

MAY 2021 ISSUE

CS|VIT



TECH TODAY

TECH TODAY

THE YEARLY NEWSLETTER OF THE COMPUTER SOCIETY OF INDIA, VIDYALANKAR INSTITUTE OF TECHNOLOGY

MAY 2021, ISSUE 02



NEW LOGO

BY SHREY SOLANKI

The computer society of India at Vidyalankar Institute of technology strives for innovation and growth. We believe in exploring the world of technology from all aspects. Even during this difficult work from home times we have managed to conduct multiple webinars, workshops and events of wide area of topics.

We jump started this tenure of CSI VIT with a change. A change to upgrade our events with elegance. A change to maintain a flow of growth and represent CSI VIT in all its technical glory. We re-introduced CSI VIT with a new polish and unveiled a new logo.

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THE HOD'S MESSAGE

DR. SACHIN BOJEWAR

Department of Computer Engineering understands that steady and rapid advances in computing technologies shorten the life of tools and techniques prevalent today and aware of enormous talents and creativity which the students have. With rapidly evolving technology and the continuous need for innovation the department has always produced quality professionals and will continue to do so. I am happy to say that CSI-VIT are hosting good set of technical activities that gives all the students insights about all emerging trends and technologies in this ever-changing technological world.

THE DEPARTMENT NURTURES AND MOLDS THE STUDENTS TO ENTER IN THE RAPID FAST CHANGING PRAGMATIC WORLD YET MAINTAINING THE SENSITIVITY IN THEM.

These are exciting times for computer scientists as the discipline is now widely recognized as an essential source of tools and techniques for advancements in nearly all spheres of human endeavor.



CSI MENTOR

PROF. SACHIN DESHPANDE

Everything is growing at the pace of nanosecond and hence it is quintessential to know about every minute change in the technical world. With CSI-VIT we aim to present our students with compact yet explicit seminars and workshops on vivid topics such as Artificial General Intelligence, Drone Programming, Competitive Programming, etc.

With the constantly evolving technology it will be interesting to ponder over changes that could be seen in the near future. We look forward to providing the students with some valuable insights and inculcate the passion for being technically sound to survive in the IT industry thus by reducing the gap between academia and industry.



CONVENOR'S MESSAGE

PROF. AMIT NERURKAR



Vidyalankar Institute of Technology is one of the most reputed engineering institutions of Mumbai. The Institute is a part of the Vidyalankar Group, which was established almost six decades Ago, and which has been making surefooted strides in the domain of education ever since. Recently Vidyalankar Institute of Technology has achieved accreditation with an A+ Grade by National Assessment and Accreditation Council (NAAC), which is a significant milestone in our journey of success. Our aim is to encourage teaching-learning process and to establish a centre of excellence for students and to enhance academia-industry partnership and work on collaborative projects.

The CSI-VIT is a non-profit professional meet to exchange views and information to learn and share ideas..

The wide spectrum of members is committed to the advancement of theory and practice of Computer Engineering and Technology Systems, Science and Engineering, Information Processing and related Arts and Sciences.

I would like to add a quote of Robert Orben

"If you can laugh together, you can work together", and my entire team did the same thing, even during this pandemic CSI-VIT was able to organize the best-to-best quality events right from Webinar series to workshops, Conferences to Hackathons and the list continues. With such an exhaustive and wonderful teamwork, CSI-VIT has climbed to one level higher.

“ —
Aim for best and the life
for the rest will be
surely the best
— ”

YOUTUBE

CO-CONVENOR'S MESSAGE

PROF. MOHINI CHAUDHARI



In the years since CSIVIT have staged, we have witnessed a step forward every year. Computer Society of India being a technical body, we at CSI-VIT not only organize seminars and workshops but also provide students a collaborative platform to innovate by organizing virtual hackathons. CSI-VIT also organized quiz competitions and fun events like Escape Room to brush up the logical skills of the students.

Even the impact of COVID - 19 could not stop the spirit and enthusiasm of the team to come up with stirring technical events such as Multi-talented Engineers, The National Conference - Encypher 2020, The Flagship Event - Incognito and the list continues

CSI-VIT not only shapes the technical potential of the students but also moulds their managerial skills. They say "Coming together is a beginning, Keeping together is a progress, Working together is a success."

Every team of CSI-VIT has taken the torch of events one step ahead to that of previous year. We as a team have always worked together to make each and every event of CSI a grand success and we would continue to do the same.

Thank you!

“ —
Learning is limitless like sky. Utilise this gift of learning and it will lead you to success.
— ”



CHITRAL PATIL

-CHAIRPERSON

CSI Professors have always helped us in making our cursory plans feasible by discerning every fanciful idea. CSI Professors and CSI-VIT will always be revered by the entire team. However quixotic it may sound, I can't repudiate the fact that this couldn't have been possible without having a sedulous team, a team full of erudite members. Moreover, I would like to thank my zealous team for staying sanguine and also for their alacrity towards every event that was conducted in the daunting phase of the invasive virus - COVID-19.

CSI-VIT has helped me a lot in building a robust foundation along with the necessary skills that are going to be helpful in every aspect of my life.

NILAKSHI NAGRALE

-GENERAL SECRETARY

New year, New ideas, New enthusiasts and a challenging virtual tenure!

The future belongs to those who learn more skills & integrate them in creative ways! With this idea in mind, we as a team, aspired to take CSI-VIT to new horizons of success and glory, with every single endeavour. The energetic team rose to every challenge & implemented each and every idea with due diligence. Having the privilege to serve as the GS of CSI-VIT, a committee where learning by experimenting is encouraged by the revered convenors, proved to be a transformative experience, one that I would cherish for a lifetime! As we reach the end of our tenure, I wish all the luck to the successive team!



ARCTHA DUBE

-JOINT GENERAL SECRETARY

I remember my interview for CSI when I was in my second year, and I remember saying 'I just want to be part of the team'. It's amusing how much you learn and grow by being a part of things rather than just watching. CSI and my fellow committee members will be an essential fragment of my college life.

WHAT DOES THE FUTURE HODL?

-Nilakshi Nagrale & Archita Dube

WHO IS ELON MUSK?

Entrepreneur and business magnate, Elon Musk is the CEO and founder of the aerospace company SpaceX and co-founder of Tesla Motors, founder of The Boring Company, and co-founder of OpenAI and Neuralink. Musk seems to be everywhere all at once, pushing all kinds of futuristic technologies. He's said he won't be happy until we've escaped Earth and colonized Mars. And we believe him.

Between space rockets, electric cars, solar batteries, and the billions he's made along the way, Musk is basically a real-life Tony Stark — which is why he served as an inspiration for Marvel's 2008 "Iron Man" film.

ELON MUSK

Doge spelled backwards is Egod.



SO WHAT'S THE BIG DEAL ABOUT HIM?

One might obviously wonder what exactly is so great about Mr. Musk. Well, maybe it's his relatable attitude towards global issues and his different mindset that impacts millions around the world (or maybe it's his tweets). Whatever has put him on the map, his incompatible perspective and his patent goal has lead to him having an unbeatable impact on the stock market.

DOGEICOIN & THE 'MUSK EFFECT'

How much influence does the world's 2nd richest person have on the world? The answer might shock you!

In marketing, a product increases in value when more individuals begin adopting or using the said product. There's a good chance that you may have been influenced by this 'Network Effect'. Exhibit A – Elon Musk and his tweets.

