



Vision of the Department

To be recognized as a Centre of Excellence in the field of Computer Engineering where learners are nurtured in scholarly environment to evolve into competent Computer Engineering professionals to benefit society

Mission of the Department

1. Evolve a curriculum which emphasizes on strong engineering fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in Computer Engineering.
2. Encourage a teaching-learning process in which highly competent faculty share a symbiotic association with the institutes of repute.
3. Facilitate creation and dissemination of knowledge through a digitally-enabled learning environment.
4. Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.
5. Establish a centre of excellence to enhance academia – industry partnership and work on collaborative projects.

Programme Educational Objectives (PEO)

1. To enable the pursuit of knowledge in the field of Computer Engineering and contribute to the profession and employability of the students.
2. To engage in research, generate the employment through entrepreneurship and work effectively in multidisciplinary environment.
3. To understand the human, social, ethical and environmental context of their profession and contribute positively to the needs of individuals and society at large.

PROF. DR. SACHIN BOJEWAR

HEAD OF DEPARTMENT, COMPUTER ENGINEERING

Hello Everyone,

I am proud to inform you all that institute is now being operated as an Autonomous Institute affiliated to University of Mumbai.

Institute also introduced Honours and Minors in the various domains like AI & ML, Data Science, Cyber Security, IOT which all Third-year students can opt for the honours as per the area of interest.

Today not only understanding the concepts is needed but also knowing and using different tools is need of time. So, department is promoting students to participate in various coding competitions and hackathons.

Department is also focusing on organizing workshops, seminars, coding competitions etc through CSI-VIT, CESA-VIT and GDSC.

Good students aim for good grades. Great students aim for understanding, with this quote I appeal to all my students that aim to improve your concentration which will help to understand the things better.

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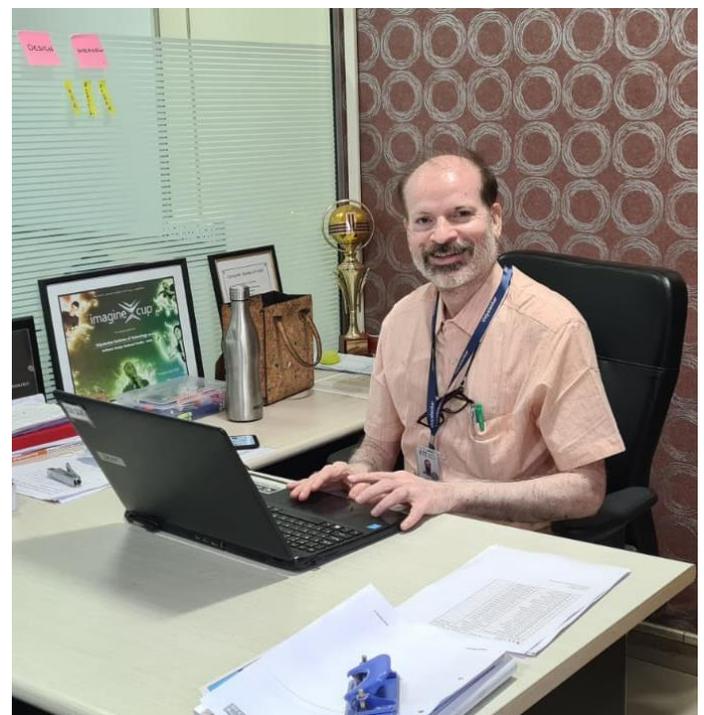
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“ Whether it's Google or Apple or free software, we've got some fantastic competitors and it keeps us on our toes. ”
 --Bill Gates

3-Days Hands- Compose camp by GDSC



DATE: 21st, 22nd, and 24th of September 2022
 SPEAKER: Mr. Chintan Parmar

Day 1 was all about how to get started with Kotlin and its basics. The technical core of GDSC introduced them to the process and helped the participants by clearing their doubts. To freshen up the students, a game called 'Grove' had been played in which groups had to guess the name of the song that was played

Day 2 started with more energy and greater enthusiasm as participants were going to make their applications. Unit 2 was handier, and it was practical. The application was of a rolling dice where the dice gets rolled when the button is pressed. Technical core lead Rajat Amate helped with the application. He presented the guidelines and steps to carry out the work. Also, a fun activity was conducted whereas usual participants were divided into groups 1,2,3,4 and one person from every group must pick a chit and draw the same on the board and the remaining group members must guess the thing. The crowd showed great participation in it and was on their toes during the final rounds

