Estd. 2001

simbus

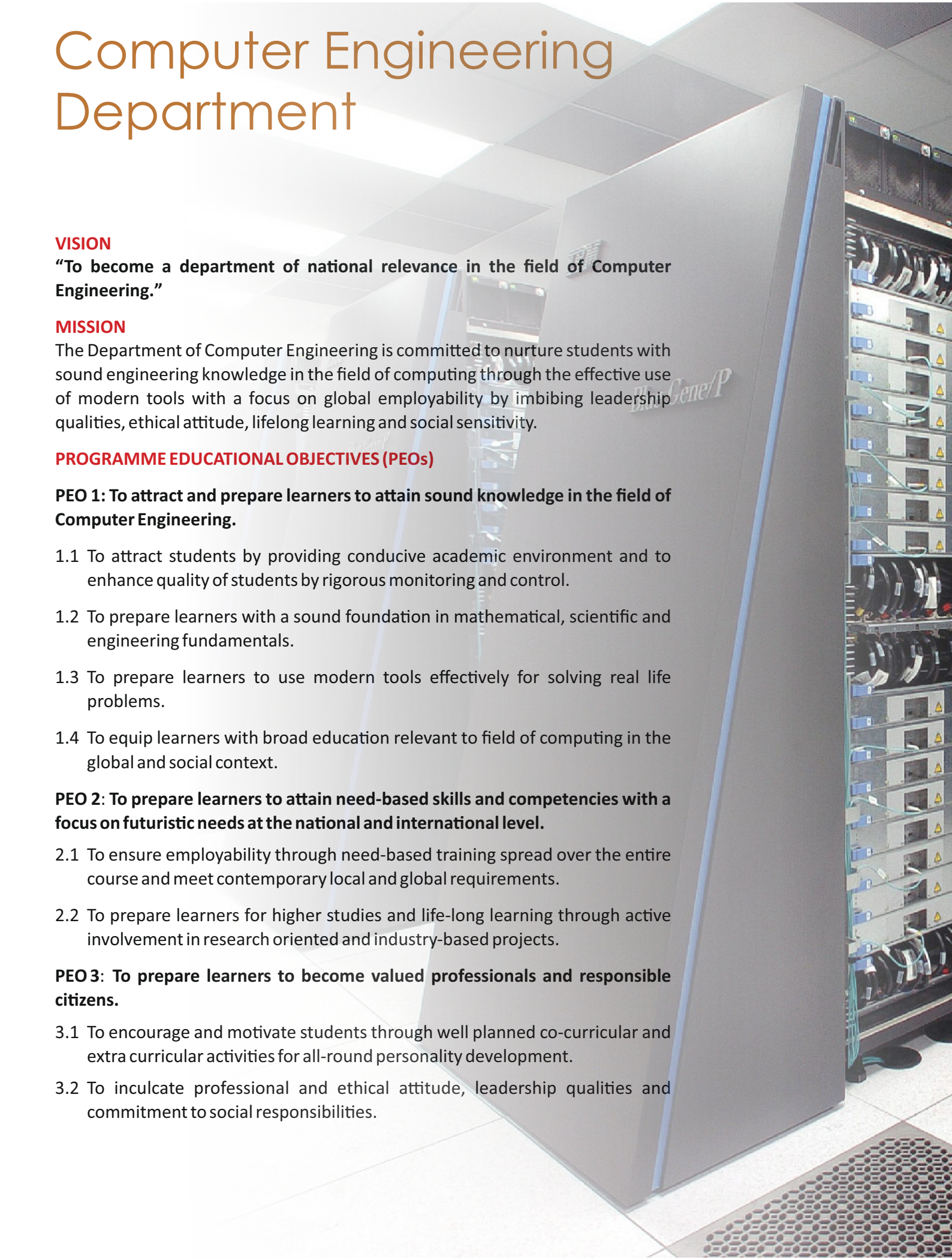
Endless path to endless erudition

Technology for Future

Department of Computer Engineering

Department Magazine Issue-01

Computer Engineering Department



VISION

"To become a department of national relevance in the field of Computer Engineering."

MISSION

The Department of Computer Engineering is committed to nurture students with sound engineering knowledge in the field of computing through the effective use of modern tools with a focus on global employability by imbibing leadership qualities, ethical attitude, lifelong learning and social sensitivity.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO 1: To attract and prepare learners to attain sound knowledge in the field of Computer Engineering.

1.1 To attract students by providing conducive academic environment and to enhance quality of students by rigorous monitoring and control.

1.2 To prepare learners with a sound foundation in mathematical, scientific and engineering fundamentals.

1.3 To prepare learners to use modern tools effectively for solving real life problems.

1.4 To equip learners with broad education relevant to field of computing in the global and social context.

PEO 2: **To prepare learners to attain need-based skills and competencies with a focus on futuristic needs at the national and international level.**

2.1 To ensure employability through need-based training spread over the entire course and meet contemporary local and global requirements.

2.2 To prepare learners for higher studies and life-long learning through active involvement in research oriented and industry-based projects.

PEO 3: **To prepare learners to become valued professionals and responsible citizens.**

3.1 To encourage and motivate students through well planned co-curricular and extra curricular activities for all-round personality development.

3.2 To inculcate professional and ethical attitude, leadership qualities and commitment to social responsibilities.

PROGRAMME OUTCOMES (Pos)

PO 1: Ability to perform academic activities and achieve the expected requirements by conforming to a pre-defined process as set by the institute and university.

PO 2: Ability to effectively apply knowledge of computing and mathematics to computer science problems.

PO 3: Ability and skills to effectively use state-of-the-art techniques and computing tools for analysis, design and implementation of computing systems which resolve real life problems.

PO 4: Ability to utilize multi-disciplinary knowledge across domains to effectively apply computer technology in a global and social environment.

PO 5: Ability to efficiently make use of additional training provided throughout the course, satisfying industry requirements and thereby becoming globally employable.

PO 6: Ability to successfully pursue professional development through lifelong learning.

PO 7: Ability to communicate effectively with both technical and non-technical audiences.

PO 8: Ability to become a versatile professional and function effectively as an individual and as a member of a team.

PO 9: Ability to understand professional, ethical, legal, security, and social issues and responsibilities.

Editorial Committee

Student Members

Ritu Khetan (BE CMPN A)
Silvia Fernandes (BE CMPN A)
Sneha Shandilya (TE CMPN B)
Shubham Maheshwari (SE CMPN A)
Abhijit Mahishi (SE CMPN A)
Vedant Khandelwal (SE CMPN A)

Art Design

Bhalchandra Naik (SE CMPN A)
Aditya Munot (SE CMPN A)

Faculty Members

Dr. Rekha Sharma, HOD CMPN
Mrs. Shiwani Gupta, A.P. CMPN
Mr. Anand Khandare, A.P. CMPN
Mrs. Ruta Pathak, A.P. CMPN
Ms. Harshala Yadav, A.P. CMPN

Principal's Message

I would like to begin by congratulating the faculty and students of the editorial team for their efforts in bringing out the first issue of the annual departmental technical magazine *Nimbus*. Their hard work and toil is reflected across the pages.

This magazine is a step towards technical awareness which in turn will develop communication skills and is designed exclusively for churning out the technical writing skills among students. Since challenges and opportunities are the two sides of the same coin, this magazine challenges students to bring latest technical topics and opportunity to share their knowledge in technical field.

This magazine motivates students to grab more knowledge about current trends in field of computer engineering, thereby preparing them for global employment.

Dr. B. K. Mishra

Mentor Dean's Message

The passion for doing something different and innovative prevails among our students, and the magazine is exactly a prospect for aspiring writers to show their talent and also a platform for learning and knowledge sharing.

The technical magazine named *Nimbus*, signifying the circle of knowledge and also being an integrated set of tools that deliver the power and versatility of infrastructure clouds in Cloud Computing, is a good idea as the magazine helps promote research culture and imparts technical knowledge. The magazine to start with will be launched half-yearly and in the years to come, the students will be encouraged to publish it quarterly and if possible, on monthly basis. The magazine to start with will be launched half-yearly and in the years to come, the students will be encouraged to publish it quarterly and if possible, on monthly basis. The next issue will be launched in August.

I congratulate the students, faculty & alumni of the department who have contributed articles and helped the first issue of the departmental magazine. The articles will create an awareness of the current trends and technologies in the field of Computer Engineering and also provide an insight in the wonderful accomplishments of our students.

Wishing you all the very best for future.

Dr. R.R. Sedamkar

HOD's Message

I would like to congratulate the editorial team for their exceptional effort in bringing out the first issue of departmental technical magazine *Nimbus*.

Nimbus is a cloud of information which provides an opportunity to the students and staff to express their original thoughts on technical topics. The magazine plays an instrumental role in providing exposure to the students to develop written communication skills and command over the language. It is a step towards building professional attitude in them. The entire journey of creating *Nimbus* inculcates leadership qualities, ethical attitude and social sensitivity among students.

This first issue of *Nimbus* has come up with topics like reading and evaluating technical papers which is the first step towards research and development. It also talks about career options available to them after graduation. The magazine is beaming with enthusiasm and creative ideas giving it a fresh and grand look.

On a concluding note, I would like to wish you all the best for more such initiatives and future endeavors.

Dr. Rekha Sharma

Magazine Faculty In-Charge's Message

To meet the Institute's vision of **excelling in technical education** and the Department's mission of **nurturing students with sound engineering knowledge through effective use of modern tools**, the department of Computer Engineering has put an endeavor to systematize technical knowledge of its aspiring students, deemed alumni and experienced faculty onto a common platform.

As an engineer we all have a collective responsibility to improve the lives of people around the world. It's rightly said by an unknown that:

"Power is gained by sharing knowledge, not hoarding it"

The unremitting efforts of Magazine committee students and faculty as a collaborative team have brought forward a wonderful collation for people to acknowledge and be inspired by it. I congratulate my team members.

This being the first issue, I welcome suggestions from faculty and students of all disciplines to help us improve upon and bring out everyone's best in the upcoming issues.

"If you have knowledge, let others light their candles at it"

-Margeret Fuller

Mrs. Shiwani Gupta

Editorial

Computer science is an ever-expanding field and the power technology holds today is definitely beyond one's imagination and therefore, the first edition of the magazine is themed as “Technology for Future”. With the constantly escalating number of problems around the world, computer science has helped to find solutions to almost all of them. Not only have computers solved problems, they have made the world an easier place to live. Computer technology has also provided ways of entertainment someone could have never thought of when it came into existence. Some wearable technologies implementing virtual or augmented reality have the power to make you feel things which exist in a different world altogether. Robots, these days, can help disabled people. You can now send aromas just as text messages through an O-phone. Soon you will be able to charge your phone by just keeping it in your pockets, thanks to Microsoft, and it is predicted that most companies will move towards Artificial Intelligence which is still a developing field in Computer Science. One of the biggest problems that most computer people are trying to solve is of Big Data, which is a topic of interest to many data scientists and researchers as well. Computers are helping teachers as well now. Some professors use games and animations to teach students and students showed better results because of those innovative methods of teaching. Talking about upcoming technologies, we just cannot forget to talk about 3D printers. The upcoming of 3D printers is not only fascinating but so exciting as well.

The main objective of the magazine is to motivate students towards research and give insight to some of the options available to them after B.E. It also intends to encourage them to discuss some current technological trends and be aware of them.

As a first edition of the magazine, all the efforts are taken to edit the contents of the magazine to make sure that the articles are original in nature and the plagiarism tracker is used to minimize the plagiarism in the content. In future, rigorous procedure will be adopted to ensure the article contents are original.

RITU KHETAN
LEAD EDITOR

Team Formation Story

In the beginning of the academic year, 2014-15, during the orientation, the NBA coordinator, Ms. Shiwani Gupta asked everyone if anyone would want to initiate the CMPN departmental technical magazine. This seemed like a good opportunity to me. A magazine could actually inspire people towards technology and would keep them updated about some latest technology too. It could also help students to write technical papers. I asked my partner, Silvia Fernandes, if she would be interested to join. She agreed and we both approached Shiwani Ma'am the next day. We understood the approval procedure for the initiative. Soon announcements were made in classes for the magazine and the necessary approval letters were written to the Principal, after we got a consent from the Dean Academics, Dr. R.R. Sedamkar and Head of the Department, Dr. Rekha Sharma. Within two weeks, the entire initiative was officially approved, but we were still struggling to find volunteers for the magazine committee. We thought that maybe no one would turn up. But we still decided to wait. I knew there had to be someone interested like us. And on the third week, we found 6 volunteers, Abhijit, Bhalchandra, Aditya, Shubham, Vedant and Sneha. We stopped taking in more volunteers and settled with a committee of 8 people overall. We decided on weekly meets in which we would brainstorm about the things which needed to be figured and also talk about some upcoming technologies. Later, three other faculty members, Ms. Ruta Pathak, Mr. Anand Khandare and Ms. Harshala Yadav extended their support as well. This is how we came up as a team and we've been working towards the magazine.