Musk's celebrated brand impact often starts with a tweet, instantly piquing the interest of his current 52.3M followers! The most recent one – revolving around DogeCoin.

What started as a parody in 2013 by US-based software engineers Billy Markus and Jackson Palmer, DogeCoin now stands 7th in the cryptocurrency market. But that wasn't always the case. DogeCoin gets its name and branding from the famous "Doge" meme, which depicts a Shiba Inu dog. It can be exchanged for goods and services, can also be traded for fiat currencies like the US dollar. And unlike Bitcoin, dogecoin doesn't have a hard cap, so in theory, an unlimited amount can be minted.

Elon Musk has been enthusiastically rallying support for Dogecoin in a series of tweets since 2020. This not only resulted in people being made aware of the cryptocurrency around the world but also encouraged investors to buy more Dogecoins. A single tweet can lead to a brand spanking new surge in the prices of stocks. The Internet has now coined this phenomenon as the 'Musk Effect.'

But how does this 'Musk Effect' influence the stock market? Let's take a look.



“

SpaceX is going to put a literal Dogecoin on the literal moon

DogeCoin hit a record high of \$0.405 after Musk tweeted saying, "Doge barking at the moon." As of 30th April, '21, Dogecoin had a market capitalization of \$40.92 Billion. Fans of this rather obscure cryptocurrency have declared April 20 as 'Doge Day' on social media with the aim of pushing the digital currency's value to new horizons!

The Tesla CEO, through his tweets, upsets the established order by introducing anarchy in the markets. He incorporates dramatic devices, such as memes depicting current scenarios, into his public gestures or actions. This results in enhanced power and influence over his audience and creates a larger-than-life character of Musk. But should an individual hold so much power and impact?

Critics claim that the 'Musk Effect' is nothing but Market Manipulation followed by blind allegiance and is being viewed as a 'Speculative Bubble'. Of course, whether or not people should make investment decisions based on those tweets is an open-ended question.

We'll leave that for you to decide!



CSI EVENTS

August 2020

EVOLUTION OF MOBILE ENGINEERING THROUGH THE DECADE

Speaker: Omkar Pimple

A Mobile Phone is considered as one of the most important gadgets in our hands which gives us so much power on a single click, although its evolution is hardly the topic of ordinary conversations.

CSI-VIT organized its first ever webinar focusing on the Evolution of Mobile Engineering through the decade on 7th of August, 2020. He explained the very trending NFC and RFID concepts used in this field and notified the difference between 'Centralized approach' and 'Decentralized approach'.

Keeping in mind the unfortunate times of an on-going pandemic, Mr. Pimple apprised the audience about Contact Tracing elaborating that when the owner of a device identifies themselves as COVID-positive, all the devices which are in its proximity are alerted for potential exposure. He also mentioned how Contact Tracing helps to interrupt ongoing transmission and reduce the spread of infection by alerting contacts and offering preventative care using Bluetooth and Global Positioning System (GPS). Key highlights of this talk were Virtual Reality, Augmented Reality and their applications.

At the end of the session, the speaker shared his experience with Mobile Engineering and also discussed its scope with the students.



Click here to view Webinar



FLUTTER

Speaker: Nitin Giri

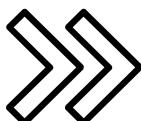
Apps are one of the most essential things in our day-to-day life. The Department of Computer Engineering and CSI-VIT organized a webinar highlighting the working of Flutter, on 8th August, 2020. The orator of the event was Mr. Nitin Giri who has worked in the Mobile App Development field for 1.5 years.

With the help of Android and IOS applications as an example, thorough understanding of this open source UI Software was given to the students. Emphasis was made on the use and importance of Flutter and its major components.

He also introduced Dart, a programming language similar to C and C++ to the students. A live demonstration of a code was then carried out for the better understanding of Flutter followed by a brief working of dart programming language.

Mr. Giri elaborated about how Google Skia and Google Fuchsia work and how it plays an important role in the development of Google.

The event ended with a live Q and A session with sample projects to be carried out by the students.



Joint General Secretary, CSI-VIT
(2019-2020)
2 months of experience as an
Android Developer

[Click here to view Webinar](#)



MACHINE LEARNING AND CAREER OPPORTUNITIES

Speaker: Mr. Siddhant Wade

The alluring event on Machine Learning and Career Opportunities was held on 18th August, 2020. The speaker of the event was Mr. Siddhant Wade who is a Data Scientist and ML Solutions Consultant. He has done excellent work in fields like Analytics, Product Development and Digital Strategy in impactful organizations like Uber and Hyperledger.

The event commenced with a brief introduction to Data Science and Machine Learning. The speaker brought to focus on how and what data scientists typically do and the changes they have brought in across the world. The different roles and positions of Data Scientists, Data Analysts and Data Engineers were crisply explained. He emphasized that Python and SQL are the two tools without which one will never be paralyzed and will change the trajectory of this career.

He enlightened the audience about the automation of ML in upcoming years and how trending the concept of ML, AI and Deep Learning is in today's world! A quick glance about the analysing problems, Design of Experimentation was also shared.

His advice to the students was to try and build every time, discover opportunities and to take the leap. At the end of the session, the speaker shared his experience and suggested the students the scope of ML and AI in their respective fields.



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A STORY OF RAGS TO RICHES: INDIAN IT INDUSTRY



Speaker: Dr. Saurabh Mehta

In this age, one can remark a country as progressive by its economic statistics. There are many factors influencing the economic growth of our nation. One amongst them being the IT Industry.

Dr. Saurab Mehta talks about the different success stories and incidents that contributed to the growth of the IT industry in India and hence in the country's GDP.

He narrated the most inspiring journey of Narayan Murty, whom, despite facing a lot of hardships, established the first Indian Firm - INFOSYS.

Professor also praised the inquisitive mind of Shri Chandrababu Naidu, who being a political leader, started a high-tech city in Hyderabad for his obsession with technology and an e-governance system with a view of digitizing every administrative process.

Dr. Saurabh Mehta also explained how the concept of startups has created a new ecosystem for the IT industry known as NASSCOM. Foreign IT Firms have been a contributing factor to the growth of the IT industry. Dr. Mehta assures that India will surely play a leading role in the ongoing fourth industrial revolution globally.

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FUNCTIONAL PROGRAMMING (+ ENG DAY)



Speaker: Prof. Sanjeev Dwivedi

Functional programming [FP] has various interpretations, facets & different descriptions resulting in different versions and to have a better understanding about the same, CSI-VIT conducted a webinar on 15th Sept, 2020.

The speaker, Professor Sanjeev Dwivedi, started off with the basics of the programming world and explained the difference between Object Oriented Programming and Procedural Programming, i.e. Procedural Programming is far more centered on functions than the data, whereas, in Object Oriented Programming, data is more centered than the procedure.

There's a huge difference between imperative programming and declarative programming.

Declarative Programming is a programming paradigm that explains the logic of a computation without the control flow. Whereas, Imperative Programming is a programming paradigm that uses statements that changes a program's state. This was well explained using some beautiful examples.

The speaker discussed the importance of using Functional Programming in different fields for solving real-world problems.

The event was a huge success as it received an overwhelming response from the audience.