There was a speaker session on android development held online and the speaker was Mr. Chintan Parmar who is an active organizer at Kotlin Mumbai and holds more than 4 years of Experience in this field. Tanay Jawle, Shipra Dagli and Manasi Patil hosted the session. He showered some light on Kotlin language, explaining it with examples of how the function in Kotlin works. He also shared his advice on how compose is better than java. He added up its advantages of it. In the end, he shared his experience in this field and the event ended up with a summary



Department Staff

PROF. SNEHA A.
 ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
 PURSUING PhD

WORKING EXPERIENCE:
 16 YEARS

AREA OF SPECIALIZATION:
 NETWORK SECURITY

PROF. DIVYA SURVE
 ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
 PURSUING PhD

WORKING EXPERIENCE:
 8 YEARS

AREA OF SPECIALIZATION:
 IMAGE PROCESSING
 NETWORK SECURITY
 MACHINE LEARNING

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Engineering is a profession that can do the job of almost all other professions.

— Amit Kalantri,

”

Student's Speak

Aditya Mawa

Being a part of this college is one of the best decisions I've taken, ranging from studies to extra-curricular opportunities, it has never failed to break my shell of hesitance as I refer to it, and help me develop in every possible way.

Plethora of opportunities are made available by the college, where students can exercise and develop skills such as management, punctuality and a sense of responsibility, it only depends upon oneself to pick them up with a new zeal and enthusiasm and gain experience. It not only aims for excellent education but also provide platforms such as GDSC, CSI etc. for students to showcase their talents. The teachers here galvanize us with their vivid knowledge and incredible achievements which ignites us with inspiration!



The opportunities are endless. The possibilities in the computer science industry are vast and innumerable, and if there's anything you want to work on, chances are that there's somebody at VIT excited to work with you on it.

To sum up my experience so far in this college, I am a third-year student right now and have not regretted a day in this college and this strengthens my belief that my final year will also be filled up with all new experiences and supports from college mates as well as college faculties.

Know an Alumnus Harshala Parab

Hi everyone let me quickly introduce myself, my name is Harshala Parab and I'm a passionate Product manager (at Saregama India Pvt Ltd, the oldest music label of India) with a graduate degree in Computer Engineering (2017 Batch), and an ambition for producing cutting-edge yet practical products for the world. In these past years I've fortunately got the opportunity of working with a startup and at an MNC.

Frankly speaking when Prof. Amit Nerurkar sir reached out to me for this article. I was overwhelmed, and I remember immediately thinking to myself what all should I mention, should I give some advice, or should I just speak about my college experience and as I am writing this, I have decided to do a little of both. All my life I've been obsessed over technology, how things work, how they are made and so on, hence choosing computer engineering was a quite obvious choice. The choice of which college to opt for was a tough one and today I can gladly say that I am a proud alumni of Vidyalkar. The friendly environment, the systematic approach towards imparting education at VIT has made me a competent individual. The wide range of activities both curricular and co-curricular that go on all around the year to solely make sure that you are growing in terms of your knowledge and personality. College life has taught me many things, it has enhanced my personality, has helped me build confidence to face the challenges and struggles in my professional and personal life, it has been the launch pad for my career.



Science is about studying non-practical nature and Engineering is about studying practical non-science

— P.S. Jagadeesh Kum



Know an Alumnus Harshala Parab

I left college 5 years ago but its essence and learnings are still embedded in what I am today. One of the important points I would like to mention is instead of just focussing on studies, one must participate in other activities and socialize as much as possible in their college life, as all these things help in the overall development of a person. The most important asset in a student's life is the Guru/Teacher, and in VIT we were truly blessed with abundance. They made us laugh, they taught us, they praised us, most of the time they were like our friends and when required they were harsh on us. A huge shoutout to Prof Amit Nerurkar, Prof Ravindra Sangle, Dr. Umesh Kulkarni Sir, Prof Sanjeev Dwivedi, Prof Amit Dhanwani, Prof Suja Jayachandran, Prof Avila Naik (to name a few of my favorites) and all the faculty members of VIT.



