VIT Vidyalankar Institute of Technology
Accredited A+ by NAAC

An Autonomous Institute

Affiliated to University of Mumbai

BYTES

DEPARTMENT OF COMPUTER ENGINEERING

OCTOBER 2025 • ISSUE 01 • VOLUME 17

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.

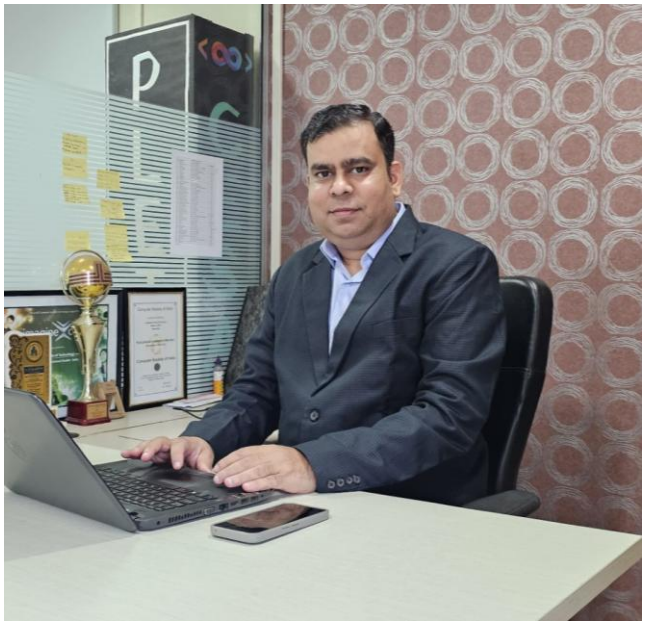
Programme Educational Objectives (PEO)

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.

WHAT'S INSIDE

DR. RAVINDRA SANGLE

HEAD OF DEPARTMENT, COMPUTER ENGINEERING



I am delighted to present this edition of BYTES, which captures the dynamic journey of the Department of Computer Engineering during July–September 2025. This quarter has been particularly inspiring with remarkable faculty accomplishments, including doctoral achievements, and student initiatives that reflect both academic depth and creative excellence. Events such as Hackbuild 2025, GDG Spectrum, the CSI-VIT Cybersecurity Symposium, and Alumni Unplugged provided platforms for innovation, collaboration, and career guidance, ensuring our students are industry-ready and future-focused. Equally enriching were cultural and educational engagements such as Film Fiesta and the Dr. Bhau Daji Lad Museum visit, which blended learning with broader perspectives on history, creativity, and community. These diverse experiences remind us that holistic education is built not only through classrooms and laboratories but also through opportunities that shape character, resilience, and leadership.

Together, we are steadily advancing toward our vision of being recognized as a Centre of Excellence in Computer Engineering.

> The beautiful thing about learning is that no one can take it away from you.
> - B.B. King

STAFF APPRECIATION

We are delighted to share that Prof. Snehal Andhare have successfully completed their Ph.D. in Technology. This remarkable academic milestone is a testament to her unwavering dedication, intellectual rigor, and passion for research and innovation. Her achievements not only enrich our department's academic strength but also serve as an inspiration to students and colleagues alike. We wholeheartedly congratulate her and look forward to the continued impact of scholarly contributions on the academic community and beyond.

Heartiest congratulations, Dr. Snehal!!

Visit to Dr. Bhau Daji Lad Museum visit

HCC in association with GDG had orgnized Dr. Bhau Daji Lad museum visit on 25th August 2025. The Dr. Bhau Daji Lad Museum, located in Byculla, Mumbai, is the oldest museum in the city, established in 1855. It displays an exceptional collection of artifacts, models, photographs, textiles, metalwork, and crafts that reflect the artistic traditions and urban development of Mumbai. Students had experienced 19th-century Indian decorative and industrial arts, also understood Mumbai's historical transformation, museum design, curation, and heritage conservation