RITU KHETAN
LEAD EDITOR

Index

How to Read and Evaluate Technical Papers

Reading research papers effectively is challenging. These papers are often written in a very condensed style because of page limitations and the intended audience, which is assumed to already know the area well. Finally, your time is very limited, so you may not have time to read every word of the paper or read it several times to extract all the nuances. For all these reasons, reading a research paper often requires a special approach.

This will require you to read tens of papers, perhaps in an unfamiliar field. What papers should you read? Here is how you can use the three-pass approach to help. First, use an academic search engine such as **Google Scholar** or **CiteSeer** and some well-chosen keywords to find three to five recent papers in the area.

The First Pass

The first pass is a quick scan to get a bird's-eye view of the paper. You can also decide whether you need to do any more passes. This pass should take about **five to ten minutes** and consists of the following steps:

1. Carefully read the title, abstract, and introduction (emphasizes not only the motivations behind the work, but also outlines the solution)
2. Read the section and sub-section headings, but ignore everything else
3. Read the conclusions (recap, including a discussion of the primary contributions. Future work is likely in the concluding part of the paper)
4. Glance over the references, mentally ticking of the ones you've already read.

It may be desirable to read the paper out-of-order or to skip certain sections. A second pass over the paper is sometimes required to have it all come together for you.

The Second Pass

In the second pass, read the paper with greater care, but ignore details such as proofs. The second pass should take up to **an hour**.

- Go through the paper word by word and line by line, underlining or highlighting **every word and phrase** you don't understand.
- Highlight important comments as you go. Using a highlighter.
- Mark the important paragraphs of the paper according to **motivation/problem**, **idea/solution**, their **evaluation**, and **contribution**s.
- On the front of the paper, write down the **key questions**. Other questions may be written in the margins as you read. The questions you want to have answered by reading a paper are the following:

- **What is your takeaway message from this paper?**
- **What are the motivations for this work?** For a research paper, there is an expectation that a problem has been solved that no one else has published in the literature. This problem intrinsically has two parts.
    - **People Problem**: This is the benefits that are desired in the world at large; for example, some issue of quality of life, such as saved time or increased safety.
    - **Technical Problem:** Why a new technological or engineering solution may be required. Implicitly there is an implication that previous solutions to the problem are inadequate.
- **What is the proposed solution?** This is also called the hypothesis or idea. There should also be an argument about why the solution solves the problem better than previous solutions. There should also be a discussion about how the solution is achieved (designed and implemented) or is at least achievable.
- **What is your analysis of the identified problem, idea and evaluation? Is this a good idea? What flaws do you perceive in the work? What are the most interesting points made? What are the most controversial ideas or points made?** For work that has practical implications, you also want to ask: *Is this really going to work, who would want it, what it will take to give it to them, and when might it become a reality?*
- **What are the contributions?** Ideas, software, experimental techniques, and area survey are a few key possibilities.
- **What are future directions for this research?** Sometimes these may be identified as shortcomings or other critiques in the current work.
- **What questions are you left with?** What you find confusing or difficult to understand? By taking time to list several, you will be focused to think more deeply.

Try to answer the questions for yourself, as best as you can. Use Google or other sources as appropriate.

Don't feel unworthy if you don't understand the entire **math**—you can still get the main point without memorizing the **tables, graphs, and charts**. To read more about statistics, Wikipedia it.

Be prepared for **jargon.** Big words look it up with a dictionary or wiktionary, or Google

Acronym, catch it! write out in the margin or on your notes

Don't be afraid to **reread** sections, or reread the entire paper

It takes practice for your brain to learn this new language

When you're finished reading, test how successful you were by **writing** out **in your own words**:

(a) the hypothesis

(b) how the researchers tested that hypothesis

(c) what their results were

(d) why those results supported (or fell short of supporting) their hypothesis

Discuss the study with someone else who has read it.

As you read or skim a paper, you should actively attempt to answer the above questions. In practice, you are not done reading a paper until you can answer all the above questions. Use a standard two page form stating Title, Author, Published in and answer above question. Also, you should be aware of the context of the paper in relation to the other papers you study. Often a paper will represent a generalization, new direction, or contradiction to earlier papers. After this pass, you should be able to grasp the content of the paper. You should be able to summarize the main thrust of the paper, with supporting evidence, to someone else. This level of detail is appropriate for a paper in which you are interested, but does not lie in your research speciality. If you find that filling out this form doesn't work for you, you can try writing a 250 word abstract of the paper--not rewriting the abstract at the front of the paper, but *your* abstract, capturing the above issues from your perspective. Writing an abstract it develops the logical connections between the above issues.

Sometimes you won't understand a paper even at the end of the second pass. This may be because the subject matter is new to you, with unfamiliar terminology and acronyms. Or the authors may use a proof or experimental technique that you don't understand, so that the bulk of the paper is incomprehensible. The paper may be poorly written with unsubstantiated assertions and numerous forward references. Or it could just be that it's late at night and you're tired.

You can now choose to: (a) set the paper aside, hoping you don't need to understand the material to be successful in your career, (b) return to the paper later, perhaps after reading background material or (c) persevere and go on to the third pass.

The Third Pass

To fully understand a paper, particularly if you are reviewer, requires a third pass. The key to the third pass is to attempt to virtually re-implement the paper: that is, making the same assumptions as the authors, re-create the work. By comparing this re-creation with the actual paper, you can easily identify not only a paper's innovations, but also its hidden failings and assumptions.

This pass requires great attention to detail. You should identify and challenge every assumption in every statement. Moreover, you should think about how you yourself would present a particular idea. During this pass, you should also jot down ideas for future work. This pass can take about **four or five hours** for beginners, and about an hour for an experienced reader. At the end of this pass, you should be able to reconstruct the entire structure of the paper from memory, as well as be able to identify its strong and weak points. In particular, you should be able to pinpoint implicit assumptions, missing citations to relevant work, and potential issues with experimental or analytical techniques.

SHIWANI GUPTA
A.P. CMPN

After B.E : Road Ahead

If you're in your 5th or 6th semester of Engineering, probably thoughts about career must be bothering you. People around you must be asking you to consider various options and if you still haven't decided on something, maybe you must have started doubting if you even know yourself. Well, let me tell you what all you can do and how to go thinking about them

1) **MS - Master of Science**

   A Master of Science is a postgraduate degree awarded by universities in many countries like US, UK, India, Australia and Canada. You will need to give GRE and TOEFL. (www.ets.org)

   Some things you should consider before thinking of an MS:

   1. **Funds** : Depending on the dollar rate, an MS can cost you around Rs. 40,00,000 or even more. Also, the dollar rate keeps changing. How are you going to arrange the funds? Are you that strong financially? Will you be able to repay the student loans?
   2. **Settling in another country** : Going and settling in another country for studies sure sounds fun but will you be able to do it? Everyone does it anyway, but it's not easy. Working along with studying would be tough and you will take time to settle with the new culture, weather, environment and people as well.
   3. **Degree** : The degree does not hold much value in India. A B.E graduate and an M.S graduate is treated almost same here. However, if you get a job there, you're settled. If you don't get teaching assistantship or fellowship, you might have to wait there and do a Ph.D. as well to get the invested money back. Think about it.

   But hey, every year there are so many students applying for an M.S. If they can do it, so can you. The above mentioned things are just for consideration and to make sure you don't end up in a wrong place.

So, if you've decided on an M.S, here are some things to help you:

1. Maintain your semester grades at a good level (60-65% above).
2. Try to participate in some organizing committees of college events or start an own initiative in college.
3. Give your GRE exam somewhere in 6th sem and don't delay it. Mid-March to mid-April would be most favorable.
4. Refer ets.org for material as well. Use PowerPrep II software from ets.org just 2 weeks before the exam and solve it many times.
5. Try getting 1 or 2 technical papers published so that it shows you are interested in research. The college faculty can always help you with that.
6. If you do an internship in your second or third year, that would add to the resume too.
7. You can also do some technical side projects on your own or with a group of friends and talk about it in your resume.
8. Social work would also count in the resume.
9. Don't take GRE classes. Instead, buy some books for GRE and refer stuff online.
10. Try to search for universities on the internet and ask seniors for help rather than joining a counselor for application help.
11. Decide upon some field you're very sure you'd love working in. Try to do this yourself.
12. Approach a counselor if you don't know any seniors you can approach (IMFS in Borivali is a good one of what I've heard)
13. Read the MS in US article on www.stupidsid.com.

2) MBA - Master of Business Administration

The Master of Business Administration is a Post-Graduate degree in business administration, opted by students who want to build their career in business management.

BE+MBA is probably the best package you can have if you plan to join the corporate in India. As of what I know, you need no job experience if you want to do MBA from India.

So, if you've decided on an M.B.A, some tips to help you:

1. Maintain your semester grades at a good level (60-65% above).
2. Try to participate in some organizing committees of college events or start an own initiative in college.
3. Write some society-awareness articles and try to get them published somewhere.
4. Focus on the CAT exam.
5. Ask seniors for help or join some classes that will guide you better.

3) ME – Master of Engineering

If you think you want to be a teacher and/or want to pursue a Ph.D. from India, M.E is the choice for you.

You can easily get admission to a college offering an M.E course if your grades are above 60%.

Most of the faculty members have done that course. You can approach them for help regarding this.

4) Civil Services

If you want to apply for Government jobs at the Union level, go to upsc.gov.in for details. The website would give you all the details you need.

If you want to apply for Government jobs at the State (Maharashtra) level, go to mpsc.gov.in for details. The website would give you all the details you need.

Knowledge of Marathi is a must if you are applying in Maharashtra.

5) Entrepreneurship

If you have some good idea, a little enough of finance, and some support from family or friends, you can start up your own business. The college itself has collaborated with IIC which helps students start up their own business and guides them.

Maybe you and some of your friends can start up with an idea and see how well it works. The college can help you here as well. You can contact the EDC cell or Mrs. Ashwini Patil or Mrs. Megharani Patil from our department for more information on this.

6) Placements

Most of the people go for this option. Getting some work experience before deciding on a proper future plan is pretty much a good choice. Also, if you're still not sure about anything else, this can be your safe card to play!

Some tips for this are:

1. Just maintain your aggregate above 60% till 6th semester and no live KTs. You should be at least eligible to sit for most company's placement processes.
2. Placements usually start in August or September, so start preparing for the aptitude tests somewhere between mid-May or June or July at the max. Solve Maths, English and Logical Reasoning from online sites.
3. Take the training initiatives taken by college seriously. That would be enough for preparing for the technical and personal interviews.
4. Go through the company's website before sitting for any company placement process. Try to find something about the company which resonates with you, something that makes you want to work with them. You don't need to know everything about the company, but you should know something good about it which impresses the interviewer.

Don't worry, just like other parts of your life, this will sort out as well and you will achieve what you want in the end. All the best!

RITU KHETAN
BE CMPN A

Virtual Reality

It's in the nature of humans to do something when told not to. But should consequences faced in future be undesirable, people become very eager over preventing the repetition of such mistakes, or at least they try, their best not do it again. Even minor goof-ups during the operation of aircrafts could cost several lives, not to mention also lightening pockets of private or public airlines heavily. Scenario wouldn't be very different in surgical procedures or military operations. **Virtual reality (VR)**, which happens to be one of the major breakthroughs in simulation technology, has provided with a rather ingenious and enormously helpful solution to such problems. Virtual reality, which is also referred to as **immersive multimedia**, is being used by military for battle simulation, simulating surgical procedures, gaming, flight training and several other purposes.

Virtual reality, which is also referred to as **immersive multimedia**, is being used by military for battle simulation, simulating surgical procedures, gaming, flight training and several other purposes.

HISTORY

Before we start understanding how virtual reality works, let us know how this field was born, how it has grown through the decades and where it stands today. It is believed by most that the virtual reality concept, was born in mid 1800s, with invention of the earlier form of the Stereoscope by Sir Charles Wheatstone, an instrument which uses two images of the same scenario seen through individual perceptions of the human eyes to produce a static three dimensional image, a concept even in the present day 3-D movies. Brewster stereoscope, a smaller and lighter version eliminated the use of lenses or any other optical instruments, was something which looked more like the present day VR gears (though it doesn't function like it to the slightest extent). There were two inventors who basically found the secret of VR: **Ivan Sutherland** and **Tom Furness**. Ivan Sutherland proposed a head-tracked head-mounted display in 1963, which is on display at the Computer History Museum of Silicon Valley. Tom Furness, who led the development of technology of the American air-force, was kicked out when the belief of air-force had ceased. Post the Gulf War, when Air force used the system, everybody realized that it was a major breakthrough.

WORKING

So moving to how VR works. Oculus Rift, a VR gear produced by the company Oculus VR (founded by Palmer Luckey along with many others) is the one whose working we are going to discuss here. It uses the imagery of intended environment seen through the individual eyes, formed at close distance to the eyes to produce the 3-dimensional view. But what differs this from an extended 3-D movie is that, with change in the viewer perception by movement of the head and eyes, the trackers instated also render the image accordingly, thus immersing the user in simulated environment providing a real life experience. But it doesn't end there, the simulation must be interactive. Users are capable of moving around the environment using forward, sideways, backward, upward and downward motion. Recent versions of gears offer wider view angles and clearer interference.

