The fashion show gave the seniors an opportunity to showcase their talent on the ramp and got the kick to fight for the coolest titles that were the most awaited. The fashion show had three rounds: Introduction, Q/A followed by a rapid fire. Outperforming the lot, five contestants of all made it to the titles. Tanya Sharma was crowned as the M.s Computer Science, Nikita Pant as M.s Glamour Queen, Anjali Rana as M.s Talented, Kriti Goyal as M.s Sunshine and Sarita Phogat as M.s Beauty with Brains.This was followed by the cake cutting, refreshments, fun-filled dance moves and laughter.

The event successfully ended up with the convocation ceremony and heartily greetings from the juniors as it was a nostalgic moment to see the outgoing batch leave their 'alma mater'. The seniors were gifted with souvenirs as a token of remembrance and love.

DIGITAL INDIA WEEK

"I dream of a digital India where high – speed digital highways unite the nation; 1.2 billion connected Indians drive innovation; technology ensures that the citizen – government interface is incorruptible."This is what our Prime Minister, Mr. Narendra Modi had to say at the launch of the digital India week on July 1, 2015.

The vision of Digital India Programme aims at inclusive growth in areas of electronic services, products, manufacturing and job opportunities. It is centred on three key areas – Digital infrastructure as a utility to every citizen, governance and services on demand and digital empowerment of citizens.

Following the footsteps of this great initiative, the Computer Science Department, along with other departments of Miranda House celebrated the Digital India Week by organising an event July 6, 2015. The event was aimed at creating awareness and generating enthusiasm towards a 'Digital India'.

Paahuni Khandelwal and Priya Bundela discussed about Spoken Tutorials, which is an initiative by ministry of Human Resource Development, project by IIT Mumbai. Another discussion was the E-Yantra project by IIT Bombay sponsored by MRHD through NMEICT. The E-Yantra discussion was conducted by Palakh Shangle. The discussion was followed by a live demonstration of algorithms by the Firebird V robot by Mr Ashish.

The event was conducted Ms Anisha Malhotra, President of CompuAda, the Computer Science Society of Miranda House. She was assisted by Richa Dewan, Mansi Gupta, and Preety Antil.

The event saw a sizeable gathering of teachers and students from various departments of Miranda House, and other Delhi University colleges, and concluded with fresh enthusiasm towards India's digital empowerment and development.

FRESHER'S 2015

Continuing with the proud tradition of the college, senior students and new comers of the college mingled with each other at the fresher's party held on 25th August 2015.

The theme of the freshers' party was Rubik's Cube.

It was a fun filled event at which the freshers got an opportunity not only to showcase their talents but also to interact with the seniors. The most interesting part of the event was the competition amongst the freshers' where they had to battle it out for the Miss Fresher's title. It included three rounds- introduction, confusing colours and dare plus rapid fire round.

Showcasing their talents and wits, Surbhi was crowned as Miss Fresher's 2015. Prakriti and Syddney won the title of Miss Well Dressed and Miss Talented respectively.

After the competitions, it was for the freshers and seniors to rock the freshers' party with dancing and grooving. Finally, the program ended, leaving behind, sweet memories that will be cherished forever.

ADA LOVELACE DAY

"I never am really satisfied that I understand anything, because, understand it well as I am, my comprehension can only be an infinitesimal fraction of all I want to understand" - Ada Lovelace

Ada Lovelace was, in her own words, an analyst and metaphysician, and the first computer programmer of the modern world. Thus, Compu Ada, the name chosen for the Computer Science Society of Miranda House, is most apt. This year, on the occasion of Ada Lovelace Day (13th October, 2015), CompuAda celebrated by organising a talk by Ms.Debjani Ghosh, Vice President, Sales and Marketing group, Managing Director, South Asia - Intel Corporation and several activities were organised to enlighten the students about 'Women in STEM'.

Ms.Ghosh presented an inspiring talk on "STEMming innovation", which was loved by all, teachers and students alike. The day ended with a vote of thanks to Ms.Ghosh and a quote by Ada Lovelace resounding in every mind,

"That brain of mine is something more than merely mortal, as time will show."

CLOUD AND MOBILE

The Fundamentals and the Future

October 28, 2015 witnessed the gracious presence of another eminent personality, Mr. Vikas Sahni, who enriched the knowledge of IT savvy Mirandians.

Mr Sahni works as Cloud Computing and CRM Consultant, Version I, Sure Skills, University of Ireland. Being an ex-student of St.Stephen's College, University of Delhi, he admitted feeling nostalgic on visiting our campus.

The event started with our Principal, Ms Pratibha Jolly's, welcome address where ma'am generously quoted many incidents from her own college life. This in itself was enough to bind and hold the attention of all the students present.

Mr.Sahni's talk on Cloud Computing and Mobile Technology was not just enthralling, it imparted knowledge in a way which left the audience enlightened and awe struck. The talk covered topics like Iaas, Paas and Saas as well.

The highlights were the astounding examples given by him to clarify the theoretical concepts.

The enthusiastic participation of the students in the question/answer session testified the fact that his talk inspired many of them to do further research on this topic.

The event ended with a vote of thanks by our Principal.

CAMPUS KA MAHAYUDH

HtCity and Fever 104 'Campus ka Mahayudh' is a platform where students from various colleges of Delhi University battle it out for the title of DU's coolest college.

The category, best hostel – 'Kahaani ghar ghar ki' witnessed competition between two colleges – Miranda House and LSR.

Miranda House was represented by Anisha Malhotra, President of Compuada, the Computer Science Society of Miranda House. The programme was hosted by RJ Sid and RJ Addy.

The best hostel title was bagged by Miranda House.

04 campus ka mahayuddh

htcity

htcity & Fever 104 FM CAMPUS KA MAHAYUDDH

DEBATE 02 BEST HOSTEL

KAHANI GHAR GHAR KI AWARD GOES TO ...

... Miranda House, which won this Campus Ka Mahayuddh debate that saw students fight it out for the Best Hostel title

Sneaking in without being caught by the warden, indulging in late-night gossip sessions with the roomies, dragging oneself to do the daily cleaning half-heartedly and still being able to feel at home — that's what hostel life is about. Yes, we got all nostalgic too! And that's why we picked 'Best Hostel' as our second category for HT City and Fever 104 FM's Campus Ka Mahayuddh. For this big fight, we pitted Delhi University's Lady Shri Ram College for Women against Miranda House. The girls representing their colleges had some well-grounded arguments. Find out who came out stronger. SAMARTH GOYAL

BEST HOSTEL

MIRANDA HOUSE

Jaise aloo bina samosa kahan, Romeo bina Juliet kahan aur Sallu bina Kareena kahan, waise LSR bina DU ki life kahan!

Talent, brains and outstanding calibre, we girls make a powerhouse; we're a bunch of hearty 'wows'; we are the ladies of Miranda House

STAY TUNED FOR MORE

Catch the full-tacked campus debates on-air on Fever 104FM Monday-Friday, and in HT City every Tuesday through Saturday. For more photos and buzz, log on to www.facebook.com/HTCity or follow our Twitter handle: @htcity

LADY SHRI RAM COLLEGE FOR WOMEN (LSR)

Contender: RICHA DAVE, 21
Fight degree: B COM HONOURS
Attack style: CHIRPY CHARMER
Tag team partner: RJ ADDY (left)

ROUND 1: SUPER STRIKE

RICHA: Our warden doesn't get upset if we get late in the evening, the hostel serves great food and also has the happening GK market nearby

ANISHA: We are the queens of North Campus and our warden, although strict, is like a mother to us all. As for the hostel infrastructure, it's a heritage site that was built in the 19th century.

ROUND 2: TACKLE THE SITUATION

SITUATION: You were caught by the hostel guard in your attempt to sneak in a friend at night. He is adamant that he will complain about you. How will you change his mind?

RICHA: We'll try to melt his heart with our innocent smiles and tell him that the girl had no place to go and we had no other option.

SITUATION: It's way past curfew time and you've reached your hostel really late. You know that the warden will be furious and you're in trouble. Come up with a convincing excuse.

ANISHA: I'll say I had gone for an internship in Noida and changed several modes of transport to get back sooner. And she's like a mom to me so I'm sure she'll understand.

MIRANDA HOUSE

Contender: ANISHA MALHOTRA, 20
Fight degree: B TECH COMPUTER SCIENCE
Attack style: WITTY AND FUN
Tag team partner: RJ SID (right)

SOFT SKILLS WORKSHOP

CompuAda organised a soft skills workshop for the students of Computer Science Department on 11th February, 2015. The workshop was conducted by Dr. Arvind Singh (Deputy Secretary at National Defense College).

The workshop was aimed at improving the speaking skills of the students ans personality development so that they feel more confident when they are required to face GDs and interviews in future.

The workshop started with a brief introduction of the speaker. Dr. Singh started by questioning the students what they think is the importance of soft skills in daily life. After that, he gave some astounding techniques for body language identification. He also delivered tips on how to crack interviews effectively. Examples from his own experience were highly applauded by the audience.

The workshop ended with a vote of thanks for Dr.Singh and a memento was also presented to him by the HOD.

Usually students are worried that they wont be able to perform well in their interviews or they wont be able to impress the judges in impromptu competitions. After this workshop, the students gained extra confidence for handling public meetings.

MIRANDA WENT ONLINE FOR ADMISSIONS

With the increasing pressure of doing well in academics, students often find it difficult to take out time for volunteer work. However, needless to say, the benefits of volunteering like leadership amd management skills are vital in this competitive world. The right kind of volunteer work can uplift your career. After my second semester exams when I was busy preparing for civil exams, I got information about the entire admission process being handled online for the first time.

COMPUTER SCIENCE students had to handle the technical front of the admission process. For this purpose, my friends and I went to college for a week to help the students in their admissions procedure. New faces entered DRC every 30 minutes with mixed expressions of anxiety and excitement.
CS students helped the freshers in every stage.

After the completion of the process, teachers praised the efforts put in by the CS department. In these seven days, we didnt only hone our skills but also had a memorable time.

INTERNSHIPS

The students of Computer Science department are venturing out in the world through various internships and programs

Teaching Internship At DUWA – Delhi University Women's Association

As the 21st century looms ahead, it is clear to see that it has advancements that humanity may never have dreamt of and one of these shining developments is the well-recognized Computer. Today they are an unavoidable part of success and development.

