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### 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.

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## DR. SACHIN BOJEWAR

HEAD OF DEPARTMENT, COMPUTER ENGINEERING

As we wrap up another successful quarter, I am filled with pride and gratitude for the remarkable achievements of our Computer Engineering community between July and October 2024. Our department has continued to thrive with academic excellence, research innovation, and active engagement in co-curricular and extra-curricular activities. We are thrilled to announce new partnerships with industry leaders, providing more internship opportunities, hands-on experiences, and knowledge sharing. Our curriculum enhancements reflect the growing need to integrate academic theory with practical exposure to real-world challenges. We saw a fantastic response to the events organized by the CSI student chapters. Workshops on AI, machine learning, and blockchain, along with competitions, hackathons, and technical talks, provided valuable platforms for our students to demonstrate their technical expertise and collaborative spirit. I thank all the faculty members, students, and staff who have contributed to making this quarter so successful.





"The dream begins with a teacher who believes in you, who tugs and pushes and leads you to the next plateau, sometimes poking you with a sharp stick called truth." – Dan Rather



## DEPARTMENTAL UPDATES

- Prof. Amit K. Nerurkar was Honoured as Advisory Committee member in CSI TechNext 2024 event hosted in August 2024.
- Prof. Amit K. Nerurkar was invited as a Judge in evaluating 24H Hackathon organized by Thadomal Shahani Engineering College in August 2024.
- Dr. Suja Jayachandran was honoured as Jury Member at MSBTE sponsored Technical Paper Presentation at A.R.Kalsekar, Polytechnic, New Panvel in September 2024.
- Dr. Suja Jayachandran was invited as a Resource Person in Documenting Educational Technology Research organized by EdTech society, IIT Bombay from 10th May-August 2024.

## STUDENT APPRECIATION



Adarsh Nambiar TE CMPN



Soham Pashte BE CMPN



Nisha Shetty TE EXCS-

Successfully completed an In - House Internship on setting up laboratory systems, gaining hands-on experience in disassembling and reassembling PCs, crimping RJ45 cables, and configuring network setups.

## STAFF APPRECIATION

We are immensely proud to announce that Suja Jayachandran has successfully completed their PhD in Technology from Ramrao Adik Institute of Technology (RAIT), D.Y.Patil Deemed to be University ,Nerul,Navi Mumbai. This is a monumental achievement, and it speaks volumes of the hard work, dedication, and passion for advancing knowledge in their area of expertise.

We look forward to witnessing the positive impact your research will continue to have on our academic community and beyond. Once again, congratulations, Dr. Suja Jayachandran, on this outstanding milestone!



## Department Staff

SUNIL THUBE  
SYSTEM MANAGER



**EDUCATION QUALIFICATION:**

MscIT

**WORKING EXPERIENCE:**

15 YEARS

**AREA OF SPECIALIZATION:**

Networking  
Network Security  
Cloud Computing

NIKITA AHIRE  
LAB STAFF



**EDUCATION QUALIFICATION:**

MscIT

**WORKING EXPERIENCE:**

8 YEARS

**AREA OF SPECIALIZATION:**

Networking  
Network Security



"The beautiful thing about learning is that nobody can take it away from you." –

B.B. King



## Student's Speak

### Gopini Dhargave

As a third-year Computer Engineering student, I can confidently say that the Computer Department at our college offers an enriching academic experience. The faculty is not only knowledgeable but also approachable, always willing to help students understand complex topics. Their practical teaching methods make learning programming languages and algorithms engaging. The well-structured curriculum, which blends theoretical concepts with hands-on projects, prepares us for industry challenges.

The Computer Department mainly does not restrict its spectrum to the boundaries of the college, it also expands its vision of development by including credit transfer programs that enables us to learn from other prestigious colleges like IIT Bombay, with highly qualified professors who have expertise in the field they teach. Such rare opportunities augment a composite mixture of life and technical skills in the students.



