Mahavir Education Trust

SHAH & ANCHOR KUTCHHI ENGINEERING COLLEGE

Chembur, Mumbai-88

PERCEPTRON

COMPUTER ENGINEERING DEPARTMENT

2016-2017

VISION

To develop computer engineering graduates with engineering and managerial skills to acquire high end positions that are globally recognized.

MISSION

To impart computer engineering knowledge and to provide exposure to the latest technologies so that, students can solve various engineering problems and possesses social, ethical responsibilities and have the attitude of lifelong learning so as to bring about competent professionals.

PROGRAM EDUCATIONAL OBJECTVIES

• To impart knowledge of fundamentals of all the courses of computer engineering so that, the students are able to analyze, design, implement and test various engineering problems from different application domains.

• To provide exposure to latest technologies and adequate training to work as a team to inculcate among the students social responsibilities and respect towards society by creating societal environment.

• To promote student awareness on the lifelong training and introduce them to professional ethics and code of professional practices.

HOD'S DESK

Dear Readers,

A Newsletter of the department gives a platform for information exchange. This open entryway gives stakeholders the review of the departmental activities in a nutshell. With 2016-2017 issue of **PERCEPTRON,** our subject matter is moreover giving complete knowledge of the activities, in the department, with most captivating setup. I am glad to see this issue with new structure and new columns, making the newsletter lucid to anybody.

This year department has invited US Consulate representative to explain process of visa processing. A grand event, Technology Conclave-Pixel, was dealt with mind-blowing accomplishment. This conclave had brought, the seasoned entrepreneurs, the technical individuals' and the youths who have coasted new companies, on a single platform to enrich experience of the student participants. A view in the newsletter gives the idea behind the thought.

The Department has attempted considerable measure of endeavours for students, by providing a constant learning environment with staff.

This year, various events for students were conducted through student chapters of the professional bodies like CSI, IEEE, ISTE and IETE. Students have enjoyed the sessions and learned new technologies beyond their curriculum.

To enhance the skills of staff of the department and to refresh the knowledge, we have invited speakers from the industry who are specialists' in those areas. The newsletter is giving completed information about such faculty development programs, seminars and short term training programs organized. One of the prominent talks was on Patenting by Mr. Pinkesh Jain, Dy. Controller of Patents and Designs, Patent Office, Mumbai.

The Department had organized many awareness programs like Higher Education & Career Guidance, Literature Survey, Gate Awareness to name a few. We got an opportunity to conduct programs like syllabus settings, subject orientations on behalf of University of Mumbai.

Our Management and the Principal are the constant source of inspiration and this has enabled us to deal with different events reliably. I would like to sincerely thank them for their permission to bring out this issue of PERCEPTRON.

To wrap up, I would like to thank the entire newsletter team to bring out such a vibrant newsletter for the department.

EDITOR'S DESK

We are glad to bring out academic yearly newsletter of our department "PERCEPTRON". The events of high importance kept us all busy but we are never too far away to reach our readers. The issue has a lot of interesting news which will tell you how our department is always a buzz with activities underneath. It is the efficiency of our students and staff that so many activities of different flavours keep taking place throughout the year. Perceptron gives the glimpse of all these events. It provides summary of academic excellence.

Perceptron is thankful to all contributors of articles. The newsletter team has worked-constantly, with applying different views to welcoming any opinions. I take this opportunity to thank Head of Department, Computer Engineering, to give me this responsibility as Chief Editor. With support and guidance of our Principal, we are able to meet up levels of expectations towards novelty. Our Management is a strong backing pillar for excellence.

We hope our readers would like the new look of the newsletter and send us suggestions for further issues.

Best regards,

Tina Maru

Chief Editor – Perceptron.

tina.maru@sakec.ac.in

FACULTY LIST

TEACHING STAFF

SR NO.	NAME	DESIGNATION	QUALIFICATION
1	DR. BHAVESH PATEL	Principal, Professor	PhD in Technology
2	DR. VINIT KOTAK	Vice Principal, Professor	PhD in Technology
3	MR. UDAY K. BHAVE	I/C HOD, Associate Professor	B.E.(ELEX), M.E.(COMP)
4	DR. JAI PRAKASH SINGH	Professor	PhD in Technology
5	DR. REKHA RAMESH	Associate Professor	M.E.(COMP), PhD in Technology
6	MS. VIDYULATA DEVMANE	Associate Professor	M.E.(COMP), PhD in Technology Pursuing
7	MS. PINKI VISHWAKARMA	Associate Professor	M.E.(COMP), PhD in Technology Pursuing
8	MS. SHAHZIA SAYYAD	Assistant Professor	B.E.(COMP), M.Tech.(COMP)
9	MS. MAHATO MANIMALA	Assistant Professor	M.E.(COMP), PhD in Technology Pursuing
10	MR. MANOJ DHANDE	Assistant Professor	B.E.(COMP), M.E.(COMP)
11	MR. MILIND KHAIRNAR	Assistant Professor	B.E.(COMP), M.E.(COMP)
12	MR. SHASHIKANT RADKE	Assistant Professor	B.E.(COMP), M.Tech.(COMP)
13	MS. SONALI BHUTAD	Assistant Professor	B.E.(COMP), M.E.(COMP)
14	MS. VAISHALI CHAVAN	Assistant Professor	B.E.(COMP), M. Tech (COMP)
15	MS. PALLAVI DESHMANE	Assistant Professor	B.E.(COMP), M.E.(COMP)
16	MS. BHAKTI SONAWANE	Assistant Professor	M.E.(COMP) , PhD in Technology Pursuing
17	MS. DEEPSHIKHA C.	Assistant Professor	B.E.(COMP), M.E.(IT)
18	MS. SHILPA KALANTRI	Assistant Professor	B.E.(COMP), M.E.(COMP)
19	MS. KARUNA BORHADE	Assistant Professor	B.E.(COMP), M.E.(COMP)
20	MR. AMOL DHUMAL	Assistant Professor	B.E.(COMP), M.E.(COMP)
21	MS. TINA MARU	Assistant Professor	B.E.(COMP), M.E.(IT)
22	MS. DHARA KALOLA	Assistant Professor	B.E.(COMP), M.E.(COMP)
23	MS. JAYA M. ZALTE	Assistant Professor	B.E.(COMP), M.E.(COMP)
24	MS. DIPTI PAWAR	Assistant Professor	B.E.(COMP), M.E.(COMP)
25	MS. RUPALI KALE	Assistant Professor	B.E.(COMP), M.E.(COMP)
26	MR. TEJAS HIRAVE	Assistant Professor	B.E.(COMP), M.E.(COMP)
27	MS. MONIKA KANOJIYA	Assistant Professor	B.E.(IT), M.Tech.(COMP)

FACULTY LIST

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28	MS. SARIKA RANE	Assistant Professor	B.E.(COMP), M.E.(IT)
29	MS. DIPTI NIKUMBH	Assistant Professor	B.E.(COMP), M.E.(COMP)
30	MS. VAISHALI HIRLEKAR	Assistant Professor	B.E.(COMP.), M.E.(COMP)
31	MR. ATUL KACHARE	Assistant Professor	B.E.(COMP), M.E.(IT)
32	MR. ARUN S. SAKLANI	Assistant Professor(Ad-hoc)	B.Tech.(COMP), M.Tech (COMP)
33	MS.DHANASHREE THAKUR	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
34	MS. SARIKA SHRIVASTAV	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
35	MR. PRAKASH PARMAR	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
36	MS. DEEPA EKHANDE	Assistant Professor(Ad-hoc)	B.E.(IT), M.E.(IT)
37	MS. PRIYANKA LOHOT	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
38	MS. SHRUNGASHRI C.	Assistant Professor(Ad-hoc)	B.E.(COMP), M.Tech.(COMP)
39	MS. SONAL RAUT	Assistant Professor(Ad-hoc)	B.E.(COMP), M.Tech.(COMP)
40	MS. SHWETA PATIL	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
41	MS. REKHA MORE	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
42	MS. KRUPA CHOTAI	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
43	MS. RADHIKA FULZELE	Assistant Professor(Ad-hoc)	B.E.(CSE), M.E.(COMP)
44	MS. SNEHAL SHEWALE	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(COMP)
45	MR. PRADIP MANE	Assistant Professor(Ad-hoc)	B.E.(COMP), M.E.(IT)

TECHNICAL STAFF

SR NO.	NAME	DESIGNATION	QUALIFICATION
1	MS. VAISHALI TUPE	Laboratory Assistant	A.M.I.E (Comp), M.E. (Comp)
2	MS. ANITA BHOSALE	Laboratory Assistant	A.M.I.E (Comp), M.E. (IT) Pursuing
3	MS. RUPALI PATIL	Laboratory Assistant	A.M.I.E (Comp), M.E. (Comp) Pursuing
4	MS. RAJASHREE PAWAR	Laboratory Assistant	Diploma (Comp), A.M.I.E(Comp) Pursuing
5	MS. POOJA RODE	Laboratory Assistant(Ad-hoc)	Diploma (Comp)
6	MR. NILESH RANE	Laboratory Assistant(Ad-hoc)	B. Com., BCA, MCA

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SEMINAR BY 'US CONSULATES GENERAL'

Computer Engineering Department of Shah and Anchor Kutchhi Engineering College, Chembur had organized an event on studying in the US and application for Visa on the 10th of March 2017. Chief Guests were invited from Education USA & US Consulates, Mumbai to enlighten the process in a manner that was both understandable and clear.

Ms. Maria Stavropoulos, Consultant Officer in Mumbai office, Ms Tanushka Bali, Senior advisor at UNISEF, Mumbai and Ms. Behrooz Avari Education Outreach Specialist ,US Consulate, Mumbai were the speakers.

Our Principal *Dr. Bhavesh Patel* advised about the changes and the constructivism that shapes a future, the U.S. promises its aspirants. *Dr. Vinit Kotak*, the Vice Principal took this opportunity to thank the guests and encouraged the students to ask appropriate questions in order to mould their career.

Ms Tanushka Bali asked that right question—"Why the US?". She answered and illuminated each and every aspect of it. Choosing the right university, the finances, various scholarships were some of the topics she covered. *Ms. Maria Stavropoulos*, being right from the horse's mouth, guided them through the entire visa process in a few simple steps and the ways to accomplish them efficiently. *Ms Rachita Gaglani* participated in a Q&A session later.

All the speakers engrossed with the students and solved all their queries. The event was co-ordinated by *Vaibhav Tripathy, Prof. Uday Bhave* and *Prof. Pinki Vishwakarma*. The event concluded and a momento with a letter of appreciation was gifted to all our speakers.

'PIXEL' TECHNOLOGY CONCLAVE

Technology Conclave 'Pixel' was a mega event conducted by the Computer Department of SAKEC on 17th March,2017. Students from SAKEC and various colleges all over Mumbai and Navi-Mumbai actively participated In the event.

The speakers for the event were *Mr. Umesh Upadhyay, President and Director Media Reliance Industries Ltd., Mr. Chirag Patel, Senior Security Advisor Newstar Inc., Mr. Jayanti Gokhale, IoT consultant, Dr. Nitin Malekar, Prof. Bhushan Jhaveri, Prof. Gautam Agarwal, Mr. Prashant Issar, Owner of Mirchi and Mine, YouTuber Mr. Dhananjay Bhosale.*

Mr. Umesh Upadhyay discussed about convergence technology. *Mr. Chirag Patel* addressed the students via video conferencing, explaining them about the current technologies working in the US and Internet of Things. *Mr. Jayanti Gokhale* continued with explaining about the applications of IoT.

Dr. Nitin Malekar presented how combining together medicine and technology would save human life.

Mr. Gautam Agarwal enlightened the students about digital marketing and its various aspects. *Mr. Prashant Issar* and *Mr. Dhananjay Bhosale* led the students into the world of entrepreneurs, sharing their success stories with them

Students of Computer Engineering used this event as a platform to launch their applications to the masses. *Mr. Salil Deshpande* launched his application 'CODESTAR' and *Mr. Akash Parmar* and *Mr. Indresh Jotangia* launched 'E-GYAN' an E-learning platform. The Computer Department launched its first-ever newsletter 'PERCEPTRON' which was inaugurated by our Principal, *Dr. Bhavesh Patel*. The event was coordinated by student *Mr. Vaibhav Tripathy*, *Prof. Uday Bhave* and *Prof. Vidyullata Devmane.*

STTP ON IOT AND ITS APPLICATIONS

The Computer Department of Shah and Anchor Engineering College organized a STTP on “Internet of Things and its Applications” from 2nd January to 7th January, 2017. Faculties and Students of various colleges participated in this event. The event incepted with inauguration by the college Trustees and the Chief guests .

Dr. Suresh Ukarande, Dean, Faculty of Technology, University of Mumbai began the session by explaining the significance of IoT in engineering syllabus, followed by a keynote speech by *Dr. Surya Durbha, CSRE, IIT Bombay.*

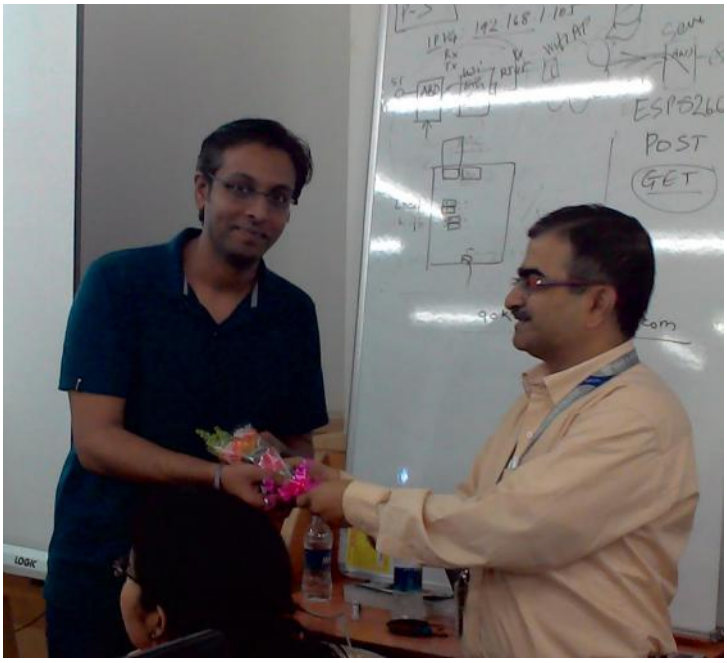
Prof. Tularam M. Bansod explained the use of IoT in business processes. *Mr. Bhanwar Bishnoi , Head– Embedded Design and development group, L&T Electrical and Automation –SDDC* explained the various applications of IoT in electrical field.

STTP ON IOT AND ITS APPLICATIONS

On 3rd January,2017 *Prof. Sapna Prabhu, FRCRE, Bandra* delivered a lecture on basics of Arduino Embedded C Programming. *Mr. Jayanti Gokhale* took a hands-on-session of Arduino kit.

On 4th January,2017 *Dr. Saurabh Mehta, Vidyalankar Institute of Technology, Wadala,* gave an overview on wireless sensors and RFID tags and explained business applications for entreprenurship on IoT platform. *Mr. Jayanti Gokhale* continued with a hands –on session for small applications based on Arduino.