Although computers are bringing the evolution of technology and changing lives, it cannot be denied that there are areas where the impacts of the computer system are not fully recognized yet.

Many of the young generations are still not able to claim this technology. And with this motive, I joined a two - month certified internship at DUWA in "Sahyog" which is a project of DUWA to help the students improve on their academic performance. I had to take computer classes that were held from 11 – 1 p.m., three days a week. There were around 20 students from different classes starting from 4th to 12th. It was best experience of my life where I could test my knowledge, patience and honesty towards my subject.

I felt overwhelmed preparing lessons and imparting knowledge. Student teaching proved to be much more valuable than I anticipated. It taught me to appreciate the wisdom of mentors and experienced teachers, value of being organized and prepared, and lastly the resilience of students. It also gave me a deep insight on the basic topics of computers and helped clearing my concepts in better way.

I have to keep my eyes on the latest advances, the newest tools and breakthroughs so to keep students up to date and inspire to become tomorrow's engineers and innovators. Based on my experience as an instructor and as a student, I believe that an ideal learning environment is that in which students engage real-world problems.

I believe that my teaching experience combined with my academic has prepared me well for taking challenges and building a new confidence inside.

If given the opportunity, I would be interested in teaching more technical topics and helping out others to compete in developing world.

- Paahuni Khandelwal
BTech Computer Science, Third year

INTERNSHIP AT IIT MUMBAI

One day I got a call from my old class-mate asking me if I wanted to do an internship at IIT Mumbai and I was like "Seriously ?! YES please! " though I was already stuck up with another internship, but who would say a no to an internship at IIT?!

It was related to Database Systems, a subject I was really interested in and a topic on which I was already working for another company called Chai Point. Chai Point is a very interesting company, a start up by a few IIT pass outs. With its base at Bangalore and branches at Pune and Hyderabad, it is flourishing in its own way. I got help from a friend who is working in the company and got in touch with the technical head. That was the first time I was doing an internship in the technical field and so my knowledge was minimal, only some basics of database system. He explained to me the project and I was like "What?! You want me to create a database and connect the database to an app via an API?" WOW. The first thought was I'm never getting this internship or any internship for that matter. The project was an easy one, but for a starter like me it was a task, a task which I was excited to complete.

I told him that I'm not a pro coder and so it would take me time but I was definitely interested in doing the project .He was a very understanding man and so he started teaching me. Yes teaching! He first told me to make a plan for the project, which I did after spending my time googling. He was very impressed when I showed him the plan. And he slowly started with the project, and just gave me ideas and a day to figure out how to do it and so I was very excited about the project because I love practical implementations and see how my codes work with my own efforts was a great feeling and hence I could complete each day's work with ease.

Internship at IIT was simple because it was related to a part of my internship at Chai Point and I knew how to do it. My interview over phone with the professor of IIT was brief and since I had already done a project before on the same topic I could answer to his questions and I got it. I used to study in a school inside the IIT campus i.e. K.V IIT Powai, and I had so many friends whose parents were professors in IIT and so getting an accommodation in the IIT hostel was simple. My 20 days in Mumbai was so much fun because of all my school friends and some new friends and PhD students I met at IIT.

I was very lucky to get the professors and the technical heads who were very cooperative, and they actually took out their time to teach me and help me understand the concepts. They were patient enough when I couldn't get the codes right for days.

The whole experience was wonderful, I learnt a lot from both the internships. Even though those were just the basic projects, they helped me think out of the box and helped me understand how fun computer science could be.

- Shruti Chandran
BTech Computer Science, Third year

MAKE A DIFFERENCE

When Shaheed Bhagat Singh is your inspiration, the thought of doing your bit for your motherland is the greatest desire your heart carries. This desire made me restless, I kept thinking of ways of giving back to the society. And then one fine day, I found one such way. MAD, Make A Difference. This is the organisation that proved to be the stepping stone towards my contribution to my India. Make A Difference mobilizes young leaders to ensure equitable outcomes for children in shelters across India - this is the vision of Make a Difference.

The day when I became a MADster was one of the happiest days of my lives. I was allotted class nine students of 'Bacchon Ka Ghar' shelter in Daryaganj as an English teacher. I always thought I couldn't teach, but when I went for my first class and students requested me to explain them some science concepts, I was amazed at my own teaching capabilities!

Children make you realise what was missing in your life – the spark! Specially, my students. They're naughty, they never want to study but when they know ma'am is angry, they'll work properly. It amazes me how brilliantly their minds function and the beautiful dreams that lighten up their eyes when they talk about them.

Teaching has made me more responsible as a person. Teaching has taught me time – management, organisation skills, patience and discipline. It also taught me the importance of thinking for others.

All India requires today is equality and as Shaheed Bhagat Singh explained the importance of youth power, it is we who can really bridge this gap. We need to empower all those who aren't being treated equally.

I'm doing my part.
I'm making a difference.
Are you?

- Anisha Malhotra
Btech Computer Science, Third year

INTERNSHIP AT UNIVERSITY OF CHICAGO

Summer Internship is something each of us plan to do when we enter college. I did my summer internship after my first year in college at The University of Chicago, Center in Delhi. It was a 2 Months internship from May'15 till July'15.

I never had a plan to do an internship but like it's said "Sometimes it ends up different but it is better that way", and then one day after some days of summer break my friend told me about this place - The University of Chicago and that they were looking for an intern. I was so bored and had nothing to do so I sat that very moment and typed out my CV. I mailed them my CV and then in the next half an hour I was called for the interview the next day. I cleared the interview and then an amazing chapter of my life began.

The University of Chicago, Center in Delhi provides a base for research, teaching and dialogue among scholars from the University, across India and around the world. It boils on a rich history of intellectual collaboration between Chicago and India. They have hosted lectures with speaker from Mr. Raghuram Rajan to Mr. Amitabh Kant.

The first day in the office was super exiting, I met so many people, from the office staff to students from Chicago, who were based in India for research. As I had no first-hand experience in working in an organization so the initial phase was observing and grasping things. My internship at UoC has taught me more than I could have imagined. Sometimes it's tough to recall everything I have taken in over the time, but I feel that these are some of the most beneficial lessons I have learned. I conducted research in particular a task related to geocoding a dataset. In addition I designed marking materials and brochures for programs and events scheduled at the center and worked on data base management tasks. I also worked on developing my multimedia and video editing skills and by the end of the internship I had created, edited and produced a farewell video for a colleague.

At last I can say that in the start I felt that I had no idea where my career was going and I lacked confidence about what I could do and what I am really good at. My internship has definitely given me a better understanding of my skill set and where my career may take me, but importantly I've come to learn that I am not alone. This job has taught me that almost everybody is in my same position.

- Kirti Sharma
Bsc APS, Second year

COLLEGE SOCIETIES

I, Paahuni Khandelwal, and my friend, Juhi Panchal had a great learning experience while working in 'MH-VATAVARAN', the Environment Society of Miranda House, where we realised how small actions towards welfare of our environment can make a big impact. We worked with sensitivity, passion, commitment and used a multi-pronged, down to earth approach to stop exploitation of natural resources and excessive waste generation.

We started with a two day Anti-litter campaign organised by the society to make Miranda House, as well as its surroundings litter-free. Owing to the election campaign of the Delhi University Student Union, the roads, footpaths and pavements in and around the campus area were full of pamphlets. We, as MH Vatavaran volunteers, picked up all the litter from the front and back gate of the college on 3rd and 4th September, 2015 and cleaned the area. After collecting papers, the office bearers of the society took cartons of papers to the Paper Recycling Plant of Miranda House.

While in the Paper Recycling Plant, we had a fun experience while working on different machines like uniweight, beater, paper cutter that were used to recycle waste paper material. We learned many new things like how to make paper pulp, new techniques to colour paper, paper bags, folders and gift wrapping sheets.

Also waste food from our canteen was used to make manure. We also got a platform to spread awareness about the Paper Recycling Plant of Miranda House in Tempest'16, where we sold various items.

We got the opportunity to participate in LEADearthSHIP– A Teri-Genpact initiative that was held in India Habitat Centre on 14 September, 2015.We attended an impactful lecture by Anshu Gupta, Founder-GOONJ and winner of the 2015 Ramon Magsaysay Award that motivated us a lot and enlightened us about the realities of life.

In all we had an amazing experience in the society. We tried and understood what is it that is obstructing the natural flow of events and tried to come up with innovative solutions.

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- Paahuni Khandelwal, Juhi Panchal
BTech Computer Science, Third year

MY EXPERIENCE WORKING WITH WOMEN'S DEVELOPMENT CELL

Being a student of computer science, my areas of interest lie in technology, apart from that the college societies provide ample opportunities to develop one's personality and to follow one's passion. And I always wanted to explore the notion of feminism and contribute my bit to incorporate 'egalitarianism', not just as a theory, but in the working of the societal system. Before joining Miranda House, I might have heard the term, 'feminism', but remained veiled of its implications. But I always considered women no less than men and vice-versa. In my first year of college, I met people who had notions that every Mirandian is an "extreme feminist" or a "man hater", which was not true at all. There was a storm going on inside my head regarding feminism and different viewpoints of people about it. So to acquaint myself with feminism I became a member of Women's Development Cell (WDC). This society is imperative not only because it helps in overcoming gender as a social construct, but helps in engaging with gender as a process and as a reality that one deals with on a daily basis. I must say that my experience was beautiful in unfurling the true essence behind the word feminism and many other gender issues.

Feminism, according to Merriam-Webster Dictionary, 'is the belief that men and women should have 'equal' rights and opportunities. The theory of the political, economic, and social equality of the sexes.' Feminism is the radical notion that women too are people.

WDC banishes the view of feminist being called "man haters" by organising open discussions on topics like "Why feminism is perceived as implying privileges rather than 'equality'?", WDC allows its members to have a balanced view about the various gender issues that are a part of everyday living. It probes notions of sexuality, patriarchy and gender.

WDC organises several activities to help understand what sexual harassment is, educate students and staff on how to prevent and address harassment and campaigns on prevention of sexual harassment through the medium of films, posters, banners, lectures and discussions to create awareness.

"One Billion Rising", which was a global campaign for putting an end to gender-based injustices was a smashing hit and it provided the various colleges to actively participate in the flash mob and the rallies. In a lot of ways, it sent out a clear message of solidarity against the different forms of suppression of women and it was encouraging to see the huge number in which the youth had turned up with immense zeal and enthusiasm.