VR IN TCET

One of the many events held at Zephyr '14 was VR, organized by students of TCET. The event was managed and executed by Manish Yadav (TE CMPN B), Ganesh Iyer (EXTC dept.) and Vedant Khandelwal (SE CMPN A). The future prospects of VR in the future are more than promising and I hope this article peaked your interest about VR, if it did then go, scoot!

BHALCHANDRA NAIK
SE CMPN A

Famous Computer People

Ajay Bhatt: Co-founder of USB, Developer of AGP, PCI Express, PPMA, etc, also known as Intel rockstar.

Ajit Balakrishnan: The founder of rediff.com as well as current Chairman and CEO of Rediff.com, cofounded Rediffusion at the age of 22.

Ankit Fadia: One of the best, youngest Indian Ethical Hackers.

Azim Premji: Software tycoon, better known as India's “Bill Gates”, Founder and Chairman of Wipro Technologies.

Bill Gates: Co-founded Microsoft in 1975 with boyhood friend Paul Allen, wrote Microsoft's first program, BASIC for the MITS Altair, in 1975, led Microsoft to become one of the world's largest corporations, donated billions of dollars to charities through the work of the Bill and Melinda Gates Foundation. Born: Seattle, Washington in 1955. Education: In 1973, Harvard University. Gates characters have appeared in cartoons including the Simpsons, South Park and Family Guy.

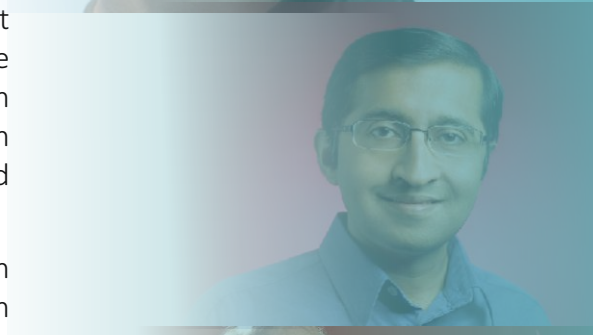
James Gosling: Gosling is best known as the father of the Java programming language. Born: 1955 near Calgary, Canada. Education: PhD in Computer Science and contributed to software innovation at a technical level, BSc in computer science from the University of Calgary in 1977. While working towards his doctorate he created the original version of the Emacs text editor for Unix (Gosmacs). Currently Chief Technology Officer in Sun Microsystems. Did the original design of Java and implemented its original compiler and virtual machine.

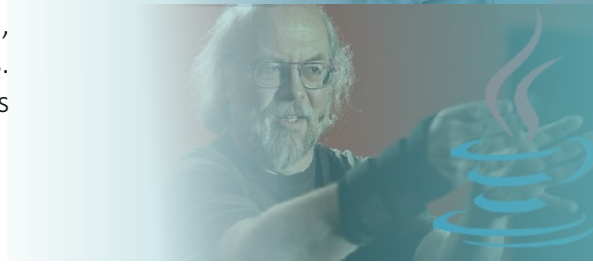
Kevin Mitnick: World Best Hacker. Born: August 6, 1963, Los Angeles. Education: Attended Monroe High School. Occupation: Computer Consultant, computer hacking at age 12.

Krishna Bharat: Creator of Google News, Major work: Hilltop Algorithm.

Larry Ellison: Oracle is the world's leading supplier of software for information management and the world's second largest independent software company, boasting revenues of more than $9.7 billion. The huge success of the company makes Ellison one of the richest people in America. His drive, character and success motivated author Mike Wilson to write Ellison's biography entitled “The Difference between God and Larry Ellison”.

Linus Torvalds: As the creator of the Linux operating system, he has been a driving force behind the whole open source movement, which represents not only an ever increasing challenge to proprietary software, but is also the inspiration for the industry to move to open standards. Torvalds remains the ultimate authority on what new code is incorporated into the Linux kernel.





Mark Zukerberg: Founder Of Facebook, Mark Elliot Zuckerberg is an American computer programmer and Internet entrepreneur. He is best known as one of the co-founders of the social networking site Facebook. Zuckerberg is the chairman and chief executive of Facebook. Born: May 14, 1984, Net worth: US$ 12.1 billion (2012), Education: Phillips Exeter Academy(2000–2002), Ardsley High School (1998–2000), Harvard University, Mercy College.

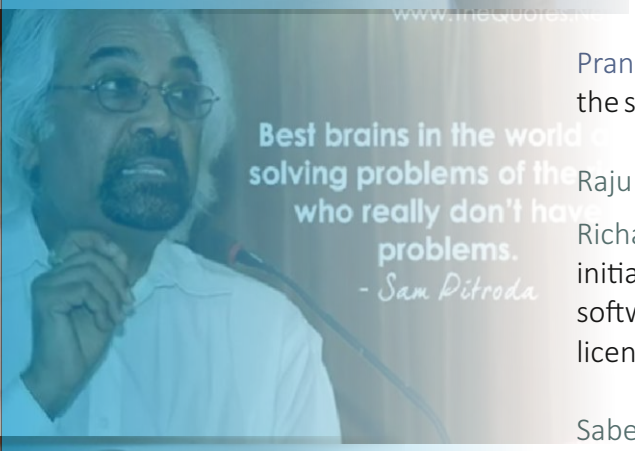
Martha Lane Fox: With Brent Hoberman, Martha Lane Fox created Lastminute.com in 1998, and as "the face" of Lastminute raised the profile of e-commerce ever higher in the public consciousness.

Michael Dell: Founder of DELL COMPUTER, developed the concept of selling personal computers via mail-order, revolutionized the way computers are sold while also helping to drive the price of PCs down.

Nandan Nilekani: One of the co-founder of Infosys with Narayan Murthy and he is the 2nd CEO and managing director of the Infosys after Narayan Murthy.

Narayan Murthy: Guru of Information Technology, Co-founder and CEO of Infosys Technologies, Programmer since a kid.

Narinder Singh Kapany: is best known as 'Father of fiber optics'.



Pranav Mistry: A Guju computer scientist, Founder of the sixsense and the sixthsense technology.

Raju Vanapala: Founder of Way2sms.

Richard Stallman: Richard Stallman is the founder of the GNU Project, an initiative to develop a complete Unix-like operating system which is free software. Stallman has written several popular tools, created the GNU licence and campaigns against software patents.

Sabeer Bhatia: Founder of Hotmail, the world's first webmail service. Sabeer Bhatia is an Indian American entrepreneur who co-founded the Hotmail email service and JaxtrSMS. Wikipedi. Born: December 30, 1968, Chandigarh. Education: California Institute of Technology, Stanford University, Birla Institute of Technology and Science.

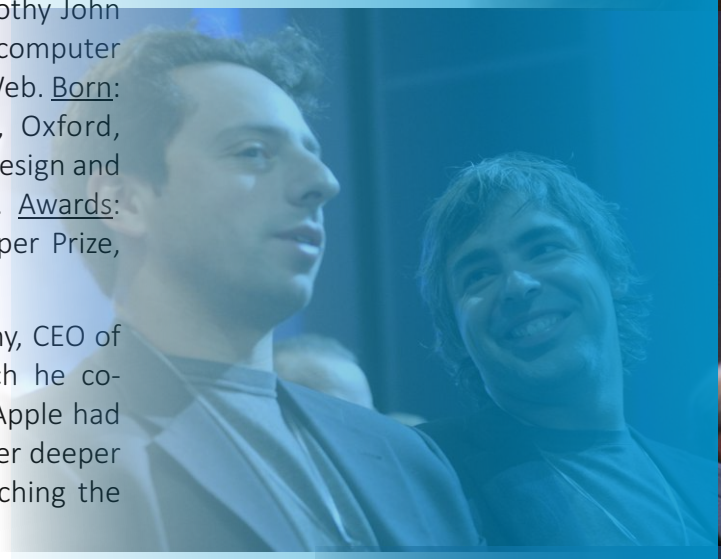
Sandy Lerner & Len Bosack: The two recognized the multiprotocol router's commercial potential and founded Cisco in late 1984; when they left in 1990 (Lerner was forced out, and Bosack left of his own volition immediately thereafter), the company had grown from an unknown, four-employee start-up to a 250-person, publicly traded industry trend-setter with a market cap of $224 million. Today Cisco remains the router leader, as well as a dominant player in the access, switch, security, storage, VoIP and wireless markets.

Sashi Reddi: Founder and chairman of 'applabs', Founded FXLabs.

Satyanarayan Pitroda: He is well known as Dr Sam Pitroda. “The father of India's communication revolution”.

Sergey Mikhaylovich Brin: Founder Of Google Sergey Mikhay lovich Brin is a Soviet-born American computer scientist and Internet entrepreneur who, with Larry Page, co-founded Google, one of the most profitable Internet companies. Born: August 21, 1973, Moscow. Net worth: US$ 18.7 billion (2012). Education: Stanford University (1995), University of Maryland, College Park(1993), Instituto de Empresa Business School.

Sir Timothy: Founder of WWW(WORLD WIDE WEB) Sir Timothy John "Tim" Berners-Lee, also known as "TimBL", is an English computer scientist, MIT professor and the inventor of the World Wide Web. Born: June 8, 1955, London. Education: The Queens College, Oxford, University of Oxford. Books: Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by its Inventor. Awards: Presidents Medal, MacArthur Fellowship, Charles Stark Draper Prize, Mountbatten Medal, Marconi Prize.



Steve Jobs: Co-founder and CEO of Apple Computer Company, CEO of Pixar, the Academy-Award-winning animation studios which he co-founded in 1986. Born: 1955, San Francisco. Without Jobs, Apple had stumbled. On returning to Apple, Jobs drove the company ever deeper into the consumer electronics and computing market, launching the iMac and iPod.

Steve Shirley: Steve Shirley was an early champion of women in IT. She founded the company now known as Xansa, pioneered new work practices and in doing so created new opportunities for women in technology.

Steve Wozniak: - Cofounder of Apple Computers in 1976. The sole designer of the first Apple computers- the Apple I and Apple II.

Ted Codd: Ted Codd created 12 rules on which every relational database is built- an essential ingredient for building business computer systems.

Tim Berners-Lee: "Father of the web and champion of IT freedom". Dotcoms, bloggers and Google all have one man to thank for their place in the 21st century world. In 1990,Tim Berners-Lee made the imaginative leap to combine the internet with the hypertext concept, and the worldwide web was born. Born: 1955 in London. Education: School in London, physics at Queen's College, Oxford, where he built a computer with a soldering iron, TTL gates, an M6800 processor and an old television. He created the worldwide web, for which he designed and built the first web browser and editor and the first web server called Hypertext Transfer Protocol Daemon (HTTPD). The first website built was at http://info.cern.ch/ and was put online on 6 August 1991. In 1994, Berners-Lee founded the World Wide Web Consortium (W3C) at the Massachusetts Institute of Technology. He is now the director of W3C, a senior researcher at MIT's CSail, and professor of computer science at Southampton University.

Vinod Khosla: Co-founder of Sun Microsystems and the 1st Chairman and CEO there, also founded Daisy Systems & Khosla Ventures.

Vinod Dham: Father of Pentium chip, Co-inventors of Flash Memory.

SHIWANI GUPTA
A.P CMPN

Krishna Bharat

Krishna Bharat, an Indian-American, was born in India and spent his childhood in Bangalore. He completed his schooling from St. Joseph's Boys' High School in Bangalore, and finished his undergraduate degree in Computer Science from the prestigious Indian Institute of Technology (IIT), Madras. In 1996, he graduated with a Ph.D. in Computer Science from Georgia Tech., in Human Computer Interaction. In 1999, he joined Google. Krishna Bharat is an Indian-American.

He is a research scientist at Google Inc. and widely known as the “Principal Research Scientist” of the team that created Google News. Launched in September 2002, the news aggregator service provides up-to-date information from thousands of publications in more than 28 languages. Krishna initiated the idea of Google News after the unfortunate September 11, 2001 attacks.

Google News remained beta for almost 4 years and was finally released on January 23, 2006. It is Google's one of the most successful products and was Google's first initiation offering beyond the plain text searches on its page.
Before joining Google, he served as a member of the research staff at DEC Systems Research Center in Palo Alto, California, where he was primary figure for developing the Hilltop algorithm.

In 2003, he received the Webby Award in the news category for creating Google News and received the 2003 World Technology Award for Media & Journalism. In 2004 he established Google's R&D Center in Bangalore India.

KAUSHAL RAINA
SE CMPN B

Rajeev Motwani

Born to Hotchand Motwani and Namita Sushila on March 24, 1962 in the Indian city of Jammu, Rajeev Motwani had two brothers Sanjeev and Suneev. His father was in the Indian Army. Being inspired by Gauss, he wanted to become a mathematician. Motwani went to St. Columba's School, New Delhi. He completed his B.Tech in Computer Science from the Indian Institute of Technology, Kanpur in 1983 and got his Ph.D. in Computer Science from the University of California, Berkeley in 1988.