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FINDING FAULTS AND PROTECTING WEB APPLICATION USING OPEN SOURCE TOOLS

Speaker: Dr. Dilip Motwani

Web Application Security is of central importance for any web based business. The expanse of the internet makes it vulnerable to various kinds of threats, even after the existence of different security networks like IDS and Firewall. The fact that more than 70% of attacks happen on web applications, highlights the importance and sensitivity of data.

To discuss such vulnerabilities and counter-strategies, CSI-VIT organized a webinar on 18th Sept, 2020. The speaker, Dr. Dilip Motwani, emphasized the need for a Three-Tier Architecture which increases complexity of user authentication and access control, making it a bit secure. Beyond everything, there exist client-side and server-side vulnerabilities which lead to Web Application attacks.

The digital era captures every minute information for future use which brings databases into the picture. And as we know data is the new oil, it should be handled with great care. Hence database knowledge and security is of utmost importance. Dr. Motwani introduced MySQL, Oracle and PostGreSQL database management systems which are widely used nowadays to keep track of data that pours in daily.

Various attacks such as XSS attack, SQL injection attack, Directory Traversal, Local file inclusion and many other vulnerabilities were explained in great detail.

The need to protect the database from cyber attackers by shielding the computer or network from malicious or network traffic was highlighted. Solutions to exploit sql injections using sql maps which are open source penetration tools were also discussed in the webinar.



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ARTIFICIAL GENERAL INTELLIGENCE

Speaker: Prof. Mohini Chaudhari

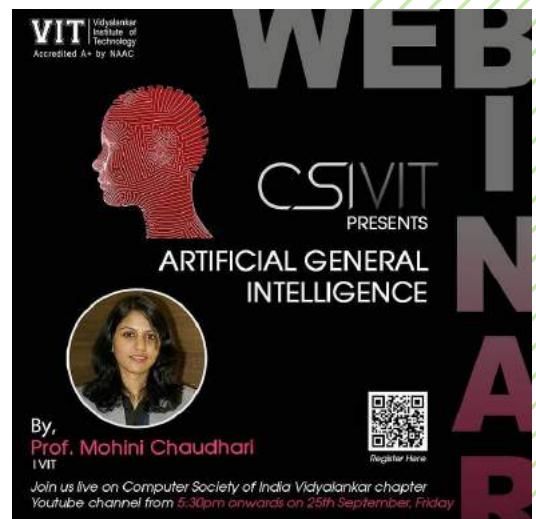
Artificial General Intelligence (AGI) is an emerging field aiming at the building of general-purpose systems with intelligence comparable to that of the human mind. While this was the original goal of Artificial Intelligence (AI), the mainstream of AI research has turned towards domain-dependent and problem-specific solutions; therefore, it has become necessary to use a new name to indicate research that still pursues the “Grand AI Dream”, hence the term “Artificial General Intelligence”.

CSI-VIT organized a webinar focusing on Artificial General Intelligence on September 25, 2020. Prof. Mohini Chaudhari enlightened us with her teachings regarding AGI and its scope of research.

The session was insightful and informative as it made the students aware what Artificial General Intelligence actually is and how it works. The speaker also explained about the application developments of DeepMinds from 2010-2014, which developed the Q-Learning Algorithms to beat Atari games along with AlphaGo, which was then captured by Google. In 2015, AlphaGo beat one of the top Go players in the world.

She emphasized on the Rise in AI scientists in the upcoming decade and majorly focused on how with the help of childlike AGI, Virtual AI scientists are emerging. Research predicts that in the 2020s, there will be a rise in robotic applications and AI scientists.

With such an interesting topic being discussed, the event saw an active participation of students and was a humongous success.



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JAVA WEB APPLICATION USING SERVLET



Speaker: Prof. Swapnil Sonawane

Servlet is a Server-Side Technology that is deployed on the server to create dynamic web pages. As servlet technology uses Java, web applications made using servlets are secured, scalable and robust. Prof. Swapnil Sonawane shared his knowledge regarding Servlet and common topics in web applications and its future applications.

This webinar by CSI-VIT commenced on 9th Oct '20, with a brief introduction to Servlet & the Client Server Architecture.

Prof. Swapnil emphasized on how the 3 Tier Architecture has 3 entities- client side, web server and the Database server and further explained on how the server is split into two parts, i.e., the web server and the database server.

The Web browser is a client whose HTTP request is accepted by Web Server, who then forwards that request to Servlet. Servlet is in the 'servlet container', also called as 'web container' which is a part of web server. It accepts and fetches the data from the database and generates the 'HTTP' response on behalf of the web server. The web server then transfers the response to the client/web browser.

The speaker introduced various java server-side applications, like Servlet, JSP, JSF, CGI etc. and he apprised each of them in a crisp manner.

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THE 3 INGREDIENTS OF SUCCESS

Speaker: Mr. Abhay Valsangkar

Have you ever wondered why so many people are fascinated with success in life?

CSI-VIT organized a webinar focusing on Ingredients of Success, which was conducted on YouTube Live on October 16, 2020. The speaker of the event was revered Mr. Abhay Valsangkar, founder of Alter Ego Learning (A Learning & Development Organization) and Author of an Upcoming Book- A Lifelong Journey.

Mr. Abhay shared his valuable thoughts on this topic of success. For genuine success, a person needs three things i.e., the mindset, the skillset, and the toolset. The speaker shed light on 5 steps to imbibe in the path of achieving success.

One of the major topics he focused on was the capabilities of successful personalities and how it is necessary to make networks with people.

Mr. Valsangkar brought up the topic of peer pressure and advised the students to not live a scripted life. The session was insightful and wonderful as it made the students understand the real meaning of what success is and how it is to be attained with simple changes in ourselves. His experiences were shared which made the students ponder upon how simple it is to reach towards success and how to have a positive approach towards our lives.

“

Your Network is your Net-worth



Click here to view Webinar



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V-HACKATHON

Intense problem-solving environments like hackathons facilitate the creation of innovative ideas and concepts. 1st Online V-Hackathon of Vidyalankar Institute of Technology in association with MathWorks, Kids Galaxy and Computer Society of India,

CSI-VIT was held with the objective to bring young minds together identifying new and disruptive technologies across disciplines to solve the challenges faced in our country. It was a nonstop 24 Hours product/prototype development competition, where problem statements were posed to technology students for innovative solution. The prerequisite problem statements were collected from faculty and students..

The Hackathon commenced with the flag off session and a keynote address by Hon. Director Shri. Milind Tadvalkar. The day 1 of the V hackathon ended after two rounds of judging by our esteemed panel of international/national industry and academia experts. The participating groups went through the final round of project demonstration and judging. This was followed by the closing ceremony and winner declaration.

Winning groups were awarded with prize money, certificates, and internship opportunity with V hackathon 2020 association partner Kids Galaxy. V Hackathon concluded with a thank you note by Dr. Saurabh Mehta.

V Hackathon has helped in breaking the barriers of adopting new break through technologies while providing the steppingstone for greater knowledge through hands on projects. The products developed by V Hackathon will be further be incubated by Vidyalankar Institute of Technology to help secure funding opportunities.



NOVEMBER 2020

ENCPYHER

A National Cyber Security Conference



Our work lives, personal lives, and finances are all ruled by the world of the internet, mobile computing, and electronic media. Unfortunately, this widespread phenomenon makes us more vulnerable than ever to malicious attacks, invasions of privacy, fraud, and other such unpleasantries. Hence a 5-day National Conference on Cyber-Security and Cloud Computing was held By CSI-VIT in collaboration with CyberFrat from November 2nd, 2020 to 6th November, 2020.