The 4th Day began with *Mr. Hrushikesh Sherlekar*, *Mr. Prasad Bahalkar and Mrs. Suvidha Vadhera, TCS* delivering a session on initiatives taken by TCS in areas of Healthcare and Transportation. *Mr. Suryakant Sawant* and *Mr. Saurabh Surdhaniwar* gave an overview of Raspberrry Pi.



On 6th January,2017, *Mr. Suryakant Sawant and Mr. Saurabh Surdhaniwar,* continued their session by conducting hands-on application of IoT in agriculture. In the afternoon session all the participants visited the CSRE, IIT Bombay, where they discussed IoT in agriculture and visited the parallel computing laboratory.

On 7th January,2017 *Dr. Subhash Shinde, Chairman, BoS, Computer Engineering, University of Mumbai LTCOE, Navi Mumbai* delivered a lecture on various IoT protocols and communication models. At the end of the session each speaker was felicitated by a token of appreciation and the students were awarded certificates. The event was coordinated by *Prof. Vidyullata Devmane and Prof. Shahzia Sayyad.*

The Computer Engineering Department of SAKEC actively participated in the *'Smart India Hack-a-thon 2017'*. More than 10,000 engineering and management students from across the country produced digital solution to the problems the people face on day-to-day basis in the form of mobile/computer applications and software programs. The 'Grand Finale' was conducted across 26 locations in India during which students in 1,226 teams worked nonstop for 36 hours to build products based on their ideas. Out of the 22 teams from SAKEC, 6 solutions of 5 teams got selected for the grand finale.

Team 'Ignite' participated in Bhuvaneshwar, members including *Mr. Sourabhkumar Dolai, Mr. Khushil Haria, Mr. Keval Patel, Mr. Keval Dedhia, Mr. Rushabh Doshi and Mr. Aashay Dawara*. Team 'Ignite' received the "'Best Innovation Award". Team 'Random 6' including the same members was also the 5th runner up.

Team 'Solvex' participated in Gaziabad, members included *Mr. Pratik Kataria, Mr. Shivam Jaiswal, Mr. Ruchit Doshi, Mr. Ishank Kankaria, Ms. Akshaya Raghuthaman and Ms. Apurva Gaikwad*. Team 'Solvex' was accompanied by *Prof. Manoj Dhande*.

Team 'Tech-a-site' went to Guwahati. Members were *Mr. Sahil Pathak, Mr. Tejas Raval, Mr. Mandar Pradhan, Ms. Aayushi Doshi, Ms. Pooja Singh and Ms. Meenakshi Dolhare. Prof. Atul Kachare* accompanied the team.

Team 'Mobx' participated in Bhuvaneshwar, members including *Mr. Parth Shah, Mr. Het Veera, Mr. Shubaham Vora, Mr. Anuj Shah, Ms. Pratidyna Sawant and Mr. Veeral Jain.*

Team 'Technokats' went to Chennai. Team members included *Ms. Misbah Khan, Mr. Ronit Gaikwad, Mr. Krunal Mujpura, Ms. Medini Rao, Ms. Komal Sawant and Mr. Arbaaz Khalfe.* The HOD I/c Computer Dept. *Prof. Uday Bhave and Prof. Prakash Parmar* accompanied the students to Chennai.

Prof. Manoj Dhande and Prof. Tejas Hirave served as Single Point Of Communication (SPOC) and represented the college.

The Transform Maharashtra event was organized by the Govt. of Maharashtra on the occasion of Maharashtra Day at National Sports Club of India , Worli.

'Transform Maharashtra' provided an opportunity to the college students to come up with policy level or programme level solutions. A team of *Ms. Durita Dalal, Ms. Richa Lomate, Mr. Smit Malde and Mr. Yash Shah* had successfully presented a project on ANDROID APPLICATION FOR INDIAN SIGN LANGUAGE TRANSLATOR.

Team of *Ms. Kinjal Savla, Mr. Piyush Sahu and Mr. Devang Shah* had successfully presented a project on ANDROID APPLICATION FOR ATTENDANCE SYSTEM USING FINGERPRINT SCANNER during the Transform Maharashtra showcase hours.

Dr. Vinit Kotak, Prof. Shikha Shrivastava , Prof. Vidyullata Devmane accompanied the students.

Department of Computer Engineering, Shah and Anchor Kutchhi Engineering College is a part of local chapter for NPTEL (National Programme on Technology Enhanced Learning) which is a joint initiative of the IITs and IISc. Through this initiative, they offer online courses and certification in array of topics related to Computer Science, Mathematics, Soft Skills and various multidisciplinary categories.

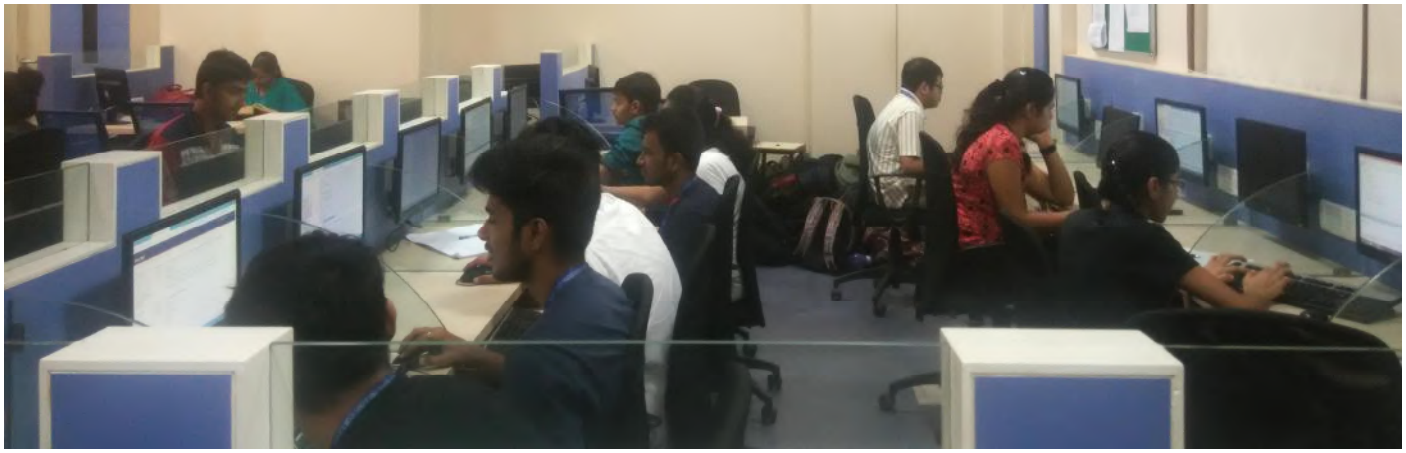
In the July 2016 - September 2016 quarter, 256 students and faculties had registered and for the January 2017-April 2017, 87 students and faculties registered from computer department. For second half, NPTEL offered scholarships to registered candidates and based on their performance 44 got approved for the scholarship.

In the July 2016 – September 2016 quarter, 16 candidates had successfully completed the course out of which 7 were awarded an Elite status and *Mr. Vivek Gawande* was bestowed an Elite plus gold with 98% . Department appreciated him for his extra ordinary performance.

In the January 2017-April 2017, 23 candidates had successfully completed the course out of which 12 candidates were bestowed an Elite status.

Faculties who registered for courses portrayed the role of subject mentors for students and also motivated them and tracked their progress. The ratio of mentors : students was 1:50.

Spoken Tutorials are software development training courses, an initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the MHRD, Govt. of India.



It uses audio-video demonstrations with an objective to impart the knowledge of technology and open source software. The Computer Engineering Department of SAKEC conducted these spoken tutorial courses - C, JAVA, Python, Linux and CPP. A test was later conducted and the students were awarded certificates by IIT Bombay.

202 students from the second year appeared for the JAVA test. From the third year, 115 students appeared for the Python test, 84 for the LINUX test and for the JAVA test. From the final year, 43 students appeared for the CPP test, 42 for the LINUX test and 153 for the JAVA test.

The spoken tutorial sessions were managed by *Prof. Sonali Bhutad, Prof. Deepa Ekhande and Prof. Dhanashree Thakur.*

LANGUAGE LAB TRAINING

A Language Lab Session to enhance the language skills of students, the college provides with language learning software.

All the faculties were trained with the software by *Prof. Sharmila G.* and *Prof. Sanjay Patil* on 16th of July 2016 .

The faculties were trained for the use of this software so that they can help students improves their English languages skills in batches during the academic year.

HTML AND CLIENT SIDE SCRIPTING

A Faculty Development Program "HTML and Client Side Scripting" was conducted on 6th of August 2016. The lecture was conducted for faculties of Computer Department by *Prof. Vaishali Chavan.*

The aim of this program was to learn basics of web page design with the use of HTML tags along with the scripting language "JavaScript" to do the validations and other dynamic functions.

Following were the topics discussed:

HTML:

HTML is a client side programming language for web page development, Web page programming is different language than other programming languages. It contains only tags which will decide the presentation of different contents in web pages also different examples covered to understand the web page design.

Then secondly they discussed about Client Side Scripting and explained how to make web pages dynamic as HTML creates only static web pages. To add dynamic things, JavaScript is used. Use of JavaScript can add different programming constructs to use of HTML tags. Syntax of different programming constructs like declaration, looping, and functions was explained.

SERVER-SIDE SCRIPTING

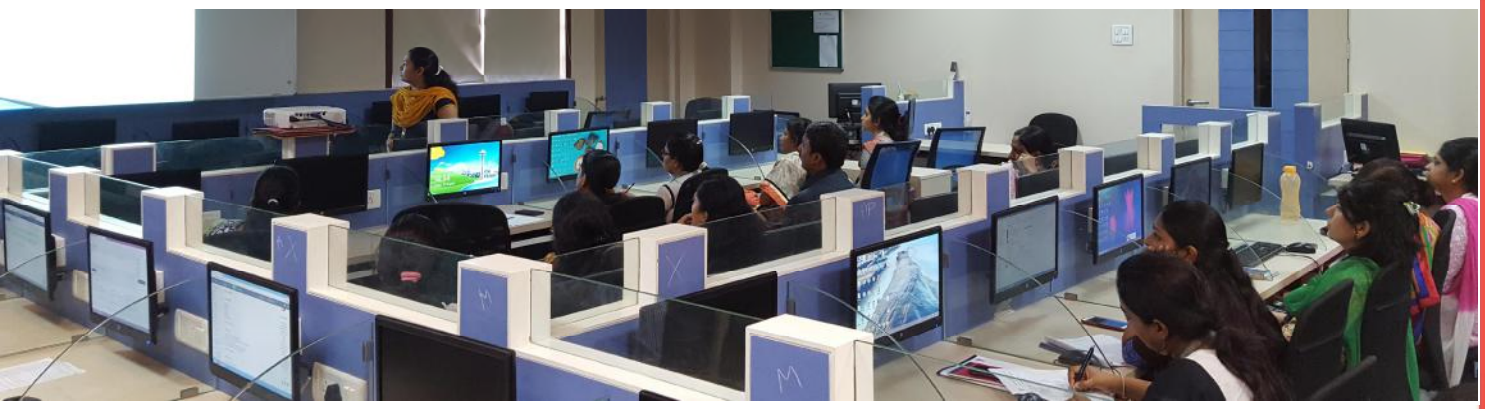
A Faculty Development Program on "Server-side Scripting" was conducted on 19th of August 2016. The Program was conducted for Computer Engineering Department faculties by *Prof. Karuna Borhade***.** Some of the topics covered were the basic differences between client-side scripting and server-side scripting along with the languages used for server-side scripting such as ASP, ASP.NET, JSP, PERL, Python, Ruby, PHP etc.

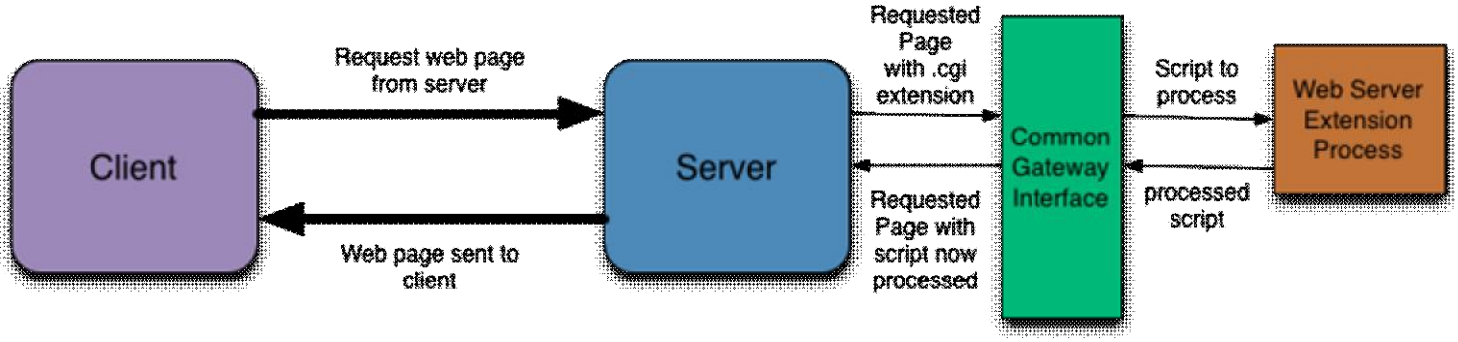
They also discussed the basics of PHP scripting along with PHP set up requirements and a demonstration on php scripts was given using XAMPP server by placing .php files in web directory and parsing automatically by server.

The topics such as MySQL functions for connecting to MySQL database server, firing the queries for database creation, table creation and record insertion and finally closing the connection was covered and demonstrated.

Also a server demonstration was given for starting the XAMPP server and connecting to MySQL database to create database and fire queries through Command Prompt.

The session on "Server-side Scripting" was conducted by *Prof. Karuna Borhade.* These techniques are useful in understanding new areas of Web Engineering.

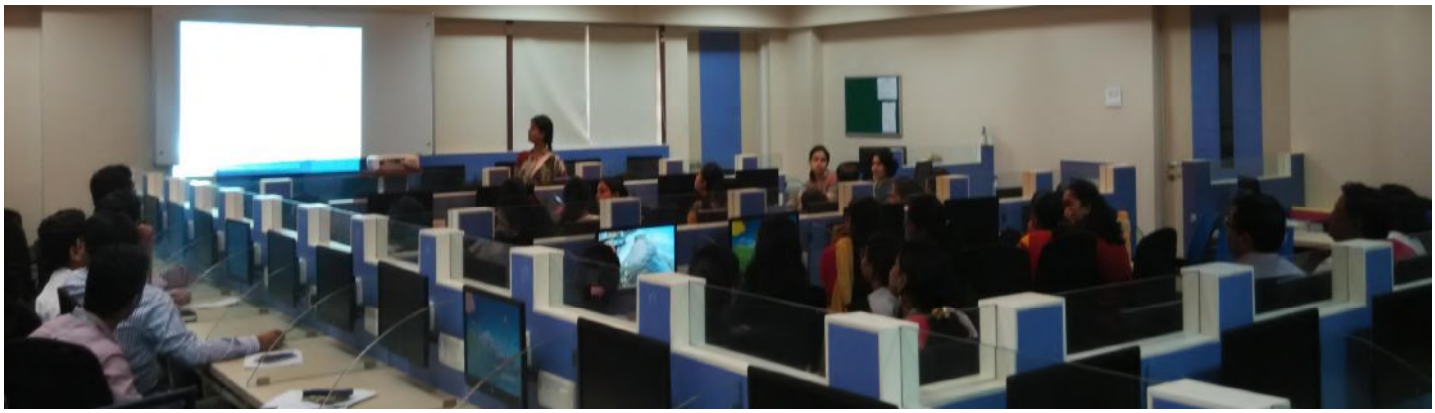




WRITING FACULTY DIARY

A Faculty Writing Diary session was held on 19th of August 2016. The Session was attended by all the staff members of Computer Engineering Department. It was conducted by *Prof. Pinki Vishwakarma.*

The focus of this session was planning lectures, practical's, assignments and internal tests with accordance with the timetable and the academic calendar for writing a faculty diary. All the sections of a faculty diary were discussed in this interactive session.