Departmental Updates

The Department of Computer Engineering continues to excel in research and professional development. A one-week FDP on “AI in Action: Transforming Healthcare and Education” was conducted from 8th–13th September 2025. Faculty research contributions include the publication by Prof. Snehal Andhare in ICDSM-2024 (Springer LNNS, SCOPUS and Google Scholar Indexed, IEEE Publisher) on 17th July 2025; a paper presentation by Prof. Mahesh at an IEEE International Conference; and a Scopus-indexed journal paper co-authored by Dr. Amit K. Nerurkar, Dr. Ravindra Sangle, Dr. Sanjeev, and Dr. Swapnil Sonawane. In addition, Dr. Amit K. Nerurkar successfully completed an 8-week NPTEL course on Distributed Systems. These milestones reflect the department’s growing academic strength, research impact, and commitment to continuous learning.

Department Staff

PROF. KSHITIJA KULKARNI
ASSISTANT PROFESSOR

EDUCATION QUALIFICATION:
MS
WORKING EXPERIENCE:
2 YEARS

AREA OF SPECIALIZATION:
Cyber Security

PROF. DEVENDRA PANDIT
ASSISTANT PROFESSOR

EDUCATION QUALIFICATION:
BE
WORKING EXPERIENCE:
30 YEARS

AREA OF SPECIALIZATION:
Programming
Data Structures

> Become the kind of leader that people would follow voluntarily; even if you had no title or position.
> - Brian Tracy

Student's Speak

Samudragupta Jejurkar

Samudragupta Jejurkar TE-C

I am Samudragupta Jejurkar, a Computer Engineering student at Vidyalankar Institute of Technology, and my academic sojourn here has been nothing less than transformative.

From my very first day, I was enthralled by the department's culture of intellectual rigor, dynamic pedagogy, and its ceaseless commitment to shaping students into consummate professionals.

The Computer Engineering Department at VIT is not merely an academic unit; it is an intellectual crucible that fosters innovation, nurtures leadership, and refines character. Under the sagacious stewardship of Dr. Ravindra Sangle, our Head of Department, the environment has always been one of encouragement and excellence.

I am currently serving as the General Secretary of the Student Council under the able mentorship of Prof. Sachin Deshpande, whose guidance has endowed me with invaluable lessons in leadership, accountability, and vision.

Equally invaluable has been the discerning oversight of Prof. Pankaj Vanwari, our Academic Officer, whose dedication has ensured that academic standards remain uncompromisingly high.

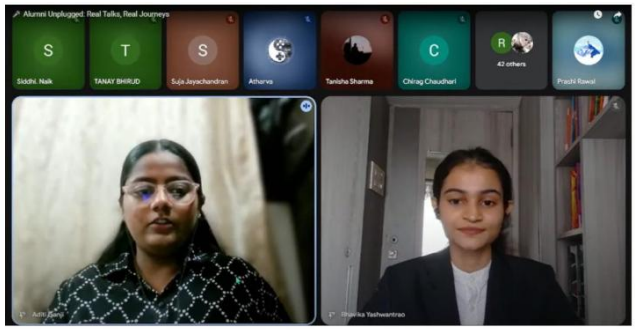
My personal growth has been profoundly guided by my mentor, Dr. Prakash Parmar, whose wisdom and counsel have continuously inspired me to transcend limitations and cultivate intellectual maturity. Furthermore, I am deeply indebted to Dr. Amit Nerurkar, who, in my second year, entrusted me with the momentous opportunity to contribute through professional bodies such as CSI VIT and TEDxVIT, experiences that significantly honed my technical acumen, critical discernment, and professional ethos.

What distinguishes the CMPN Department is that its professors do not merely instruct; they inspire, mentor, and cultivate in their students the qualities of resilience, curiosity, and excellence. My years at Vidyalankar have thus been an extraordinary confluence of learning, leadership, and personal evolution, and I am profoundly grateful to belong to such a distinguished fraternity.