The five day event brought various insights into the important subject of Cyber Security, Blockchain security and how everyone should take responsibility for their own privacy and security.

AT THE CLOUD
KNOWLEDGE EXCHANGE
BY CYBERFRAT IN
ASSOCIATION WITH CSI-VIT



YouTube

ENCYPHER 20

A National Cyber Security Conference



TRENDING CYBER CRIMES FOR STUDENTS

On the first day, Trending Cyber Crimes were discussed by Mr. Ritesh Bhatia, a well-known Cyber Crime investigator. Importance of keeping private data encrypted, the factors implementing Cyber-Security and ways to stay safe from these crimes were highlighted by the speaker.



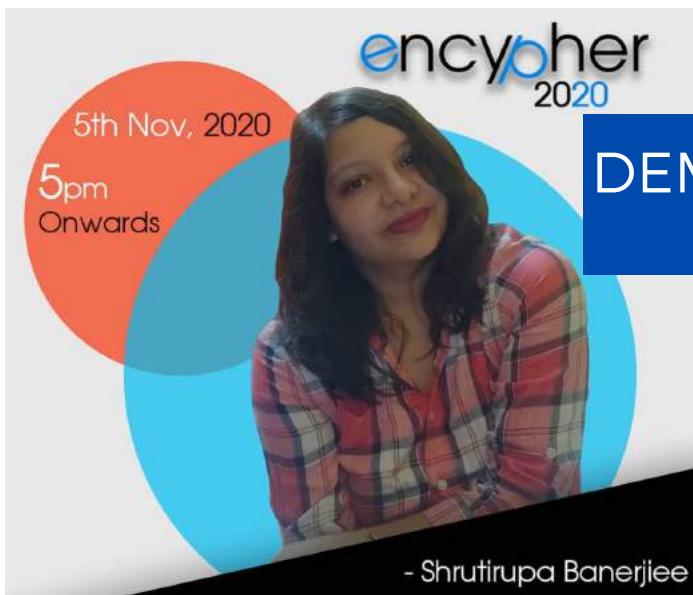
The speaker for Day 2 - Dr. Gauravkumar Thampi briefed the students on the difference between secure coding and simple coding.



CYBERSECURITY FOR CRITICAL INFRASTRUCTURE



The topics discussed on Day-3 were Cyber Attacks, and Cyber Physical System (CPS). The students were apprised about application of Cyber-Security for critical infrastructure and its evolution by the speaker Dr. Kazi.



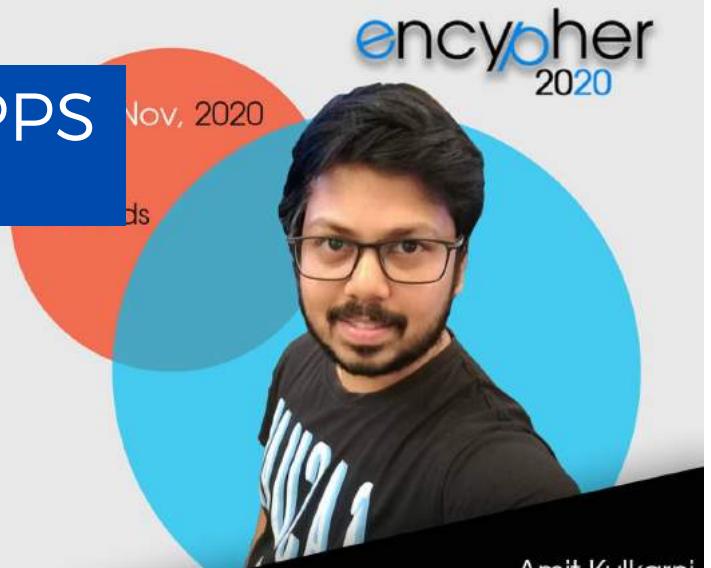
DEMISTIFYING BLOCKCHAIN SECURITY

For Day 4, the speaker - Ms. ShrutiRupa Banerjee illuminated the students with the information of Blockchain security, Bitcoin, Smart Contracts, DAPPs, Mining, and Consensus. Students were made aware about the remarkable field of Blockchain.

- ShrutiRupa Banerjee

SECURING YOUR APPS IN AWS

The National Conference - Encypher - was wrapped up by Mr. Amit Kulkarni who educated the students about AWS, customer data and access management.



Amit Kulkarni

WHEEL OF FORTUNE



Interesting Goodies like Amazon Alexa, Amazon Firestick, Smart Bulb By Wipro were issued to the winners

BEYOND US

BY SHREY SOLANKI

You get up every morning; make yourself a delightful cup of coffee; dress up and go off to work; lost in your daily routine and maintaining your packed schedule. Ever had a thought, Why? How? How are you able to do it? How is the human body so perfect? It allows you to communicate, think and feel. Such complicated mechanisms behind every move, behind every task. The human body is designed with such precision and such perfection, having each cell in your body for a separate purpose than the other. Nature created and evolution improved it, better than any existing technology. But wait, stop here. Aren't you a small part of this unusually perfect habitable planet?, which is an extremely small part of this universe? If your body is so minutely planned, if earth is so precisely constructed. What about this universe? What about beyond it?..



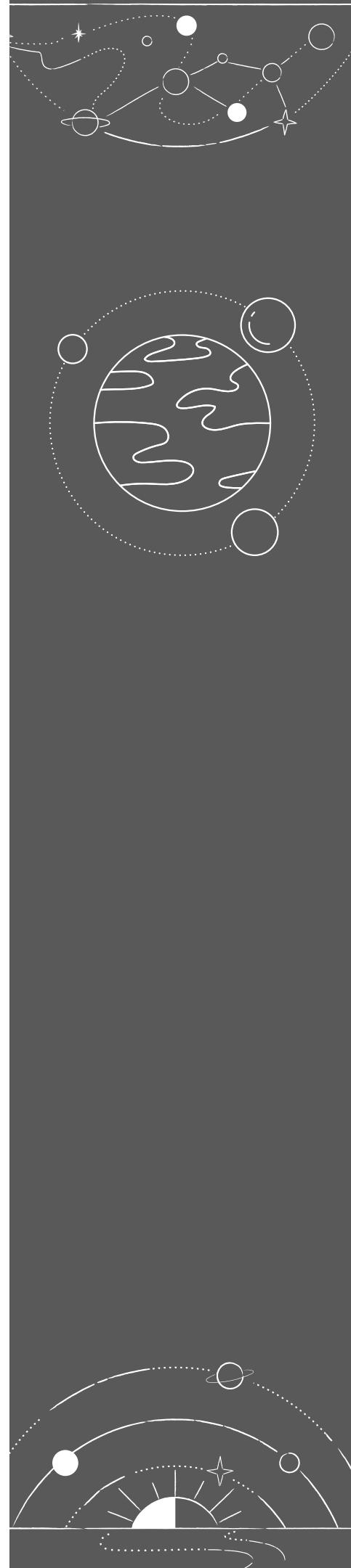
Approximately, 13.7 million years ago an explosion of a small, very hot singularity occurred called the Big Bang which formed our universe. But maybe it wasn't the only one to be born then. Space and time are fused into a space-time continuum. If this space-time is flat and stretches far beyond the limits of our observation, there is a possibility that it holds uncountable disconnected universes.

