

# coffee & CODE;

an initiative by **Department of Computer Engineering**



## Computer Department's Vision

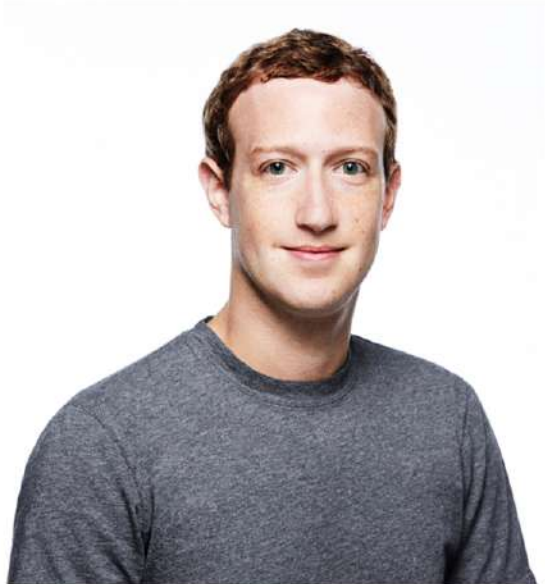
To be recognized globally, as a department which provides quality technical education that eventually caters to helping and serving the community.

## Computer Department's Mission

To develop human resources with sound knowledge in theory and practical of computer science and engineering.

To motivate the students to solve real world problems to help the society grow.

To provide a learning ambience to enhance innovations, team spirit and leadership qualities for students.



**Mark Zuckerberg**  
CEO, Facebook

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## DEPARTMENTAL ACTIVITIES

### Departmental Industrial Visit at the Bombay Stock Exchange

Third year students of computer engineering had an Industrial visit at the Bombay Stock Exchange, Fort on 5th October 2018.

The students got to learn the nuances of the share market. The Students came to know the basics of the Indian Capital Market and Indian Economy.

They also had a visit to the stock brokers office where to see a real time simulation of the live stock terminal.



## VIRTUAL LABS

### Virtual Lab on Image Processing



Virtual Lab session conducted on “Image Processing” by Final year Computer Engineering student Jeet Patel.

A Total of 2 virtual lab sessions were conducted on topics, such as:

- 1) Image segmentation using region growing.
- 2) Demonstration of distance, connectivity and neighbourhood.

Faculty Incharge : Dr. Ekta Upadhyay

### Virtual Lab on Soft Computing

Virtual Lab session conducted on “Soft Computing” by Final year Computer Engineering student Bharadwaj Jani.

A Total of 6 new lab experiments were explained.

Faculty Incharge : Mrs. Kanchan Dabre



## CONTENT BEYOND SYLLABUS

Our Final year students, Miss Palak Barot and Miss Jill Kakadiya had conducted an interactive session on Deterministic & Non- Deterministic Finite Automata using a software called jFlap, which is a simulator used to show the various outcomes and transitions of states for various inputs. The learning outcome of the session is that the students came to know the exact working of DFA, NFA, etc.



## NAAC VISIT

We had a 2-Day visit by the “National Assessment and Accreditation Council (NAAC)” on the 27th and 28th September 2018. NAAC is an autonomous institute established by the UGC in 1994. The prime agenda of NAAC is to assess and accredit institutions of higher learning with the sole objective of helping them to work continuously to improve the quality of education.

The schedule for Day 1 was inspection of the various departments and interaction the heads of the various departments followed by a Cultural Program towards the end of the day. Day 2 mainly comprised of report writing and finalising the report in presence of the various stakeholders.



# TANTROTSAV 2k18

Tantrotsav is an annual intra- collegiate technical Competetition with the sole aim of finding and nurturing talented students to further train them to represent the institution at various state and national level technical competitions. This year we saw 4 different events from the department of Computer Engineering namely, "Let us C", "UCOE HACK", "Webcraft 2.0", " Appathon 2.0". More than 150 students had participated in the above mentioned events.