CESA EVENT: ALUMNI UNPLUGGED: Real Talks Real Journeys

Date: 16/08/2025 Time: 11:00 am to 1:00 pm

Alumni Unplugged featured our distinguished alumna, Ms. Aditi Ganji, who graciously shared her professional journey and diverse experiences. Through this interactive session, she offered valuable guidance on navigating career pathways, cultivating essential competencies, and understanding evolving industry dynamics. The event aimed to broaden students' perspectives and motivate them to plan their professional development with clarity and confidence.



CSI EVENT: Podcast on CyberSecurity

YouTube Channel: https://youtu.be/wT3uWBojpG0?si=mIAtNbWOhxupX4Tn

The inaugural YouTube channel launch successfully established CSI VIT's digital presence in technology education. The discussion effectively provided students with comprehensive insights into AI and cybersecurity integration,.

> Life is not all about accumulating assets. We all have to do good … We all have to do something to help other people.
> - Fernando Goldsztein

KNOW AN ALUMNUS: Ridima Tambde

Ridima Tambde

Being part of the Department of Computer Engineering at VIT has been one of the most formative experiences of my life. It is here that I found not only my interest in technology but also the confidence, discipline and values that will stay with me far beyond college. The people, the opportunities and the culture here have quietly shaped the way I think, work and see my future, and that influence will stay with me long after college.

From my very first semester, the Department of Computer Engineering opened doors for me to learn far beyond the classroom. Starting with the core courses, I gradually built my fundamentals and soon found myself encouraged to step into student committees and activities. I became an active member of the Computer Society of India (CSI-VIT), which gave me a platform to explore new technologies, plan and host events, and work closely with teams of talented students.

Soon after, I was also encouraged to be part of TEDxVIT, where I got to contribute to creating events that blended innovation, leadership and storytelling. These opportunities not only built my technical and organisational skills but also taught me teamwork, communication and how to deliver under pressure. A big part of why I was able to take on and excel in these roles was the constant guidance of Dr. Amit Nerurkar, who always pushed me to go beyond my comfort zone, challenged me to aim higher and take on challenges I never imagined myself doing. I'm equally grateful to the entire Department of Computer Engineering, every professor, mentor and staff member has in some way encouraged, guided and supported me, creating an environment where students like me can thrive both personally and professionally.

Every course, from the core subjects in the early semesters to the advanced electives was delivered with care, clarity and a focus on practical application. Professors went beyond the textbook to share industry insights, mentor us individually and encourage us to participate in research, competitions and paper presentations. During our Final Year Project we received personalised guidance and constant support from faculty members who reviewed our work, gave constructive feedback and helped us refine our ideas. That level of attention and encouragement made us feel seen, motivated and ready to take our learning into the real world. Along with the academic journey, the department also gave us abundant exposure through a vibrant mix of cultural and technical events. From cultural fests like Verve to technical events like hackathons, coding competitions and conferences, there was always something happening that encouraged us to step out of our comfort zones and showcase our skills. The strong industry connect and dedicated efforts of the faculty ensured that our batch received excellent internship and placement opportunities, helping us translate classroom learning into real careers.

As I look back on my years in the Department of Computer Engineering at VIT, my heart feels full. This place gave me so much more than a syllabus to follow, it gave me mentors who believed in me, friends who became family, opportunities that pushed me to grow, and values that will guide me long after college. This place has shaped my thinking, my character and my confidence in ways that words can barely capture. I walk out of VIT not just with a degree, but with confidence, memories and a sense of belonging that I will cherish for life. I will always be grateful and proud to call myself a student of this department.

---**Ridima Tambde**

> Education is not the filling of a pail but the lighting of a fire.
> - William Butler Yeats

GDG Flagship Spectrum 25

12th August to 23rd August 2025

LAUNCHPAD (18th and 19th August 2025)

The two-day online event combined coding and pitching to encourage innovation and creativity. On Day 1, teams worked remotely on GitHub to build their MVPs within contest hours, submitting deliverables such as the problem statement, solution overview, target audience, value proposition, MVP features, tech stack, and AI tool usage. On Day 2, shortlisted teams showcased their products through 5–7 minute live demos and Q&A sessions, where judges evaluated them on innovation, execution, clarity, and AI integration. With domains spanning SaaS applications, AI-powered tools, digital solutions, and creative startup ideas, the event highlighted adaptability and fairness, supported by tools like Generative AI APIs, Prompt Engineering, No-code/Low-code platforms, and GitHub. A prize pool of ₹8,000 along with Certificates of Excellence further added to the excitement and recognition for participants..