As we are a small part of our universe, our reality could be a small part of the multiverse. Maybe all your decision have an alternate, maybe there exist multiple versions of yourself.

Parallel universe opens up a string of possible theories, the possibility to travel through time, the possibility of branch timelines, and possibility of a world existing where the Nazis never lost and rule the world. Well, where would this universe exist? Another universe may be as close as a million trillion trillionth of a centimetre away, existing in the same position but vibrating at a different frequency. So close but still so far away.



Humans are fascinating, so are the universe and the possibilities beyond it. We know so little about our body, so little about our existence, so little of the universe we are a part of. We are still evolving, still learning. Our aesthetic judgement, therefore, comes down to many worlds or many words, perhaps we will gradually get more used to the weird ways of our cosmos.

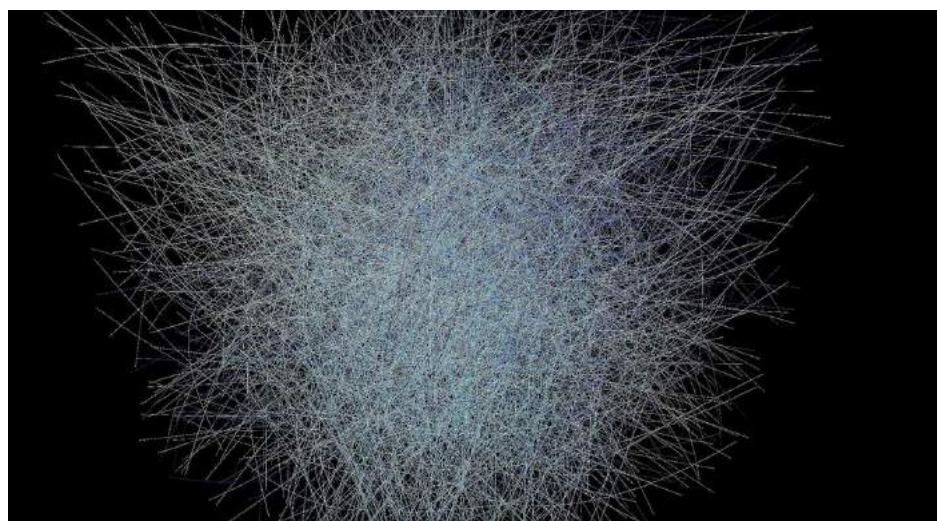


MAKING SENSE OF STRING THEORY

BY RIDIMA TAMBDE

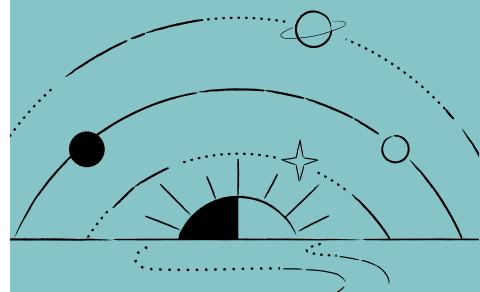
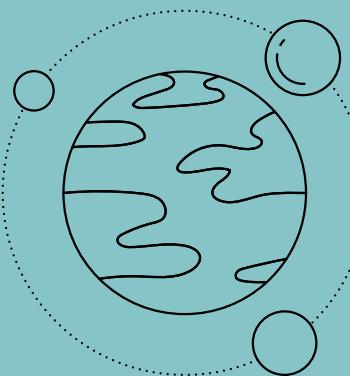
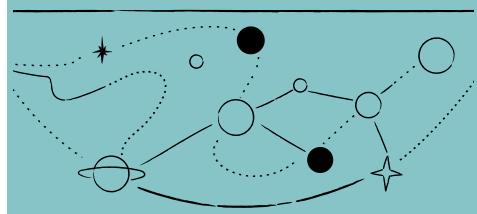
How string theory dominates time travel, multiverse and parallel universe.

Before talking about string theory, let's look at examples that even top notch scientists were unable to prove. Consider, Gravitational force, it is considered to be the weakest force but at the same time the same force holds you onto the earth that can keep many individual galaxies together. We've had scientists in the past that have put forth their theories on gravitational force with Newton saying that gravity holds the power to draw matter towards itself, but the question "how was gravitational force formed" still remained unanswered. Albert Einstein said that gravitational force is no force it's just a curvature that exists in space-time and While Einstein's gravity has passed every test so far, nobody knows for sure that it applies everywhere, under all conditions. When string theory was applied that's when it was proved that in quantum, one of the vibrational states of the string gives rise to the graviton, a quantum mechanical particle that carries gravitational force.

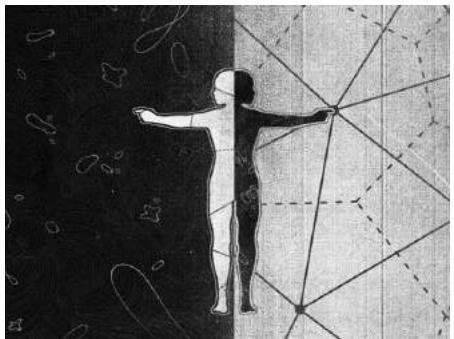


What's so powerful about the string theory?

If you look at in the science point of view, then to understand the matter present in the universe we make use of 2 theories, 1. General theory of relativity and 2. Quantum field theory. To understand the behaviour of massive objects in the universe like planets, stars etc. general theory of relativity is used and contradictory to this to understand matter on an atomic and sub-atomic level, quantum field theory is required. But the question arises "can't there be a single theory that is capable enough to understand the catastrophe of the universe?" this gave rise to string theory.



String theory is an attempt to describe the whole universe under a single “theory of everything” by adding extra dimensions of spacetime and thinking of particles as minuscule vibrating loops. String theory claims to make that dream a reality. In simple terms, it does this by reimagining what reality is made of. In order for that to work, string theory has to make one more radical assumption. That instead of living in a universe with three dimensions of space and one of time, we live in one with either 9, 10 or more dimensions of space.



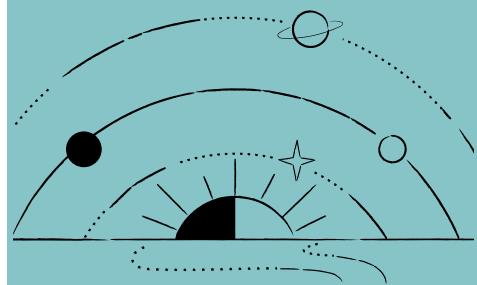
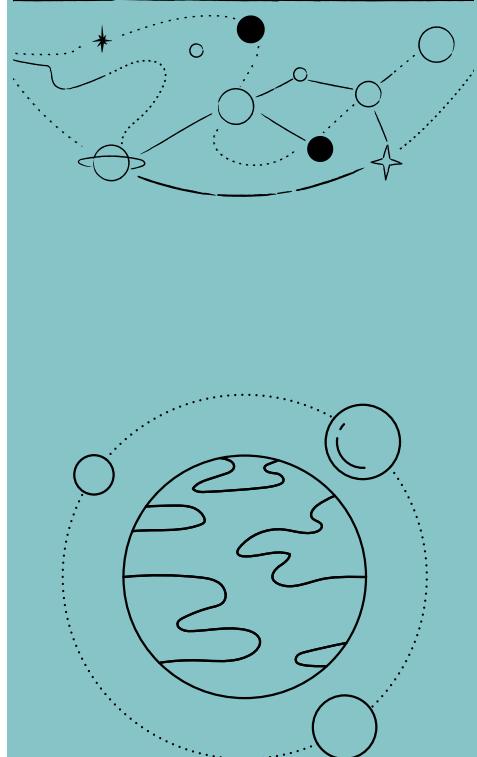
We are aware of the fact that we are surrounded by 3 dimensions, those that define the length, width, and depth of all the objects in the universe. Beyond these three visible dimensions, the other dimensions are where the deeper possibilities come into play and a notion of possible worlds arises and these can be perceived with the help of string theory. With the 5th dimension teaching us how you can move back and forth in time but can't be at 2 different places at the same time, the 6th dimension explains us the plane of possible worlds, travelling back in time or go to different futures. The 7th and 8th dimensions gives us a plane of such possible universe histories, each of which begins with different initial conditions and branches out infinitely. Beyond this, nothing can be imagined by us lowly mortals, which makes it the natural limitation of what we can conceive in terms of dimensions.