For inner circulation only

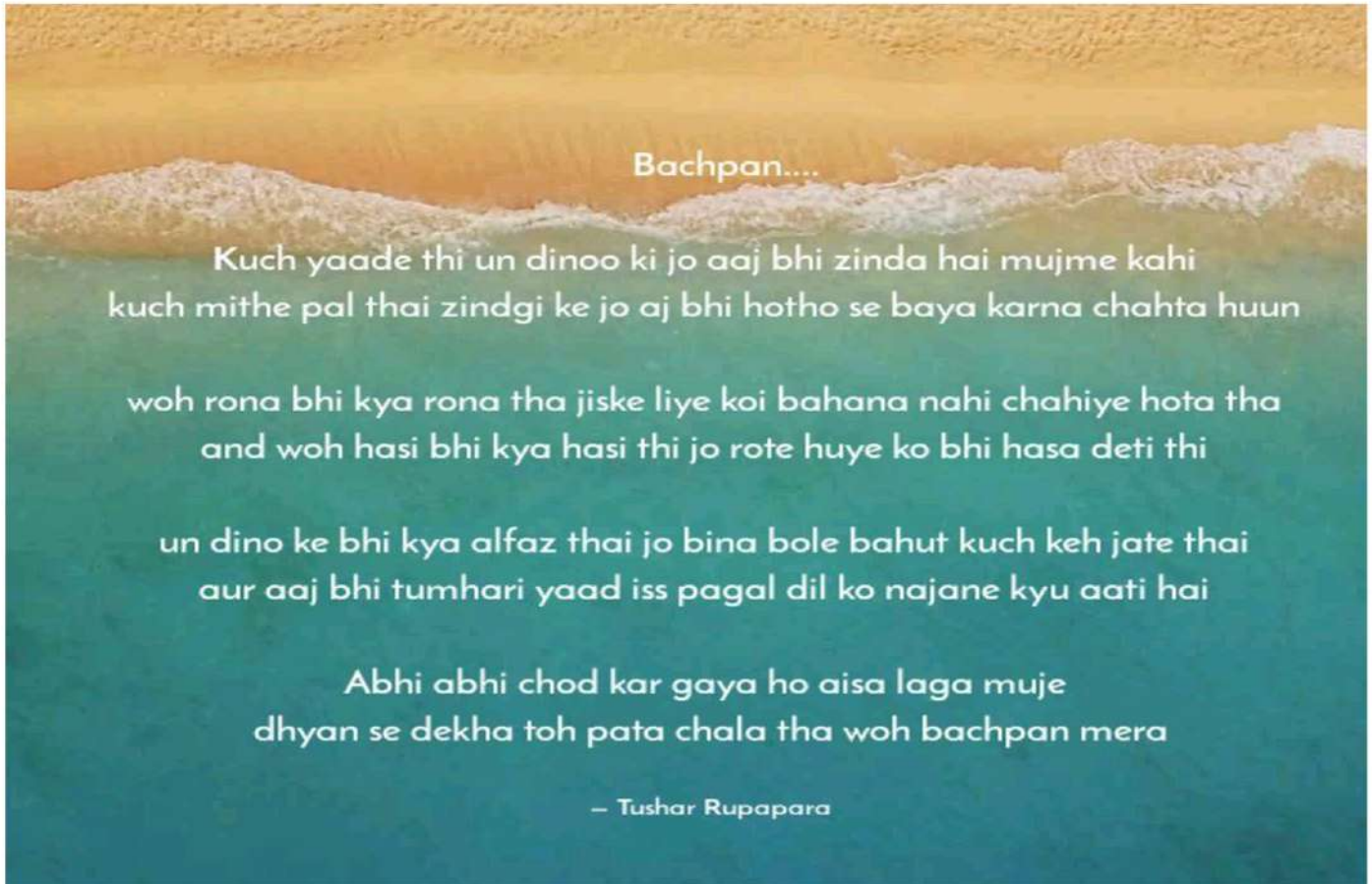
## Student's Achievements in Various Inter Collegiate Sporting Events

Our Final year computer engineering student, Mr. Jishnu Menon have made us proud by securing many prizes in Badminton at various zonal and state level competitions as follows:

- 1) For securing 1st Prize in Badminton Singles, in Yudh 2018 at the Andheri Sports Complex.
- 2) For securing 2nd Prize in Badminton Doubles, in Mira Bhayandar Championship, held at Mira Road Sports Complex, on 25th August 2018.
- 3) For securing 2nd Prize in Badminton Doubles in "Palghar District Selection Badminton Tournament , held at Vasai Vikas Sahakari Bank Limited , on 4th July 2018.
- 4) For securing 2nd prize in Bandminton Singles in "All India Malayalee Association Badminton tournament" conducted from 12 to 15 july 2018 in Goa.
- 5) For securing 1st prize in Bandminton Doubles in "All India Malayalee Association Badminton tournament" conducted from 12th to 15th july 2018 in Goa.



## Non Technical Article



## Technical Article

What really happens when your data is stored on far-off servers in distant data centers ??

-- By Barry M. Lunt

We live in a world that's awash in information. Way back in 2011, an IBM study estimated that nearly 3 quintillion—that's a 3 with 18 zeros after it—bytes of data were being generated every single day. We're well past that mark now, given the doubling in the number of Internet users since 2011, the powerful rise of social media and machine learning, and the explosive growth in mobile computing, streaming services, and Internet of Things devices. Indeed, according to the latest Cisco Global Cloud Index, some 220,000 quintillion bytes—or if you prefer, 220 zetta bytes were generated “by all people, machines, and things” in 2016, on track to reach nearly 850 ZB in 2021. Much of that data is considered ephemeral, and so it isn't stored. But even a tiny fraction of a huge number can still be impressively large.

When it comes to data, Cisco estimates that 1.8 ZB was stored in 2016, a volume that will quadruple to 7.2 ZB in 2021. Our brains can't really comprehend something as large as a zettabyte, but maybe this mental image will help: If each megabyte occupied the space of the period at the end of this sentence, then 1.8 ZB would cover about 460 square kilometers, or an area about eight times the size of Manhattan. Of course, an actual zettabyte of data doesn't occupy any space at all—data is an abstract concept. Storing data, on the other hand, does take space, as well as materials, energy, and sophisticated hardware and software. We need a reliable way to store those many 0s and 1s of data so that we can retrieve them later on, whether that's an hour from now or five years. And if the information is in some way valuable—whether it's a digitized family history of interest mainly to a small circle of people, or a film library of great cultural significance—the data may need to be archived more or less indefinitely.

The grand challenge of data storage was hard enough when the rate of accumulation was much lower and nearly all of the data was stored on our own devices. These days, however, we're sending off more data to “the cloud”—that (forgive the pun) nebulous term for the remote data centers operated by the likes of Amazon Web Services, Google Cloud, IBM Cloud, and Microsoft Azure. Businesses and government agencies are increasingly transferring more of their workloads—not just peripheral functions but also missioncritical work—to the cloud. Consumers, who make up a growing segment of cloud users, are turning to the cloud because it allows them to access content and services on any device wherever they go. And yet, despite our growing reliance on the cloud, how many of us have a clear picture of how the cloud operates or, perhaps more important, how our data is stored? Even if it isn't your job to understand such things, the fact remains that your life in more ways than you probably know relies on the very basic process of storing 0s and 1s.