FACULTY DIARY TRAINING FOR OTHER DÈPARTMENTS

A Faculty Development Program on "Faculty Diary Training for other Departments" was conducted on 21st of January 2017.

The Program was attended by all the staff members of the Engineering science department. It was conducted by *Prof. Pinki Vishwakarma.*

The session started with an introduction about importance of Faculty diary. It showcased how to write faculty diary.

Following were the topics discussed:

- What will be the content for Index?
- How to Plan lecture according to your syllabus and Time table?
- If lecture is adjusted then make proper note for reference.
- Result analysis at the end of semester.
- Assignments with Date of performance and submission.
- Each and every field should be filled.
- How to write remark on monitoring the lecture by senior faculty?

ROLE OF IT IN AVIATION

A Faculty Development Program on Role of IT in Aviation was organized by Computer Engineering Department on Saturday, 4th of Febuary 2017 for faculties of the department. The speaker of the session was *Mr. Prakash Paranjape,* Assistant Manager, Jet Airways, Mumbai.

Mr. Prakash Paranjape started his speech with how the aviation system works. He explained the different departments and their role in flight management and also He emphasized on the importance of accuracy and response time of tasks performed in flight manage-

The areas in flight management which can be computerized were discussed. *Mr. Paranjape* concluded his lecture with scope for students to develop projects in aviation which was followed by question answer session.

The insight of flight management system made the speech very interesting as the participants could explore a totally new area. In question answer session the participants asked several questions which further enriched their knowledge about aviation system.

The program ended with a thanks giving speech by HOD *Prof. Uday Bhave,* followed by the felicitation of the speaker.

BASICS OF PATENTING AND INTELLECTUAL PROPERTY

A Faculty Development Program on "Basics of Patenting and Intellectual Property Rights" was organized by Computer Engineering Department on Saturday, 04th of feb 2017 for faculties of the institute. The speaker *Mr. Pinkesh Jain,* Dy. Controller of Patents and Designs, Patent Office, Mumbai was welcomed and felicitated *by Prof. Uday Bhave,* HOD of Computer Engineering Department.

The program began with the introductory speech by *Prof. Uday Bhave* who emphasized the importance of research and awareness of patenting procedure for the faculties of an engineering institutions. *Mr. Pinkesh Jain* started his speech with what is the meaning of patent and intellectual property rights. He explained what are the different types of intellectual property rights, importance of these rights. Then he explained the procedure of getting a patent. He also told about the patent databases available on Internet like Google Patent Database.

The session by *Mr. Pinkesh* Jain was very interactive which gave the opportunity to the participants to their difficulties cleared.

The program ended with thanks giving speech by *Prof. Uday Bhave* and felicitation of the speaker in which the Institution gave the thanking letter and presented a momento to *Mr. Pinkesh Jain.*

EDUCATION TECHNOLOGY AND TOOLS

A session on Education Technology and Tools was organized by Computer Engineering Department on 15th of February 2017. The speaker was Prof. *Rekha Ramesh,* who is pursuing her PhD. in Educational Technologies at IIT Bombay.

Prof. *Rekha Ramesh* started her speech with the discussion of Program Educational Objectives, Program Outcomes, Course Outcomes and Performance Indicators as they are specified by NBA. Performance Indicators include the various assessment methods. She emphasized that the assessment methods should make students exercise their higher order thinking skills. She explained reasons why it doesn't happen in the present system. She brought to the notice of the speakers that assessment is the problem. It is not aligned to the aims of teaching. The present system gives the impression to the students that the assessment is the curriculum.

The speaker then discuss about the solution. She further elaborated that a good question paper should have fair allotment of marks, duration, unambiguous wording of questions. She bring attention on matching of content and cognitive level of questions when setting the question paper.

Then speaker introduced the system developed at IIT Bombay meant for automated evaluation of quality of question paper, IQuE. She then conducted a quiz to demonstrate her concept further.

The program ended with a thanks giving speech by I/C HOD Prof. Uday Bhave followed by the felicitation of the speaker.

MACHINE LEARNING AND ITS APPLICATION

Machine learning is been widely used in industry to develop new Human Machine Interfaces. So Faculty Development Program on Machine Learning and its applications in Image Processing was organized by Computer Engineering department organized. The session was conducted on 4th of March 2017 by Dr. B. K. Mohan from IIT Mumbai. He elaborated some issues in satellite image processing and its analysis.

The objective of the training program is to get familiar with Remote sensing, its importance and types of resolution in remote sensing like spatial resolution, spectral resolution.

Remote Sensing provides vital data for many critical applications such as:

- Resources management.
- Environmental monitoring.
- Defense.
- Urban / rural development and planning.
- Crop yield forecasting.
- Hazard zonation and disaster mitigation.

During this session, he also threw light on current research areas such as:

- Noise Filtering with Curve lets.
- High spatial resolution image analysis.
- High spectral resolution image analysis .
- Watermarking of image and map data.
- Educational content development.

DIGITAL MARKETING

To flourish the business, companies are using Digital Marketing to attract customers. So to understand the techniques in this area, Department of Computer Engineering has organized a Faculty Development Program on Digital Marketing. The session was conducted on 18th of March 2017 by *Mr. Sunil Nalawade*. The Speaker discussed the process of building and maintaining customer relationships through online activities to generate sales and/or capture customers that are searching on the Internet for answers.

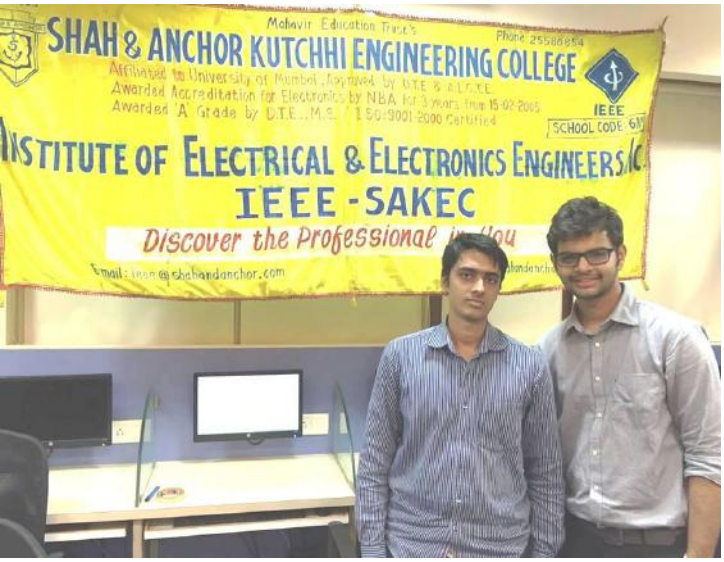
Mr. Sunil Nalawade demonstrated how to reach the right audience and how to motivate your audience to take action. He also listed diverse ways to maximize return on investment (ROI). He highlighted Pay per click (PPC) concept which is a type of sponsored online advertising that is used on a wide range of websites, including search engines, where the advertiser only pays if a web user clicks on their ad. Hence the title, 'pay per click'. He also added the advantages and disadvantages of Pay per click. He also addressed the doubts about social media marketing.

At the end of the visit he had interactive discussion on paid search and organic search in any search engine and about how to reach targeted customers. He also discussed the benefits and drawbacks of Digital Marketing.

ANDROID APP DEVELOPMENT (IEEE)

As this era of technology is mostly focused on Android, it is important to know Android Application Development and its advantages over other operating systems.

IEEE SAKEC in association with the Computer Engineering Department provided the students an opportunity to learn and develop the basics of Android Application Development. The session was conducted on 1st of October 2016 from 10:00 p.m. to 3 p.m. The speaker of the session was *Mr. Dhaval Gogri.*



Mr. Dhaval Gogri discussed coding competitions such as TGMC (The Great Mind Challenge) – IBM, ACM - IPCC (National + International Level). He also demonstrated the implementation of Android application.

By conducting this event IEEE SAKEC provided a great opportunity to learn and understand Android Application as well as to develop an application. *Prof. Uday Bhave* was present in the event.

CYBER SECURITY (ISTE)

An event was organized on Cyber Security by ISTE SAKEC in collaboration with the Computer Engineering Department on the 27th of August 2016. It was divided into two sessions, the first half was a seminar on the theories of cyber security and the second was the practical implementation of the same.

The goal of this event was to create awareness about various cyber-attacks as well as to guide in protecting their network.

The workshop was co-ordinated by *Prof. Shahzia Sayyad* in the presence of *Prof. Uday Bhave.*

CLOUD COMPUTING (IEEE)

Computer Engineering Department had organized a Faculty Development Program on Cloud Computing. The session was conducted on 1st of April 2017 by *Ms. Shital Joshi*. She discussed the use of cloud and different techniques for developing a cloud.

The motive of the program was to familiarise with the latest technologies and their use in the cloud. it encompassed the use of clouds in Internet of Things (IOT), how cloud can be useful in big data among others. It created awareness about diverse services cloud provides to the industries.

The speaker gave a lot of useful final year project ideas based on cloud computing. During the session she covered the following topics:

- Cloud versus physical clustering
- Virtualisation - storage, network, server level virtualisation
- Virtualisation platforms available today
- Hypervisors- why different than operating systems
- How high availability achieved at server storage and network level
- Governance and Capacity management in cloud
- Application migration on cloud
- Cloud security measures

NBA AWARENESS SESSION

A session for NBA Awareness was organized on the 21st of January, 2017. The aim of the session was to create awareness among the new staff regarding the NBA process and their role in it. From the Computer Engineering Department, *Prof. Atul Haribhau Kachare*, had discussed topics like the need for NBA and its various aspects. It focused on the following:

- Outcome Based Education
- Program Specific Outcome
- Program Outcome(PO)
- Course Outcome(CO)
- Laboratory Outcome
- Direct and Indirect Methods
- Program Exit Surveys
- SAR preparation of NBA.

NBA SELF ASSESSMENT REPORT

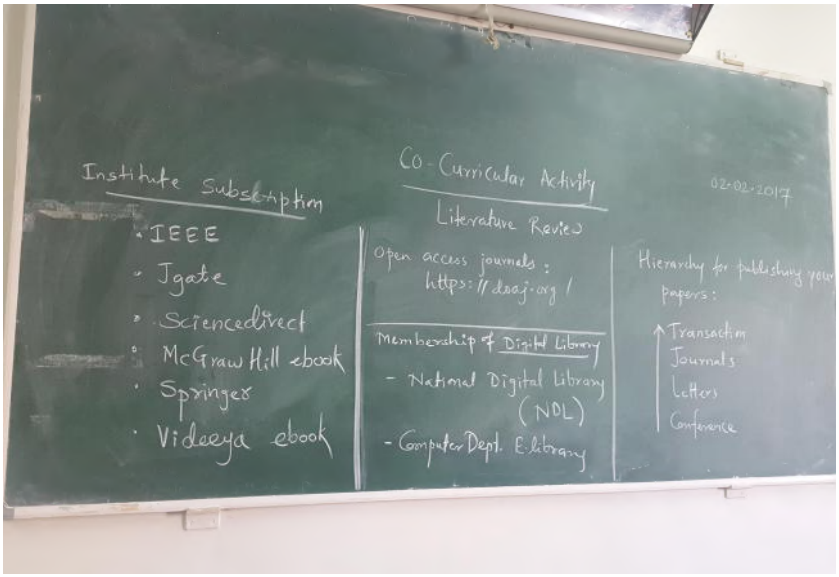
Accreditation process of NBA is followed by the college and departments. In view to self assessment, a presentation on all criteria's from B1 to B10, was held on 4th of March, 2017 for Computer Engineering Department. The criteria's are worked upon the whole year by all the faculties of department.

> "What I enjoy most is watching my ideas take shape, and eventually come to life."

They were presented by *Prof. Vidyullata Devmane, Prof. Tina Maru, Prof. Atul Kachare, Prof. Bhakti Sonawane, Prof. Rupali Kale, Prof. Shahzia Sayyad, Prof. Pinki Vishwakarma, Prof. Shashikant Radke, Prof. Sonali Bhutad, Prof. Shilpa Kalantri* and *Prof. Uday Bhave.* The session was attended by faculties from all departments. The session was very much interactive. The session was concluded by *Prof. Uday Bhave.*

LITERATURE SURVEY SESSION

For the Computer Engineering Course, maximum number of final year projects should be in-house and research based as per Mumbai University. So to give basic understanding of the Literature Review, *Prof. Vidyullata Devmane* presented a talk to the Third Year Students on 2nd of February, 2017.



Points discussed during the session were as follows.

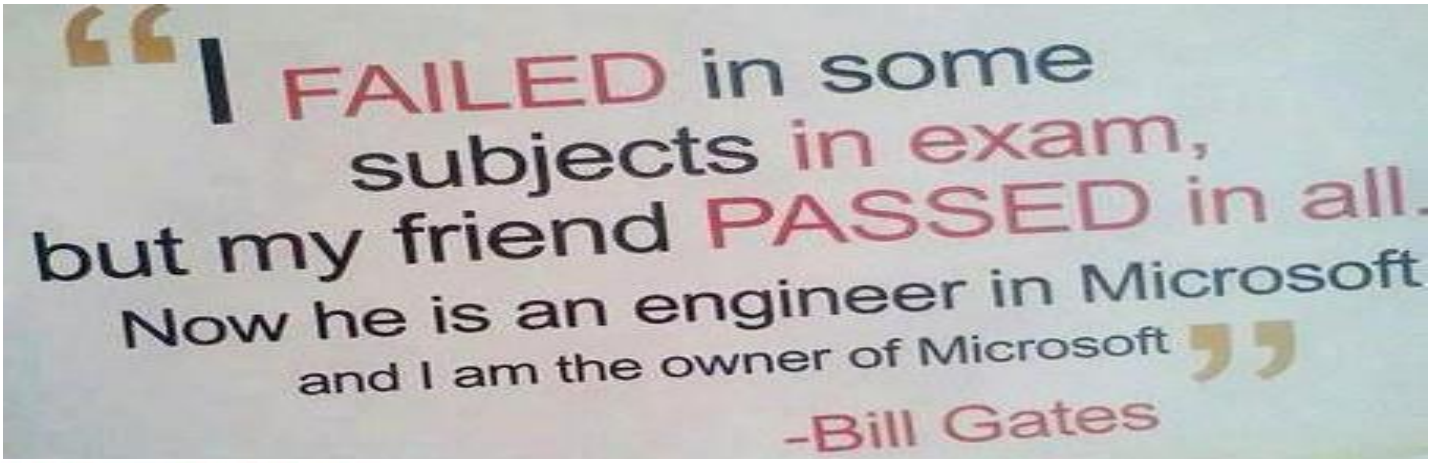
Importance of B.E. project, Publishing a paper related to project, Decide keywords of area of Interest, Searching papers, Reading papers using three pass, the Importance of citation, the harms of Plagiarism, Impact factors, Phases of writing and Reviewing a paper, Exhibition of top 10 projects, Off-line repository of the papers. Also Newer Areas in which Students can develop their projects in Machine Learning, Big Data analytics, Data Sciences, Cyber security, Cloud Computing, etc. were discussed in Session.