WDC organised its annual festival 'Gender mela 2016' which was a big success. It had competitions like nukkad natak, cultural performances etc. Many eminent speakers spoke about the issues like "Women engaged in sanitation work", "Linking gender and sustainable development", "Gender and climate policy in India".

Kamla bhasin, a renowned female activist argued in Gender Mela 2016, "gendering is because of patriarchy...men are coerced to become masculine...there should be diversity...we oppose discrimination".

After all someone rightly remarked, "the soul has no gender".

Gender justice is now just not another feminist jargon concerning a certain section of the society, it is a responsibility that has now, more than ever before, assumed an unmatched level of importance and the setting up of women's development societies is no longer just an option but a necessity.

- Insha Mirza
B.Sc APS, Second year

INNOVATION PROJECTS

MOBILE MY LAB, ANY TIME ANY WHERE!

INNOVATION PROJECT

In my fifth semester I got an amazing opportunity to work on an innovation project of Miranda House. The project is titled as Mobile! My lab –Anytime, Anywhere. It is a one year project in which the work is being carried out by the student and teacher collaboration in consultation with mentors and experts. The project gives me the chance to work with people from other department and interact with them as the project is interdisciplinary.

One of the best parts of working on this project is that our Principal Ma'am Dr Pratibha Jolly is involved in it too as a faculty member of physics along with Dr Mallika Verma from the same department, Dr Seema Aggarwal from the computer science department, Dr Bani Roy from the Chemistry department and Dr Janaki Subramanyan from Botany .All of us are in continuous guidance of the faculty experts and Dr Vikas Sahni of National College of Ireland who is our mentor for the project.

The underpinning mission of Mobile! MyLab is to generate the joy of learning science by creating hands-on minds-on hearts-on laboratories. The project aimed to create new learning experiences making use of a popular technology, explore the potential of the ubiquitous Mobile or the so-called 'Smart Phone' and hand held 'Tablets' as versatile laboratory instruments to carry out a comprehensive set of innovative experiments in basic science, spanning Physics, Chemistry, Biology and multidisciplinary contexts and of course to develop a product titled Mobile! MyLab that will include hardware, software and appropriate courseware.

As a computer science student I explored smartphones, tablets, their in-built sensors and the applications already available in market to have an idea about the capabilities and limitations of smartphones. Then we aimed to understand the technical needs and issues of our team mates from other department for performing experiments related to their respective subjects and tried to resolve them .As a part of the project we are attending a training on android development by Weekendr. It is a fifteen days training, four hours each .It is a great learning experience.

- Priya Bundela
Btech Computer Science, Third year

REWARD NETWORK AS A FORM OF EXPERIENTIAL MARKETING

INNOVATION PROJECT

The objective of this innovation project is to introduce reward network as a form of experiential marketing and it's potential to outperform other marketing strategies.

Reward network focuses on what your customers need from you. It's not a trinket, or a sales pitch, but a real thing, or just a real feeling. We are a team of ten students from Miranda House, University of Delhi and we thought to bring this idea to life and help the people get advantage of this. Here, we wish to zone in on that concept and bring it to the forefront. If a player in game reached level 21 after a week of diligence, the adrenaline rush she experiences is it great height. Just as she unlocks the level, she's shown a real reward; say a free burger from Burger King! She would be motivated to redeem the coupon. Now this model involves 3 parties: the player, Burger King Brand and the gaming app. The brand is benefitted as the player can now connect with it with the time he cherished; the player associates the brand with a positive outlook. The brands which till now is giving way their coupons and offers for free, if they spend this way will get more effective response and will develop consumer loyalty and trust. The app, being the platform for this exchange, now garners more attention to the players and the players would be more excited to play that particular game, thus resulting in the marketing of that app, and hence higher revenue for the app. According to several studies, most of the apps have a certain honeymoon period when it is getting very high traction. Our platform will help the apps in getting higher number of downloads in that period and help them get maximum leverage in that period. The players are benefitted too, being the reward takers, unlike in other form of advertising like banner ads. It is a win-win-win situation, as all the participants have the greatest benefit they could procure.

Thus the model satisfies NASH EQUILIBRIUM. The intention is to develop this model, and analyze the data of the increase of the players and how effective this form of marketing could prove to be for the forthcoming generations. Also, we would like to study how the sub model in each situation can reach the Nash equilibrium so as to interest the brand and the app to maximum.

- Abhishikha Aggarwal
BTech Computer Science, Third year

IN THE LIMELIGHT

Multifaceted roles of students of Computer Science Department

ABHISHIKHA AGGARWAL (CLASSICAL DANCER)

Have you read 'Open', the autobiography of Andre Agassi, the tennis legend? What would you expect from the former world no.1?
More than 12 hours of practice each day. Check. Injuries. Check. Persistence. Check. After-all To be good at something one must love it , ergo he loved to play tennis. Umm. No. You couldn't have been farther from the truth. Yes that's right he didn't love tennis. Yet he was a success.

Some decades ago, my mother wanted to learn dance but she didn't. So if not her, it had to be someone who is most dear to her (read me (*blush*)). "Mummy, why Kathak? I don't think I have the sensuality or the understanding of rhythm... There are other things that I can do!!"
* Mother says something convincing*
" Yes okay I will do it"
So, here's when I thought of Agassi and ended up taking dance lessons.
It was a whole new world.
Before beginning our class we had to touch our teacher's and the deity's feet ,Do Namaskaar. (to take permission from Mother Earth if we could perform) and Wear Ghungroo. Our Guruji asked each student to perform individually after he taught something and at times I would surprise him. I had my moments. I cried during exams. Made the silliest of mistakes. I was so bad with the rhythm that my teacher said, " you have a rhythm of your own, listen to the tabla!". Nevertheless, I got better.

Everything one does has a beat. Whether you walk, look at something , play, even when you code! It is a change of perspective. It is a transformation. Kathak is the portrayal of everyday activities or a story through gestures and movements.

So many lives weaved into one. It isn't just learning dance. It is so much more. It is a way of life. It gives one faith. An inner light that shines through. A source of happiness. A stage where you can be anyone you want to.

Finally, unlike Agassi, I love what I do.

AKANKSHA KAPUR (ATHLETE)

"SPORTS IS THE GREATEST PHYSICAL POETRY". Sports do not build character, they reveal it. Sports not only makes the person physically fit but also enhances their coordination skills, neuro-muscular system, respiratory system and heart functions more efficiently. Winning and losing are the two sides of the same coin. People don't play sports because its fun. Ask any athlete, most of them hate it, but they couldn't imagine their life with out it. Its part of them, the love/hate relationship. Its what they live for. They live for the practices, parties, cheers, long bus rides, invitationals, countless pairs of different types of shoes, water, Gatorade, & coaches you hate but appreciate. They live for the way it feels when they beat the other team, and knowing those two extra sprints they ran in practice were worth it. They live for the way they become a family with their team, they live for the countless songs they sing in their head while training all those hours. They live for the competition, they live for the friends, the practices, the memories, the pain, its who they are. It's who we are.

I have been into sports since my childhood and it has now become part and parcel of my life. It is my passion. It is my habit that motivates me to try harder and achieve more. Starting from the 1st year in the college, I participated in various tournaments in different games and won medals for the college. Stood 1st in Netball Intercollege Championship, 2nd in Weightlifting Intercollege Championship and 3rd in Power-lifting Intercollege Championship. The sports department of the college organised its annual Sports Fest 'Erobern' and the Netball team stood 1st.

To achieve more I practiced more harder and achieved better results. Stood 1st in Triple Jump and 3rd in Long Jump in Athletics Intercollege Championship, 1st in Netball Intercollege Championship, Participated in All India Athletics Interversity held in Manglore, Participated in All India Netball Interversity held in Anna Malai, Played NATIONAL GAMES in Netball held in Kerala, Won Bronze medal in Senior National in Netball held in Delhi, 1st in Erobern in Netball.

The world of sports is a lot like business. There's training. Competition. Wins and losses. Passion. Hard work. So practice daily, stay fit and healthy!

SHRUTI CHANDRAN (ATHLETE & DANCER)

Born into a Malayali family and seeing my parents and other members of my family, I have always known what it is to be an all-rounder.

From a very young age I was interested in many kinds of co-curricular activities and went for classes of my interest, such as Drawing & Painting at Chitrakala Parishad, Bangalore, Bhartanatyam and Western Dance, Karate Classes, and had been sent every Sunday morning to Chinmaya Mission where I was taught all about the ageless wisdom and intrinsic meanings that mythology and Vedanta gave, the knowledge of universal oneness and a spiritual movement that aims for inner growth. I learnt Bharatnatyam for 5 years and have done various shows. I took part in many events as well and one of my achievements after joining college is that I won the second prize in a Western Dance competition (Solo) which was held at the Delhi Technological University.

For me dance is a passion and it is something I will never let go.
When I was in the middle school level in Bangalore, I had attended a summer camp the school had organized where students came and played different games. That summer camp changed my life. I was noticed by the sports teacher who saw a small athlete in me and took me under her umbrage and started training me for 100m and 200m running. Coming first in 100m & 200 m in school, cluster and state level, I represented my school in the national level held in Bhopal when I was in 7th standard. I was awarded the best athlete award by the KV IIT Mumbai in 2010.