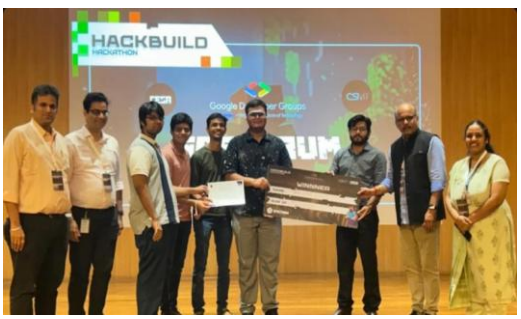
GSOC GUIDANCE SESSION: (21st August 2025)

As part of the flagship SPECTRUM initiative, GDG on Campus VIT organized a GSoC Guidance Session on 21st August 2025 to help students understand the Google Summer of Code journey through insights from past contributors and mentors. Featuring Sanjay Sargam (GSoC '25 Mentor, AnkiDroid) and Chaitanya Shahare (SWE @ Edra Labs, GSoC '24 @ LLVM), the event covered project selection, proposal writing, collaboration strategies, and technical expectations. Highlights included engaging speaker sessions, an interactive quiz with goodies, and a lively Q&A, all of which participants found highly informative and motivational. With strong enthusiasm and practical takeaways, the session successfully built awareness and laid the foundation for fostering a vibrant open-source culture at VIT.

HACKBUILD HACKATHON: (23rd August 2025)

Hackbuild 2025, organized under the flagship SPECTRUM initiative by GDG on Campus at VIT, Mumbai, in collaboration with CSI-VIT and CESA-VIT, was held from 12th–23rd August 2025 to empower students to ideate, innovate, and develop impactful solutions in Web/App Development, AIML, and Blockchain. The hackathon followed a structured flow from abstract submissions and shortlisting to an online coding phase with mentorship, culminating in final pitches by the top teams before judges. With over 35 shortlisted teams, engaging mentorship sessions, and a prize pool of ₹40,000+, the event fostered innovation, teamwork, and real-world problem-solving.

Participants appreciated the well-structured format, diversity of domains, and practical feedback, while suggesting pre-hackathon workshops and longer presentation slots.



Overall, Hackbuild 2025 successfully bridged academics with real-world applications, inspiring students to continue contributing to the tech ecosystem.

> In the digital age, we are surrounded by a plethora of information, yet wisdom remains rare.
> — Inspired by Dr. A.P.J. Abdul Kalam's vision of knowledge with purpose

CSI-VIT: AutoExpo 2025

14th August 2025

The Automation Expo organized by CSI proved to be an enriching and insightful experience for all participants. The visit provided a comprehensive understanding of how industries are embracing automation, artificial intelligence (AI), robotics, and smart systems to drive efficiency, accuracy, and scalability in operations. Through live demonstrations and real-time displays of advanced automation technologies, participants were able to witness first-hand how innovations. Expert interactions during the expo offered valuable industry perspectives,

CSI-VIT Flagship: FilmFiesta

24th September 2025

The Computer Engineering Department's CSI committee successfully organized Film Fiesta, a movie screening event designed to provide students with a refreshing break from academics and a common platform to enjoy cinema together. The event featured the screening of the critically acclaimed film Ford vs Ferrari, which brought to life the inspiring story of innovation, determination, and teamwork in the world of motorsport. The event not only provided relaxation and recreation, but also promoted community bonding, cultural awareness, and reflective learning. Students left the auditorium with meaningful takeaways on the importance of passion, creativity, and resilience in achieving success.