GATE AWARENESS LECTURE

GATE (Graduate Aptitude Test for Engineering) is the entrance exam conducted for admissions of higher studies in engineering for the Post Graduate degrees - M.E. (Master of Engineering), M.Tech. (Master of Technology), Ph.D. (in Engineering or Technology), etc. A GATE awareness session was conducted for Third year Computer Engineering students on the 9th of February, 2017 by *Prof. Shashikant S. Radke.*

The session covered following points:

- The necessi□es and the advantages of higher studies and jobs in companies.
- The syllabus and books to refer for this exam.
- The format and types of ques□ons & ways of solving or answering them.



BEST FINAL YEAR PROJECT PRESENTATION

To guide the junior students, Computer Engineering Department had organized an event on the Best Final Year Project Presentations on the 23rd of February, 2016. The students presented their work to their juniors so that it benefits their choice of selecting latest technologies for their own project development and improve their own presentation skills. The best projects as given below were awarded for their presentation.

Sr. No	Student Name	Project Name	Guide Name
1	Ms. Neha Kak, Mr. Amit Vishwakarma	Book Recommendation System	Dr. V.C. Kotak
2	Mr. Amit V, Mr. Manojkumar Yadav, Ms. Taherali Saifee	Implementation of Private Cloud with Compute and Storage Service using Open Stack	Prof. Shahzia Sayyad

3	Ms. Shivani Gaikwad, Ms. Bharati Padhye, Ms. Pratiksha Gaikwad	Stereo Image matching using area based techniques	Prof. Manimala Mahato
4	Ms. Unnati Agrawal, Ms. Akshata Bangalore, Ms. Seema Nair	Detecting malicious URL using machine learning approach	Prof. Deepshikha Chaturvedi
5	Mr. Sanket Redkar, Ms. Ashwini Mhadgut, Ms. Naina Pophale	File Transfer Using MTOM	Prof. Vaishali Chavan
6	Mr. Brijkumar, Ms. Kinjal Mehta, Mr. Harsh Ruparelia	Virtual devices on cloud	Prof. Milind Khairnar

7	Ms. Kajal Sharma, Ms. Jigita Shah, Mr. Nirav Doshi	Detection and notification of drowsiness through voice mes-sages	Prof. Deepti Shelar
8	Ms. Kshitija Tiwari, Ms. Yashashree Bhargude, Ms. Pratiksha Chaudhari	Desktop based currency denomination detection system	Prof. Karuna Borhade
9	Mr. Mihir Shah, Ms. Mansi Chheda, Ms. Mansi Chheda	Content based Image Retrieval	Prof. Rupali Kale
10	Mr. Jinesh Gada, Mr. Umang Gada, Mr. Dhanish Desai, Mr. Dishan K.	Machine learning approach for road traffic prediction	Prof. Priyanka Pathak

FINAL YEAR PROJECT POSTER REPRESENTATION

The Final Year Project Poster Presentation Competition was conducted by the Department of Computer Engineering on 22nd of March, 2017. More than 27 project groups participated and presented their posters on the day. Vice Principal *Dr. V.C. Kotak* and *Prof. Vidyullata Devmane* reviewed the presentations enthusiastically. Head of Department, *Prof. Uday Bhave* along with ISO Auditors *Prof. M.B. Dave, Ms. Shruti K. & Mr. Nalin M.* congratulated the students for their efforts and team work. The event was co-ordinated by *Prof. Shahzia Sayyad*, *Prof. Sonali Bhutad* and *Prof. Deepshikha Chaturvedi.*

ORIENTATION PROGRAMS

After every four years University Of Mumbai changes the syllabus to update with new topics coming up in Technology. In view to this Data Science subject was added to M.E Computer Engineering Syllabus.

The aim of these events is to discuss scope and depth of each topic with weightage, references for the module with reference material, question paper pattern and Computational Laboratory -II experiments. The orientation program for Data Science was held on 23rd of January 2017 on behalf of University Of Mumbai. The event was co-ordinated by *Dr. Amiya K Tripathy (DBIT), Prof. Pinki Vishwakarma (SAKEC).* The program was attended by *Prof. Uday Bhave, Prof. Rajashree Shedge, Dr. Sheetal Rathi, Dr. Satishkumar Varma, Dr. Sharvari Govilkar, Prof. Sujata Bhairnallykar and Prof. Sheetal Thakare.*

Similarly, the orientation program for Data Storage And Retrieval, subject of M.E in Computer Engineering was held on 23rd of January 2017.

The event was co-ordinated by *Prof. Vidyullata Devmane* and *Prof. Shahzia Sayyad*. The program was attended by *Prof. Gresha Bhatia, Prof. Nilima Dongre, Prof. Madhu M.N* and *Prof. Shashikant S. Radke.*

ACHIEVEMENTS BY FACULTY

Sr. No.	Name of the Faculty	Acheivement Details
1	Prof. Shashikant Radke, Prof. Shweta Patil, Prof. Pradeep Mane.	Co ordinator - Automation of exit survey process (generation of google forms).
2	Prof. Sonali Bhutad, Prof. Deepa Ekhande	Co ordinator-Conduction of Spoken Tutorials.
3	Prof. Monika Kanojiya	Co-ordinator of NPTEL.
4	Prof. Tina Maru	Editor-Departmental Newsletter – PERCEPTRON.
5	Prof. Krupa Chotai	Designing of Social Media pages and publicity.
6	Prof. Manoj Dhande, Prof. Tejas Hirave, Prof. Atul Kachare, Prof. Prakash Parmar.	Co-ordinator & mentor-Smart India Hackathon 2017.
7	Prof. Prakash Parmar	Certificate and Brochure Design .
8	Prof. Vaishali Chavan, Prof. Shrungashree Chaudhari	Best Hospitality.
9	Prof. Bhakti Sonawane Prof. Vidyullata Devmane	Springer Conference - ASIC Series .
10	Prof. Bhakti Sonawane	Commmunication and Signal Processing IEEE Conference.
11	Prof. Uday Bhave, Prof. Pinki Vishwakarma.	Coordinated Session by U.S. Consulate for Visa and Career Guidance.
12	Prof. Karuna Borhade	Conducted FDP on Server Side Scripting

Sr. No.	Name of the Faculty	Achievement Details
13	Prof. Pinki Vishwakarma	Conducted FDP on Dissemination of ISO Activity
14	Prof. Shahzia Sayyad	Coordinated Workshop on Cyber Security
15	Prof. Shahzia Sayyad	Coordinated Workshop on Android App Development
16	Prof. Vidyullata Devmane Prof. Shahzia Sayyad	Coordinated STTP on IOT and its Application
17	Prof..Deepshikha Chaturvedi	Coordinated Workshop on Android
18	Prof. Atul Kachare	Conducted Workshop on NBA Awareness
19	Prof. Vidyullata Devmane Prof. Shahzia Sayyad	Coordinated Orientation program on Data Storage and Retrieval on behalf of University of Mumbai
20	Prof. Uday Bhave Prof. Pinki Vishwakarma	Coordinated Orientation Program on Data Science on behalf of University of Mumbai
21	Prof. Vidyullata Devmane	Coordinated FDP on Basics of Patenting and Intellectual Property
22	Prof. Uday Bhave	Coordinated FDP on Role of IT in Aviation
23	Prof. Shashikant Radke	Conducted Gate Awareness Session
24	Prof. Rekha Ramesh	Conducted FDP on "Education Technology and Tools"
25	Prof. Rupali Kale, Prof. Pallavi Deshamane	Coordinated Best Project Presentation
26	Prof. Shahzia Sayyad	Coordinated FDP on Machine Learning and Its application

Sr. No.	Name of the Faculty	Achievement Details
27	Prof. Uday Bhave	Coordinated Pixel -Tech Conclave
28	Prof. Vidyullata Devmane	Coordinated FDP on Digital Marketing
29	Prof. Shahzia Sayyad	Coordinated Final Year Project Poster Presentation
30	Prof. Sonali Bhutad, Prof. Pallavi Deshmane	Coordinated Session on Cloud Computing
31	Prof. Amol Dhumal	M.E. in Computer Engineering Completion.
32	Prof. Prakash Parmar	NPTEL Online Certification in TCS

TECHNICAL EVENTS

Sr. no	Name of Student	Events	Event Date	Conducted By	Winner/ Participation
1	Vivek Gawande	NPTEL (Programming , Data Structures Algorithms using Python)	July-Sep,2016	NPTEL , Python Course	Topper (Gold +Elite)
2	Vivek Gawande	Codevita	29-30/7/16	TCS	Reached Round 2
3	Rushabh Mehta	Codevita	29-30/7/16	TCS	Reached Round 2
4	Mayank R Dand	Codevita	29-30/7/16	TCS	Reached Round 2
5	Salil Deshpande	Code Vita	29-30/7/16	TCS	Reached Round 1
6	Vidhi Panchal	Technical paper	29/9/2016	Universal COE	Participation
7	Sagnik Nath Urmisha K Vaibhav Choankar Kush Nagda	Innovations: National Level Project Competition	10/3/2017	SIES,GST , Mum-bai	Participation
8	Nitin Desai	Web Based	10/3/2017	SIES,GST , Mum-	Participation
9	Siddhi Thakkar Sanket Shah Raj Mehta	DJASCII: State Level Project Competition	1/4/2017	D. J. Sanghavi, Mumbai	Participation

TECHNICAL EVENTS

Sr. no	Name of Student	Events	Event Date	Conducted By	Winner/ Participation
10	Shrimangal Rewgad Prateek Pisat Ganesh Sawant Dewansh Modi	Tantravihar 2017:Project Competition	10/4/2017	VIT, Wadala, Mumbai	Participation
11	Durita Dalal Richa Lomate Smit Malde Yash Shah	Tantravihar 2017:Project Competition	10/4/2017	VIT, Wadala, Mumbai	Participation
12	Nitin N. Desai	Innovations	10/3/2017	SIES	Participation
13	Nachiket Karambelkar	Innovations	10/3/2017	SIES	Participation
14	Prathamesh Kadam	Innovations	10/3/2017	SIES	Participation
15	Prathamesh Kumbhar	Innovations	10/3/2017	SIES	Participation
16	Shrimangal Rewagad	Project Hunt	21/4/2017	SAKEC	Participation
17	Prateek Piasl	Project Hunt	21/4/2017	SAKEC	Participation
18	Devansh Mody	Project Hunt	21/4/2017	SAKEC	Participation
19	Ganesh Sawant	Project Hunt	21/4/2017	SAKEC	Participation
20	Umang Karnavat	Innovations	10/3/2017	SIES,GST	Participation

TECHNICAL EVENTS

Sr.no	Name of Student	Events	Event Date	Conducted By	Winner/ participation
21	Pritesh Vaviya	BITCAMP 2017	25-26/03/2017	D. Y. Patil (RAIT)	Participation
22	Tejas Raval Sahil Phatak	Code Vita season V	29/07/2016	TCS	Participation
23	Nirbhay Worlikar	BITCAMP 2017	25-26/03/2017	D. Y. Patil (RAIT)	Participation
24	Purav V. Nagda Bhavneet Kaur	Internetwork Security	Jan-Apr,2017	NPTEL,IITK	Top 5 % certified
25	Vivek Bhushan	Introduction to Modern Application	Jan-Apr,2017	NPTEL,IITK	Top 2 % certified candidate
26	Modi Dheer	Spoken Tutorial F.E – C Test	31/01/2017	IIT, Bombay	72.50%
27	Vira Deep	Spoken Tutorial F.E – C Test	31/01/2017	IIT, Bombay	72.50%
28	Nanaware Shreyas	Spoken Tutorial S.E – Java Test	07/02/2017	IIT, Bombay	97.50%
29	Aniket Banginwar	Spoken Tutorial S.E – Java Test	07/02/2017	IIT, Bombay	97.50%
30	Prabhu Pooja	Spoken Tutorial T.E – Python Test	06/08/2017	IIT, Bombay	90%
31	Nair Sujith	Spoken Tutorial T.E – Linux Test	21/09/2016	IIT, Bombay	76.70%
32	Kadam Prathamesh	Spoken Tutorial B.E – Java Test	21/09/2016	IIT, Bombay	87.50%

TECHNICAL EVENTS

Sr.no	Name of Student	Events	Event Date	Conducted By	Winner/ Participation
33	Shukla Vaibhav	Spoken Tutorial B.E – Java Test	21/09/2016	IIT, Bombay	87.50%
34	Doshi Darshil	Spoken Tutorial B.E – Linux Test	21/09/2016	IIT, Bombay	74.40%
35	Rao Narendra Singh	Spoken Tutorial B.E – CPP Test	30/07/2016	IIT, Bombay	82.50%
36	Nanarkar Pratik	Spoken Tutorial T.E – Java Test	21/09/2016	IIT, Bombay	82.50%

NON-TECHNICAL EVENTS

Sr. no	Name of Student	Events	Event Date	Conducted By	Winner/ Participation
1	Salil Deshpande	Futuristic Security Council	7-8/1/17	VJTI model united nation.	Participation as IRAQ
2	Apurva Achrekar	ENTHUSIA Open Badminton Doubles	December, 2016	VJTI	Winner
3	Apurva Achrekar	Womens's Single Intercollege Badminton	23/2/2017	NMIMS	Runner up
4	Apurva Achrekar	SKDREAM Badminton	2017	K. J. Somaiya, Vidyavihar	First
5	Apurva Achrekar	Inter College Sport Conquer'17 Badminton	2017	NMIMS	Second
6	Jairosh Kumar, Jash Bharwada, Aakash Bhatt	Inter College Sports: CONQUER'17 (In: Football)	20/02/17-22/02/17	NMIMS	2nd Position in Football Tournament
7	Jairosh Kumar	SKREAM (In: Football)	03/01/17—08/01/17	K. J. Somaiya, Vidyavihar	Participation
8	Jairosh Kumar	NATIONAL LEVEL engineering sport SUMMIT (In: Football)	31/08/16 - 08/09/16	MIT,Pune	Participation
9	Snehal Prabhu	Antardhwani Vocal Bollywood	15/1/2017	Heramb School of Music and Cultural Arts	2nd position
10	Akanksha Chhatry, Kushal Gala, Neville Gosalia, Pranava S., Priya Shah Vikyathi Shetty,Yash Shah	Antaragini	2017	Tata Institute of Social Science (TISS)	1st Position