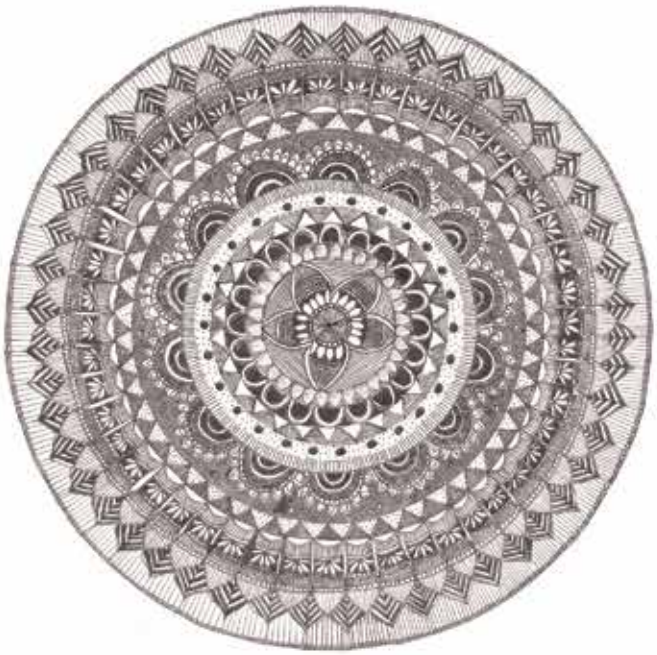
People used to ask me what was the use of these medals and certificates and I had no satisfactory answer to them, than my inner satisfaction which I could not express in translation. Medals and certificates were coming on my way out of constant follow up of my passion with great enjoyment. I used to smile and tell them that I could run and dance in equal enthusiasm. But now if someone asks me the same question I proudly say that it is because of these certificates and medals I got admission in one of the most reputed colleges, Miranda House. I was about to join one of the best Engineering Colleges of Kerala and never had a plan to study at Miranda House, which came just as an opportunity. To get into Miranda House was not that easy, but I could get it and it was only because of my sports. It is something that makes me proud of myself.

SURBHI SHUKLA (BASKETBALL PLAYER)

Surabhi Shukla is a member of the basketball team of Miranda House. Having one the
Ms. Fresher's title at the department fresher's, this talented personality has represented Miranda House in many basketball tournaments.

In October 2015, the Miranda House team, starting from scratch, played very well at the inter – college basketball tournament held at LSR. The team secured the third position at the tournament.

ANISHA MALHOTRA - ARTIST



MANVI AGGARWAL - ARTIST

Manvi Aggarwal, a 3rd year student of computer science of department, sails in two boats. The academic and the extra curricular activities. She is the Vice President of Adwitiya, the fine arts society of Miranda House. From organising art exhibition to representing college in various events,she has done it all in her three years in Miranda. Currently, department's creative head,she is an out of the box thinker and incredibly versatile person.

ARTICLES

GOOGLE GLASS

GOOGLE GLASS also known as PROJECT GLASS is a type of wearable technology with an optical head mounted display (OHMD). It was developed by Google with the mission of producing a mass-market ubiquitous computer. Google Glasses displays the information in a Smartphone- like hands-free format.
The concept for these glasses was introduced on April 4, 2012 on a Google+ page. The launch also included a YouTube video demonstrating the possible uses of Project Glass.

Google Glass has features of headset, touch, display. Google glass applications are free applications for Glass, including news apps, facial recognition, exercise, photo manipulation, translation, and sharing to social networks such as Facebook and Twitter.

FUTURE SCOPE OF GOOGLE GLASS: Google Glass is being heralded as the future of the web, also something that could very well trigger the dawn of a new era in mobile commerce. The fabric of the World Wide Web is based on interactions and there is very little doubt that Google Glass is all set to enhance this fabric, facilitate faster interactions, minimize distractions and speed up informed decision making in our daily lives.

- Preety Antil
BSc APS, Second year

INDO DUTCH COLLABORATIVE PROGRAMME

Recently, five students of the computer science department – Manvi Aggarwal, Mishita Juneja, Vani Bhatia, Shreeya Mittal and Soumya Gupta had the honour of being hosted by the Hogeschool Utrecht University alongside seven other students from Miranda House. The program took place in June and July this year, with a primary purpose of providing an opportunity for an inter-cultural interaction on an academic platform. The program was mainly an interdisciplinary management-based and application-based procedure. The students were introduced to LINKS, a Strategic Marketing Simulation game. This real-life marketing simulation encompassed product development, manufacturing, service, forecasting, and information technology, plus associated marketing research study resource options.

After the phenomenal week-long intensive interactive session, the entire Indo-Dutch team signed off with their hearts full of a vivid exchange of culture through elements of food, music, dance, academics and of course, camaraderie. With students from different countries, like China, Germany, Netherlands and India; it was a mass confluence of various differing straditions and cultures. The week was a flurry of fancy dinners, get-togethers, decision making sessions and of course, Bicycle rides! With Utrecht hosting the Grand Depart of Tour de France 2015, city was full of bikers and enthusiasts! A heartening experience, the Dutch friends were always around to provide us with any sort of assistance required, and to help us feel truly at home!

- Manvi Aggarwal
BTech Computer Science, Third year

1) The King of a small country invites 1000 senators to his annual party. As a tradition, each senator brings the King a bottle of wine. Soon after, the Queen discovers that one of the senators is trying to assassinate the King by giving him a bottle of poisoned wine. Unfortunately, they do not know which senator, nor which bottle of wine is poisoned, and the poison is completely indiscernible. However, the King has 10 prisoners he plans to execute. He decides to use them as taste testers to determine which bottle of wine contains the poison. The poison when taken has no effect on the prisoner until exactly 24 hours later when the infected prisoner suddenly dies. The King needs to determine which bottle of wine is poisoned by tomorrow so that the festivities can continue as planned. Hence he only has time for one round of testing. How can the King administer the wine to the prisoners to ensure that 24 hours from now he is guaranteed to have found the poisoned wine bottle?

2) 3 statements and 2 lies?

if two of the following are lies, whats the probability that the egg came first?
A. The egg came first
B. The chicken came first
C. A is true and B is False

Solutions on page 59

Gyanodaya V – Dharohar: Glory of North East

Two students of Computer Science Department – Abhishikha Aggarwal and Ritika Bhardwaj worked along to be a part of this glorious educational trip to Assam.The students learnt that Assam stands by its name 'Asom' meaning unrivalled. They witnessed a perfect juxtaposition of culture and tradition which is interwoven in the assamese lifestyle.

The students paid homage to one of the 52 Shakti peeths of India at the world famous Kamakhya Temple. Further, they experienced serenity at Umananda Temple situated on the peacock island in the mighty Brahmaputra. The students gained an insight into the Indian Weaving Industry and handloom sector at Sualkuchi, the Manchester of Assam. The visit to The Barpeta district, Regional Science Center, Chitralekha Udyaan and Agnigarh quenched their thirst for knowledge. The myriad variety of flora and fauna at The Kaziranga National Park and the tea gardens overwhelmed them. The privilege of being invited by the honourable Governor of Assam, Nagaland and Tripura "P.B Acharyaji" for a sumptuous dinner at his house and interacting with him left the students mesmerised. Amidst the gamochas, mekhela chaddor and the chai (sha) they discovered that culture is the fulcrum around which the life of the assamese people revolves.
It was indeed a good learning trip in the lap of nature.

- Abhishikha Aggarwal
Btech Computer Science, Third year

DATA MINING APPLICATIONS FOR E-GOVERNANCE

Data mining is defined as a field of exploring data in search of novel and potential information which results into some relevant patterns on the basis on which some systematic relationship can be developed.
Data mining can be categorized into different types of task on the basis of different objective function for the user performing data mining. Some of them are as follows:

- **Exploratory Data Analysis (EDA)** - The main objective of EDA is to explore data without having any prior plan of what to search in data. EDA techniques are very interactive and visual graphical method. This method works on relatively small dimensional data.
- **Predictive modelling** - In this task a model is built that allows value of dependent variable to be predicated from the value of independent variables. Prominent techniques are classification and regression. When the dependent variable to be predicted is categorical in nature, the technique used is classification, while for continuous quantitative dependent variable regression is used.
- **Descriptive modelling** - It is used to describe the entire data by generating some information. This task is further divided which includes density estimation which gives complete probability distribution of data. **Dependency modelling** is also descriptive modelling which is used to describe relationships between different set of variables.
- **Pattern discovery and rules** – This task detects meaningful pattern from the database to fulfil any known or unknown objective. For example detection of frequent transaction behaviour in any business or detection in space can be categorized under pattern discovery. These kinds of patterns are detected by an algorithmic technique called association rules.

Different techniques:

Decision tree works by classifying data on the basis of series of questions and these questions depend on features that are associated with data. At each step of the decision tree a parent node contains a question which divides child node data into possible answers. This hierarchical structure continues until some conclusion is recorded at child node. The decision tree can be applied in any of the e-governance sectors like economic sector for checking total GDP per capital, for calculation of health issue in different age groups.

Clustering on E-Transactions

Clustering is the technique of dividing data into groups containing different characteristics and data within every group having similar characteristics. Clustering can help to divide e-governance data and develop some patterns on the basis of which government can build certain decision for data presented in one type of cluster.

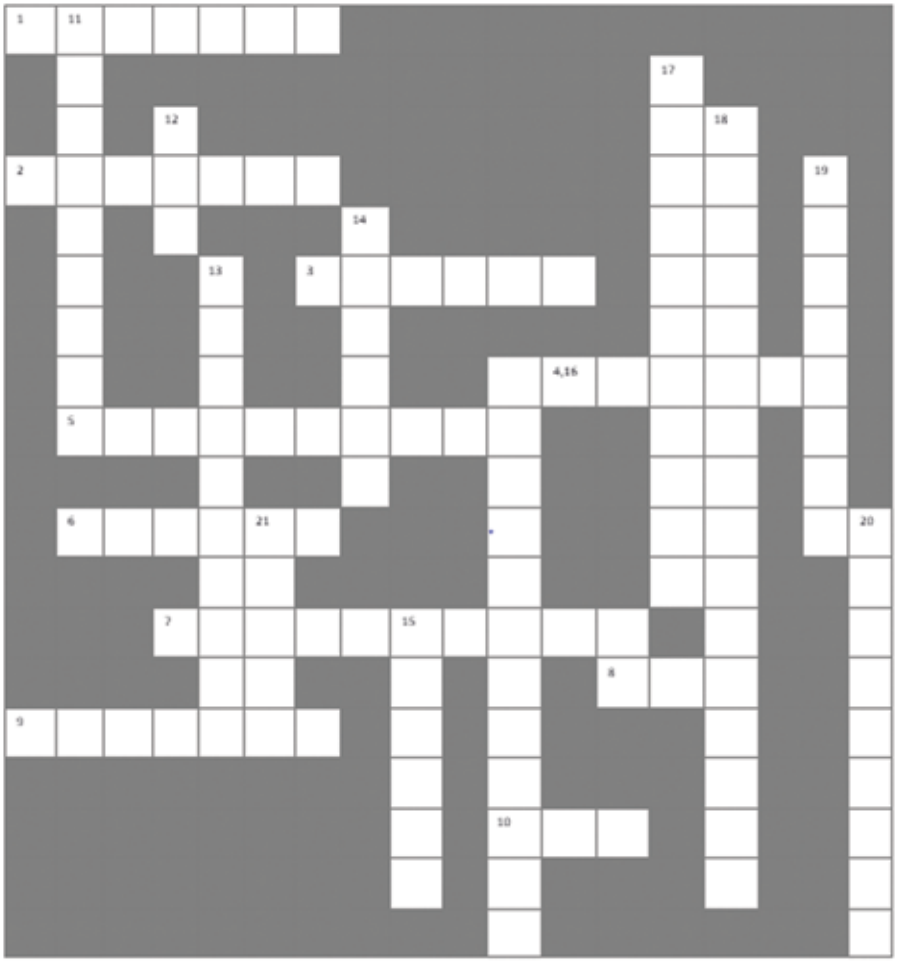
Classification, Clustering and association on social and economic factors

Social and economic factors can be easily integrated with Data mining techniques for planning and decision making. For example, factors like agriculture, crime sector, literacy rate, rainfall prediction, population count can be the areas where combination of techniques can be used. Combining 3 techniques of data mining (classification, clustering and association rules), strong conclusions on these factors can be demonstrated.