Harshala Parab

I would like to share one such incident. I have always liked Maths as a subject and we had Prof Ravindra sir as our teaching faculty for M3 and M4. Over this period we were so used to his notes and his way of teaching, we kept reaching out to him whenever needed and even though he was not assigned to our class for that semester he would go out of his way and help us with our doubts, share his notes and post college he would stay back and take extra doubt solving lectures for our entire class. That's the type of dedication and determination a teacher puts in to make sure you're well prepared for your exam. And this is just one of the examples, keep in mind all of your faculty at VIT are there for you whenever you need their help or guidance. So don't be afraid or shy to reach out, this implies not just for college but even after. In life you will come across times where you have to make some difficult choices. Remember you can't paint the picture of your life with your hands in your pocket so be sure to take risks to grow yourself further. The opportunities are ample. Seize them.

One thing from college that I'll forever be grateful for, are my friends, who now have turned into family. From attending lectures, studying together, being a part of the fests, participating in sports activities, you form this special bond. Even after college it doesn't matter if you stay in the same city, same country they'll always hold a special place in your life. With the amount of stress that a student goes through right from assignment submissions, studying for 5-6 subjects per semester, building projects and managing extra curricular activities, your friends are the ones who actually understand what you're going through and make it a less bumpy ride. Hold on to them because I bet in an entire lifetime you won't find anyone like them!

It's rightly said, we never realize the value of something until it becomes a memory. It's exactly the same with college, right now 4 years might look like a lot, but trust me on this you won't even realize when they swiftly pass away. And at the end, remember the subjects you choose, the friends you make and most of all the perspective you carry has the power to change your world. This is your time-embrace it!



Winning is the most important thing in my life, after breathing. Breathing first, winning next.

--George Steinbrenner



Student Achievement



Shivani Herelekar TE-B

As a student of Vidyalankar college, it was an honor for me to represent my college at the Interzonal Badminton Tournament held at University Pavilion, Marine Lines. Even though I came runner's up, I was happy that I could do it for my college. The overall experience while playing this event was fun because I have always enjoyed playing badminton; be it in my practice or in any competition. But this tournament taught me lot of things; sportsman spirit, team spirit being some of them. I gained experience of having to play in a team and since I was the captain of the team, I also got to learn how to be good leader to any team not just particularly in case of badminton. The most important thing that I learnt being the captain of my team is to capitalize on the good aspects of the team however small they might be. Playing in a team has always taught me to prioritize your team first. To conclude, I would just like to say that this experience was a great one; since I got to learn lot of things which aren't new to me, but I just learnt them from a different point of view, and I learnt them in a new way.

Departmental Update

1. Deep Shahane, Riya Ingle, Samiksha Pansare, Rutvik Narkar presented research paper " Music Fiesta" under the guidance of Prof. Amit K. Nerurkar in ICTIIA 2022 on 23rd September 2022.
2. Dr. Sachin Bojewar attended TCS Faculty Development Program on 16 September 2022 at TCS Thane.
3. Department of Computer Engineering conducted Board of Studies Meeting on 30th September 2022.
4. Institute started working as an Autonomous institute affiliated to University of Mumbai from this July 2022
5. Department conducted guest Session on "Basics of Project Management" Speaker : Mr. Chiranjiv Ganatara Director Om Informatics and Turanth Logistics (Alumnus 2015 Batch , CMPN Department) on Date: 22nd September 2022.
6. Department conducted guest Session on "Insights on pursuing MBA from IIM" Speaker: Ms Nidhi Khanna MBA IIM Kozhikode (Alumnus, CMPN Department) on Date: 22nd July 2022.

Smart India Hackathon2022

Total 45 students from the department were shortlisted for final SIH of 2022.

Winning Team 1: PhoenixAlpha
Ishita Tambat, Shrey Solanki, Omkar Birmole, Ankit Singh, Kaveya Sivaprakasam, Amit Sharma
Mentors: Prof. Amit K. Nerurkar, Prof. Sachin Deshpande

Wining Team 2: P2BH
Aniket Ambore, Dhanesh Kawad, Burhan Khan, Ambika Sanap, Yash Pimple, Soham Ghadge
Mentors: Prof. Akshay Loke, Prof.Neha Kudu



“ Technology like art is a soaring exercise of the human imagination. ”
 – Daniel Bell

Faculty Article: Forking in Blockchain

Participants on the network must be able to agree on the blockchain's shared state because public blockchains (like those used by Bitcoin and Ethereum) are decentralised (shared public ledger and blocks and the blockchain protocol). A single blockchain containing verified data (transactions) that the network claims to be accurate is created by unanimous consent among the network nodes. However, it frequently happens that the network's nodes cannot agree on the blockchain's future state in unanimity. The ideal "single" chain of blocks is split into two or more chains that are all valid as a result of this event, leading to forks.