NON-TECHNICAL EVENTS

Sr. No	Name of Student	Events	Event Date	Conducted By	Winner/ Participation
11	Akanksha Chhatry, Kushal Gala, Neville Gosalia, Pranav S., Priya Shah, Vikyathi Shetty, Yash Shah	FUSION Festival	2017	Vasantdada Patil College of Engineering	1st Position in Fashion Show
12	Aakanksha Takkar	Immovaev	24-25/9/16	Lala Lajapatrai Institute of Management	2nd position
13	Aakanksha Takkar	Nails Nails (Nail Art)	24-25/9/16	Lala Lajapatrai Institute of Management	1st position
14	Aakanksha Takkar	Madvertising (Marketing)	24-25/9/16	Lala Lajapatrai Institute of Management	1st position
15	Vishal Dawda	Skream'16	2016	K.J. Somaiya College of Engineering	Participation
16	Vandana Babu Aniket Gavhane	IET PATW	11/3/2017	IET-Mumbai Local Network	Participation
17	Vishal Nandu	Cricket	31/08/2016	MIT, Pune	Participation
18	Vishal Nandu	Cricket	10/09/2016	MIT, Pune	Participation
19	Ronel Jacob, Neel Doshi	Young Achiever	30/4/2017	Art of Living	Appreciation
20	Neel Doshi	Web Developer	28/01/17 - 15/04/17	AIESEC 2017, Egypt	Appreciation

BY TEACHERS

1. STTP on High Performance Computing with CUDA, MPI & OPENMP at VIT, Wadala, on 01/02/2016 to 05/02/2016, attended by *Prof. Bhakti Sonawane and Prof. Shahzia Sayyed*.
2. M.E. Computer Syllabus Revision meeting at L.T.C.O.E., Koparkhairne, on 16/06/2016, attended by *Prof. Shahzia Sayyed*.
3. Subject Revision meeting for Theory of Computer Science at RAIT, on 13/04/2017, attended by *Prof. Shahzia Sayyed*.
4. STTP on Computer Network Security at Anjuman-I-Islam's College, 11/7/2016 to 16/07/2016, attended by *Prof. Shahzia Sayyed*.
5. Orientation Program for Data Structure at VIT college, on 20/6/2017, attended by Prof. *Shahzia Sayyed*.
6. Syllabus Revision meeting for Computer Network and Advanced Computer Network at V.E.S college, on 17/04/2017, attended by *Prof. Manimala Mahato.*
7. Syllabus Revision meeting for Digital Signal Processing at A.C. Patil College, on 13/04/2017, attended by *Prof. Manimala Mahato*.
8. Orientation Program for SPA at VIT college, on 13/01/2017, attended by *Prof. Manimala Mahato and Prof. Deepshika Chaturvedi.*
9. Syllabus Revision meeting for subject of Software Engineering and Lab at K. J. Somaiya College Sion, on 07/04/2017, attended by *Prof. Shashikant Radke and Prof. Tina Maru.*
10. Subject Revision meeting for Theory of Computer Science at RAIT, on 13/04/2017, attended by *Prof. Shashikant Radke*.
11. Syllabus Revision meeting for Robotics at V.E.S college on 7/4/2017 attended by *Prof. Shashikant Radke and Prof. Tina Maru.*
12. Subject Revision meeting for Microprocessor and Microprocessor Lab at K.J.Somaiya college Sion on 07/04/2017, attended by *Prof. Milind Khairnar and Prof. Sonali Bhutad*.
13. Subject Revision meeting for Web Design Laboratory at V.E.S college on 11/4/2017, attended by *Prof. Milind Khairnar*.
14. Presented paper on Exploring Firebase Cloud Characteristics for Mobile Storage at RAIT on 07/04/2017 and 08/04/2017, attended by *Prof. Sonali Bhutad*.
15. Subject Revision meeting for SPCC at RAIT on 13/04/2017, attended by *Prof. Pallavi Deshmane.*
16. Syllabus Committee meeting for DBMS, DBIR and ADBMS at V.E.S college on 12/04/2017 attended by *Prof. Vaishali Chavan*.
17. Subject revision meeting for CSS and ACSS at Pillai College of Engineering on 12/04/2017 attended by *Prof. Deepshika Chaturvedi.*
18. Syllabus Committee meeting for Distributed Computing at V.E.S college on 17/04/2017 attended by *Prof. Deepshika Chaturvedi*.
19. National level workshop on Accreditation and outcome based Education at Trena College on 15/12/2016-16/12/2016 attended by *Prof. Atul Kachare.*
20. One day workshop on Foundation Program on Data Science using Statistics at L.T.C.O.E., Koparkhairne, on 28/4/2017 attended by *Prof .Deepti Nikumbh*.
21. Attended seminar on "Outcome based Education and Accridation"KJ Engg. College ,Sion on 17/5/2017 by *Prof .Deepti Nikumbh*.

PAPER PUBLISHED BY TEACHERS

No.	Name of Staff	Title	Journal/Conference
1	Prof. Rekha Ramesh	Nalawade, G., & Ramesh, R. (2016, Dec). Automatic Generation of Question Paper from User Entered Specifications Using a Semantically Tagged Question Repository	8thIEEE International Conference on Technology for Education (T4E2016), December 2-4, Indian Institute of Technology Bombay, Mumbai
2	Prof. Rekha Ramesh	A Software Tool to Measure the Alignment of Assessment Instrument with a Set of Learning Objectives of a course	16th IEEE International Conference on Advanced Learning Technologies (ICALT 2016), July 25-28, Austin, Texas, USA
3	Prof. Rekha Ramesh	Integrating the course learning objectives and the contents of the syllabus into a ontology based knowledge representation	21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016), The ACM (SIGCSE), July (11-13), Arequipa, Peru
4	Prof. Vidyullata Devmane	Secure Duplication Of Data in Cloud Storage	IJESIRD, Sept 2016
5	Prof. Pinki Vishwakarma	Data Dessiminiation to Read only Mobile Clients	IJMTER,Volume3,Issue10
6	Prof. Pinki Vishwakarma	Feature Selection method for High Dimensional Data	IJMTER,Volume3,Issue10
7	Prof. Shahzia Sayyad	Data Hiding in Encrypted HEVC/AVC Video Streams	International Journal of Advanced Research in Computer and Communication Engineering

PAPER PUBLISHED BY TEACHERS

No.	Name of Staff	Title	Journal/Conference
8	Prof. Manoj Dhande	Secure Client ï Server Authentication System Using Grid Based and Zero Knowledge Protocol with RSA Cryptography(GZ-RSA)	IJIR, , Issue, April 2017
9	Prof. Manoj Dhande	Secure Image Transmission using Cipher Block Chaining Mode and Visual Steganography	IJSR,, Issue, June 2017
10	Prof. Milind Khairnar	Use of Neural Networks for Developing Clinical Decision Support System-A Review	IJRITCC, Issue, May 2017
11	Prof. Sonali Bhutad	Detecting and analyzing password database crack using Honeyindex	Published in IJCT journal, Dec2016
12	Prof. Shilpa Kalantari	Port Associated Traffic Nevigation Enterprise	International Conference on Recent Trends in Engineering and Technology (IEEE) VISHWACON 2016-17
13	Prof. Monika Kanojiya	A Survey paper on Approaches of Natural Language Processing (NLP)	International Journal of Advance Research Ideas and Innovations in Technology

PAPER PUBLISHED BY STUDENTS

Sr. no	Name of Student	Paper Title	Journal/Conference	Volume/Event Date
1	Shreya Desai, Ankit Panigrahy, Purva Patni	Port Associated Navigation Enterprise	International Conference	17- 18, February 2017
2	Achyut Shah, Pranav D. , Jaimin M. , Ronak T.	Secure Transmission of Confidential Data using Dual Random LSB Method of Au-dio Steganography	RJIT, Mumbai	10 ,March ,2017
3	Ankita Bamania, Urvi Mehta, Vatsal Bheda, Sujay Vaidya (MD)	Secure Client-Server Authentication System Using Grid Based and Zero Knowledge Protocol with RSA Cryptography	Imperial Journal of Interdisciplinary Research (IJIR)	Vol-3, Issue-4, 2017 ISSN: 2454-1362
4	Shweta Singh, Nakshi Doshi, Harshit Punatar, Shashank Gangar	Web Vulnerability Scanner Application	Imperial Journal Of Interdisciplinary Research (IJIR)	Vol-3, Issue-2, 2017 ISSN:2454-1362, www.onlinejournal .in
5	Vineeta Pandey, Pranali Dalvi, Arjun Mudhaliyar	Secure image transmission using Cipher block chaining and visual steganography	International Journal of Science and Research	Volume 6,Issue 6, Jan 2016

PAPER PUBLISHED BY STUDENTS

Sr. No	Name of Student	Paper title	Journal/conference	Volume/event date
6	Bhumi Lodaya, Shweta Shimpi, Shivangee Kulkarni, Manali Patil	Exploring Firebase Cloud Characteristics for Mobile Storage With RSA Cryptography (GZ- RSA)	National Level Student Conference on Frontiers in Engineering and Technology Applications	(NSCFET-2017) Organized by RAIT.
7	Dimple Malde, Rishabh Jain, Chintan Shah, Tanvi Shinde	QR Code Based Smart Shopping	Imperial Journal of Interdisciplinary Research	Vol-3, Issue-4, 2017 ISSN:2454-1362
8	Sagar Kesariya, Sunil Yadav	Simulation Using CUDA	Practical training BARC	www.onlinejournal.in

CONDUCTED BY IEEE-SAKEC

Sr. No.	Speakers	Date	Event Name
1	Siddhant Pokle Abhishek Diggewadi	27/8/2016	Calculator
2	Mr. Abhishek Chandan	27/8/2016	Ethical Hacking
3	Mayur Kapadia Sharan Vora	25/9/2016	Photoshop
4	Mr. Akhil Menon	25/9/2016	Internet of Things
5	Mrs. Pooja Welling	30/9/2016	Guidance for Higher Studies
6	Mr. Dhaval Gogri	1/10/2016	Android Application Development
7	Lion's Club, Chembur	3/10/2016	Thalassemia
8	Akshay Mohmaya	8/10/2016	3D Modelling and Simulation
9	Group Event	19/10/2016	Industrial Visit and Outbound Management Development Programme
10	Group Event	02/11/16	Swacch Bharat Abhiyaan - CSR
11	Jainish Sinha (Gyandhan)	31/1/2017	Financing Higher Education
12	Srikanth Chandrasekaran Yatin Trivedi Dr. Andrew Myles	3/2/2017	Why Standards Matter?

CONDUCTED BY CSI-SAKEC

Sr.no	Speaker	Date	Event Name	Description
1	Abhishek Shah Mohammed Udaipurwala	10/8/2016	Hands on PHP	This event was based on PHP and the participants were given a hands on experience also explained about how PHP benefitted in development of websites and dynamic webpage using this versatile server-side scripting language.
2	Riddhi Gala Salil Deshpande Harsh Shah Viral Parmar	21/1/2017	Android Development	This event encompasses designing, building and implementing Android applications. Participants were provided with one computer each, on which they installed Android studio. As the event proceeded, features provided by Android studio were discussed.
3	Harsh Shah Viral Parmar	4/2/2017	Audio & Video Editing- An Insight	This workshop was held based on 'Audio and Video Editing- An Insight'. At first the participants were briefed about the special effects used in audio and visuals in movies.
4	Neel Dedhia Akash Shah	4/2/2017	Cyber Security	This event was held in regards to Cyber Security. The participants were given a demonstration of how we can hack and get all the information from our friends computer and how we can shutdown or crash a website within a couple of minutes. They were informed of how to crack Facebook, gmail, bank accounts passwords easily.

CONDUCTED BY ISTE-SAKEC

Sr. No.	CONDUCTED BY/SPEAKER	DATE	Event Name
1	Computer Engineering Department	27/08/2016	Workshop on Cyber Security
2	Harsh Shah (ISTE SAKEC)	05/10/2016	Fe Orientation
3	Dr.Uma Rao	19/07/2016	How To Enhance Technical Presentation Skills

PLACEMENT REPORT 2016-2017

"TECHNOLOGY IS A GIFT OF GOD"

AFTER THE GIFT OF LIFE IT IS PERHAPS THE GREATEST OF GOD'S GIFTS. IT IS THE MOTHER

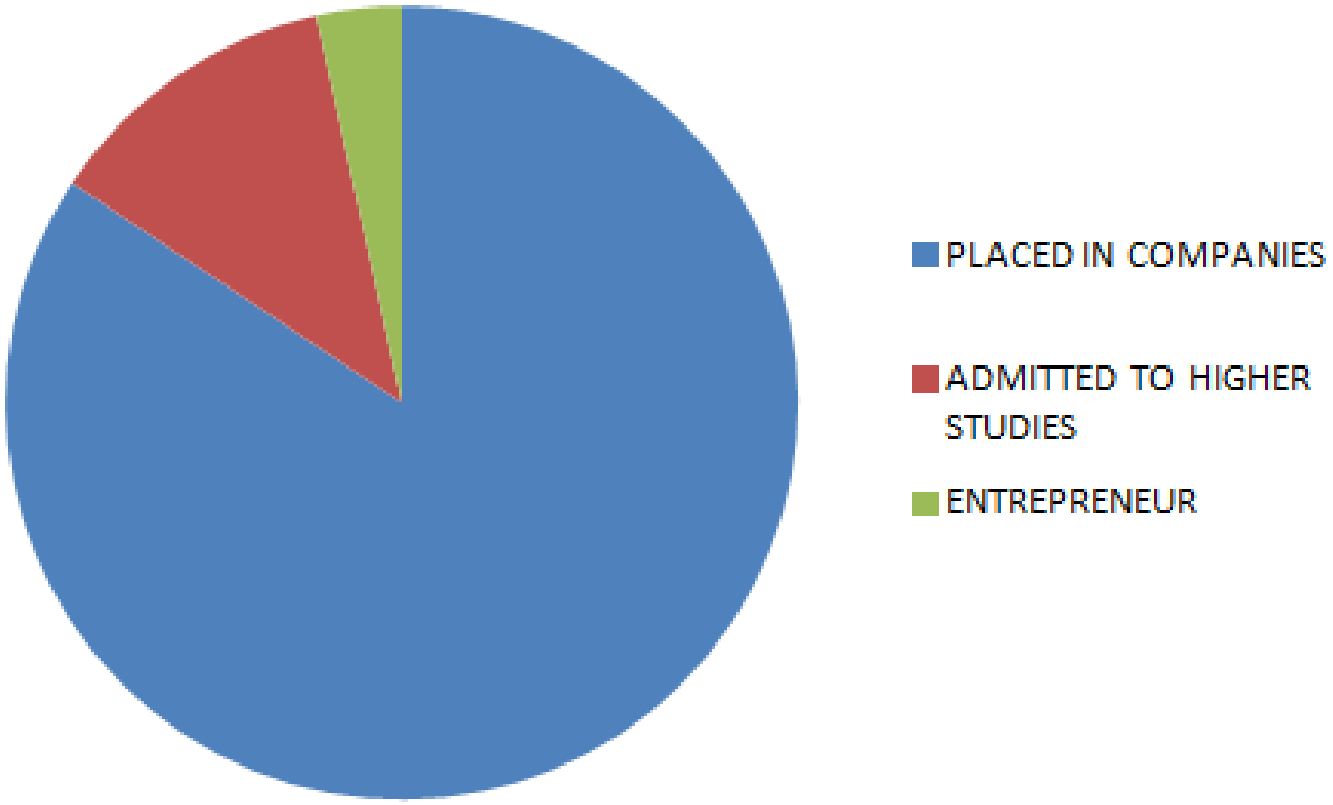
OF CIVILIZATIONS, OF ARTS AND OF SCIENCES.