E-governance is associated with massive amount of data and it is predicted that this size of data will increase in future enormously. When this massive data is appropriately used, it may lead to some great development to the country by making correct decision for various sectors. With the help of data mining, government can recognize the actual need of citizens or business houses, which thereby will help the government in taking accurate decisions and in return provide effective development services.

- Vani Bhatia,
BTech Computer Science, Third year

CROSSWORD



HINTS:

ACROSS

1. _____ is a collection of web pages.
2. A personal computer operating system from Microsoft.
3. 'Do no evil' is tagline of _____.
4. First computer virus is known as_____.
5. Longest word that one can type using the letters of only one row of the keyboard.
6. Dereference operator is also called _____operator.
7. Meaning of "cc" in case of E-mail.
8. IT company having nickname 'The Big Blue'.
9. A windows utility program that can trace the route taken by data from the router to the destination network.
10. Portable document format.

DOWN

11. OEM stands for Original _____ Manufacturer.
12. SQL data definition commands make up a _____.
13. Imaginary space where electronic messages, etc exist while they are being sent between computers.
14. First Web Browser.
15. A collection of four binary digits.
16. The science of coding and decoding messages.
17. The first computer programmer.
18. Find the Output of following printf function:

printf("%d",printf("%d",printf(%d",printf("%s","ILOVEPROGRAM"))));

19. _____ Addressing mode makes use of indirection pointers.
20. A person who uses the internet.
21. Riddle: Name a five letter word which has three consonants all the same and two different vowels. Every now and then you see this while running a Windows 95/98 on your PC.

Solutions on page 59

MYTHS ABOUT ENGINEERING

If any of your friends is pursuing engineering, you MUST have seen his/her facebook wall flooded with posts of engineering memes. No doubt they are entertaining, but they are just preconceived stereotypes about engineering. Here are a few of the many myths about Engineering and the reality behind them.

1.MYTH: Kota and Bihar are the biggest suppliers of engineering students in India
"How many years did you spend in Kota", almost every engineer confronts this question atleast once in life. People have a weird notion that all engineering students spend a couple of years in Kota preparing for the tough entrance examinations.
TRUTH: Intelligence has no regional boundaries. Brilliant minds from all over the country are take admission in prestigious engineering institutes.

2. MYTH: Engineers are Busy Bees with no social life
People assume that engineers' life is limited to assignments and lectures; they have poor communication skills; they are introvert, etc.
TRUTH: Honestly, my friends from Humanities have more assignments and readings than me. Every student in graduation has to do assignments. As far as social life is concerned, socializing is a personal choice. Engineers are no different from normal people. They also go to gym, parties, and movies.

3.MYTH: Engineering is not meant for girls
Some people think that females are not fit for technical courses. Even if they are, they usually don't prefer taking up engineering as a career.
TRUTH: The percentage of women in engineering colleges is higher than ever. Many of them stand out as successful professionals in the industry. Females undoubtedly have technical prowess and they utilize it to the fullest making them equally employable as males.

4.MYTH: Engineers are extraordinarily intelligent
Common man has a 'super human' view of engineers in mind. People think that an engineer can build complex machines with a variety of features all alone.
TRUTH: No engineer can accomplish a complex task/project without guidance or a proper team. A lot of new machines and gadgets are made by engineers, but it requires an entire team of engineers from multi disciplinary areas to make one such machine.

Being an engineer myself, I can tell you with authority the stereotypical notions mentioned are no more than myths. With these myths busted, I hope now there is more transparency about the concept of engineering.
Source: The Hindu, Auckland University

- Ritika Bhardwaj
BTech Computer Science, Third year

TECHNOLOGY AND MUSIC

Technology has changed the face of the music as we know it. An exponential growth in what we today call the World Wide Web has resulted in a shift of power in the music industry. Previously, complete control was in the hands of the record labels but internet and social media have put artists in the spotlight. So much so that recording artist Taylor Swift's open letter to tech giant Apple Inc. made the company reassess its music streaming services.

The music industry has depended on technology for as long as we can remember, be its early dependency on CDs, Radios, Charts or the comparatively new music streaming services such as iTunes, Spotify etc. Musical instruments have also depended largely on technology and electronics making use of electric guitars, synthesizers or the newly introduced drum pads for the longest time.

Gone are the times when making music required big record companies, heavy equipment or even musical instruments. Software tools have made it easy enough for us to create music while sitting in front of our computers. And on top of that, ever since technology made file sharing a mere child's play, young and upcoming artists have made good use of platforms like SoundCloud, YouTube etc to familiarize large audiences with their work. They are able to produce their own tracks, upload it to the internet and promote it accordingly. Some of who have gone on to become superstars. Justin Bieber, Troye Sivan and Carly Rae Jepsen are just a few of the lot.

And not only has the S.T.E.M. industry supported music, we have also seen musicians showing interest in the Silicon Valley. As a fan of technology, U2's frontman Bono co-founded Elevation Partners, an investment agency that has invested in Yelp, Facebook and Dropbox. Black Eyed Peas member Will.i.am was appointed to the position of creative director for semiconductor chip giant Intel. Will.i.am has also shown interest in coding and has even starred in a video for Code.org.

Even though the internet has become a hub for music piracy and plagiarism at a large scale, all of this advancement in technology puts minimal constraints on aspiring musicians and has finally made music strictly about ideas.

- Atmika Sharma
BTech Computer Science, Third year

HACKATHON 2015

The Tech for Good 2015, was the exclusive women-only Hackathon. This was a great opportunity to interact and code with other women students and industry professionals from computing and technology backgrounds.

The Hackathon was being conducted as a contest over two rounds. The first round was conducted in five different cities (Bangalore, Hyderabad, Madurai, New Delhi and Pune). The first round was held on 22nd august 2015 at Indian habitat centre in New Delhi. It was a great event with people around from different colleges and professionals from HCL, Amazon etc. The main sponsor of this event was American Express. It was great interacting with these people.

We were asked to form team of 4-7. There were around 100 participants. We were initially five and later we were joined by Raminder Rathore Ma'am who is currently working as senior project manager at HCLTechnologies. In the first round we were given projects based on real life problems faced by NGO's working in Mumbai. Teams were given projects on the basis of chits. We got the project Smart Bin which was a software –hardware hack. Smart bin was a project to help the NGO in the optimal disposal of waste. Smart Bin would automate the checking of fill levels of bins using sensors. It would help in providing the optimal route for changing the bin bags .It would also record the temperature and humidity of the bins. The team of Hackathon explained each project and gave us the wireframe for the project. We were asked to register our teams online and give it a name. We decided to name it Hackslash. The date of submission was 1st November 2015. We have to submit the project at GitHub along with a video explaining the working.

We started working on the project by then and decided to make an android application. We decided to make a sketch of the app by designing screens first and then including the back end processing and then testing for the app. We were asked to simulate sensors by taking dummy values in database. We decided to use Android Studio for development as it offers many solutions on official forums. The initial period was used by us to understand the wireframe, brainstorm, and use our imagination to design the screens. We were a bit successful in designing some of the screens and compiling after solving errors. We then decided to work on the database using SQLite database. The major setback was the connectivity of database with android app. We decided to work on this problem individually as well as together but were not successful .By the time we would work on an alternative, the deadline arrived and we were not able to submit the app. Though we failed to submit the app we learnt a lot about the android application, google maps, charts and graphics, UI etc. It was a great experience working for hackathon and meeting professionals at one place.

- Priya Bundela
BTech Computer Science, Third year

QR CODES

Quick response (QR) codes are among the latest in the stable of marketing tools. These have been devised to effectively bridge the gap between offline and online marketing. QR code was created by Toyota's subsidiary Denso Wave in 1994 to track vehicles during the manufacturing process and was initially confined to the automotive industry. With the evolution of smartphones, users got a mobile QR code reader in their pocket, which they could use to scan and read QR codes easily.

What is it?

QR Code, a registered trademark of Denso Wave Inc., is an enhancement over the conventional bar codes placed on objects such as product packaging or containers.

Bar codes store a smaller amount of information than QR codes because these store information only in the horizontal direction. A barcode scanner reads only the width and space between vertical lines and the vertical space (second dimension) is wasted.

In QR codes (2D codes), information is stored in both vertical and horizontal directions. So these can store the same amount of data as a bar code in only a tenth of the space. A QR code may contain a huge amount of complicated numeric, alphanumeric or binary data. Storing up to 4296 characters, QR codes are internationally standardized under ISO 18004.

Disadvantages of QR codes

Any new technology has its own set of problems that calls for attention and subsequent solutions. In the case of QR codes, it has been argued that they may not work due to the very nature of the technology. The very purpose of QR codes is to encrypt data within the code, which provides scope for cyber criminals to cloak smartphone attacks. There is no way to know whether the code is genuine and links to a legitimate website or an infected one, a malicious app or a phishing site.

A type of infected QR code downloads an app that introduces a hidden texting charge in your monthly cellphone bill. QR codes can also be used to gain full access to a smartphone—including Internet access, camera, GPS, read/write local storage and contact data. All the data on a smartphone can be stolen by remotely transferring it, putting the user at the risk of identity theft.