His research was majorly based on data privacy, web search, robotics, and computational drug design. He is also one of the originators of the Locality-sensitive hashing algorithm. Motwani co-authored an influential early paper on the PageRank algorithm with Larry Page (CEO of Google), Sergey Brin (co-founder of Google) and Terry Winograd (co-director of the Stanford Human-Computer Interaction Group).

He was the key advisor in developing PageRank, which was the basis for search techniques of Google.

Along with Google, Motwani sat on the boards or advisory boards of Mimosa Systems, Neopath Networks, Revenue Science, Stanford Student Enterprises Ventures, and Vuclipa, among others. He was also active in the Business Association of Stanford Engineering Students.

He was an author of two widely used theoretical computer science textbooks: Randomized Algorithms with Prabhakar Raghavan and Introduction to Automata Theory, Languages, and Computation with John Hopcroft and Jeffrey Ullman.

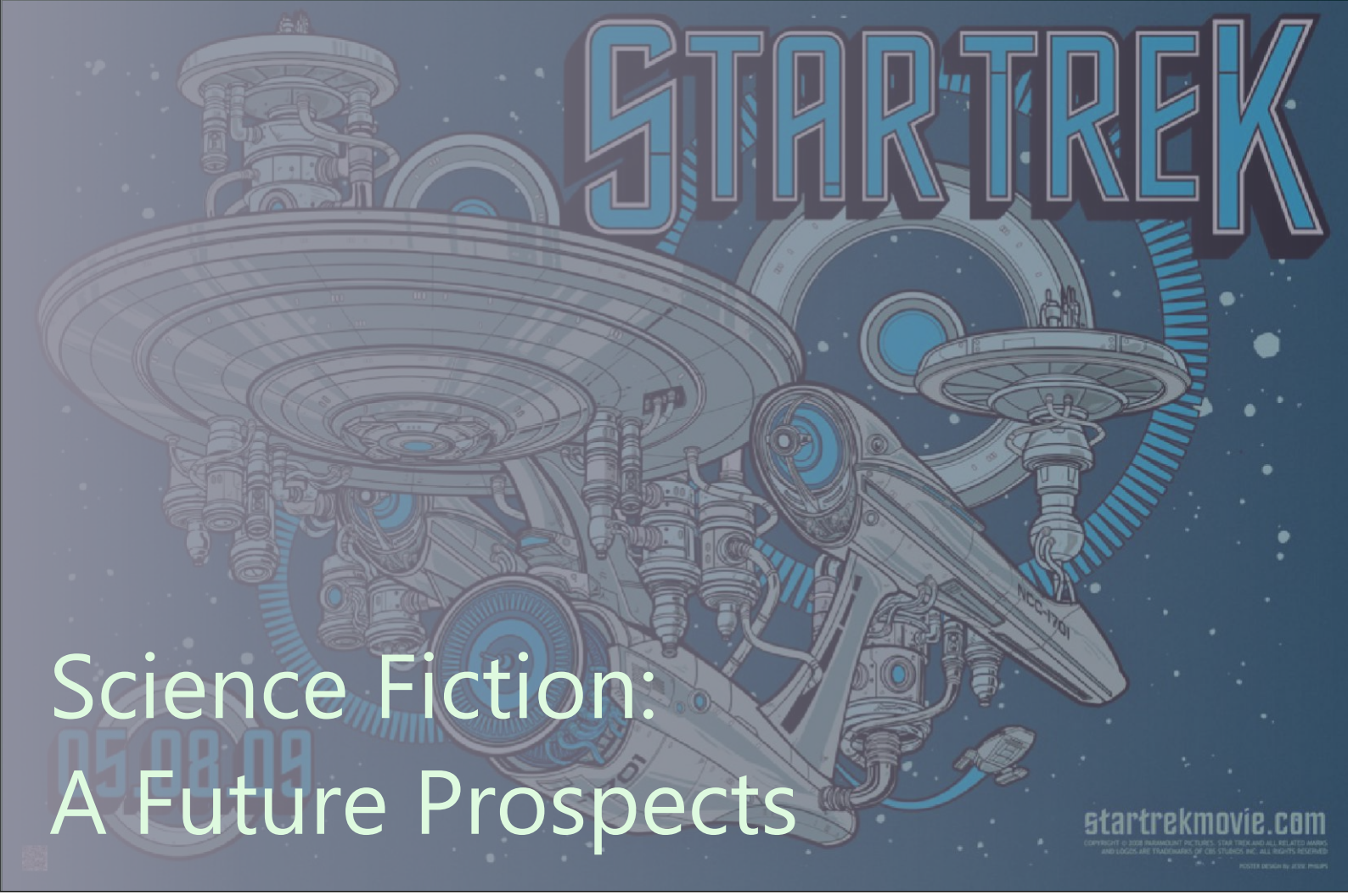
He was a winner of the Gödel Prize in 2001 for his work on the PCP theorem and its applications to hardness of approximation.

He served on the editorial boards of SIAM Journal on Computing, Journal of Computer and System Sciences, ACM Transactions on Knowledge Discovery from Data, and IEEE Transactions on Knowledge and Data Engineering.

Motwani died in a tragic drowning accident in the swimming pool at his home. He was 47 years old and at the height of his career. Motwani received many honors for his outstanding contribution and it is clear that, but for his premature death, he would have received many more. He received the Bergmann Memorial Award from the US-Israel Bi-National Science Foundation (1993), the IBM Faculty Development Award (1994), the IBM Faculty Partnership Award (1995), the Indian Institute of Technology Alumni Leadership Award (2001), the Gödel Prize (2001), and the Distinguished Alumnus Award from the Indian Institute of Technology Kanpur (2006).

"Today, whenever you use a piece of technology, there is a good chance a little bit of Rajeev Motwani is behind it.", wrote Google co-founder Sergey Brin on his mentor's death.

SHUBHAM MAHESHWARI
SE CMPN A



Science Fiction: A Future Prospects

Wells imagines a new kind of bomb based on nuclear chain reactions. Wells notes how atomic energy would be discovered in 1933 (20 years in his future), and how the first bomb would explode in 1956.

Science fiction has been referred to as designer's role on adrenaline rush. Anticipating future trends and creating visions of future that have not been realized. Much the same way science action mirrors the design activity of future casting through its presentation of possible futures. Though they may seem on the verge of fantasy, often the futures presented actually come true.

In 1914 H. G. Wells published a novel titled The World Set Free. While not well known, the novel is an example of the future casting power of Sci-Fi. In the novel Wells imagines a new kind of bomb based on nuclear chain reactions. Wells notes how atomic energy would be discovered in 1933 (20 years in his future), and how the first bomb would explode in 1956.

The problem which was already being mooted by such scientific men as Ramsay, Rutherford, and Soddy, in the very beginning of the twentieth century, the problem find using radio-activity in the heavier elements and so tapping the internal Energy of atoms, was solved by a wonderful combination intuition, knowledge. It is just one case where science fiction has clearly foretold what later became a science fact.

So how does the Enterprise of *Star Trek* protect itself from incoming attacks? By using the handy-dandy force field, of course! But this is something that has not, as of yet, become a reality in our real world.

Until now, that is. British military scientists are currently working on creating their own force fields in order to protect armored vehicles by repelling incoming fire. This new armor will incorporate super capacitors to use pulses of electrical energy. When a threat is detected by the vehicle, the energy in the super capacitor would be sent into the metal plating on the outside of the vehicle in order to produce an electromagnetic field around it. Unlike on *Star Trek*, though, this force field would only last for a few seconds, but if timed properly, could still save lives and then be rapidly recharged and ready for the next attack. This technology could also cut down on the weight of military vehicles using it.

One of the coolest tool, used in the popular Sci-fi series *Doctor Who* is the sonic screwdriver. This device allows The Doctor on the series to do everything from opening doors, to altering radio and satellite signals to cutting, burning, welding, healing wounds and much more. And now, British engineers are working on the very first real sonic screwdriver.

Professor Bruce Drinkwater, an ultrasonic engineer at the University of Bristol, explained, "We have developed a device that allows us to use ultrasonic forces to move small objects like biological cells around to sort them or to assemble them."

A prototype has been created by using tiny crystals that vibrate when an electrical current is passed through them. This causes an ultrasonic shock wave in the air around the device. The size of the shock wave can be tuned to move biological cells around, potentially separating diseased cells from healthy ones. Of course, the real sonic screwdriver won't be quite as multi-purpose as The Doctor's, but these engineers are off to a good start.

With this in mind, and with through constructivist lens a true visionary can perceive beyond the horizon. Science fiction is a dream that can act as a constructive path through fantasies, which could easily become a fact in near future.

KAUSHIK MHATRE
BE CMPN A

Do you know what DirectX is? Well, do you recognize the image given here?

If you happen to be one of those 'Hardcore Gamers', then you don't need me to tell you what it is! For the rest, let's have a small talk about Microsoft's DirectX. Our beloved resourceful Wikipedia tells us that 'Microsoft DirectX is a collection of application programming interfaces (APIs) for handling tasks related to multimedia, especially game programming and video, on Microsoft platforms'. Yes indeed! DirectX is a great technology for any game designer. It can put any game programmer in touch with the computer's hardware, especially the Graphics Processing Unit (GPU), for creating advanced graphic effects. Before the DirectX came into play, programmers had to interact directly with the hardware at the most fundamental level for even the most simplest of tasks. Displaying an image on-screen or playing a sound file, all as a part of a game, was a pretty tedious task which required knowing the hardware components used in the computer and the skill and the knowledge needed to talk to those components via its drivers. However, since the advent of Microsoft Windows architecture and the DirectX, which is a part of Windows (since Windows 95), programmers communicate directly with DirectX, and DirectX, talks to the computer's hardware. The use of this specific scenario is that the programmers need not know about the drivers of all the different hardware components available in the market since that part is now handled by DirectX. We can safely say that DirectX acts as an interface between the computer's hardware and the programmer.

DirectX, being a Microsoft product, is available only for Windows. So, game designers and programmers who are working on a Windows machine only can avail from its benefits. The DirectX is also available in the popular gaming console XBOX, which is a proprietary product by Microsoft. In fact, the name 'XBOX', has been derived from DirectX; as a compact version of the word 'DirectX Box'!!

What this means for a programmer trying to display an image within a game:

- Before DirectX: The programmer has to write a specific routine program to make the hardware display an image.
- After DirectX: The programmer has to call a specific DirectX library function, and that function will make the hardware display an image!

And this works not only for multimedia but also handles other aspects of game programming such as input handling. DirectX, which started as a toolkit, has evolved through its various versions to include a number of useful APIs such as Direct3D, DirectDraw, DirectMusic, DirectPlay, DirectInput, DirectSound and more, which allow programmers to render 2D/3D graphics with rich detail, play all kinds of sound in-game, or handle user input!!That is why the games of today require DirectX and the installation of any modern game directly takes you to the installation setup of Microsoft DirectX. The image at the beginning is the setup window for DirectX 9.0!