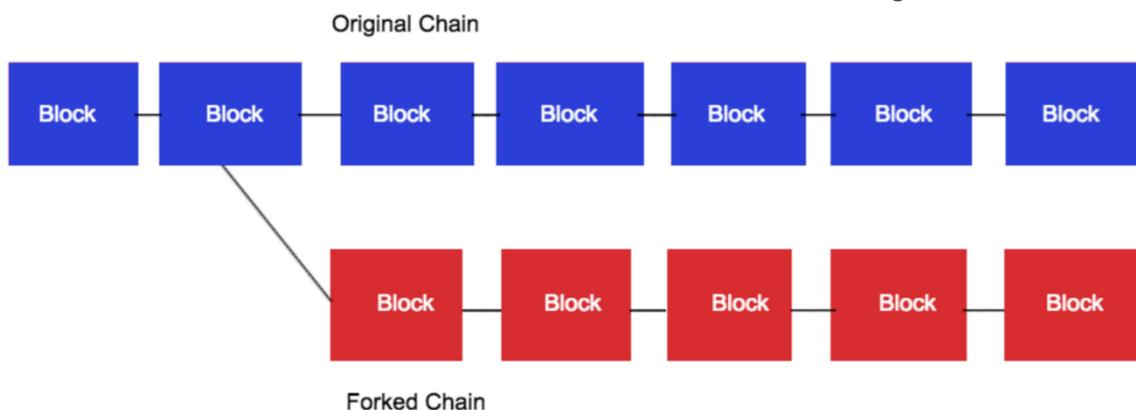
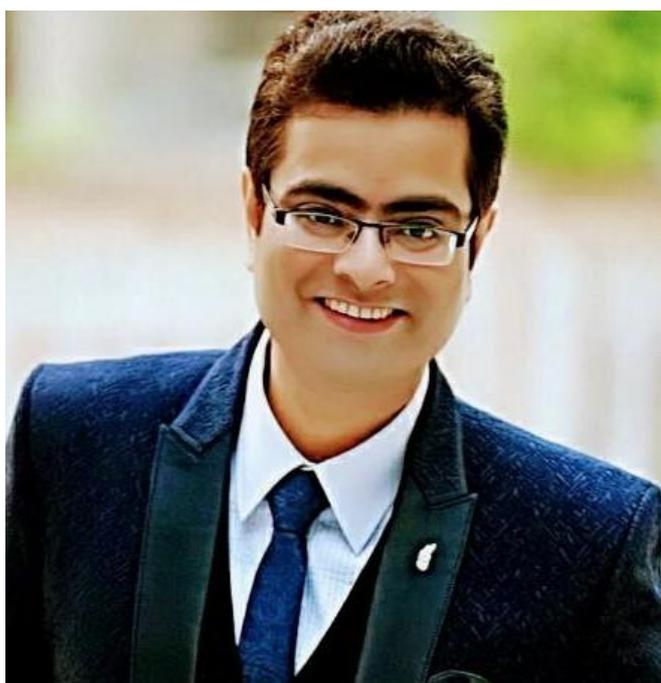


Image Source: <https://hackernoon.com/blockchain-forks-b0dca84db0b0>

Every time a community modifies the blockchain's protocol, or fundamental set of guidelines, a fork occurs. When this occurs, the chain divides, creating a second blockchain that is travelling in a different direction but has the same history as the original.

Why forking is important?

Much as how modifications to internet protocols enable web browsing to get better over time, most digital currencies have distinct development teams in charge of network changes and enhancements. So, a fork may occasionally bring new features or increase the security of a cryptocurrency.



Prof. Swapnil Sonawane

Soft fork: A soft fork is like a blockchain's operating system being updated. It becomes the new set of criteria for a currency if all users accept it. Both Bitcoin and Ethereum have used soft forks to introduce new features or functions, often at the programming level. The adjustments work with the pre-fork blocks because the final product is a single blockchain.

Hard fork: A hard fork occurs when significant code changes render the previous version of the programme incompatible with the new one. The blockchain divides into two in this scenario: the original blockchain and a new blockchain that adheres to the new set of rules. As a result, a brand-new cryptocurrency is created, which is where many well-known coins originate. Through a hard fork, the original Bitcoin blockchain gave rise to cryptocurrencies like Bitcoin Cash and Bitcoin Gold.