Understanding the universe with dimensions

We tend to think of alternate realities and parallel universes when dimensions come into picture but to put it in simple terms dimensions are simply the different facets of what we perceive to be reality.

Because we've grown up in 4 dimensions we can't see these others, but we can certainly imagine them and calculate in them. And the wonderful thing is that even if we can't physically experience these extra dimensions our calculations can describe phenomena that aren't part of our daily experiences.



CSI EVENTS

February 2021

4 YEARS THROUGH ENGINEERING

Speaker: Ms Priyanka Kulkarni, SE EXTC

Mr Ram Pandey, TE CMPN

Ms Srishti Agrawal, BE CMPN

Mr Anirudhha Ingle, CMPN
graduate of 2020 batch

"Experiences give us stories to share"

To share, listen and learn from such stories, CSI VIT had organised a webinar '4 Years Through Engineering' on February 18th, 2021. It is an annual interactive CSI event which is for the students, by the students.

The speakers walked the audience through their vibrant experiences at VIT. They advised us to enjoy their time in college to the fullest and to make friends and memories to cherish for a lifetime, along with focusing on their personal development and growth. Their tips on how to study effectively and to maintain good grades were indeed valuable. They also highlighted how important it is to have a good balance of co-curricular and extracurricular activities along with academics for an individual's overall development.

The speakers shared valuable insights on time management, discovering different fields of interest, building up skills, internships, and examinations etc. which proved to be very beneficial to all the students.

The audience reflected on the speakers' years through engineering and with such insightful counsel, they ventured on their own journey through college.



Click here to view Webinar



A COMPLETE AUDIO PRODUCTION A MASTERCLASS

Speaker: Mr. Tanay Patel
Mr. Chitral Patil
Mr. Kaustubh Nene

Music is the true language of the soul.

CSI-VIT virtually conducted a Complete Audio Production Workshop on the 27th and 28th of February, 2021. The aim of the event was to educate students interested in the field of music on how to make and mould their own music.

Day 1 of the Masterclass was conducted by Mr. Chitral Patil, a Hindustani Classical Vocalist, who was accompanied by Mr. Tanay Patel, Music Producer & Vocalist. Ableton Live, software for Composing, Recording, Arranging, Mixing & Mastering music was introduced to the students and explained how Ableton benefits LIVE performances. A live demonstration of plugging, instrument list, quantization, audio effect, bar line, octane was given through Ableton. Students were explained how sound energy is converted into digital signals that are later processed by the software in order to combine different tracks. The speakers gave the students step by step instructions during the hands-on session while also performing the same themselves so as to guide the students through the event.

Day 2 of the Masterclass was conducted by Mr. Kaustubh Nene, Audio Engineer. The session started off on a Q and A round with the students and concepts like sound theory, propagation, wave, amplitude, frequency were discussed. The speaker also shed light on topics like Decibel Theory and its significance in the field of music. Lastly, the session was followed by the complete breakdown of the song Parinda, by The Floating Bottle. The students were also given sample tracks to experiment with.

By the end of the masterclass, the students were tutored about the process of producing music in its entirety.



[Click here to view Day 1 Webinar](#)

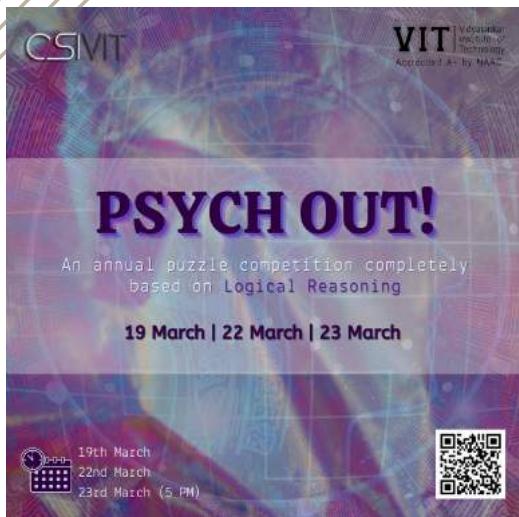


[Click here to view Day 2 Webinar](#)



PSYCH OUT

A LOGICAL REASONING BASED PUZZLE COMPETITION.



Amongst all the Technical Webinars and Events conducted, PsychOut was a breath of fresh air!

This four-day puzzle competition was based completely on Logical Reasoning. Teams of 2/3/4 were allowed to participate. This event needed no prior Technical knowledge, only wits and logical reasoning. The event commenced on 19th March '21 and was scheduled to end on 22nd march '21. The participating teams were challenged to solve 10 brain-teasing puzzles in 4 days!

Post competition, on the 23rd of March 2021, a live walkthrough session was held on YouTube where a CSI team member explained the solutions to every question. The session saw 48 eager participating teams waiting to know the solutions. This discussion of solutions was followed by the announcement of the winning teams.

Participation certificates were provided to every contestant. Certificates of Achievement were awarded to teams answering more than 50%, i.e., 6 or more questions correctly. The winning team bagged exciting gift vouchers!

This competition helped students improve their Logical Reasoning skills, cognitive skills, memory as well as concentration. In Spite of the event being online, the CSI-VIT team received an overwhelming response from all the students. Overall, the event was a success with loads of positive feedback from the attendees!

Click here to view the competition



FLUTTER WORKSHOP

In the near future, Knowing how to code will be just as necessary as knowing how to write it. CSI-VIT presents workshop on flutter was a 2- Day workshop by Mr. Nitin Giri, the Joint General Secretary of CSI-VIT 19-20 with a 2 months of experience as an Android and Flutter Development Intern in 'Commuteec' and a marketing Intern at MadAhead. On day 1 of the event, the speaker walked everyone through the concept of Dart Programming and demonstrated it with a basic "hello world" program and the participants also got an idea on how to run dart commands. The course of the event was to create a better understanding of flutter and how it has found use in several industries for making mobile applications.

Day 2 session commenced with the speaker throwing light on how can we make flutter apps, with building widgets which controls the UI elements, mix-matching widgets ,etc. He also brought to focus about the concept of API and gave an example of avengers movie.

For a better understanding, he also displayed a real life example of it, i.e. textfield, iconbutton, movielist, movieitem , etc kind of things.

By the end of the workshop, the students were tutored about the process of making an app on flutter and were also familiar with the dart language.