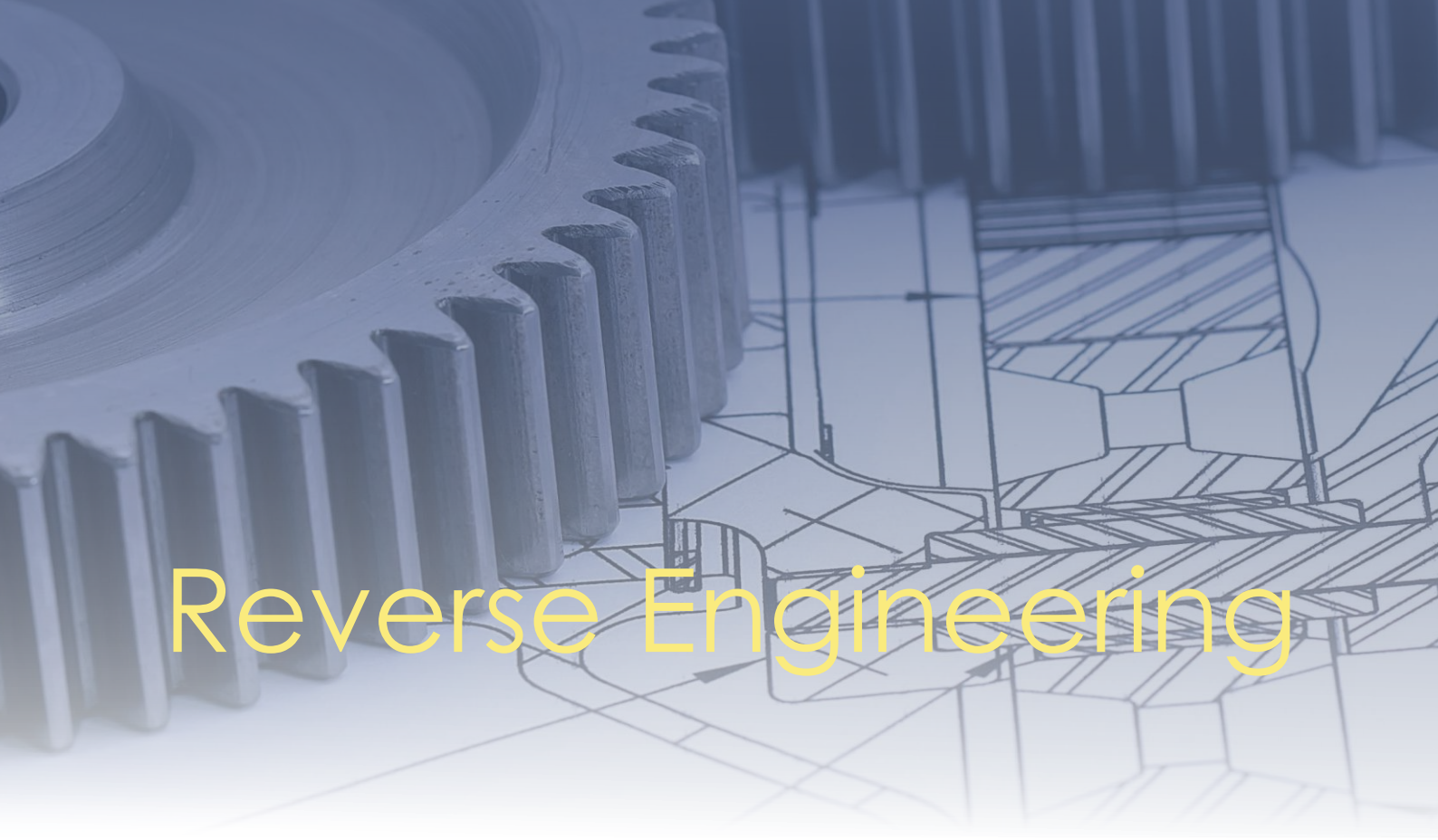
The latest version of DirectX for Windows OS available on the market is DirectX 11.2, included in the Windows 8.1. DirectX 11 includes many additional features such as GPGPU (General-Purpose computing on Graphics Processing Units) support through the DirectCompute API, an advanced Direct3D API, an improved multi-threading support to make better use of multi-core processors. GPGPU simple means using the GPU (if available) to compute and perform tasks intended for the CPU.

Microsoft introduced the DirectX 12 at the annual Game Developers Conference (GDC) on March 20, 2014. Direct3D 12 is a critical piece of the DirectX 12 package. The entire DirectX 12 has been formulated and structured to be the dominating standard for the upcoming games of 2015. DirectX 12 is to be included in the upcoming Windows 10 OS. What makes DirectX 12 so different and so special, is that it has been developed from scratch by the same team that has been delivering DirectX to the world since almost the past 20 years. Direct3D 12, provides a lower level of hardware abstraction than ever before, which is going to allow programmers to tweak and tune their product by dealing directly with the hardware at its most basic level. Programmers can use Direct3D 12 to tap into the computer hardware to provide greater multi-threading support and better CPU utilization. The Development Manager of DirectX at Microsoft, Anuj Gosalia, described DX12 as the joint effort of hardware vendors, game developers and his team. Another advantage of DirectX 12 is the number of platforms it can scale to, which includes PCs, Xbox One, Windows phones and tablets. DX12's focus is on enabling a dramatic increase in visual richness through a significant decrease in API-related CPU overhead. Gamers and developers have been eagerly waiting for the DirectX 12 to rock the market!

And we have talked a bit about the Microsoft's DirectX! It is an API that serves as a standard and an interface for game designers and programmers to talk to the computer's hardware to create graphics, play sound, handle input, all of which would have been pretty difficult to deal with had there not been an API, as advanced and sophisticated as DirectX! Next time you see a DirectX Setup Window, you know what you are installing!

KUNAL DHAIMADE

BE CMPN A



Reverse Engineering

Engineering is the profession involved in designing, manufacturing, constructing & maintaining of products, systems, & structures. At the higher level of engineering there are two types of engineering: Forward engineering & Reverse engineering.

Forward engineering is the traditional approach of building the product i.e. making the product from the scratch. To build the new system, logical design or we can say the proper blue print has to be maintained.

Reverse engineering is the process of extracting knowledge or design information from anything man-made. The ultimate goals for obtaining such information are varied. A typical goal of reverse engineering a product is to create a copy (possibly improved) or even a knockoff (new product), this is usually the goal of the competitor. The process of reverse engineering often involves disassembling something (a mechanical device, electronic component, computer program or practically anything which is man-made) & analyzing its components & working in detail. Reverse engineering has its origin in the analysis of hardware for commercial or military advantage. In the reverse engineering process, it is done exactly in the reverse way. The product is available with the product designer. The job of the designer is to go through the details of the existing product and the system specification for that product. The job also includes the preparation of detailed assembly, sub-assembly, component drawings. This apart, the designer has to develop the material requirement, material specification, quantity of material required to produce the item. After identifying the details, detailed design drawings and subsequently the engineering drawings are developed. Using these, the normal production techniques are adopted to produce the product. In some cases the goal of reverse engineering process can simply be a re-documentation of legacy systems. The main aim of reverse engineering is may not obtain the same product but to obtain the best product for the user.

The process of reverse engineering often involves disassembling something (a mechanical device, electronic component, computer program or practically anything which is man-made) & analyzing its components & working in detail.

Objectives for which Reverse Engineering is done are:

1. Graphical User Interface: Reverse engineering is done to obtain the user friendly product. So to make a system which is user friendly & easy to operate is the main reason for which Reverse engineering is done.

2. Military espionage: We are in that phase of dispute where any reason can lead to a war. So just to make your military or defense system strong is not everything but to obtain information about the enemy is also the main task. So reverse engineering is done for better research & development.

3. Improve Documentation: Reverse engineering is done for improving the design phase of the system as many new technology & betterment is emerging day by day. So it's necessary to be updated with the technology.

4. Cost Reduction: As companies or corporation aim for the higher profit, the only action can be taken is to increase production or reduce the cost of production. So to achieve this old system has to be renewed.

As Computer-Aided Design (CAD) has become more popular, reverse engineering has become a viable method to create a 3D virtual model. So with the help of 3D model even minute flaws can be detected at the initial level. Reverse engineering is also used by businesses to bring existing physical geometry into digital product development environments, to make a 3D record of their own products or to access competitors.

It can be said that reverse engineering begins with the product & works through the design process in the opposite direction to arrive at a product definition statement (PDS). In doing so, it uncovers as much information as possible about design ideas that were used to produce a particular product.

NIKHIL JAIN
TE CMPN A

At the origins: NOKIA

It is a well-known fact that Nokia was once **king of the world of cellphones.** But sadly that is not the case anymore. Infact now they are fighting to maintain their very existence! Nokia dominated the market with phones that had build quality and substance and were not overpriced for their time. Phones like 5800 Xpressmusic, N97 and N86 rules over the smartphone market. They ran Symbian OS. One that I believe paved the path for future smartphones. They also had cheaper phones which offered a lot of features at the time considering the fact that Android and IOS had yet to gain popularity!

Where they went wrong?

Now many people may have different opinions about this but I personally feel that Nokia took the ***"you have to be at the top to do nothing"*** phrase a bit too literally because after Symbian (s60) there was just no sign of updates for a very long time. I began to take an interest in cellphones only somewhere in 2010 when I bought my 5800 Xpressmusic. But after I bought it, there was no software update for almost a year. If Anna and Belle were to be released at that time, they could have kept the odds in their favor but it was not to be.

Some would say the rise of Apple and iPhone was responsible for Nokia's downfall but I beg to differ. Nokia had completely lost focus during that period and since then have not been able to recover. Nokia released phones like N8, X7, E7 etc while these phones had superior design and specs in terms of camera and music they were way behind their time in terms of hardware specs and software and also overpriced for their specs. Obviously no one would buy an N8 for 23k if u can get a Galaxy S for 20k. Maybe some would, just for the camera but would the majority? The thing I respected about Nokia apart from build quality was their updates. They delivered updates to even old phones with some new features though the phones were about 2 years old and they quickly pushed Anna and Belle to the newer smartphones. Their late realization and inability to keep up with the pace of evolution of smartphones lead to them being dethroned! That being said they still had **one trump card they didn't even know about.**

It is a well known fact that Nokia was once king of the world of cellphones. But sadly that is not the case anymore. Infact now they are fighting to maintain their very existence! Nokia dominated the market with phones that had build quality and substance and were not overpriced for their time.

After having used Anna and Belle on my friend's phones I can safely say there is not much to give competition to Android or IOS that are currently leading the smartphone market but **Meego** on the other hand is one OS that grabs your attention. Most of you probably haven't heard of this OS but those who have and have been lucky enough to try it out are almost certain that Nokia could have made a huge comeback with this OS.

After a long time Nokia had crafted a beautiful phone and called it **N9** (which later became the inspiration for Lumia 800 and 900) which ran Meego, an OS entirely based on gestures! The user interface was refreshingly new and something smartphone users were dying to see but unfortunately there was no app environment to support this masterpiece. Nokia had decided to give up on Meego and focus on Windows Phone OS (WP).

While some might say this was a good move I believe it was a huge mistake. Nokia was known for its superior build quality and hardware and had they chosen Android I feel Samsung would never have risen to the top, but they didn't and WP7 was a mere baby that had many basic features lacking (example: support for expandable storage and multicore processors).

Once as I was strolling around in a mall in a popular electronic store I overheard a couple wanting to buy a Nokia Lumia. They asked one of the sales boys to explain the advantages and disadvantages of the phone. The sales boy told them to go for an Android because the Lumia lacked one absolute basic feature, **Bluetooth File transfer.** Of course this flaw was to be eliminated by an update to 7.8 which is going to be pushed through sometime soon but not everyone kept track of the happenings of the mobile world like you and me.

Having covered all the aspects where Nokia have failed, I would like to narrate a story where Nokia doesn't fail and continues their rule over the smartphone world. So here is how it goes - After Symbain s60, Nokia introduces Meego smartphones, also Nokia releases an android smartphone, Nokia app developers are focused on Meego. If Windows managed to survive and reach WP8 then Nokia releases a Windows phone too. This way Nokia would have had its path secured and with companies like Scalado acquired, I'm sure they would have created something really special in the camera phone or smart camera department too. Apart from this, Whatsapp would have secured Nokia from BBM threat too.

What Nokia should do now to come back? (Personal thoughts)

Try to become the manufacturer of the next Nexus phone. That will be a huge step towards success, one that can push Nokia right to the top. All Android and Nokia fan boys would unite together and purchase this phone. There will be birth of a new fan club "**Noki&droid**". The Power of Android with the build quality and phone designing, expertise of Nokia would be an absolute BOMBSHELL combination.

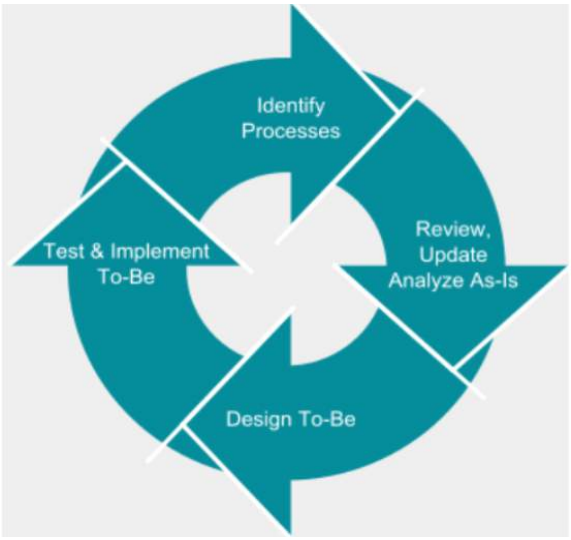
Wait and watch the success of Jolla and license/reacquire Meego. This one too can result in overall progress of the firm. I truly believe in the potential of Meego and if it can run Android apps somehow I feel this one is going to take over!

Sit and pray to God that Microsoft can actually turn the tables for them. By some magical power (support of developers) WP manages to become better than Android and IOS and also the upcoming BB10 OS.

ANIKET ACHARYA
TE CMPN B

Business Process Re-engineering

Business Process re-engineering is a business management strategy, originally pioneered in early 1990s, focusing on the analysis & design of workflows & business processes in an organization. Today organizations are managed today by a set of principles that have evolved since the beginning of the industrial revolution. This revolution started with the concept of division of labor, conceived by Adam Smith in 1776. According to this concept instead of one craftsman making an entire product (such as a shoe or a pin), several people would make the product each specializing in one task. Each task would be relatively simple, so it would be easy to learn. This would reduce the long apprenticeship periods. In addition, when people specialize in these simple tasks, output can increase. This situation led to cheaper products and higher demand. Since the tasks were simple, they were easy to automate when machines were introduced. Business Process re-engineering (BPR) is the process of rethinking & redesigning the way, work is done to better support an organizations missions, strategic goals, & customer needs.