QR code in India

A Google Trends report on search patterns for QR codes puts India at the eighth place in the world. In India, one of the first companies to use QR code in advertising was Ford, which used it to promote Ford Figo. Users were asked to download an application that read QR code by sending a text message. They could then play a video of the Figo on their mobile device.

The future

QR codes are a wonderful marketing tool if used effectively. These should be carefully and cleverly placed and used to the advantage of the marketer. A QR code is not effective if it doesn't lead to mobile-friendly content. Placing QR codes on billboards where traffic moves fast makes it impossible to stop and scan. Their use in subway platforms where there is no signal also makes them redundant. When used in fliers, banners, etc in an event, it is essential to have WiFi or other Internet access at the venue.

As of now, QR codes require connection to the Internet to give information. We await the arrival of QR codes that can store much more data than the present generation and don't require an Internet connection to furnish that.

- Richa Dewan
BTech Computer Science, Third year

CLOUD COMPUTING

Cloud computing is where tasks and file storage on your computer are performed and stored elsewhere.

Analysts predict that the latest technology inventions in cloud computing will significantly influence how we use our computers and mobile devices.

By using an internet connection you can connect to a service that has the architecture, infrastructure and software to manage any task or storage requirement at less cost.

The advantages of cloud computing is that it eliminates the difficulty and expense of maintaining, upgrading and scaling your own computer hardware and software while increasing efficiency, speed and resources.

Your computer's processing speed, memory capacity, software applications and maintenance requirements are minimized.
You could store and access any size or type of file, play games, use or develop applications, render videos, word process, make scientific calculations, or anything you want, by simply using a smart phone.

As a comparison, let's say you had to generate your own electricity. You would need to maintain, upgrade and scale these resources as required to meet your demands. This would be expensive and time consuming.

Cloud computing could be compared to how a utility provides electricity. It has the architecture, infrastructure, applications, expertise and resources to generate this service for you. You just connect to their grid.
Microsoft, IBM and Google are some of the companies that are investing heavily into the research and development of cloud technology.

- Resham Suri,
BSc APS, First year

NEW CHIP TO CHARGE SMARTPHONE BATTERIES FASTER

The maker of a new chip claims that it could reduce the charging times of phones to a few minutes, and could prevent dangerous explosions.

The tiny chip could be embedded into batteries of all sizes and monitor how healthy and charged they are. That in turn would mean that the batteries would become much safer and quicker to charge, according to the scientist that developed it.

Unhealthy lithium-ion batteries can be at risk of exploding or catching fire, as well as gradually losing their capacity so that they run out more quickly. Those problems may become even more important as people move towards electric cars or other vehicles.

"Although the risk of a battery failing and catching fire is very low, with the billions of lithium-ion batteries being produced yearly, even a one-in-a-million chance would mean over a thousand failures," said Rachid Yazami from the Nanyang Technological University in Singapore.

"This poses a serious risk for electric vehicles and even in advanced aeroplanes as usually big battery packs have hundreds of cells or more bundled together to power the vehicle or aircraft. If there is a chemical fire caused by a single failed battery, it could cause fires in nearby batteries, leading to an explosion."

Normal batteries can't tell if they are malfunctioning, and have to estimate how much charge they have left. Knowing the health and state of a battery would also make it able to charge much more quickly, and make sure that it stayed as healthy as it can.

"In addition to knowing the degradation of batteries, our technology can also tell the exact state of charge of the battery, and thus optimise the charging so the battery can be maintained in its best condition while being charged faster," said Prof Yazami.

The battery works using an algorithm that takes measurements from the battery. It can then use those to see the health and charge. Those behind the battery hope that it will be available for licensing before the end of 2016.

- Suhani Bansal
BSc APS, First year

STARTUP INDIA

It is an angel investor, incubator and consultant to social entrepreneurs .Startup India, standup India campaign was announced by Prime Minister Narendra Modi in his 15th August address from the Red Fort. It aims at promoting bank financing for startup-ventures to boost entrepreneurship and encourage startups with job creation. It focuses to restrict role of states in policy domain and get rid of "license raj" and hindrances like in land permissions, foreign investment proposal, and environmental clearances. They engage with social entrepreneurs for upto 2 years and with them in their field with their teams to build out their models.

It was inaugurated by finance minister Arun Jaitley on 16th Jan, 2016. 40 top CEOs and startup founders were present. Investors from silicon valley as special guests including Masayoshi Son ,CEO of SoftBank , Kunal Bahl , founder Snapdeal ,Ola founder Bhavish Aggrawal , Paytm founder Vijay Shekhar Sharma , Travis Kalani founder of Uber and others.

The MHRD and Department of Science and Technology have agreed to partner in an initiative to set up over 75 such startup support hubs in the NIITs , IITs , the Indian Institute of Science Education and Research and National Institutes of Science Education and Research and National Institutes of Pharmaceutical Education and Research .

Softbank, headquartered in Japan, has invested US $2 billion, Japanese firm pledged to invest US $10 billion, Oracle announced to set up 9 incubation centers.

Southern states of the nation have shown great performance like Karnataka, Kerala, Telangana , Madhya Pradesh , Rajasthan which have results better than the rest of the country in terms of their policies implementation for supporting startups.

NIT- Silchar and IIT-Madras are linked to this campaign .They have been successfully managing 7 research parks that has incubated many startups.
Country has launched Skill India campaign to enhance the quality of education in Indian Institutes because it is not found matching with the organization's standards for the required skillset and expanding the training of freshers.

- Kanchan
BSc APS, Second year

BEST APPS OF 2015

Though there were some great apps in 2015, the fact is that we're still using some of our favourite apps from the last couple of years instead, because they've been able to grow and evolve to remain compelling. Part of the reason for this may also be because both Apple's iOS 9 and Google's Android 6.0 Marshmallow didn't introduce many radical new features that developers could build on, offering subtler changes instead. However there were still quite a few mobile apps and games that we loved using.
Food ordering and live video broadcasts were two hot categories in 2015 where numerous apps showed up, though many failed to impress. To make up for it though, was a year filled with great mobile games. Here's a collection of the best apps and games of 2015.

Hotstar
Hotstar has become the go-to app for streaming live sports, films and TV shows in India. It's completely free on all platforms, which has ensured rapid adoption, even if it means that some events have a slightly deferred live stream. It's got a good selection of content, and it's continuing to get new shows added. The service also worked well, with relatively few issues with the app.

Google Photos
Google Photos got a very important update this year, which redefined it so much that it can be seen as a whole new app - unlimited photo backup for free, with only some riders that won't bother most smartphone users. The image you save online might not be the same resolution as the original, but if you're not a professional photographer, then it probably won't matter.
Add to that the built in sorting and categorisation, and the ability to organise your photos into 'stories' without any intervention, and Google Photos becomes one of the best gallery apps. And the price is right, as the app is free.
What more could you ask for?

Periscope
While Meerkat may have grabbed headlines initially, Periscope is the one you want for live video broadcasts. Better UI and tighter Twitter integration are two major plus points, and the ease with which you can use Periscope makes it one of the most interesting apps of 2015. Whether it can keep up the momentum is the question, but there's no question that this app is one to watch.

Overcast 2
Overcast has been our favourite podcast app for iPhone and iPad since its launch in 2014. This year it added key features such as support for streaming podcasts and went completely free. If you have an iOS device, then Overcast is a much better alternative to Apple's Podcasts app.

BEST APPS OF 2015

One More Run
Endless runner meets cricket in a happy union. One More Run is a game made in India that we love. If you play it once, you will too. It wears its inspirations on its sleeve, but the end result really is inspired, rather than just a clone, and that is what makes this game worth recommending.

Zomato Order
In a year when the food delivery space took off and then came crashing down too, Zomato Order stood out from the competition, and looking only at the app and not partner restaurants, it offers the best online food ordering experience in India. With a growing catalogue of restaurants and a great looking UI that also works very reliably, this app easily takes the cake.

Horizon Chase: World Tour
Inspired by retro game Out Run, Horizon Chase is unlike most modern mobile racing games. It's a paid game with no in-app purchases on iOS and free on Android and offers an unrivalled arcade racing experience. We love its selection of cars, background music, and quirky on-screen text such as "The road is my kingdom" (which appears when you overtake the car in first place).

The List App
The List App is an interesting take on making lists. You can make checklists and share them with your friends. It also lets you find interesting lists on various topics from across the world. This fresh take on lists, with a great UI compelled us to include it in this list.

Lara Croft Go
A turn-based puzzle game with a great soundtrack, Lara Croft Go is one of the best games released in 2015. Lovely art and some great puzzles make it a game you must play; it's easily one of the best Tomb Raider games, with a unique look and play style, compare to other entries in the series.

Plume Air Report
With Delhi being one of the most polluted cities in the world, the Plume app is in the spotlight as it informs you about pollution levels in various parts of the world. Needless to say, Delhi's pollution levels are almost always off permissible limits.
Tremendous 2015. :D

- Ritika Kaushik
BTech Computer Science, Third year

IT IN SPORTS

Technology has gone a long way in providing its mettle in sports.It has created a niche for itself in every major sport on the planet.Be it the outdoor sports like soccer,tennis or cricket or the indoor counterparts like snooker,badminton or basketball,technology is used in each one of them.

Hawk-eye is a computer system used in cricket, tennis, snookers and other sports to visually track the path of the ball and display a record of its most statistically likely path as a moving image.A hawk-eye system is based on the principle of "TRIANGULATION".

Snick-o-meter is used to detect edges from the bat using a microphone placed near the stumps.
Hotspot is another ball tracking technology used in television relies on infrared cameras that detect the heat signature of ball impact.The idea is to have two infrared cameras static above the field of cricket arena and continuously record play.It shows the point where the ball hit the batsman.

Goal-Line technology: In association Football, Goal-line technology is a method used to determine when the ball has slightly crossed the goal line with the assistance of electronic devices and at the same timing assisting the referee in awarding a goal or not.

The sport of swimming itself hasn't change but the technology to measure speed and distance along with other applications have been invented. One of the newer technology built is called aquanex.The Aquanex is a computer based system software which synchronizes underwater swimming and measures the hand force.