DO NOT HIRE A MAN WHO DOES YOUR WORK FOR MONEY, BUT HIM WHO DOES IT FOR THE LOVE OF IT.

-HENRY THOREAU

HIGHER STUDIES

"THE FUTURE BELONGS TO THOSE WHO BELIEVE IN THE BEAUTY OF THEIR DREAMS."



A) 97 Students were placed in companies or Government Sector.

B) 14 Students were admitted to higher studies with valid qualifying scores in GATE or equivalent state or national level tests, GRE, GMAT, etc.

C) 4 Students turned entrepreneur in engineering/technology.

SUCCESS

does not lie in ”Results” but in “Efforts”, Being the best is not so important ,”Doing ” the best is all that matters….

SR NO.	NAME OF THE COURSE	APPEARED STUDENTS	PASSING PERCENTAGE
1.	SECOND YEAR SEMESTER-IV	221	74.21
2.	THIRD YEAR SEMESTER-VI	205	83.41
3.	FINAL YEAR SEMESTER-VIII	220	98.18

EXAMS ARE NOT JUST A TEST OF BRILLIANCE ,BUT THE PRESERVANCE TO BE BRILLIANT CONSTANTLY.

FIRST YEAR RESULTS

AKSHAY KHANOLKAR
AGGREGATE:-9.55

RUCHIK ROHIT
AGGREGATE:-9.35

SECOND YEAR RESULTS

MAYANK DAND
AGGREGATE:-10.00

ANIKET BANGINWAR
AGGREGATE:-9.93

THIRD YEAR RESULTS

MEENAKSHI DOLHARE
AGGREGATE:-9.48

SALIL DESHPANDE
AGGREGATE:-9.41

FOURTH YEAR RESULTS

SHWETA SHIMPI
AGGREGATE-9.25

KINJAL GALA
AGGREGATE:-9.07

ME FIRST YEAR RESULT

VISHAKHA VAIDYA

AGGREGATE-7.83

SURROGATE ADVERTISMENT

Surrogate Advertising is a term utilized for promoting market wares, for example, liquor, cigarettes, tobacco and opiate items, which canôt be publicized straightforwardly. The reason of forbidding such items are on account of their use is unfavorable to the wellbeing of individuals. However these products create high incomes and an answer must be found to make the wares accessible without straightforwardly publicizing and evading law. So the idea ñSurrogate Advertisingò; appeared and different rumored organizations began publicizing ñsurrogate itemsò. The beginning of surrogate promoting can be followed to Britain, where housewives began challenging alcohol ads which incited their spouses no other

chance to get out chose to advance natural product juices and pop under the brand name; the idea later developed as surrogate commercials. All associations depend a great deal on the nature of the items they produce, their circulation framework and their income models. The most dubious and noticeable part of dealing with a business is promoting. Promoting, publicizing and conveying the offers and highlights of the items and administrations. Organizations utilize VIPs, long range interpersonal communication media, item utilization through TV advertisements and so forth to reach out to their objective clients. This benefit doesnôt exist with specific items like alcohol, cigarettes and so on. For such items an exceptional promoting system to contact its clients is received surrogate publicizing. Alcohol mark Bacardi advances its items by music compact discs as immediate promoting of liquor refreshments is disallowed. Also, Seagrams, a main alcohol mark conveys sound albums for promoting. The supermodel and elegant Kingfisher schedule is another type of surrogate promoting for this line of drinks. Aside from alcohol brands, cigarette organizations additionally need to embrace surrogate promoting. Godfrey Phillips and Red and White are two noteworthy cigarette brands which

connect themselves with valiance grants. Alcohol and cigarette are items which are related with giving approaches to celebrate and pleasure to individuals. In any case, in spite of being unsafe items with extreme symptoms, there exists a solid interest for the same. As a hurl up amongst income and obligation, the Govt. permits such a organizations just a single approach to celebrate their items Surrogate promoting. Surrogate publicizing recognizes the way that the shopper is as of now mindful of the first brand and the item it speaks to. Henceforth it is fundamentally an activity in mark augmentation, turned to by organizations to fabricate mark acknowledgment, and brand unwaveringness and not build utilization for the item.

Thus if the item is legitimately produced in the nation it would not be moral to boycott surrogate commercials.

ARMAN MERCHANT

TE-4,45.

A GIRL:TO PLAY OR TO HAVE FUN WITH?

I was born in Ballia, Uttar Pradesh in 1989. I belonged to the Bhumihar community. I was a kid when my father got a job in the Palam Airport in Delhi. So, our family shifted there. My parents and 2 brothers always pampered me, but they also taught me in life what is right and what is wrong. They always used to tell me to stay strong in life, no matter what the conditions are. I completed my schooling and college from Delhi. After completing my H.S.C, I started preparing for the Pre - Medical Test (PMT). But due to some reasons I failed in that. So, I decided to go for physiotherapy. I got admitted in a good physiotherapy institute in Dehradun. I stayed in hostel there. After pursuing my degree there, I returned to Delhi in late December, 2012 and started interning in a physiotherapy hospital in Gurugram.

I had a very close friend of mine Awindra Pandey who was a software engineer. I met him through a mutual friend of ours. I liked shopping and watching movies.

So, I called Awindra on 16th December, 2012 and asked him if he had any plans for that day. Then we decided to meet at the Saket City walk which was located in South Delhi. We enjoyed a lot that day. We did a little bit of shopping, then watched the movie "Life Of PI". At that time, I was staying in Dwarka. So, after watching the movie, we were searching for an auto to Dwarka. But none of the auto-drivers were ready to take us. Then we decided to take an auto till the Munirka Bus Stop which was 15 minutes away from there. We thought we could get a bus from there. After completing the 15minutes trip, we reached the Munirka Bus Stop. There we saw a white coloured private bus. A person at the door of the bus kept shouting for Dwarka. So, we headed to that bus. After getting in there, we felt somethingfishy. There were only 6 passengers including the driver. But the co-passengers felt normal. So we sat down. After the bus started, a person came to us for ticket money. Awindra gave him 20 rupees. He accepted that. We were now getting very doubtful about the bus as it was not heading in the normal route. All the 5 passengers except the driver came to us. Awindra asked them what is the matter. One of the man punched Awindra hard on his face. I then started screaming out of fear.

They dragged us both by our hair in opposite direction. We were both screaming for help but in vain. They hit Awindra with an iron rod and he became unconscious. I got even more scared. All of the 5 men horribly raped me one by one for 45 minutes and then threw both of us naked out of the running bus. The next morning few people saw us. I was totally unconscious, but Awindra was asking for help to them. They went away without responding. Then the Highway Patrol Van spotted us and called the Police. The Policemen wasted so much of time without taking us to the hospital thinking of which station jurisdiction to apply in that case. We were lying in the floor naked. After the treatment started, Awindra took few days to recover. But I had so many injuries that were not healing. It was not possible for the Indian doctors to treat me. So, I was sent to the Mount Elizabethg.

Even there I sustained for some days, not more than that. On 29th December, 2012 I died out of multiple organ failure at 4.45 am. All the rapists were arrested and sentenced to death except or Ram Singh, the driver who committed suicide and the 17 year old juvenile who was imprisoned for 3 years. But that'll not help me in any way. People say that with this I got justice. I ask you, is this any kind of justice. Yes I am NIRBHAYA, you got me right. I had so many dreams of mine. I was excited about my future and I wanted to go abroad for my studies. I had a passion for serving the poor and needy. I used to actively participate in the medical camps. I wanted to do good in my life. I managed to achieve everything what I wanted even though my family was poor. I had faith in life and as taught by my parents I always stayed strong. But will any of my dreams now come true. My parents lost their young daughter with whom they played and stayed since her childhood. I lost my life at such a small age. There was so many things in life for me which was yet to be achieved. But all lost. Is this a justice to me. Will I get my life back. No! So it is not a justice. It will be relieving for me if any other girl in this world will not get raped ever again. Every girl when she is born brings so much of happiness for her family. They get a living doll to play with. They cherish her and bring her up like their princess whatever the situation may be in their life. She is always taught to be in her limits. You can't do this and that. Staying out of house after 9 is not allowed. Society doesn't looks at that thing in a good way.

You can't wear short clothes. Talking to boys only at a particular distance. Don't be much friendly to them. All these things are taught to girls. Why can't boys be taught that, behave properly. Don't look at girls in bad sense. Respect them just like the way you respect your mother. Whenever they are in need, help them. If all these things are taught to boys, then no girl will ever be raped. But even after getting raped, girls are pointed out that she only might have gave them a chance to do this. But I ask you, does dressing matter at all? The girls who wear a saree are raped, girls wearing shorts are also, and nowadays small girls who are not even mature are also raped. So, from where does dressing come into account. I plead you that from now onwards change the thinking of the boys and not the dressing of girls. I being dead now can't do anything, but you being alive can do this much this much for the betterment of our own country.

“TO CALL WOMAN THE WEAKER SEX IS A LIBEL;

It is man’s injustice to woman. If by strength is meant brute

Strength, then, indeed, is woman less brute than man.

If by strength is meant moral immeasurably man’s superior……

WITHOUT HER MAN COUD NOT BE.

If non-violence is the law of our being.

THE FUTURE IS WITH WOMEN…….”

HARSHADA BIMAL DEBNATH

TE-3,13.

A NOTE TO SELF

From all those sleepless nights there was this one night when at 1:24 am I made a note to myself saying Itôs Okay. Itôs okay sometimes to stay alone not because you hate someone elseôs company but because you love enjoying your own company. Itôs okay to fail sometimes because there is no such law that you will win at every point of life. Itôs okay to be depressed sometimes just because not all days are cheerful. Itôs okay if you agree to disagree sometimes because not everyone has the same opinion always. Itôs okay if you let go of things because sometimes holding on is more painful than letting it go. Itôs okay to be selfish at first place so that you can be selfless later because you can give back only when you have it. Itôs okay if you had a heartbreak because not all things last long. Itôs okay if you ignore some people in your life because not everyone deserves your attention.

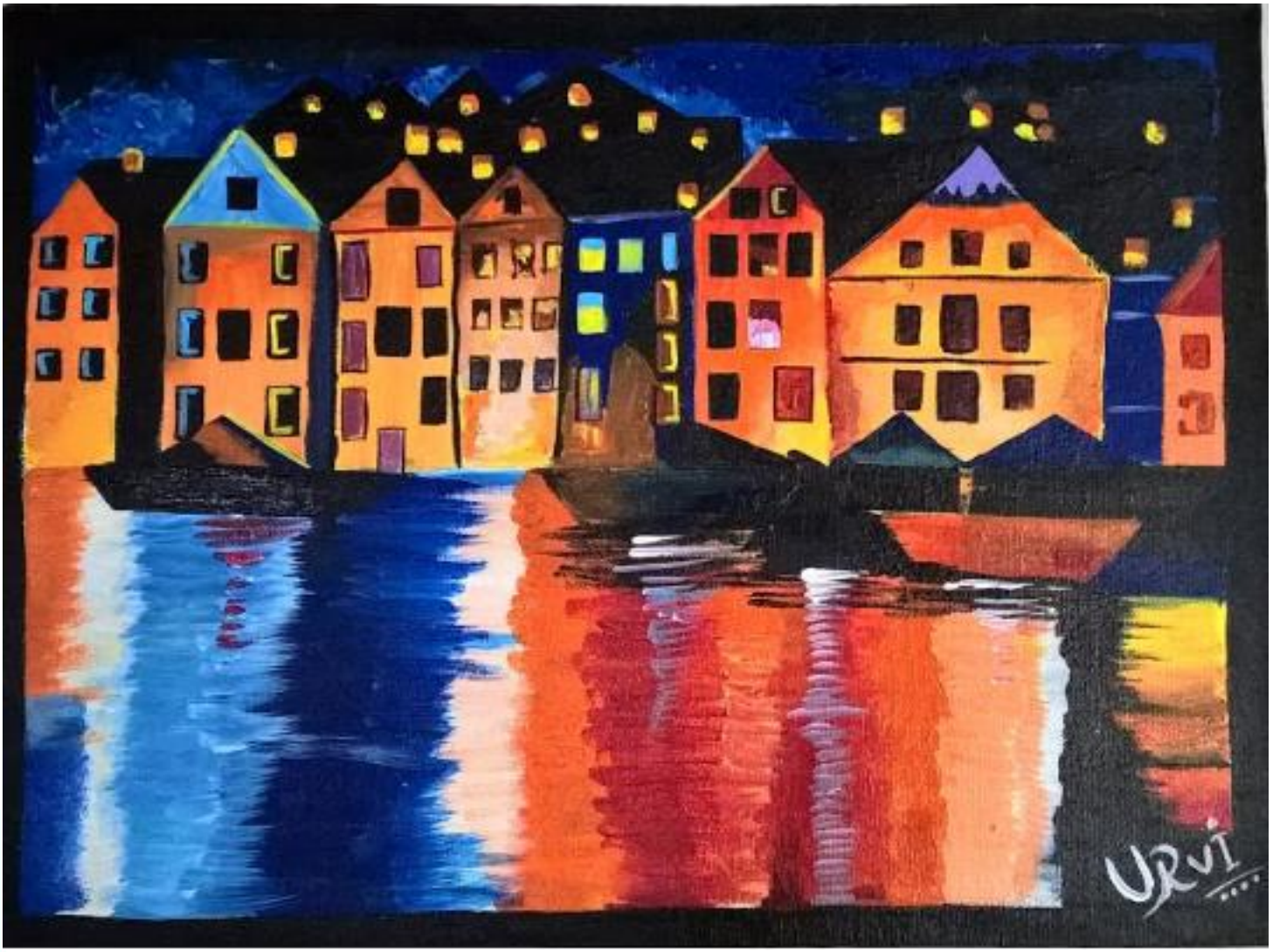
You need to learn this law of imperfection, if perfection was equivalent to beauty then no one would have ever fallen in love with someoneôs flaw. Freely showcase every emotion inside you, because you deserve the same love which you shower on others. Itôs your story and so donôt let anyone else pen it down for you instead live it on your terms and conditions. Donôt just have a materialistic life but have a meaningful one.

ADITI PANKAJ HARIA

TE-3,28.

CANVAS PAINTING

This is my depiction of the city of Venice during night time. It is a canvas painting which was made using acrylic colors.



URVI SHAH
SE-4, 37.

NATURE PHOTOGRAPHY

This click was done by me during one of my school trips.

Mushroom photography is not a year round hobby as they only tend to grow at certain times of years. I found that this will vary from place to place and between varieties but I find I have the best luck in Winter and Autumn where itôs cooler, darker and damper.

KEVIN LODAYA

TE-4,40.

SKETCHES

DRAGON BALL Z ART -I am a great fan of TOEI animations and the greatest artist and producer of dragon ball z, AKIRA TORIYAMA .This drawing is one of his collections only and I made it using black ball pen and pencil which made more attractive.