Business Process Re-engineering Cycle

Within the framework of these assessment of mission & goals, reengineering focuses on the organization's business process & automation of the services provided by the company. Automation reduced the price of products further and further, and factories became larger and larger. Instead of producing for customers after an order was placed, products were produced in large quantities and sold in the market place. Several principles and methods were created over the years that enhanced the development of the Industrial Revolution.

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Business Process Re-engineering Framework

NIKHIL JAIN
TE CMPN A

Group Discussion- An exchange of Knowledge

A group discussion is a process where exchange of ideas & opinions takes place. In today's world group discussion (abbreviated as GD) has become a necessity in corporate world. It is necessary that we become confident enough to express our views which are facts and not myths. A GD, unlike elocution, is a many-to-many interaction situations where participants express their ideas about the topic under discussion.

In a group discussion, members within the group are judged based on 4 parameters mentioned below:

1. Content
2. Communication Skills
3. Group behaviour
4. Leadership Skills

A GD, unlike elocution, is a many-to-many interaction situations where participants express their ideas about the topic under discussion.

Here is some useful insight that might help to clear the GD:

1. **Knowledge about recent subject, matters:**
   - One should have a better subject knowledge and be aware of the latest happenings not just in the residential country but also the surrounding world.
   - Know some economic and finance terminologies like GDP of India, primary, secondary, tertiary sector of India, etc.
   - Subject knowledge is a prerequisite while preparing for group discussion.
   - Read domain-related magazines that are rich in content. That might be beneficial in the long run.

2. **Listening skills are essential:**
   - Listen to the topic carefully and understand it.
   - Be an alert and vigilant listener.

- Carefully listen to others in the group has to say.
- If the speaker is making an eye contact to you remember to acknowledge him by using relevant gestures for e.g. nodding of head.
- Deviating from the main topic or passing strong comment like “I agree or Disagree.” should be avoided.

3. **Pay attention to your body gestures:**
   - Body language plays a vital role and conveys more than what is spoken to the viewers and listeners.
   - Eye contact of the speaker who is placing his point of view conveying it to the group is important to be maintained. This will also show that you are a vigilant and active participant in the discussion.

1. **Maintain balance in your tone:**
   - The panellist dislikes it if you raise your tone in objection to any of your group member's point of view.
   - Listen to his or her point of view and instead of dismissing it upfront, try to draw common ground.

2. **Try to be the first and also the last to speak:**
   - It is said that initiating a group discussion is an advantage, closing it too adds brownie points.
   - Grab the opportunity to close the discussion and summarise it.
   - If the group has not reached a conclusion, try and conclude it.
   - The conclusion should be brief and concise and no new point should be spoken in the summary.
   - The conclusion should not dwell only on one side of the group but incorporate all the important points discussed in a group discussion.
   - Always remember, this is also a risk. Do this only if you are confident enough that you will get it right on the spot. Vague introductions and conclusions might ruin your impression on the panellists.

3. **Remember it's a group discussion, not a debate:**
   - Always remember that it's a group discussion where the pros and cons of the topic are just discussed, not debated. You don't have to prove that what you think is right. You have to present your views (both pros and cons) in a balanced way.
   - Whenever you want to present a view in opposition to the other participant, start with “That is one perspective, but the other one is…” or something similar to that. In short, present a view in opposition assertively.
   - Whenever you think the entire group has turned the GD into a debate, and if you're sure of it, you can cut in and stop everyone reminding them that it's a GD and not a debate.

1. **Motivate people who are not speaking in the group to speak:**
   - Whenever you see someone who is a part of the group and not speaking in GD, prompt them to speak, but do it silently with gestures. The panellist might notice you doing that and might think you are a person who motivates others to take part.
   - You can also ask loudly for the views of that participant in the end of the GD. If that participant still has nothing to say, it's their problem. This will show that you are a team player and you do consider every team member's opinions.

EXAMPLE:

Topic: CRICKET HAS SPOILED OTHER STREAMS OF INDIAN SPORTS

Number of participants: 5

Time: 20 mins

Rahul initiated:

Good Morning everyone, it is my pleasure to be seated with you all for this exciting discussion. Let's fully participate in this and try to come up with a concrete end remark.

I think, it is not justified to think cricket as a national obsession. It is one game through which we Indians are able to hold our heads high. We won two world cups and have been on top in tests for two odd years. Whatever it has brought is quite appreciable. In other sports as well, like Abhinav Bindra winning gold medal in Olympics, Indian hockey team winning 8 gold medals in past, etc are also highly appreciated. But it is also a fact that it happened when televisions and internet were on full bloom. But, in 1983, when India won the World Cup, the televisions were just becoming popular. Still, cricket fever was high on everyone's head. That made it more popular than any other sport. Almost every Indian wants to play cricket in streets. Cricket is, and will be the most popular sport in India although I hope other sports also will do well.

Himanshu said:

Good Morning friends.

I don't think cricket as a national obsession is a deterrent to other sports. Cricket has got popularity because of the legends cricket has given to us, like Sunil Gavaskar, Kapil Dev, Sachin Tendulkar, etc. Just because of the achievements that these peoples have made in the game of cricket, it is appreciated so much in India. Recently, if we take an example, shooting became popular when Rajyawardhan Singh Rathore won silver in Olympics, just after that we won lots of medals in shooting. So, if we want other games to be equally appreciated, then we need some great legends in those games too. I believe that if great players emerge in other sports as well, then definitely they will get as much appreciation as cricket in this country.

Smriti said:

Hello everyone, I do agree with my friend here. Even I don't think that cricket has hurt any other sports. I think that cricket is more interesting and full of excitement just because cricket has a very interesting format and that is why it has become so popular and loved by all. It is followed as a religion in India and the cricketers are worshiped as God in our country. But also, the fame that cricket has given to India has to be taken into consideration. As far as other sports are concerned, they have not lost their importance. Whether it is tennis, badminton or hockey they are still very popular. But yes, it is a fact that cricket is more popular and followed by more people.

Mayank said:

Hello friends.
As the topic suggests, that cricket is detriment to other sports, I quite agree with it. It is because:
1) Cricket game is promoted by the way of advertisement.
2) Cricket sport stars are being seen in most of the advertisements related to cricket or promotion of any other product from honey to alcohol and potato chips to insurance.
3) One of the main reasons for the game of cricket being preferred is when there is a match between India and Pakistan. And the way it is advertised on the news make cricket not only detriment to other sports but to national peace.
4) In newspapers, most of the sports page is filled with cricket news, wherever it is held. So, along with cricket, the Indian media too, is playing the role of detriment to other sports of India.
Media has the highest power today in our country. If it wishes, it can change the shape of sports too.

Abin said:

Hello everyone.
I don't, at all, think that cricket is a detriment to other sports. But, it is the Indian people's supportive spirit towards cricket that is destructing to other sports. Most people do not even know that India has teams in Hockey, Rugby, Soccer, Basketball, etc. I feel mortified to know that a huge nation like India does not support its athletes. I hope that we will recognize our players from all games and support them in their respective fields.

Rahul said:

As I said earlier, according to me, cricket is not at all detrimental to any other sport, it is suppressed by ourselves, we-the people are totally responsible for that. Well, I think that there is no comparison between 2 sports. Each has its own existence, so how can cricket suppress the other sports? It is just the matter of fact that Indian people are crazy about the cricket. So the comparison lies not in sports but in our thinking only. Few days ago, the Economic Times conducted a survey to find out who inspires the people in the field of sports and the results announced that almost -

Sachin Tendulkar inspires 43% of the people
M.S Dhoni inspires 35% of the people
Saina Nehwal inspires 11% of the people
Vijendra Singh inspires 04% of the people
Abhinav Bindra inspires 04% of the people

This survey observed that a total of 78% of the people surveyed were inspired by the cricketers. That shows the craziness of the people towards cricket.

Mayank said:
Well, I personally feel that obsession with cricket is a detriment to other sports. It is all because of the way it is promoted. It is just like in the case of a movie, if a movie is hyped about, all of us go to watch it. But at the same time, some epic movie just gets neglected because of poor advertisement. Also, it is not the case that there is less talent in other sports. If other sports are unable to match up to the expectations, it is only because of improper training due to lack of finances and government support.

Smriti said:
Well friends, although I like and support cricket a lot, I feel that unintentionally only, but cricket has come to a point where it has become detrimental to other sports. You can see amongst yourself only, that how many of us watch other sports played by Indian sportsmen. Of course, a handful! Why is it so? One definite reason could be the hype that cricket gets through the media. People not only watch the match with shear attention but also the pre and post-match shows. Other main reason is the investment of money either by the Government and/or, now as we can see, by the business individuals which lures young minds to have a great profession in cricket. Lastly, I would say that the Government should definitely see to this and take necessary measures to allow other sports to perpetuate.

Abin concluded:
Now, if we conclude our discussion I would like to highlight the main points that were discussed.

First: Majority of us agreed that the game of cricket, in itself, is not spoiling other streams of sports but it's the audience that goes crazy for its favourite sport.

Second: Media should give as much exposure to other sports as much it does to cricket.

Third: Government and corporate people need to fund other sports as well so that they could get better training and bring home as much popularity as cricket does.

Remarks:

Team - A good team with members willing to participate as no one asked anyone to speak; rather everyone picked their own chance of entering the discussion.

SILVIA FERNANDES
BE CMPN A

"Maybe, just maybe, there is no purpose in life. But if you linger a while longer in this world, you might discover something of value in it".

We were just your normal college-going students, keeping ourselves busy with assignments, periodic tests, movie breaks and everything else in between. We all strived hard to score good in our examinations. We raced ourselves against time to ensure we completed our assignments and our journals just before the last day of our submissions. Our lives were dictated and driven by the rules and regulations defined by our institute, and by the ultimatums given by our teachers. For almost two and a half years, we functioned and operated like clones. We were a part of the 'system' we lived in. A system which didn't accept anything which was outside the norm. And this vicious cycle continued for almost two and a half years of our engineering lifespan. Until of course when we decided it was about time we changed something.

The winds of change had arrived. And we were more than just ready to breeze along with it!

6th November, 2013 was the day when me and three of my friends decided that it was time to take matters into our own hands. And honestly speaking, one couldn't have strung together a more mismatched alliance than the one formed by the four of us! The four of us had different personalities, varying skill sets and unique traits. One thing that we all had in common was the fire inside to do something on our own. The common entrepreneurial spirit inside each one of us was what bonded us together in the first place.

We started meeting up after college to discuss potential ideas for our first venture. Not that we had many back in the day. But we kept brainstorming. A lot. We came up with a variety of ideas for our potential venture in the initial couple of weeks. Some of them seemed to be worth a million bucks on paper, while some of them were downright ridiculous. After countless hours of arguing, debating and consideration, we finally decided to start up an E-commerce venture which would deal with buying and selling of academic books on the Internet. The idea sounded pretty good on paper. And the fact that we only had one other competitor (BucketBolt) in the entire country which dealt with the transactions of academic books on the Internet made our beliefs in our idea even stronger. Right about this point in time, we decided upon 'OscarBuddy' to be our venture's first name. (Writer's note: If you thought trying to come up with an original idea was tough, try coming up with an original name for your newly formed venture. A name which already hasn't been registered and trademarked. It's real hard, trust me.

We started meeting up after college to discuss potential ideas for our first venture. Not that we had many back in the day. But we kept brainstorming. A lot. We came up with a variety of ideas for our potential venture in the initial couple of weeks. Some of them seemed to be worth a million bucks on paper, while some of them were downright ridiculous. After countless hours of arguing, debating and consideration, we finally decided to start up an E-commerce venture which would deal with buying and selling of academic books on the Internet. The idea sounded pretty good on paper. And the fact that we only had one other competitor (BucketBolt) in the entire country which dealt with the transactions of academic books on the Internet made our beliefs in our idea even stronger. Right about this point in time, we decided upon 'OscarBuddy' to be our venture's first name. (Writer's note: If you thought trying to come up with an original idea was tough, try coming up with an original name for your newly formed venture. A name which already hasn't been registered and trademarked. It's real hard, trust me.).

Having decided upon a good enough name for our venture and a feasible idea to work on, we at once started learning about the basics of the market we were set to enter into. The four of us personally met about half a dozen publishers during the course of the next two months. We personally went and spoke with a bunch of retailers who sold academic books. We called up a couple of publishing houses to learn more about the costing and delivery aspects of entire business. We had even coded, designed and tested the entire website for our venture. As part of OscarBuddy, we were also shortlisted for IIT Bombay's 'Idea Validation Arena' event, as a result of which we were given the opportunity to discuss our idea with an angel investor who had some prior experience in the E-Commerce domain. His validation of our idea was what instilled confidence in us to go forth with our plan. But while the whole journey was good and exciting while it lasted, we had to eventually scrape our idea due to a variety of reasons. The idea of running an E-Commerce business which once seemed to be exciting and full of potential now seemed to be unfeasible. If this was 2007, our idea could have been huge. But in the last few years, the whole ecosystem of the E-Commerce domain in India had changed dynamically. The idea had to be scrapped due to a variety of reasons. And lack of commitment and hard work were surely not one of them.