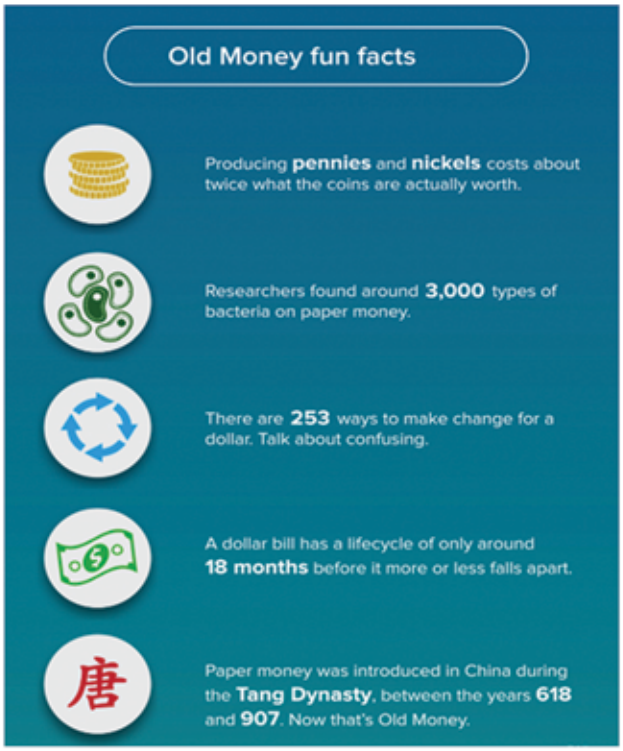
Telemetry is the automatic measurement and wireless transmission of data from remote sources.Telemetry is a key factor in modern motor racing, allowing race engineers to interpret data collected during a test or race and use it to properly tune the car for optimum performance. Systems used in series such as Formula One have become advanced to the point where the potential lap time of the car can be calculated, and this time is what the driver is expected to meet.

- Juhi Panchal
BTech Computer Science, Third year

SAY HELLO TO THE NEW AGE OF PAYMENT TECH

Some older stuff is cool. Everyone loves a vintage leather jacket, and classic movies are favourites across generations. But in some cases, old can mean outdated, and when something's outdated, it's simply time to upgrade. Just because something's always been done one way, doesn't mean it should stay the same forever – especially if there's a better option out there.

Payments are no exception to this rule. We've always used cash and credit cards, a.k.a. Old Money, but Old Money has its own set of problems – and now, there's a way to solve them. Enter electronic payment technology, a.k.a. New Money.



As you can see, there are a lot of reasons to adopt New Money tech. Not only is it a time-saver, but also it's less costly. Kind of ironic, isn't it?
Here are three specific ways electronic payments are changing the game:

1. Peer-to-peer payments are no biggie
Going out to dinner with friends is awesome ... until the check comes. That can be a confusing moment for you if you're all using cash , and your server if you're splitting the bill with cards. Thankfully, PayPal offers peer-to-peer payment services that let you easily send money directly to your friends' PayPal accounts. Problem solved.

2. Overseas transactions are simpler
Electronic payment services like PayPal also help with overseas payments. Wire transfers can take a lot of time and effort. Making these transfers electronically makes the process much quicker and more efficient. So now sending money overseas won't result in these headaches.

3. Faster and more convenient checkouts
PayPal One Touch™ lets you checkout faster and easier than ever before with PayPal. Simply opt-in, and you'll stay logged-on to any browser, on any device for up to six months. That means on eligible sites, you'll never have to give out your personal information or remember your PayPal username and password.

So, it's time to step into the 21st century, and upgrade to New Money.

- Anisha Jain
BSc. APS, Second year

WHAT IS DARK WEB?

The Dark Web, also confusingly referred to as the Deep Web and conflated with Deep Web search is the World Wide Web content that exists on darknets, overlay networks which use the public Internet but which require specific software, configurations or authorization to access.

The darknets which constitute the Dark Web include small, friend-to-friend peer-to-peer networks, as well as large, popular networks like Freenet, I2P, and Tor, operated by public organizations and individuals. Users of the Dark Web refer to the regular web as the Clearnet due to its unencrypted nature.

In the mid-1990s, US military researchers created a technology that allowed intelligence operatives to exchange information completely anonymously. They called it 'Tor', which stands for 'The Onion Router'.

As part of their strategy for secrecy, Tor was released into the public domain for anyone to use. Their reasoning was simple: the more people using the system, the harder it would be to separate the government's own messages from the general noise. You can't be anonymous on your own.

Tor spread widely and today, is a critical part of the so-called 'dark web': a network of untraceable online activity and hidden websites, of which Tor hosts approximately 30,000. And that anonymity has attracted a huge range of people; all who want to keep their activities hidden.

WHO USES DARK WEB AND WHY?

There are many legitimate uses for the dark web- but it also enables online criminal activity. Many hackers sell their services there individually or as a part of groups. Such groups include hackforum, Trojanforge, Mazafaka, dark0de and the TheRealDeal darknet market.

There is an urban legend that one can find live murder on the dark web. The term "Red Room" has been coined based on the Japanese animation of the same name. However the evidence points towards any reported instances being a hoax.

Although much of the dark web is innocuous, some prosecutors and government agencies, among others, are concerned that it is a haven for criminal activity. In 2014, journalist Jamie Bartlett in his book The Dark Net would use the dark net and dark web to describe a range of underground and emergent sub cultures, including social media racists, cam girls, self harm communities, darknet drug markets, cryptoanarchists and transhumanists.

- KM Prakriti Chaurasia
BSc APS, First year

WIRELESS CHARGING

Inductive charging also known as wireless charging uses an electromagnetic field to transfer energy between two objects. This is usually done with a charging station. Energy is sent through an inductive coupling to an electric device, which can then use that energy to charge battery or run the device. Induction chargers use an induction coil to create an alternating electromagnetic field from within a charging base, and a second induction coil in the portable device takes power from the electromagnetic field and converts it back into electric current to charge the battery. The two induction coils in proximity combine to form an electric transformer.

Greater distances can be achieved when the inductive charging system uses resonant inductive coupling. Recent improvement to this resonant system include using a movable transmission coil and the use of other material for the receiver coil made of silver platted copper or sometimes aluminium to minimize weight and decrease resistance due to skin effect.

It has various advantages such as
a) no corrosions when the electronics are all enclosed, away from water or oxygen in the atmosphere.
b) Safer for medical implants as it can recharge through the skin.
c) It would be durable as there is no contact and dis contact leading to less wear and tear.
d) Very convenient.

It also have certain disadvantages too
a) It is slow as compared to wired charging.
b) It is expensive.
c) Certain methods may be harmful to human health.
Wireless charging is classified into inductive charging, radio charging and resonance charging. Most of today's wireless chargers use inductive charging with transmit and receive coils in close proximity. This is a new technology and is still developing.

- Kajal Yadav
BSc APS, First year

DIGITAL INDIA INITIATIVE

DIGITAL INDIA is an initiative by the GOVERNMENT OF INDIA to ensure that : Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity. It was launched on 1 JULY 2015 by Prime Minister Narendra Modi.
The initiative includes plans to connect rural areas with high-speed internet networks.
Digital India has three core components. These include:

◊ The creation of digital infrastructure
◊ Delivering services digitally
◊ Digital literacy

The Government aims to target nine 'PILLARS OF DIGITAL INDIA' that they identify as being:

1. Broadband Highways
2. Universal Access to Mobile Connectivity
3. Public Internet Access Programme
4. e-Governance – Reforming Government through Technology
5. eKranti - Electronic delivery of services
6. Information for All
7. Electronics Manufacturing
8. IT for Jobs
9. Early Harvest Programmes

Some of the services provided are:

• DIGILocker - This initiative looks to minimize the usage of physical documents
• Bharat Net - This initiative will work towards building high-speed digital highways to connect all 2.5 lakh Gram Panchayats of country by next year.
• MyGov app – The PM also launched the mobile version of the MyGov.in website. This platform encourages citizen engagement in governance, and the app will do the same on mobile.
• eSign – An initiative to eradicate forgery and fraudulent signature, the eSign framework would allow citizens to digitally sign a document online using Aadhaar authentication.
• National Scholarships Portal – This new service is said to be a one-stop-solution for end-to-end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.
• Swachh Bharat Mission (SBM) app - To further the Swachh Bharat mission, the government has launched this app and would be used by people and Government organizations.

DIGITAL INDIA INITIATIVE

• E-education – The program looks to provide high-tech education using technology like smartphones, apps and Internet services..
• E-health – This initiative aims at providing timely, effective and economical healthcare services to all, especially to the ones that have little access to healthcare services.
• Next Generation Network (NGN) – This is a BSNL initiative which looks to replace 30 year old exchanges, with this new IP-based technology to manage all types of services like voice, data, multimedia/ video and other types of communication services.
• Wi-Fi hotspots - BSNL has undertaken large scale deployment of Wi-Fi hotspots throughout the country for Internet access on smatphones while on-the-go.

At the launch ceremony of Digital India Week by Prime Minister Narendra Modi, top CEOs from India and abroad committed to invest ₹4.5 lakh crore (US$66 billion) towards this initiative. The CEOs said the investments would be utilitized towards making smartphones and internet devices at an affordable price in India which would help generate jobs in India as well as reduce the cost of importing them from abroad.
Times Now and ET Now have announced the launch of the second edition of Digital India Summit & Awards on 22 March 2016.

The Gauhati University (GU)'s National Service Scheme (NSS), along with the Centre's department of electronics and information technology, recently organized a workshop on Digital India on the university campus. Twenty universities across the country, including GU, were selected in the first phase of the university-level Digital India scheme to conduct workshops on Prime Minister Narendra Modi's pet project.A total of 25 colleges, 300 NSS volunteers and 25 NSS programme officers joined the workshop.

In 2015, India crossed a new Internet milestone of 375 million Internet users, which exceeds the population of the US, making it the world's second largest country by the number of Internet users after China.More than half of these users access the Internet through a mobile phone. India was ranked 131 out of 167 countries in the recent Information and Communications Technology (ICT) Development Index. 928 million National Electronic Fund Transfer (NEFT) transactions worth ₹60 trillion (US$880 billion) were made in 2014-15 as against 661 million transactions worth ₹44 trillion (US$650 billion) the previous year

- Sakeena
Bsc APS, Second year

LIFE WITHOUT SMART PHONES

This Christmas morning came in as a shock. What was it? I accidentally cracked my iphone screen! Oh no! What it would be like to-gasp-not have a phone! Probably, it was a situation like breathing without air because my iphone is not just a preferred form of communication but I have my entire life scheduled in calendars and countless apps keeping track of everything from my calorie intake to spending habits.