THE DARK KNIGHT -I made the sketch using black ball pen and pencil only. I followed some anime artist who made some anime arts. I first drew the light sketch with the pencil and then shaded it with dark shades of black pen which made it more effective.

ATHARVA JUIKAR

SE-3,19.

CRYPTOCURRENCIES

Introduction

According to Wikipedia, ñA **cryptocurrency** (or **crypto currency**) is a digital asset designed to work as a medium of exchange using cryptography to secure the transactions and to control the creation of additional units of the currency.. Bitcoin became the first decentralized cryptocurrency in 2009. Since then, numerous cryptocurrencies have been created. These are frequently called altcoins. ò

What are cryptocurrencies really?

If you take away all the noise around cryptocurrencies and reduce it to a simple definition, you find it to just limited entries in a database no one can change without fulfilling specific conditions. This may seem ordinary but, believe or not: this is exactly how you can define it.

Take the money on your bank account: What is it more than entries in a database that can only be changed under specific conditions? You can even take physical coins and notes: What are they else than limited entries in a public physical database that can only be changed if you match the condition than you physically own the coins and notes? Money is all about a verified entry in some kind of database of accounts, balances, and transactions.

How miners create coins and confirm transactions

Letós have a look at the mechanism ruling the databases of cryptocurrencies. A cryptocurrency like Bitcoin consists of a network of peers. Every peer has a record of the complete history of all transactions and thus of the balance of every account. A transaction is a file that says, ñBob gives X-Bitcoin to Aliceñ and is signed by Bobós private key. Itós basic public key cryptography, nothing special at all. After signed, a transaction is broadcasted in the network, sent from one peer to every other peer. This is basic p2p-technology. The transaction is known almost immediately by the whole network. But only after a specific amount of time it gets confirmed. Confirmation is a critical concept in cryptocurrencies. You could say that cryptocurrencies are all about confirmation.

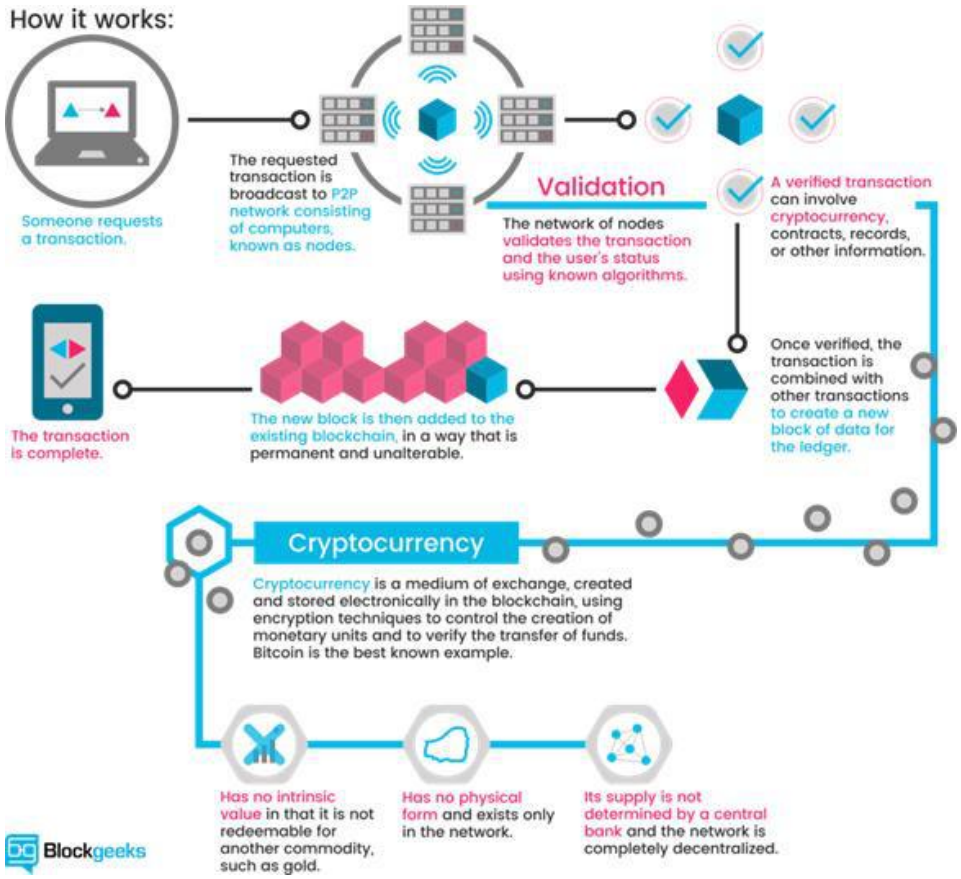
As long as a transaction is unconfirmed, it is pending and can be forged. When a transaction is confirmed, it is set in stone. It is no longer forgeable, it canót be reversed, it is part of an

Only miners can confirm transactions. This is their job in a cryptocurrency-network. They take transactions, stamp them as legit and spread them in the network. After a transaction is confirmed by a miner, every node has to add it to its database. It has become part of the blockchain. For this job, the miners get rewarded with a token of the cryptocurrency they mine.

Transactional properties:

1.**Irreversible:** After confirmation, a transaction can't be reversed. By nobody. And nobody means nobody. Not you, not your bank, not the president of the United States, not Satoshi (Inventor of Bitcoin), not your miner.

2.**Pseudonymous:** Neither transactions nor accounts are connected to real-world identities. 30 characters. While it is usually possible to flow, it is not possible to analyse the transaction to connect the real world identity of users with those addresses.



3.**Fast and global:** Transaction are propagated nearly instantly in the network and are confirmed in a couple of minutes. Since they happen in a global network of computers they are completely indifferent of your physical location. It doesn't matter if I send Bitcoin to my neighbour or to someone on the other side of the world.

4.**Secure:** Cryptocurrency funds are locked in a public key cryptography system. Only

SHREYAS NANAWARE

TE-4,47.

E-GOVERNANCE: A STEP TOWARDS NEW INDIA

What is e?

The 'e' in e governance stands for 'electronic' .With rights come duties .Thereby governance relates to protecting rights and giving access to services .This concept is brought into being, in order to have MAXIMUM governance and MINIMUM government.

National e-governance plan(NeGP) : In this plan, villages are evolving, large scale digitalization is taking place. Its vision is to making public service accessible to common man, improve efficiency and reliability at affordable costs ! E-Kranti popularly known as e-Governance version 2.0 is defined to ensure affirmative outcome from government initiatives. E-Kranti has targeted various departments like Eduction ,healthcare ,farmers ,security, etc.

Mission Mode projects (MMP) : It is a version 2.0 of NeGP. Various Mission Mode projects based on Banking &Income tax (central MMP), agriculture and commercial Tax (State MMP) are present passport seva,MCA21 & E-district is the front end of government where G2C(government to consumer) interaction takes place.

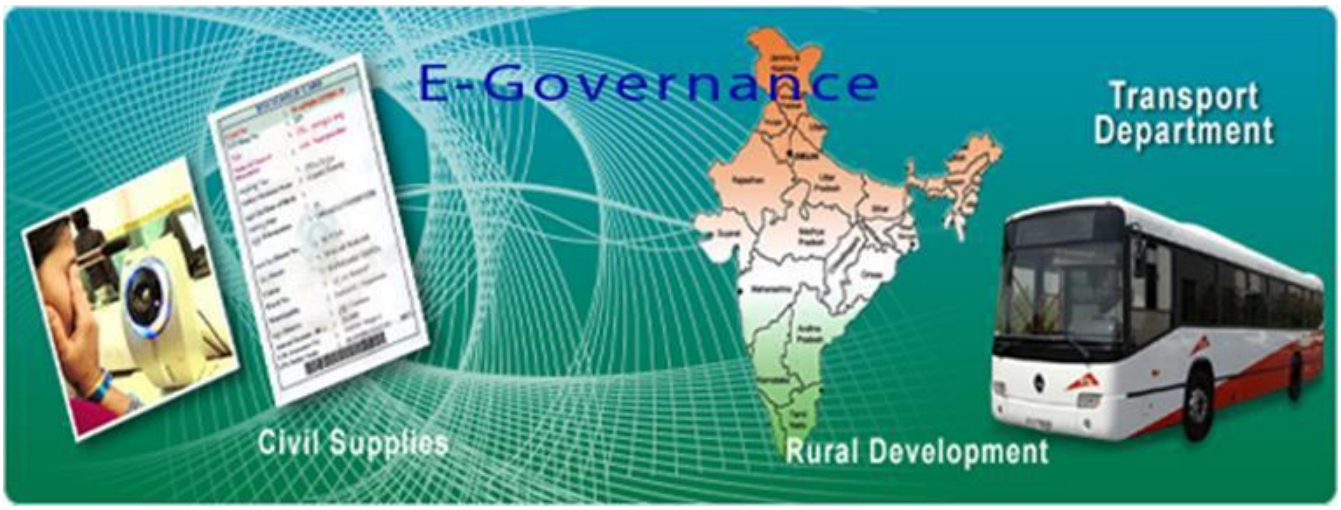
GI cloud initiative MEGHRAJ : It accelerates e-services ,will speed up the development and deployment of e-Government applications. Many services such as storage , hosting ,software ,antivirus ,firewall, etc... are provided .

Recent initiatives: Direct cash transfer, aadhar enabled payment system, aadhar to aadhar fund transfer, digital India-ñto prepare India for a knowledge futureò, ñto make technology central to enabling changeò and ñto become an umbrella program covering many departmentsò, digital cloud to store certificate issued by government. E-Kranti scheme is linking internet with remote villages.

M-Governance :It is the use of mobile or wireless to improve Governance service and infor-

Advantages of e-Governance: Faster than paper work, expenditure is reduced ,governance made transparent ,highly convenient ,good customer service.

Disadvantages of e-Governance: Misuse of data-recently JIO's server leaked aadhar card information ,illiterate people are not able to use it,, fear of spams!



Challenges in e-Governance: Trust issues among people, people are not adapting to the change, low privacy and security issues are some of the major challenges in e-Governance !

Conclusion: Concept of e-Governance has evolved in large widths and dimensions across India curbing poverty, corruption and unemployment.

ADITYA SAKPAL

TE-3,59.

Introduction to CNN for Image recognition and classification

Machine Learning focuses on getting computers to act without being explicitly programmed. Machine learning is so pervasive in today world that you probably use it dozens of times a day without even knowing it. Previously traditional machines learning algorithms when implemented where able to read and answer our questions, for example news articles, but their knowledge was often limited and explicitly provided i.e they lacked autonomy. Newly-developed algorithms enable those systems to learn from experience and online data ï leading to a more sophisticated understanding of topics and language. One such approach is Convolution Neural Networks.

Machine learning techniques use data (images, signals, text) to train a machine (or model) to perform a task such as image classification, object detection, or language translation. Classical machine learning techniques are still being used to solve challenging image classification problems. However, they donôt work well when applied directly to images, because they ignore the structure and compositional nature of images. Until recently, state-of-the-art techniques made use of feature extraction algorithms that extract interesting parts of an image as compact low-dimensional feature vectors. These were then used along with traditional machine learning algorithms. Deep convolutional neural networks (CNNs), a specific type of deep learning algorithm, address the gaps in traditional machine learning techniques, changing the way we solve these problems. CNNs not only perform classification, but they can also learn to extract features directly from raw images, eliminating the need for manual feature extraction .

The CNNôs where pioneered by Yann Legun who currently serves as Director of AI Research, Facebook. Itôs hard to discuss CNNôs without touching on ImageNet Challenge. Every year top deep learning teams in the world compete to create the best object recognition model. Back in 2012 when Alex Krizhevsky, Ilya Sutskever and Geoff Hinton model ñAlexNetòwon the challenge ,ever since then every single winner has used CNN in there model. This is because the error detection rate has significantly dropped with CNNôs.

When used for image recognition, CNNs consist of multiple layers of small neuron collections which process portions of the input image, called receptive fields. The outputs of these collections are then tiled so that their input regions overlap, to obtain a better representation of the original image; this is repeated for every such layer. Tiling allows CNNs to tolerate translation of the input image. Convolutional networks may include local or global pooling layers, which combine the outputs of neuron clusters. They also consist of various combinations of convolutional and fully connected layers, with pointwise nonlinearity applied at the

end of or after each layer. To reduce the number of free parameters and improve generalization, a convolution operation on small regions of input is introduced. One major advantage of convolutional networks is the use of shared weight in convolutional layers, which means that the same filter (weights bank) is used for each pixel in the layer; this both reduces memory footprint and improves performance.

CNN Architecture Overview:

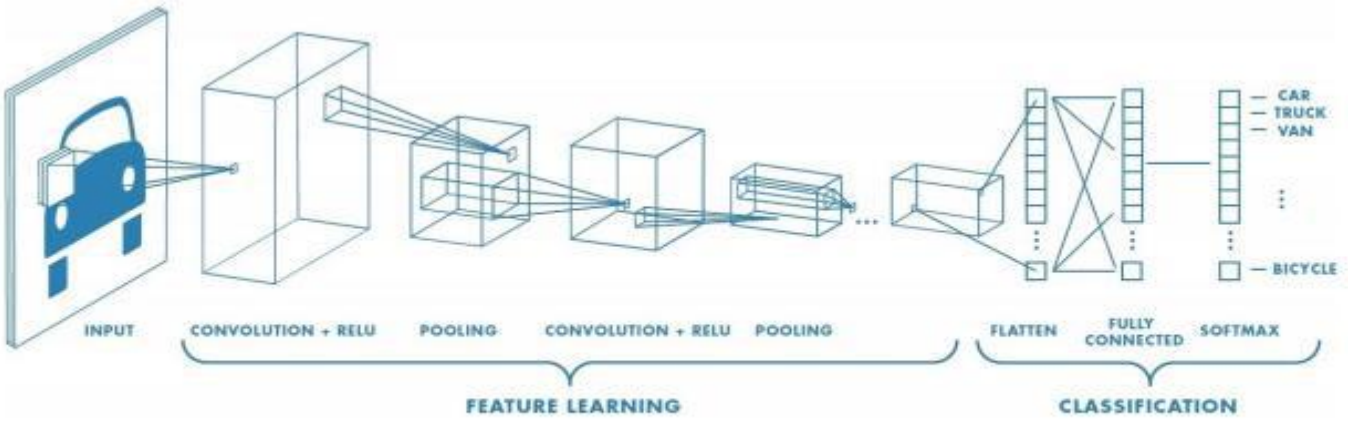


Fig 1: Example of CNN[7]

CNNs consist of different layers such as input, convolutional, relu, pooling, and fully connected layer. Each layer has its own function .Convolutional, relu, pooling and fully connected layer may get repeated. The functionality of each layer is explained as follows:

1.INPUT layer will hold the raw pixel values of the image.

2.CONV layer will compute the output of neurons that are connected to local regions in the input, each computing a dot product between their weights and a small region they are connected to in the input volume.

3.RELU layer will apply an elementwise activation function, such as the Max (0, x) thresholding at zero. This leaves the size of the volume unchanged.

4.POOL layer will perform a down sampling operation along the spatial dimensions.