On the bright side, we were lucky to realize the flaws and limitations of our idea that early in our execution phase. It probably would have been much harder to stop and pivot had we already started running our first venture. But since we had nothing to lose, it was easier to come in terms with the infeasibility of our first idea and move on.

After the idea of our first venture floundered faster than movie credits on a screen, we decided to venture into the data visualization and analytics sector. The data visualization domain was one of the hottest new emerging sectors in the IT industry. On top of that, we were immensely inspired by the work of a Mumbai-based startup named Pykih. They develop various kinds of data visualization and analytical tools and products, along with infographics and custom dashboards. Honestly speaking, we decided to model our new venture in its nascent stages entirely upon Pykih's business model (I confessed the same to Ritvvij Parrikh, the founder of Pykih, when I happened to meet him at Mumbai's first 'Data Meet' a few months back. Shameless pandering at its very best! Funnily, he was amused by this confession and later spent the next five minutes giving us some really valuable insights about the domain that his company worked on.).

By this time, we were no longer called 'OscarBuddy'. We wanted to scrap everything that represented the failure of our first venture. Including the name of our company. The next two weeks or so were spent in brainstorming and discussing potential names for our venture. After coming up with some good, and some really bad set of names, I came up with 'CloudClovis', and even though neither of my three teammates were impressed by what I thought was a gem of a company name at the beginning, we finally settled for it since it was the only good name that we could collectively come up with at the end of two weeks (I was also responsible for coming up with 'OscarBuddy'. So the next time you find yourself having a hard time coming up with an original and a dope name for your venture, you know just the guy who could help you !).

Our first product under the 'CloudClovis' banner was an online survey tool, named 'VAM Survey'. Now, not only did our product offered all the services that most of the mainstream online survey tools like

SurveyMonkey offered, but we also offered our clients the feature of visually representing their survey statistics using various customizable visuals and graphs. This was a major improvement from what some of the most popular survey tools in the market today offered. Instead of analyzing the data gathered at the end of a survey manually, going through the spreadsheet file that they generate, users can automatically view our auto-generated visuals, thereby helping our clients gain better insights and information in an instant. In the next few months, we ended up designing a bunch of infographics as well, including a special one to commemorate India's sixty-eight Independence Day. However, our first successful product was a feedback package product that we developed for our department in our college. Our college conducts a number of surveys throughout the year to monitor the performance of its faculties and institute. With the help of our web-based feedback tool, we helped our department to shun the traditional way of taking feedback from students using a paper, and instead developed a centralized web-based tool which not only made the entire feedback-conducting task simpler and more intuitive, but also helped our department save some precious manual hours in the process.

Collectively speaking, this year has been the most productive year of our lives so far. Today (6th November, 2014) also happens to be the one year anniversary of our group. It was exactly one year ago that we decided to step outside our comfort zone and start a venture together. Here's a recap of the things we experienced in the last twelve months: started a venture and failed, got shortlisted as part of the selected few teams from all over India in an event hosted by IIT Bombay, met a number of investors and startup founders, worked with about a dozen clients and helped them in their business and professional activities, got the chance to present an idea in front of an angel investor, started a second venture after our first venture never took off, collaborated with a startup in their projects and managed to develop a product which helped our college save some valuable manual hours. It has been an eventful year so far, and we still have a lot to accomplish before this year bleeds into a new year. We are currently working on developing a couple of analytical products, and have also been pursuing some other opportunities outside our domain.

tWe may or may not succeed in our second venture, but we will sure have a lot of fun along the way. Because even though it may sound clichéd, but it's not really about the destination, but it's the journey that gives us happiness.

Finally, it's about time I introduce the four guys (including myself) that form the current team of CloudClovis, in chronological order:

Abhinav Garole: He's the only artist amongst us artistically-impaired group of individuals. Handles anything and everything that requires the use of Photoshop. Mastermind of the aesthetics you see on our application's UI. He's also a front-end developer.

Kiran Iyer: If our source code includes JavaScript, you can automatically assume it was he who wrote that script. Handles almost all the incoming and outgoing business phone calls on our behalf. He, along with Abhinav, is also a front-end developer.

Manas Chaturvedi: He likes writing silly Python scripts to implement various web scraping tasks in our applications. Handles almost all the content that you see on CloudClovis' webpage and official Facebook page. If you happened to communicate with our team via E-mail, automatically assume he's the guy who composed that message. He's also a backend developer.

Paras Jain: Probably the best programmer in the team. Loves writing complex Python code to automate various processes in our applications. A sucker for writing optimized code. Spends most of his time rewriting most of Manas' unorganized and brute-forced Python scripts. He's also a backend developer.

MANAS CHATURVEDI
BE CMPN A

How I Became a CEO at 21

My story from a blog a to online marketing for corporates.

It all started off when I was 20 and was exploring engineering (I was pursuing Bachelor's of Engineering back then). Ethical hacking, app development and networking amused me, loved the way packets and data flows!!

These things interested the true nerd in me and off I was to working with some corporate as a junior product developer of a junior software developer next year. Still unaware of what was to come, I often use to look at my dad as a role model but never was interested in working for myself. His story starts with working at the minimum pay grade then working his way up to be the biggest competitor for and then ultimately crushing the “evil boss”. Sounds pretty dramatic but in a nutshell, that was it! His story always inspired me and there was not a single occasion where I never mentioned it at any relevant event.

So back to me, exploring the knowledge that was online and how could I learn to be better, I stumbled across a statement on a hacking forum (which I will not mention) here.

— “$100 to who can hack my friend's blogger account!!”

This was more than enough for me to start exploring even further and I came to know only then that Blogger was owned by Google — The Search Engine Giant. This might dishearten the lot as an organization that big was sure short bound to have the best security possible ergo, it was not the “friend's blog” that was to be hacked but Google instead. I cannot or rather will choose to not say about I did it or not or how I did it, If I did it but I will say I took up the challenge on my own to hack a random blogger account and cause no harm (I was an ethical hacker, if you remember). I thought, if I succeeded, I would pitch this to Google and grab a position as maybe the next Network Admin or Cyber Security Head maybe, who knows!

So I started off with first creating my blogger account and my blog — Android help and then tried to know the working of the overall functionality of the site and how it handles data, enables communication with other google products from within. This gave me ideas and I was working on them when one day, I messaged a friend of mine — Dustin D'Costa to do me a favour and try and trick AdSense, they are smart, I got blocked, no doubt there! By this I successfully finished the first step of setting up a startup — Fail First and then Improve. Later Dustin Introduced me to his friend Richard who was into Digital Marketing back then. Together we started off with a self hosted Wordpress Blog — How To Save Taxes. We received over 600 visits per day and 100+ members in our forum but it still ended up as a flop due to lack of continuous

original content and the development time it took! The 6 months period then made me realize how difficult it is to set up a functioning, indexed and lead generating website and then market it altogether. Its a really cruel world out there for content marketers with no big initial contacts!

With that lesson learnt very well and the motivation to becoming an entrepreneur like my father, I set up on a mission to deliver these services to those who would rather not directly spend their own time on this. This was how and why I started with The Website Walas . The first 3 months were spent bunking college , skipping assignments and simply learning how to do this fast, quick and efficiently. I studied about all the google algorithms, CMSes in the market for websites, complimentary services and started off with the business itself after the first three months of market study and research.

Soon, I was introduced to my first client by my brother and then,
Marketing Head at The Website Walas — Sanjay Yadav (Owner of Easy Riders Custom Motorcycles) who was coincidentally in need of a website when I first started. So there I was, working hard day in and day out to finally have this as the finished product —

The client was happy and so was I and then off I started working first on direct sales, then inbound marketing for Easy Riders Custom Motorcycles. This helped me grow more connections, carry leads, work on similar project for them and ultimately to writing this post today.

In conclusion, I will repeat what my father always says,

"Being an Entrepreneur is not difficult, you just have to be patient and ready to devote time and hard work, rest works out just fine!"

KRISHNAKANT MISHRA
BE CMPN A

Hack Learning

I like Lego blocks, its amazing the kind of wonderful structures you can build by organizing these tiny pieces of plastic. The same thing goes with basic concepts in the STEM fields as concepts are the basic building blocks of learning, if you know how to use them you can use them build amazing things. However, learning often requires a good amount of investment with respects to time and practice. There is obviously no alternative to practice but you can hack through the learning process to learn more things in less time.

The whole idea of practicing while learning is to gain substantial amount of experience working with the concepts so that you understand them well and get a know how about when to use which. The learning curve might look steep, but it flattens over the course of time when you gain experience. What if you can speed up the process by stealing or acquiring someone else's experience? Actually you have been doing it since childhood (education!). Below are some of the hacks I have been using personally to speed up my technical learning process:

The learning curve might look steep, but it flattens over the course of time when you gain experience. What if you can speed up the process by stealing or acquiring someone else's experience? Actually you have been doing it since childhood (education!).

Communities and Local user groups

Start attending developer/community conferences and interact with people working on similar technologies, ask questions, share experiences. There are many local user groups and forums, if you can't find one, try building one. Generally, its easy to find open source community groups which conduct regular meetups and events.

These meeting groups contains members with varying level of expertise ranging from experts to first timers. Meetups.com is a good place to start looking for meetup groups related to topics you might be interested about, however it not the place you can come to know about such events. In Mumbai, the Mumbai Technology Meetup group is every active and have monthly meetups.

Mailing Lists and Forums
Follow mailing lists/forums of tools/technologies you use/are interested in. Reading and participating discussions on such forums will help you build a thought process for solving similar problems and also you will come across new things that you might not be aware of (depends on the mailing list/forums). If its hard to determine which lists to join, join all of 'em, and stick to those which seem relevant, ignore or unsubscribe others.

Don't hesitate to ask questions, no matter how naive they may seem, but be sure to have tried solving the problem yourself first.

Apart from mailing lists and forums, another means of communication which developers use a lot especially in the open source community is IRC (Internet Relay Chat). IRC has channels which start with a #. There are various companies which provide IRC hosting for free, the most well known of them being freenode.net. For example, the official channel for Linux discussions is #linux on freenode.net. Anyone is free to join the IRC channels and participate in chats.

Find mentor(s)
If you follow sports, the best part about any major league is having a team which consists of both seasoned and young players. I can't stress enough on how important it is to learn from the experience of others. If you have a mentor who you can ask for guidance, it is by far the best hack that can be. More often than not you can find mentors on the various channels of communication I have listed above.

A mentor who has already worked in your field of interest can not only guide you but also warn you about possible pitfalls you might come across. This is an invaluable asset for any newbie.

Stay updated
Watch out for new stuff happening around you. If you are interested about something subscribe to the online forums/groups.

For general as well as topic-centric discussions, Reddit.com seems to be a good place to start, you can subscribe to subreddits about the topics you are interested in. Reddit is one of the most active online communities out there.

For the tech enthusiasts, news.ycombinator.com is a great place to learn about all the new and latest stuff happening. There are other sites like ArsTechnica as well which are pretty up to date about the happenings in tech world. Social networks like Twitter and Quora are great resources to get started with for newbies.