I was kind of freaked out the whole day. My eyes wanted to look at a glowing screen and my fingers wanted to swipe on it. I felt idle and went to the bed thinking of the days when one used to spend hours standing in a queue outside STD booths to make phone calls. Then I decided to explore how boring life my parents led without internet and phones!

The morning was not rushed and seemed slow. I couldn't check email, twitter, instagram, facebook, weather, or cricket score anymore. I looked out of the window to view skies; it seemed as if there was an entire world to explore. I thought morning walk without my earbuds popped-in would be tough. I was wrong though. Absence of loud music in my ears caused me to pay attention to what was going on around me. I noticed architectural details of the buildings. I was able to hear natural sounds like birds chirping or people calling my name!.

On returning home, I began making plans for the day so that I would be engaged in doing some sort of activities thereby keeping away from the memories of my "beloved" iphone. Firstly, I scanned the newspaper thoroughly. To be specific I solved Sudoku and crossword puzzles as well. I spent time doing chores, cleaning up my room, facing a book, exercising, and meditating. Moreover, I pinned my interests in a diary and started fulfilling all the desires one after another. This schedule continued for a few days. Consequently, I learnt to play acoustic guitar, flew a kite and made handicrafts. At times I used to play marbles, jumprope and hide & seek with kids in my colony.

I got a New Year party coupon in the newspaper and decided to join it. There I found my immediate next door neighbour whom I encountered daily but never bothered to talk. However, this time I spoke to him and we became friends. Thereafter, I met one of my classmates whom I was seeing after a gap of a week. It's amazing how much you have to talk when you don't have a constant plug into their life. The feeling that you need not to be hooked to your phone at all times it itself empowering. I enjoyed the New Year party to the fullest. Lastly, I decided to get my iphone repaired and resolved to never let it control my life.

What all was changed this week? All I know is that I found pleasure being in sync with the real world rather than the virtual space. I could not share silly memes and jokes in WhatsApp groups. I could not watch useless videos of cats. In fact, I stopped comparing my life to people on my friendlist. I had more time to think for myself and figure out stuffs. I was more social offline and found a better me. Furthermore, there was no ringing phone that could pause me while I was talking to someone. I could eat,read or sleep in peace. Rather than burying myself in the digital cesspool, I found myself linked in every moment.

On the whole, life in this week wasn't broadband speed but it was somewhat peaceful. Life is not as boring as it would seem to be without the cellphone or internet. Above all we have to remember we got to where we are today without the gadgets.

- Mamta
BSc APS, Second year.

SOLUTIONS

Puzzles (Continued from page 39)

1) Since we have only 24 hours to test the wine, we know that there is not enough time nor enough prisoners to test the wine one-by-one. Well, we're going to have to get the prisoners drunk, I can tell you that much! :P
There are a few keys to this puzzle:
1)The king has to mix wine in order to isolate the single poisoned one.
2) There are 10 servants. After about 24 hours, each one can be either dead or alive, meaning that there are 2^10 = 1024 possible outcomes. Since 1024 > 1000, it's actually possible for some scheme to work.
3) The solution jumps straight into binary.
The king assigns each servant a number from 1 to 10 and each bottle a number from 0 to 999. He label each bottle with both its decimal number and binary equivalent.
0: 0000000000
1: 0000000001
2: 0000000010
...
999: 1111100111

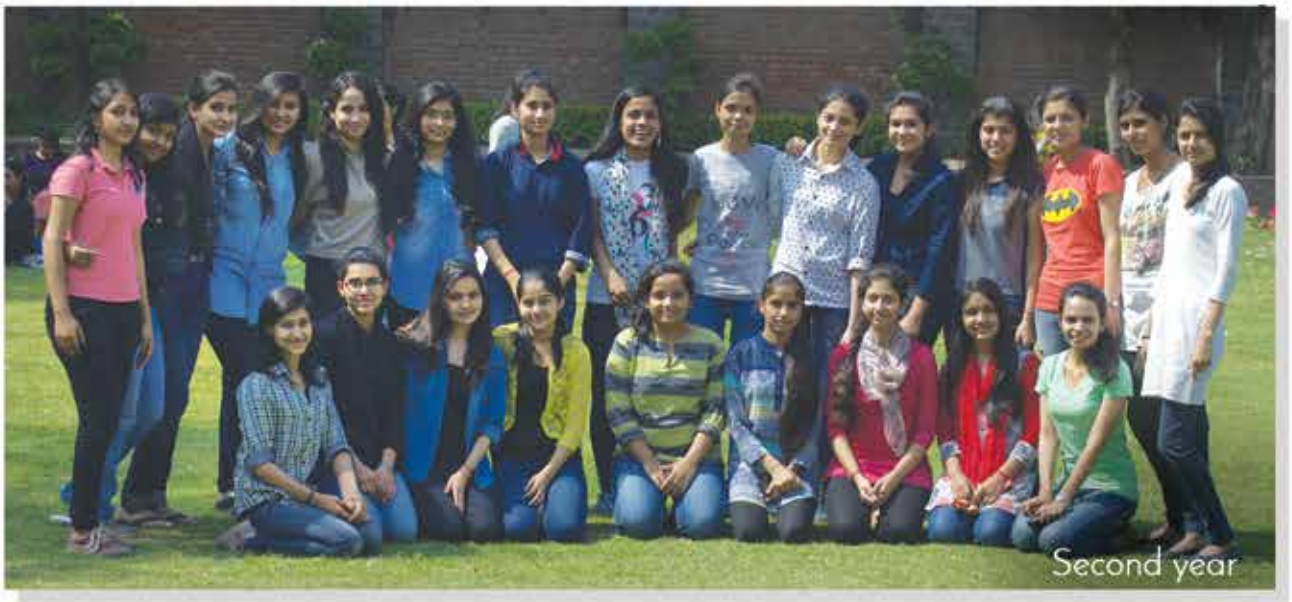
Now, each servant takes a small sip from every bottle where the servant's number equals 1 in the binary number on the bottle. So, the 1st servant drinks from every other bottle. The second servant drinks from bottles 2, 3, 6, 7, 10, 11, etc.
Then based on the combination of servants that die, he can identify the poisoned bottle. For example, if none of them die, the 0th bottle was poisoned because none of them drank from it. If only servant 1 dies, then bottle 1 was poisoned, because he's the only person who drank from it. Finally, if servants 1, 2, 3, 6, 7, 8, 9, and 10 die, then the 999th bottle was poisoned.

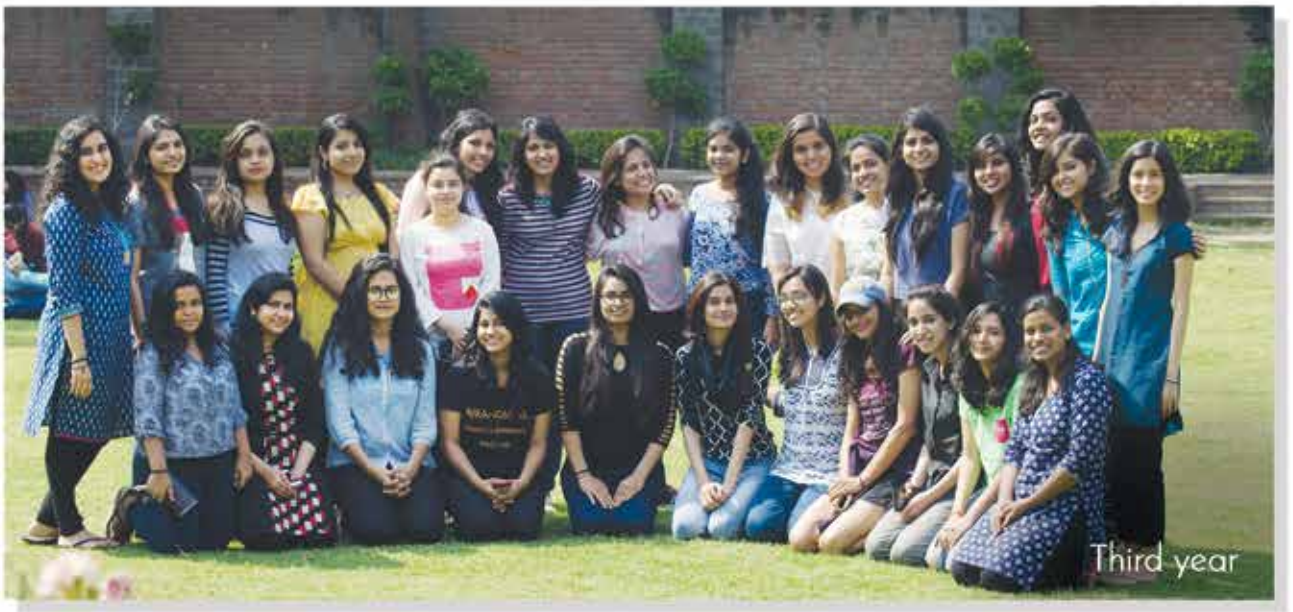
2) A & B can't both be lies, therefore C must be a lie.
Which means that A is false and B is true. Therefore 0 probability that the egg came first.

Crossword (Continued from page 42)

MEET THE DEPARTMENT

First year


Second year


Third year

Reaching Out, Changing Lives...

...Transmitting Smiles!

As India's central power transmission utility, POWERGRID has always proven its commitment towards inclusive social-economic empowerment of marginalized and under-privileged sections. POWERGRID has been extending highly meaningful and constructive CSR programmes to enrich the lives of communities living around its areas of operations.

- Participated in the **"Swachh Bharat Abhiyaan"** by constructing toilets in Government Schools in several states.
- Construction of roads, culverts, drains, community centres, ponds, etc.
- Solar Photovoltaic street lights & hand pumps in villages.
- Watershed Management.
- Development of School Infrastructure.
- Scholarships to poor students
- Skill Development training for industry employment/self-employment to youths.
- Distribution of aids & appliances to people with disabilities.
- Health Check-up Camps at various locations.
- Supply of Ambulances & Equipments to Hospitals.
- Construction of "Vishram Sadan" at AIIMS, New Delhi

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