CSI-VIT Flagship Event: CyberFrat

27th September 2025

The CSI-VIT Cybersecurity Symposium 2025, organized in collaboration with CyberFrat, was successfully held today in the Auditorium and witnessed enthusiastic participation from students and faculty alike. The event featured insightful sessions on Cybersecurity in BFSI by Komal Vora (CISO, Equifax) and Career Pathways in Cybersecurity by Shyam Patil (SBI). A thought-provoking panel discussion on Future Careers in Cybersecurity brought together academia and industry leaders including Dr. Amit K. Nerurkar, Kshitija Kulkarni, Ninad Chavan, and Mithun Sanghavi, moderated by Sejal Shibe. Post lunch, Gautam Mengle (Culsight) shed light on Cyber Slavery & AI Deepfakes, followed by an engaging Q&A and an innovative gamification.

Cybersecurity is a continuous cycle of protection, detection, response, and recovery.
– Chris Painter

STUDENT ARTICLE BY POORVA KALE: Cybersecurity in the Age of AI: Attacks and Defences

Poorva Kale TE-C

Cybersecurity has historically been a reactive, rule-driven field, relying on fixed signatures and constant human monitoring. While effective against known threats, these traditional defenses often faltered when faced with novel, sophisticated attacks. Today, Artificial Intelligence (AI) is fundamentally transforming this landscape. By rapidly analyzing massive datasets, spotting subtle, complex patterns, and adapting in real-time, AI is shifting cybersecurity from mere reactive protection to adaptive, predictive defense. The New Offensive: AI-Driven Attacks Attackers are weaponizing AI to create faster, smarter, and more effective threats:

·Polymorphic Malware: AI enables malware to perpetually morph its code, effortlessly evading signature-based detection systems.

·Deepfake Social Engineering: AI-generated media (voices, videos) are used to convincingly impersonate key personnel, facilitating high-stakes fraud and espionage.

·Adversarial Machine Learning (AML): Attackers strategically manipulate data to poison or bypass AI/ML defenses, making security models misclassify malicious activity.

·Hyper-Personalized Phishing: Automated via AI, messages are now contextually relevant and flawless, dramatically increasing their success rate.

AI is rapidly lowering the barrier for entry for attackers, making contemporary threats significantly harder to anticipate and defend against.

The Intelligent Shield: AI-Powered Cyber Defenses

AI is an equally powerful asset for the defense, enabling intelligent, proactive protection:

·Behavioral Anomaly Detection: AI models establish a dynamic baseline of normal activity, instantly flagging deviations that signal intrusions or insider threats.

·Next-Generation Endpoint Protection: These systems monitor the real-time behavior of a program, moving beyond signatures to detect zero-day threats.

·Global Threat Intelligence: AI ingests and analyzes security data at massive scale, providing rapid, actionable insights into emerging risks.

·Automated Response & Fraud Blocking: AI significantly reduces the burden on security teams by automating the triage and response to threats, and instantaneously blocking suspicious transactions.

By automating and scaling detection and response, AI protects complex, hyperconnected digital environments more effectively than human teams alone.

The Road Ahead: A Human-Machine Partnership

The future relies on developing trustworthy, explainable, and resilient AI systems. Yet, technology is only part of the solution; organizations must also enforce strong security policies and user awareness.AI will not replace human security experts—it will magnify their expertise. The definitive defense of the digital frontier will be a collaborative partnership, combining the judgment of humans with the speed and scale of machines.

UPCOMING EVENTS

- **CSI-VIT AND CESA VIT WILL HOST AUDIO WORKSHOP USING AI IN OCTOBER 2025**
- **CSI WILL HOST TECH COGNISPHERE 2025 IN OCTOBER 2025**
- **CSI WILL HOST DSA MASTERCLASS & QUIZ IN DECEMBER 2025**

> The art of debugging is figuring out what you really told your program to do rather than what you thought you told it to do.
> – Andrew Singer

THE

EDITORIAL TEAM

DR. AMIT K. NERURKAR

Chief Editor