Why fork occurs?

Blockchains are updated for a multitude of reasons, just like all software requires updates:

- ✓ As a functionality-add
- ✓ Dealing with security risks
- ✓ To settle a dispute concerning the future course of the coin within the community



Karma is like Blockchain technology. You can't go back and edit anything in past, but surely can perform great ones today for the peace of mind in the future
 --Vikram Verma



Student Article: Blocked By The Blockchain!

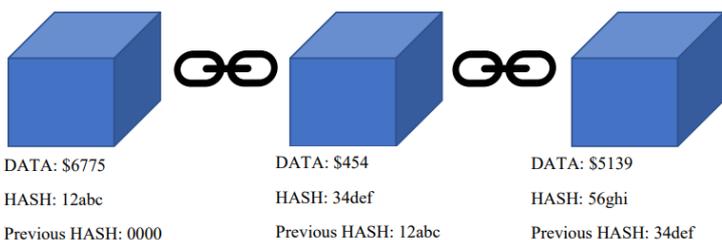
Does blockchain block people on social media? Well, the answer is no!

Blockchain is a technology which creates blocks of data shared among the nodes of a computer network. Technically, blockchain technology is a chain of blocks consisting of immutable data and facilitates the process of tracking and recording each transaction.

Starting from where the idea took birth, a cryptographer David Chaum first proposed a blockchain like protocol in the year 1982. But finally, the first decentralized blockchain was conceptualized by Satoshi Nakamoto in 2008.

Diving into how this technology works, each block contains this three information:

1. Data
2. Hash
3. Hash of previous block

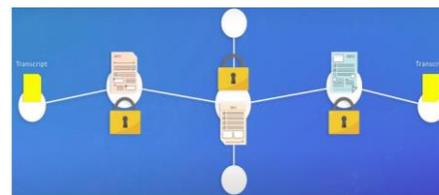


Shrishti Dogra TE-A

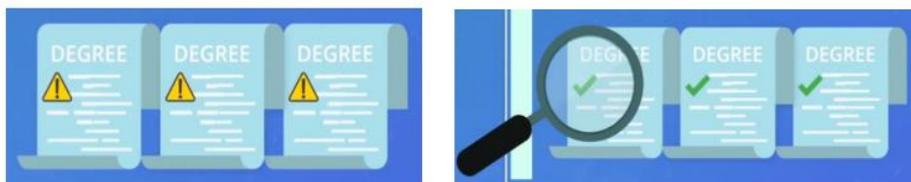
Data contains details of sender and receiver and he the actual information. Hash is a unique code given to each block to identify each information uniquely, any change in the data results in change of the hash. Previous hash of the block effectively creates the chain of block, and this technique helps in the security of this complete system. If any data is tempered, the hash of that block changes and results in invalidity of the further blocks as it contains the hash of the previous block.

Due to the enhanced security of blockchain, it is used in various domains

1. Cryptocurrency
2. Healthcare Industry
3. Government Organization
4. Finance Industry
5. Internet of Things and many other domains



Talking about how it is useful for the students, college life consists of maintaining and issuing of jillion documents. Blockchain are boon for this situation. As blockchain can be used to used to store sensitive information in a tamper-resistant way as well as it saves time and money. Saving documents to the blockchain ensures that they will be protected even after any kind of server failure. Fraudulent degrees are much to easy to forge these days with the help of upcoming technology.



Blockchains can be used to issue unique digital assets that verify all the credentials of all the degrees and certificates. Blockchain-based certificates can be issued to maintain the security as it will provide a tamper-resistant environment and it will maintain the transparency. Blockchain is the future of technology due to its security features and decentralized working system. Let us all create the BLOCKS and be the part of this CHAIN to create a world of BLOCKCHAIN.

UPCOMING EVENTS

- CESA WILL HOST HACTOBER FEST IN OCTOBER 2022
- CSI WILL HOST WORKSHOP ON PYHTON IN OCTOBER 2022
- ELECTIVE ORIENTATION FOR TE & BE WILL BE CONDUCTED IN OCTOBER 2022
- CSI WILL HOST TECHNICAL MOVIE SCREENING IN OCTOBER 2022
- ALUMNI TALK WILL BE CONDUCTED IN OCTOBER 2022

“
The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life.
--Bill Gate
”

THE
EDITORIAL TEAM

PROF. AMIT K. NERURKAR

Chief Editor