**Gopini Dhargave**  
TE-B

The department not only has the best faculty but also has the best students to have the perfect conducive environment to inculcate necessary skills and gain new insights everyday. The students here not only support each other to learn better but also encourage each other to perform better every time. Thus, in conclusion, I'm glad to be a part of the Computer Department and it will be one of the most memorable aspects of my college life.

## TECHNICAL POEM BY PARNA DESAI: BYTES AND PIECES



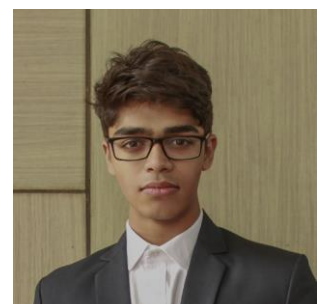
**Parna Desai**  
TE-B

From lines of code  
To gods abode  
We engineers shine  
in all our roads  
A mix of logic, an organized thought  
In a world of computers, magic is wrought  
zeros and ones make up a language so light  
It allows mankind to shine bright  
Life may present itself to be tough  
Bugs may present themselves to be rough  
but a true Engineer with confidence  
Never shies away from a battle requiring perseverance



## TECHNICAL HUMOR BY ANVIT BHOBE: BYTE-SIZED HUMOR

- In a world full of malware, even my antivirus has developed a strong sense of irony!
- Why do decision trees love spring? It's the perfect time for pruning!
- There are 10 types of people in the world... Those who understand binary and those who do not.
- I told my AI to take a break, but it just kept optimizing its downtime!
- A UDP packet walks into a bar. It doesn't care if anyone acknowledges it.
- When life gives you too many IPs, just supernet them
- Why was MLP classifier good at multitasking? It could handle multiple inputs at once!



**Anvit Bhohe** TE-B



“The true measure of a university's success lies not just in its academic achievements but in the accomplishments of its alumni, who carry forward the lessons learned into the world.”— John C. H. Wu

## KNOW AN ALUMNUS: RASHI HAJARI

Hi, I'm Rashi, a 2018 graduate, and right now I'm working as a Senior Manager at a German agency. When I think back to my time at this institute, I can honestly say it's where I started to step out of my comfort zone and explore paths beyond engineering—and for that, I give huge credit to the college.

The memories of my time here make me incredibly nostalgic. The faculty were warm, supportive, and always encouraged me to push myself. I was nudged to meet new people and take part in activities, something I now realize was so important for my growth—both personally and professionally.

Two moments stand out for me: working with Professor Suvarna on committees and helping organize events, which was when I discovered my passion for marketing. That experience laid the foundation for my career.

And then there was Professor Snehal, who mentored me through my final year project. They constantly challenged us to think deeper, which helped me grow in ways I didn't expect. They're someone I truly admire—not just as professors, but as a people.

What I really loved about the department was the way they tailored learning to us. It wasn't just about memorizing facts; it was about understanding real-world applications, which made everything feel more meaningful. As someone who wasn't initially super into engineering, I found myself far more engaged than I expected, and I still use a lot of what I learned today.

To all the students currently here, my advice is simple: soak up every moment. This place offers so much more than just academics—it shapes you into a better version of yourself. Embrace the experiences, make connections, and push yourself to try new things. I wish you all the best in your journey ahead!

-Rashi Hajari  
CMPN 2018-2022



**Rashi Hajari**

## MOU WITH 3.0 UNIVERSITY

We are thrilled to explore a potential Memorandum of Understanding (MoU) with 3.0 University, a prominent online education platform specializing in AI, Web3, and cybersecurity. This collaboration will provide our students with exclusive access to cutting-edge technologies and industry-aligned certifications, enabling them to stay competitive in the evolving tech landscape. Students will benefit from hands-on learning, real-world projects, and enhanced job placement services. Additionally, this MoU could open doors to joint research projects, internships, and global exposure, further enriching our academic offerings and strengthening industry ties.