[Click here to view the Day 1 of the workshop](#)



[Click here to view the Day 2 of the workshop](#)



CODE INNOVATION SERIES: HACKATHON

The opportunity to unleash your creative side and use your technical talent to create something amazing with a technical event has always been a cherry on the top. The Hackathon initiative provides students a platform to develop their problem-solving skills and visionary concepts down to actionable solutions.

CSI-VIT and CESA-VIT associated by Incubated IND and Github organized a hackathon on 24th and 25th April 2021. The event was a non-stop 24 hour prototype development competition where problem statements were passed to the students for innovative solutions.

On 24th April, the students were addressed by Mr Shakti Singh, the program manager at IncubatedIND. In round 1, the participants submitted their ideas and 17 out of 73 teams were short listed by the expert panel. In round 2, 13 out of the 17 teams were shortlisted by further evaluation by the experts.

On the second day, the shortlisted teams were then finally evaluated by Mr. Shivank Gautam, Software Engineer at 19Tech on the basis of creativity, technical depth, challenge of doing the task in a short amount of time and usefulness in the real world.

The team Data Ambulance were declared as the winners of the hackathon and the certificates and prizes were issued to the winning team and runners up by the IncubatedIND Team.



CSIVIT
presents

incognito
CSI WEEK

**26TH - 30TH
APRIL**



CSI WEEK:
ESCAPE ROOM
DRONE PROGRAMMING
BLIND CODE
COMPETITIVE PROGRAMMING

INCognITO

CSI WEEK

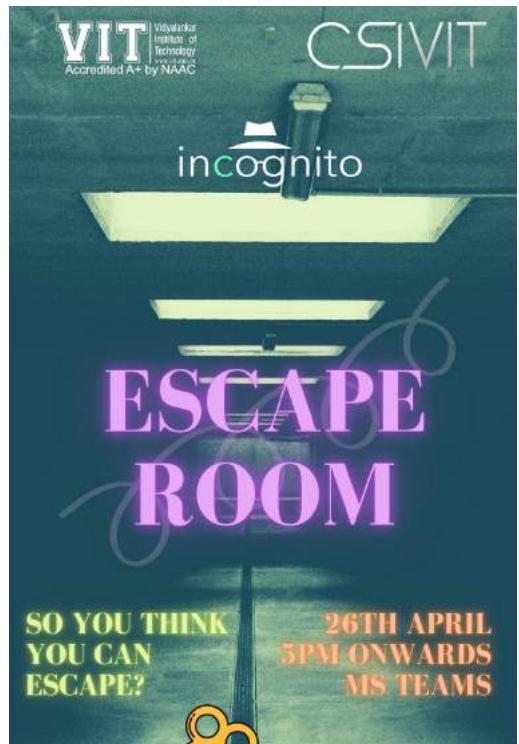
The very First Edition of our CSI Week marked a week full of opportunities for the students to enhance their technical and logical skills and get familiar with new technological and technical trends and tricks. With Incognito, a window of possibilities to upgrade one's software skills was provided along with broadening the horizons.

This second Flagship event introduced new events and competitions to keep the participants entertained through the week. Along with these, the daily and weekly challenges were also been rolled out for the participants to complete throughout the course of the week and a leadership board was maintained to keep a track of all the activities.

ESCAPE ROOM

The department of Computer Engineering and CSI-VIT proposed a virtual escape room competition to encourage collaboration, team work and team building. Students were made to click and view them individually in order to find a connection between them and hence get key/code to their way out of the room they were trapped in.

Teamwork and leadership in each team was continuously monitored by the organizers. This competition helped students improve their team building skills, cognitive skills, memory as well as concentration. In Spite of the event being online, the CSI-VIT team received an overwhelming response from all the students.



DRONE PROGRAMMING

The impact of unmanned aerial vehicles (UAVs) in daily life has primarily grown in the last decade. CSI-VIT conducted a webinar on Drone Programming. The event commenced with the speaker throwing light on Setup of architecture. He explained this with the help of diagrams so that the audience could get a clear view on the functioning of the drone.

While explaining the use cases, he explained the advantages of drone in agriculture field, how can drone help in disaster management and also in construction field the drone helps to see the work-side developments in different angles, in surveying the project. The session concluded with a brief about the application of drone programming such as Tower App, Mission Planner and the Speaker answered all the questions raised by the attendees.

MR. JATIN KOLEKAR

Worked with 3 drone startups in Paris and San Francisco called Rebird, DroneVolt and Birdstop. Created apps for Android, iOS and Windows for automated planes and drones

Currently working on creating worlds first drone network for a Silicon Valley startup as the software lead.



BLIND CODE

The CSI-VIT proposed a technical competition named Blind Code to sharpen the technical and coding abilities. The Students were provided with a live editor where they had to code in Html/CSS and the organizers were going to stream best of the outputs of the participants/Teams during the closing ceremony.

A timer of 30 minutes was set in which the participants had to finish the task. It was an Individual event as participants had to code individually. During the event participants had to use particular given editor for submission of their code and there was a constant check on plagiarism. Prizes and certificates were issued on Day 5 of CSI- Week through a live walkthrough session.

COMPETITIVE PROGRAMMING

Competitive Programming helps you enhancing cognitive and problem solving abilities and keeping this thought in mind CSI-VIT conducted a YouTube Live session on competitive programming with the main aim to increase inclination towards competitive coding and decipher a new competitive approach for the students.

The speaker emphasized on how in today's world, it is essential for a programmer to have skills at a competitive level and how it helps in cracking interviews and competitions. While explaining the logic, he also explained the advantages of competitive programming in technical field, pre-requisites towards programming and technical rounds to be faced for a programmer.



MR. KARTIK MATHUR

NSIT Graduate, Instructor and Product Engineer at Coding Blocks

Competitive Programmer, a full stack Web Developer and tremendous contributuon to many start-ups in India and abroad



HACKNEX

A Coding Group Initiative

Logo Designed by Sumith Pevekar

Highlights

Specially created programming resources

Coupons for MOOC Courses

Worldwide technical updates

Regular monitoring of the challenges

We all know, getting a job in the Top-Tier Company still remains a dream for many CS aspirants. So to head start the journey of such aspirants, HackNex was formulated.

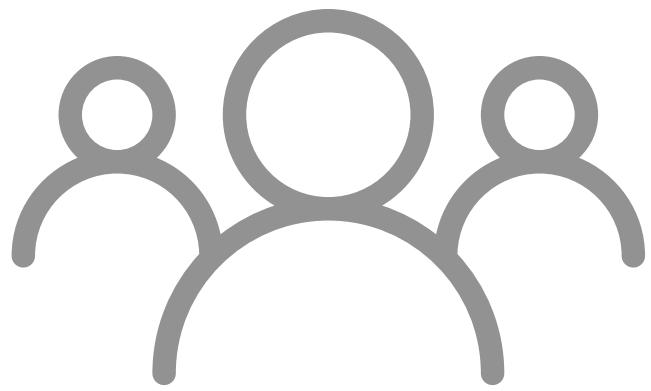
Hacknex is CSI-VIT's initiative to prepare the next generation of students to hack into the professional and top-notch world of Computer Science. This community is an attempt to provide aspiring Computer Engineers and Scientists a platform to connect and develop along with peers who share similar goals, as they say - "Birds of a feather flock together".

The competitive coding questions that are posted each week, help develop Algorithmic and problem solving skills which are highly encouraged in the much celebrated FAANG companies.