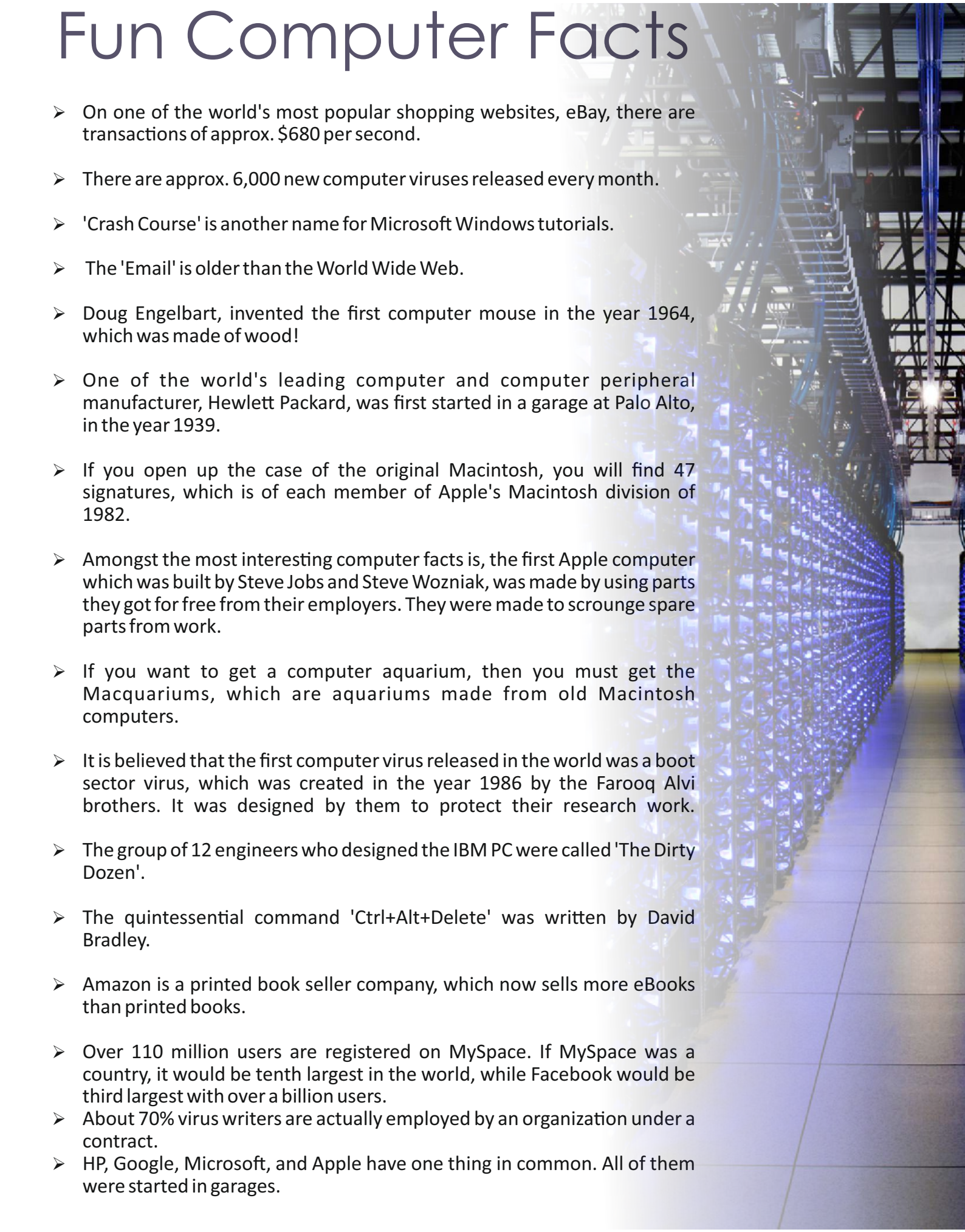
DHRUV BALDAWA
2012 BATCH

Student Achievements

NAME	ACHIEVEMENTS
Nimit Bhargava (BE CMPN A)	Oracle Certified Professional, Java SE 6 Programmer, cleared it with 95%.
Manas Chaturvedi, Paras Jain, Abhinav Garole, Kiran Iyer (BE CMPN A)	Cofounded an online venture named “CloudClovis” which was shortlisted for IIT-B's “Idea Validation Arena” event in E-Summit 2014.
Ankita Garge (BE CMPN A)	Oracle Certified Professional, Java SE 6 Programmer, cleared it with 82%.
Ritu Khetan, Silvia Fernandes (BE CMPN A)	Initiated the CMPN Department Technical Magazine, Nimbus.
Sahana Nayak (BE CMPN A)	Received a JRD TATA scholarship.
Vicky Singh (BE CMPN B)	Won Infosys Campus Connect Coding Contest (received
Anurag Singh, Kanhayalal Suthar (BE CMPN B)	Won Infosys Campus Connect Coding Contest (received certificate at state level). Stood 15th at global level for Codevita 2014.
Darshak Mehta (TE CMPN A)	Delivered a seminar on Competitive Programming. Organised 5 Programming Contests: CodeCyphers 1.0, 2.0, 3.0, 4.0, 5.0. Competitive Programmer:CodeChef (Rank: 1687).
Alisha Raul (TE CMPN A)	Received a JRD TATA Scholarship.
Chaitali Dalvi (TE CMPN A)	Received a JRD TATA Scholarship.
Rohit Karotia (TE CMPN A)	Received a JRD TATA Scholarship.
Manish Yadav (TE CMPN B)	Won college level coding competition held by Accenture. Assisted teachers in E-yantra Robotics Teacher's Competition (Minesweeping). Secured 1st place in Blind C Coding Competition, Universal College. Selected for Worldskills Mobile Robotics Regional Competition. Was semi-finalist at VJTI's Robotics Challenge, Technovanza.
Rohit Vishwakarma (TE CMPN B)	Procured a bronze medal at district level for taekwondo

Dhanashree Vandekar (TE CMPN B)	Oracle Certified Professional, Java SE 6 Programmer.
Ashwin Suthar (TE CMPN B)	Oracle Certified Professional, Java SE 6 Programmer, cleared it with 80%.
Saifin Maknojia (TE CMPN B)	Oracle Certified Professional, Java SE 6 Programmer, cleared it with 95%.
Ashwani Paliwal, Ritesh Giri (SE CMPN A)	Attended the SPECPOLL Committee of VJ-Model United Nations-2014 as a dual delegation and were conferred with the citation of Special Mention. Held the 5th rank at Manifesto '14, a national level manifesto competition, held at IIT-Bombay.
Vedant Khandelwal (SE CMPN A)	Secured 4th position in coding competition at *Augmented Reality* Workshop held by Technophilia Systems.
Shubham Maheshwari (SE CMPN A)	Procured a bronze medal at district level for Taekwondo.
Bhalchandra Naik, Vedant Khandelwal (SE CMPN A) Manish Yadav (TE CMPN B)	Cleared first round in *E-yantra* National Level Robotics Competition held at IIT-Bombay (one of the first 200 teams out of around 3000 teams).
Bhalchandra Naik (SE CMPN A)	Coined the name “Nimbus”, designed logo and the layout for the first CMPN Department Technical Magazine.

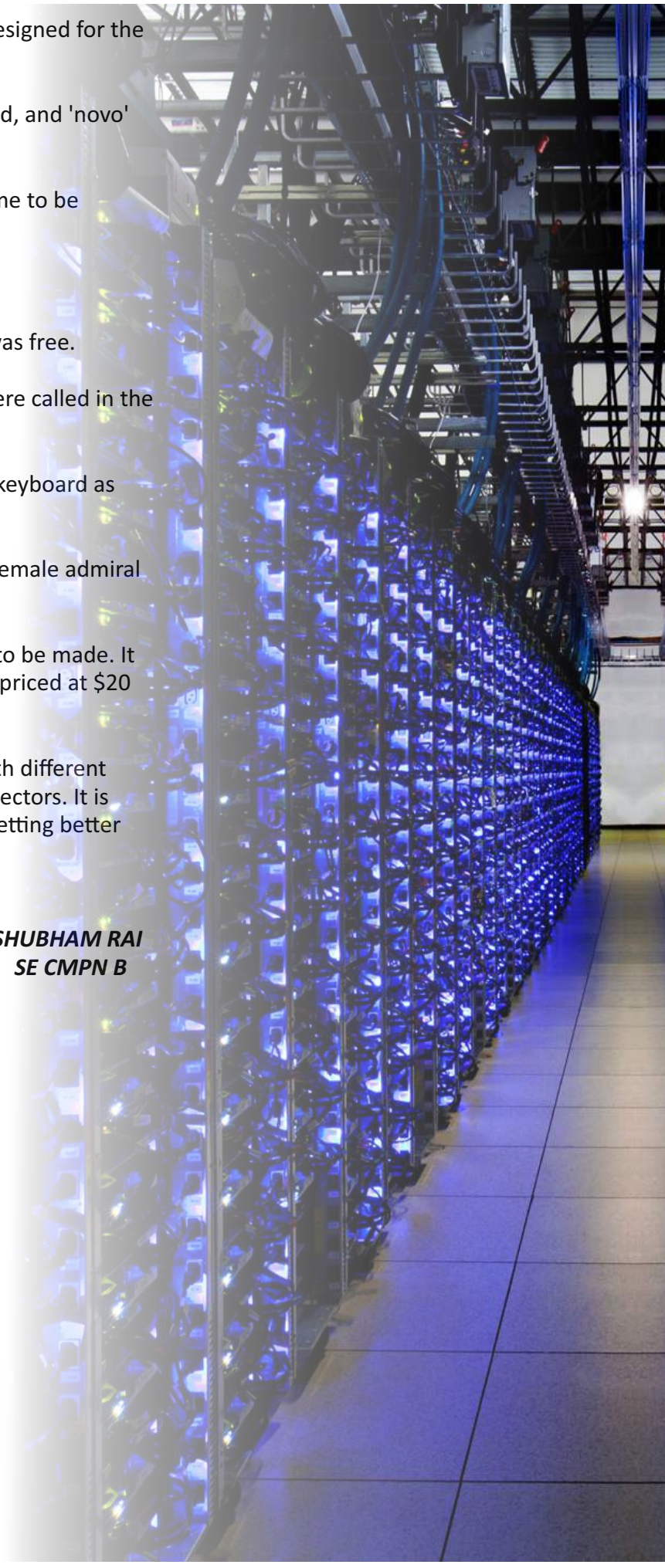
Fun Computer Facts



- On one of the world's most popular shopping websites, eBay, there are transactions of approx. $680 per second.
- There are approx. 6,000 new computer viruses released every month.
- 'Crash Course' is another name for Microsoft Windows tutorials.
- The 'Email' is older than the World Wide Web.
- Doug Engelbart, invented the first computer mouse in the year 1964, which was made of wood!
- One of the world's leading computer and computer peripheral manufacturer, Hewlett Packard, was first started in a garage at Palo Alto, in the year 1939.
- If you open up the case of the original Macintosh, you will find 47 signatures, which is of each member of Apple's Macintosh division of 1982.
- Amongst the most interesting computer facts is, the first Apple computer which was built by Steve Jobs and Steve Wozniak, was made by using parts they got for free from their employers. They were made to scrounge spare parts from work.
- If you want to get a computer aquarium, then you must get the Macquariums, which are aquariums made from old Macintosh computers.
- It is believed that the first computer virus released in the world was a boot sector virus, which was created in the year 1986 by the Farooq Alvi brothers. It was designed by them to protect their research work.
- The group of 12 engineers who designed the IBM PC were called 'The Dirty Dozen'.
- The quintessential command 'Ctrl+Alt+Delete' was written by David Bradley.
- Amazon is a printed book seller company, which now sells more eBooks than printed books.
- Over 110 million users are registered on MySpace. If MySpace was a country, it would be tenth largest in the world, while Facebook would be third largest with over a billion users.
- About 70% virus writers are actually employed by an organization under a contract.
- HP, Google, Microsoft, and Apple have one thing in common. All of them were started in garages.

- The Apollo 11 Lunar Lander which was used to travel to the moon, has less processing power than the processor of a cell phone.
- Out of the 1.8 billion Internet users, only 450 million can speak English.
- In 2011, one out of every eight married couples had met online.
- The first 1GB hard disk, announced in 1980, weighed about 550 pounds, and was priced at $40,000.
- On a Qwerty keypad, Alaska is the only state that can be typed using one row of keys.
- A normal human being blinks 20 times a minute, whereas, a computer user blinks only 7 times a minute!
- The house of Bill Gates was designed using a Macintosh computer.
- Sweden is a country with the highest percentage of Internet users (75%).
- 'Mosaic' was the first popular web browser, released in the year 1993.
- I am sure most of us must have played the game Tetris. Since the time it was created in the early eighties, it has sold more than 40 million copies worldwide, which made its creator richer by $8m.
- Almost all computer users must know how destructive a virus can be. But then, it would be interesting to know that a virus cannot corrupt your PC on its own. It corrupts your system only when you activate it, by either downloading infected files from the Internet, or by sharing these infected files.
- Computer circuitry can be destroyed by static electricity. It is so mild for humans that we don't even feel it.
- The Nvidia GeForce 6800 Ultra chip has maximum numbers of transistors on it, approx. 222 million of them.
-
- 'Stewardesses' is the longest word which can be typed with only the left hand.
- Today, we find hard drives up to 1TB, but did you know, the first hard drive was created in 1979, and could hold just 5MB of data.
- Interface Manager! That's what Windows was originally named.
- If your work involves the extensive use of computers, then by the end of your average working day, your fingers would have traveled 12.6 miles.
- If you find a way to hack Facebook, the company will pay you $500. Hackers, go for it.

- The first microprocessor, Intel's 4004, was designed for the Busicom calculator.
- Lenovo stands for 'new legend'. 'Le' for legend, and 'novo' stands for new.
- Symbolics.com was the first ever domain name to be registered.
- 80% of the emails sent daily are spammy.
- Until September 1995, domain registration was free.
- 'Electronic brains'! That's what computers were called in the 1950s.
- One can type 20 times faster using a Dvorak keyboard as compared to using a Qwerty keyboard.
- COBOL language was developed by the first female admiral in the US Navy, Admiral Grace Hopper.
- 'ShenMue' is the most expensive game ever to be made. It was developed for Sega Dreamcast, and was priced at $20 million.
- The uses of computers today are endless, with different types of computers being used for different sectors. It is good to see how the world of computers is getting better than ever.



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-Student members of the magazine committee

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