"We are what we repeatedly do. Excellence, then, is not an act, but a habit."—Aristotle



## CSI FLAGSHIP EVENT: FILM FIESTA

23rd September 2024



The CSI-VIT Chapter organized a "Film Fiesta" for 2024-25, inviting the audience to vote for one of four films based on science, mystery, or adventure. The vote was dominated by *The Imitation Game*, a film about Alan Turing's life and his pursuit of cracking the German Enigma code during World War II. The film, running 1 hour and 54 minutes, captivated the audience with its captivating presentation of cryptography, Artificial Intelligence, and the race for the German Enigma code. The event provided a relaxing opportunity for attendees to enjoy thought-provoking films.

## CSI PRE TECHNEXT EVENT: CODESPRINT

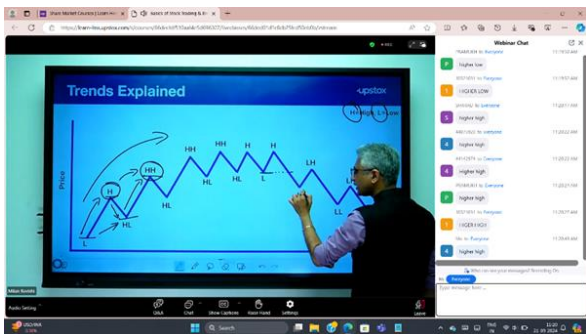
28th August 2024

The CSI-VIT Chapter 2024-25 organized the "CodeSprint" coding competition, a Pre-TechNext activity with a prize pool of INR 3000. The event featured three rounds: an MCQ round on quizz.com, a bidding round, and a coding round. The top 20 teams from Round 1 advanced to Round 2, where the leaderboard displayed the most competitive teams. The second round involved a bidding round where students bid for specific problem statements, with the highest-ranked team assigned the problem statement for coding in Round 3. The third round was the coding round, where students coded in any programming language for 45 minutes. The final round determined the most skilled and adaptable coding team, with the leaderboard displayed on Hackerrank.



## CSI ONLINE EVENT: TRADE WITH TITANS

21st September 2024



The "Trade with Titans" event, organized by CSI-VIT Chapter 2024-25, aimed to introduce participants to trading strategies and technical analysis, emphasizing understanding market behavior rather than predicting future price movements. Mr. Milan explained that prices typically move in trends, and participants should focus on understanding these trends and studying price reactions at key levels. He highlighted the importance of understanding support and resistance levels, where prices often bounce off support levels and face challenges at resistance levels.

## CSIXTSEC COLLABORATION EVENT: IDEATION- BASE CAMP

28th September 2024

"IDEATION", co-hosted by TSEC CodeTantra, CSI-VIT Chapter 2024-2025, and the TSEC Innovation Council, was an event that provided students with insights into the startup ecosystem. The event with an amazing audience of 100 participants, featured talks by two prominent speakers, Vihaan Gandhi and Mohit Bedi, who shared their entrepreneurial journeys and discussed future technologies.





"Happiness is not in the mere possession of money; it lies in the joy of achievement, in the thrill of creative effort."— Franklin D. Roosevelt



## CSI-E-TECHNEXT AWARDS AT D.Y. PATIL COLLEGE

30th And 31st August 2024

The CSI Mumbai Chapter hosted the CSI-E-TechNext 2024 event, focusing on the theme "Bridging the Future: Industry Vs. Academia Digital Diversity Synergy on Emerging IT Ideas & Trends – Powered India's New Education Policy". The event began with a welcome address by Dr. Mukesh D. Patil, Principal of RAIT. Dr. Suresh A. Shan, Chairman of the CSI Mumbai Chapter, highlighted the importance of collaboration between industry and academia in India's changing education landscape. Chief Guest Smt. Vidya Krishnan highlighted the role of IT in banking and the impact of digital innovation.



A few key points that were observed in the Technext event were as follows; AI-powered wearable devices are improving human capabilities in healthcare and retail, but data privacy and security concerns persist. Collaboration between academia and industry partners is crucial for addressing practical industry challenges. Industry 6.0 requires focusing on emerging technologies like AI, blockchain, and IoT, ensuring relevance and adaptability. Students should align themselves with these skills and identify existing skill gaps through education and training.