The response for the Hacknex Initiative has been very good so far as many answers pour in for each week's Competitive Coding questions which help the brain stay active and imaginative!

The CSI-VIT team is planning on adding many more features in the future to further increase interaction and prepare students for their careers.

JOIN HERE



TEAM
STORY

DOCUMENTATION



RIDIMA TAMBDE

Documentation Head

Amidst all the uncertainty, been associated with CSI has been a very vital aspect of my academic journey. Inspite of all our events turning virtual, CSI team left no stone unturned to contribute towards the academic growth of the students with all the events, making it vivacious and fun at the same time. CSI for me has marked a year full of opportunities, to unleash my skills and working with a team to ensure consistency of documentation practice and adhering to regulatory requirements.

“It's on you to get you where you want to be”

Team



TUBA MOMIN



TANVI KOKATE



AYUSHI BHAGAT



NANDINI MISHRA



JANHAVI KALWAR

CREATIVE



SHREY SOLANKI

Creative Head

CSI came to me as an opportunity to portray my creative skills but through the journey I developed technical knowledge, leadership experience and lasting relationships with peers and mentors. Having to lead some wonderful designers and work with the most talented team members made my tenure at CSI a whole lot interesting.

*“Let's take a leap towards imagination!
Let's make it reality.
Let's grow our ideas and implement them with creativity.”*

Team



KAVEYA SIVAPRAKASAM



CHAITANYA SAWASAKDE



ABHINAV



SHRUTI NAGWERKAR



OMKAR KARLE



SANIKA CHAVAN

DIGITAL MARKETING



Working as the Digital Marketing Head at CSI, I loved how I always had the opportunity to experiment with my marketing strategies, ditching the conventional methods and put all the phenomenal concepts into practice to make all the events unique in every possible aspect.

GRAVIT HINGAD

Digital Marketing Head

“

There are two rules in success, first- never tell anyone everything you know.

”

“

It will happen if you make it Happen

”

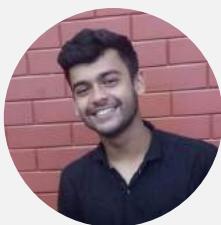
It is difficult to encapsulate but I would say a thrilling hassleful journey which has upskilled me with the gravity of team work. CSI kept us all linked together and now we are all a family including our very supportive professors.



RUJUTA LANKE

Digital Marketing Co-Head

Team



MAYURESH VEERAMALLU



OM DEVLEKAR

PUBLICITY



The Journey with CSI-VIT this year has been absolutely wondrous and at the same time totally unpredictable considering the pandemic situation. But this year's team with their unique ideas and approach, created a hype that was never seen before.

“
The only milestone, the only landmark, that you need to accomplish, is the one that you have set for your own self.
”

SHREYAS SURESH

Publicity Head

“
Make your customers
the hero of your
stories
”

I have developed Curiosity and Innovative Thinking. Working with CSI, admitted me to extend my public relations. CSI helped me enhance my personality.



HARSHADA SAPKALE

Publicity Co-Head

Team



SAAMIYA NEWREKAR



HRISHIKA SAMANI



HARSHADA CHAVAN



SRUSHTI WAINGADE



RUSHIKESH TAYADE



BHUMIKA AGRAWAL

SPONSORSHIP



Tenure as a Sponsorship Head helped me shape my personality. We met many industry professionals who were proficient in their respective fields, they shared their success stories, which was a great learning experience. Virtual events were never a barrier and the team successfully managed everything with the same enthusiasm.

“
If you don't find a way to make money while you sleep, you will work until you die
”

MOHIT CHANDORKAR

Sponsorship Head

“
Believe in yourself and trust your instincts.
”

My time as the Sponsorship Co Head of CSI VIT has been very exciting. Bringing sponsors from different companies was a big and difficult task to achieve. Along with the Head and the team we had an amazing year and hopefully we have set the bar high for the upcoming members.



KUNAL YEOLE

Sponsorship Co-Head

Team



CHETRAN ZAGADE



AKSHAJ SALVI

TECHNICAL



CSI has helped me in gaining novel skills and compelled me in becoming punctilious. The proper execution of the events couldn't have been feasible without the zealous core members. The pragmatic experience gained at CSI-VIT has helped a lot in my overall development and will always be helpful in the imminent future.

SUMITH PEVEKAR

Technical Head

“
"No one can whistle a symphony. It takes a whole orchestra to play it"
”

“
Technology is a revolution of mankind to create wonders using logic and tools provided by the nature.
”

CSI has been a life-changer for me. The entire CSI Family gave me confidence. They never made me realize that I was a Junior to them and always supported me in my decisions and to bring the best out of me. And my Tech Team is just Awesome.



NIMISH SAMANT

Technical Co-Head

Team



DISHANT KUMAR



SAMARJEET SINGH GAIDU



YOGESH KULKARNI



HERAMBA LIMAYE

EVENTS



The experience shared and felt in CSI VIT is unparalleled. In spite of having a Virtual tenure, the bonding, the team spirit among core members working towards one common goal is glorious. The experience shared by my Fellow mates will be definitely helpful in my future Plans.

“
No one can whistle a symphony. It takes a whole orchestra to play it
”

PARTH KOTAK

Events Head

“
Unity is Strength
”

It was a great learning experience for me , especially conducting events online in the unprecedeted circumstances . Working cohesively with the team members also taught me the importance of 'WE'.



SHUBHANKAR YEVALE

Events Co-Head

Team



RITIKA LATH



VAISHNAVI C



DEEP SHAHANE



KHYATI MARU



SIDDHI PAWAR



SIDDHARTH PAWAR



GAURAV MULEY

WEBMASTER

VIKRANT GURAV

Webmaster



“

*Learning never
exhausts the mind*

”

It was a fantastic experience working with everyone throughout the tenure. CSI is a great platform to learn new skills.



PIYUSH PATIL

Webmaster

It was a pleasure to work with the team of CSI and all coordinators which improved our overall skills and knowledge.

“

Be like candles that give light to others before it melts in the world full of ice-creams who enjoy their life before it melts.

”



SRISHTI AGRAWAL

Mentor

Without a doubt, I can say that the experience gained in CSI contributes significantly to the development of a strong foundation for successful careers. CSI has always played a crucial role in my engineering journey. It has allowed me to experiment, learn, collaborate, hustle, and develop beyond the reach of my work. The advice and opportunities offered by faculty members and fellow teammates are priceless.

“
Keep
hustling!
”



PALLAVI SISODIYA

Mentor

“
It takes courage to not succumb to the peer pressure and be influenced by the herd. Being happy and working towards your goals is all that matters. regardless of what those around you say.
”

CSI-VIT has been a once-in-a-lifetime opportunity that helped me in my journey to become the person I am today. With a high spirited team and dedicated, thoughtful convenors, I couldn't be prouder of what we were able to accomplish during our tenure. Our events not only helped me understand the current technology domains, but it also inculcated in me a sense of determination, confidence and leadership that I couldn't have gained from any other platform.



NITIN GIRI

Mentor

CSI is not a committee. It is a playground for you to try, learn and understand. The opportunities and guidance provided by my fellow committee members has been invaluable.

“
Reach for the stars, if you fall you land on a cloud.
”

CSIVIT

Computer Society of India

Vidyalankar Chapter



<http://csi-vit.github.io/>



@csi-vit



@csi.vit.chapter



@csi_vit