5.FC (i.e. fully-connected) layer will compute the class scores, resulting in volume of size. As with ordinary Neural Networks and as the name implies, each neuron in this layer will be connected to all the numbers in the previous volume.

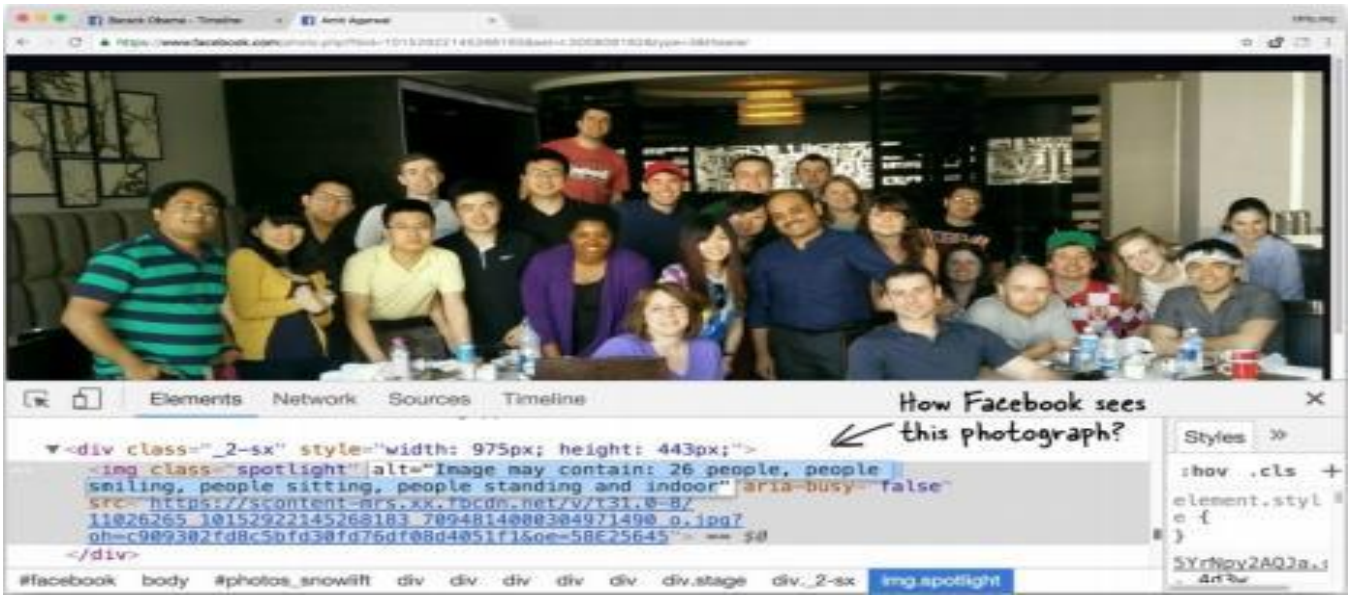
Convolutional Neural Networks are designed to recognize visual patterns directly from pixel images with minimal pre-processing. They can recognize patterns with extreme variability and with robustness to distortions and simple geometric transformations.

Compared to other image classification algorithms, convolutional neural networks use relatively little pre-processing. This means that the network is responsible for learning the filters that in traditional algorithms were hand-engineered. The lack of dependence on prior knowledge and human effort in designing features is a major advantage for CNNs. For computer vision applications you often need more than just image classification; you need state-of-the-art computer vision techniques for object detection, a bit of domain expertise, and the know-how to set up and use GPUs efficiently.

Convolution Neural Nets are giving state-of-art results in various problem domains today. In this article we will discuss some recent applications ,that make use of convNets that inspire you to learn machine learning. ConvNets are almost everywhere. They can recognize objects in image and can retrieve similar objects, recognize places and people in photos, signs, people and lights in self-driving cars, various anomalies in medical images, people and lights in self-driving cars, various anomalies in medical images, playing video games and all kinds of other useful things.

Recent applications that make use of deep learning is as follows:

1. Facebooks Image recognition softwareôs: When we upload photos on facebook ,it uses deep learning to know what is inside the photographs. Facebookôs has open sourced its image recognition softwareôs DeepMask, SharpMask, and MultiPathNet and are now available on GitHub. In order to classify and label the objects in an image, Facebook couples its DeepMask segmentation framework with its SharpMask segment refinement module. The final stage MultiPathNet that uses convolution neural network is used to label each object in the photo .



2. DeepText: Facebookôs text understanding engine:- DeepText uses several deep neural network architectures, including convolutional and recurrent neural nets, and can perform word-level and character-level based learning [3]. DeepText determines what the post on Facebook is all about eg. If someone says ñI Like Blackberryò is he referring to fruit or device. By understanding text , facebook improves peopleôs experience by surfacing contents that they want to see and filtering undesirable contents like spam.

3. Language Translator by Facebook: The Facebook Artificial Intelligence Research (FAIR) team used novel convolutional neural network (CNN) approach for language translation that achieves state-of-the-art accuracy at nine times the speed of recurrent neural systems. By Language translation Facebook's mission is to make world more open and connected, enabling everyone to consume posts or videos in their preferred language, at the highest possible accuracy and speed.

4. YouTube: YouTube uses a deep learning approach for recommending videos to its userôs. The YouTube system is built on top of **Tensor Flow** (a framework for experimenting various deep neural network architectures). To give an idea of scale, the models learn approximately one billion parameters and are trained on hundreds of billions of examples. The basic problem is posed as ñgiven this userôs YouTube activity history, which videos are they most likely to watch next?ò

Almost all learning and classification problems can be solved by deep learning. Deep learning is not a magic. It is just statistics (matrix multiplications)in a black box, but exceptionally effective at learning patterns.

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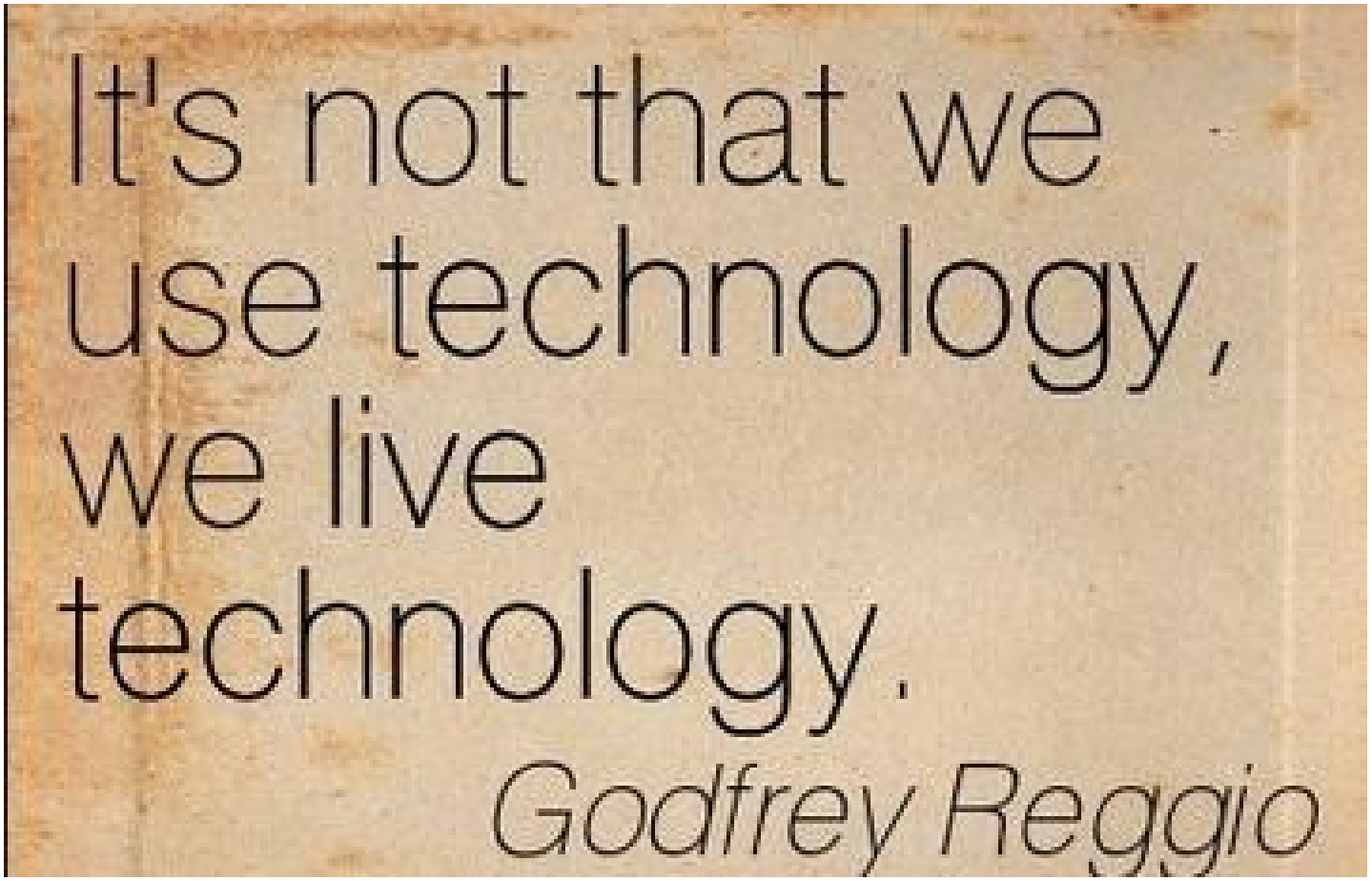
2. Ms. Deepti Nikumbh Assistant Professor Computer Engineering Department.



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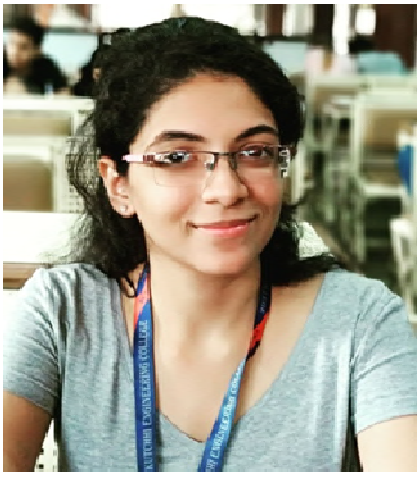

AARTI MEHRA

TE-4

ASHLESHA PATIL

TE-4

HARSHADA MANE

TE-D

ZINIRRA MOIRA

TE-D

HEET NANDU

TE-4

PALAK NISAR

TE-4

JAINAM SONI

TE-4

PARTH PAREKH

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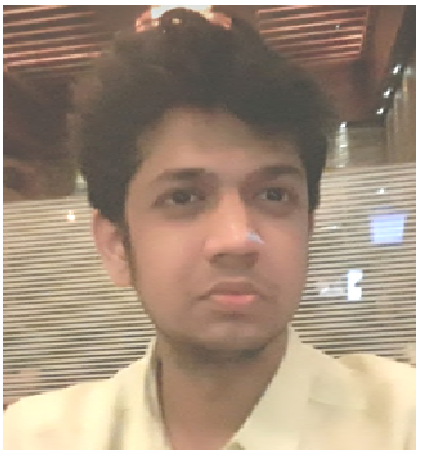
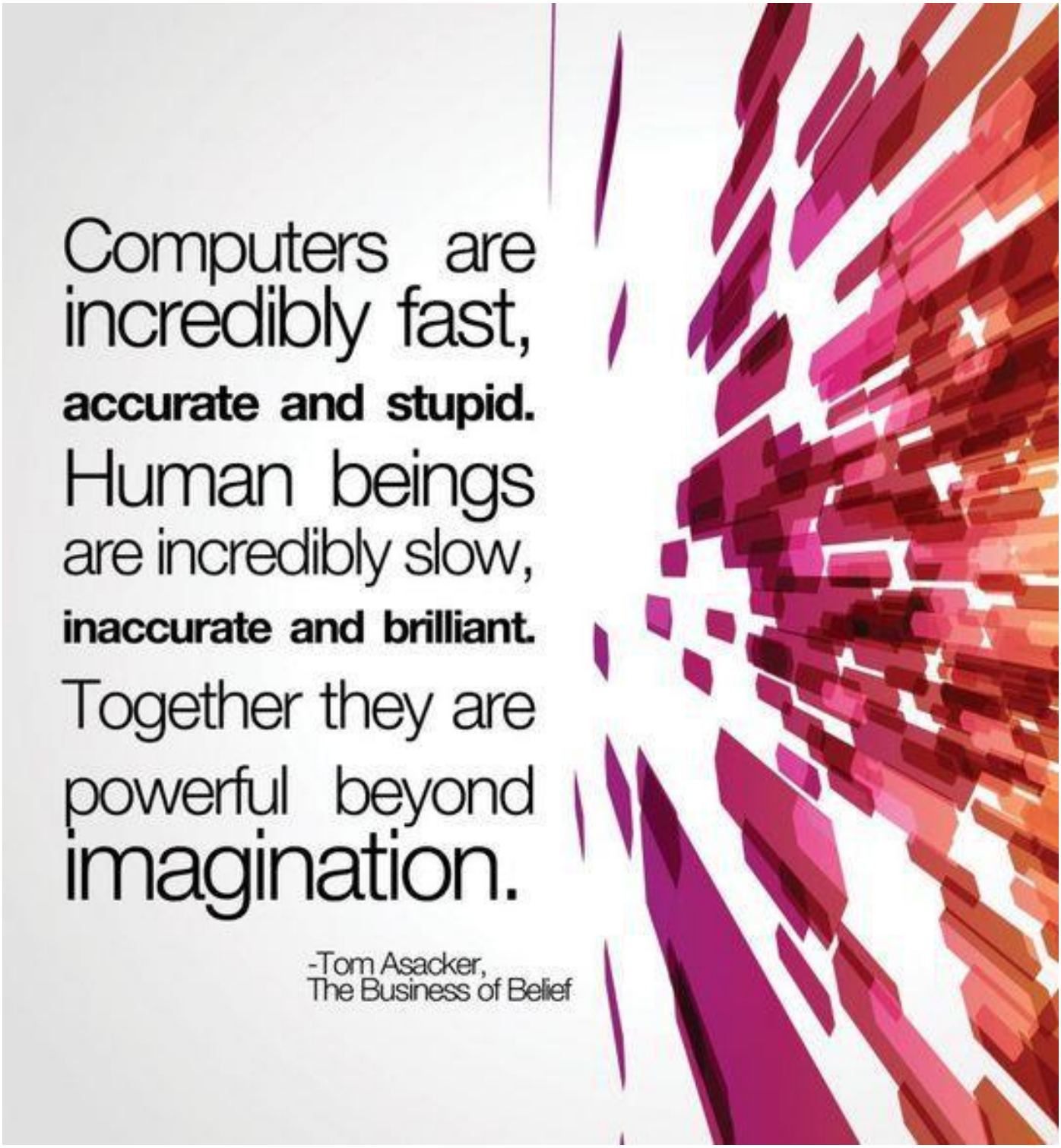


TUSHAR MUSALE

BE-3


Computers are incredibly fast,
accurate and stupid.
Human beings are incredibly slow,
inaccurate and brilliant.
Together they are powerful beyond imagination.
-Tom Asacker,
The Business of Belief