### CSI-VIT WON 5 AWARDS AT THE CSI TECHNEXT AWARDS



**Award of Gratitude-**  
**Prof. Amit K. Nerurkar**

**Best Teacher-**  
**Dr. Sangeeta Joshi**

**Best Institute**

**Best Teacher-**  
**CAO Saurabh Mehta**

**Award of appreciation for successfully conducting pre-technext event "CODESPRINT"**

### FINAL REMARKS

The CSI-E-TechNext 2024 event was a success, bringing together industry and academia to discuss new IT trends and educational improvements. The discussions and keynotes showed how important digital innovation and collaboration are for the future of technology and learning.







"With the right data and algorithms, recommendation systems can create a highly personalized experience that engages users like never before."—

Andrew Ng



## STUDENT ARTICLE BY VIDHANT VANWARI: RECOMMENDATION SYSTEM

Recommendation system is an information filtering system that predicts the items which would be liked/ preferred by the user. It is widely used in online shopping, OTT platforms and other streaming services, social media platforms, etc... where user experience is of high importance. These systems analyze user data, such as past views, purchases, reviews, ratings, browsing history, etc.... to filter items that will be of interest to the user.

For example: In the early days of the internet, web advertisements were like banners that were static. However, it was clearly known to web advertisers that targeting users that have interest in their product would definitely improve effectiveness of their ads. Hence, initial stage of recommendation system started by showing ads based on content of the web page (contextual advertising). While this was not exactly a recommendation system, it planted seeds for what would evolve into a more sophisticated system. Key factors that motivated recommendation system



**Vidhant Vanwari**  
**TE-A**

Giving personalized experience to users, improving business efficiency and having an automated system that could handle scaled volume of users and products.

### Rise of Recommendation System:

- 1.Early Days (1990s): Early approach of recommendation, that started in early 1990s, used content-based filtering recommendations.
- 2.Media streaming and social media Era (2000s): Recommendation systems became essential for media platforms, especially for music and video streaming services like Netflix and Pandora.
- 3.Current Recommendation Systems (2010s and beyond): As recommendation systems matured, platforms began to adopt hybrid approaches that combined both content-based and collaborative filtering techniques. Machine learning, particularly deep learning, became central to improving recommendation accuracy.
- 4.Deep Learning in Recommendations: Techniques like neural collaborative filtering (NCF), deep matrix factorization, and autoencoders were introduced to improve recommendations by learning latent representations of users and items. Social media platforms like Facebook and YouTube began to use deep learning models to recommend content based on user behavior and engagement signals.
- 5.Real-Time and Context-Aware Recommendations: With the rise of mobile devices and constant internet connectivity, real-time and context-aware recommendation systems became possible. Systems began to consider factors like location, time of day, and current activity to provide more relevant recommendations.

### Future of Recommendation System:

The future of recommendation systems, driven by the integration of behavioral data, social data, contextual data, and cross-device tracking, is set to become even more personalized, predictive, and context-aware. Such as:

- 1.Emotional Awareness: Location and Situation-Based Recommendations
- 2.Visual and Augmented Reality (AR) Inputs
- 3.Collaborative Recommendations

**Conclusion:** From simplistic methods of content filtering to the complex machine learning models of today, recommendation systems have evolved significantly. Making algorithms more ethical, transparent, and user-friendly is becoming more and more important as they continue to evolve.--**Vidhant Vanwari**

## UPCOMING EVENTS

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- **CSI WILL HOST FE-101 IN OCTOBER 2024**
- **CESA WILL HOST FROM ASPIRATION TO ADMISSION IN OCTOBER 2024**
- **DEPARTMENT WILL HOST ORIENTATION PROGRAM FOR NEW SEMESTER IN JANUARY 2025**
- **TEDxVIT WILL BE HOSTED IN JANUARY 2025.**

“  
Never compromise on your values and  
principles, even if it's the hard way  
--Ratan Tata  
”

THE  
**EDITORIAL TEAM**

PROF. AMIT K. NERURKAR  
Chief Editor