

DEPARTMENT OF COMPUTER ENGINEERING



ECHO



ACADEMIC YEAR 2025-26

*Stories of growth, achievement & discovery from
our department community.*

Issue 33

CODE. LEAD. INNOVATE
**The future of tech, by those
bold enough to shape it.**





VISION

To be recognised as a leading department in developing computer engineers with technical excellence, strong societal values and lifelong learning ability.



MISSION

- 1.To build a strong technical foundation for nurturing computer professionals.
- 2.To promote creativity, innovation and entrepreneurial attitude.
- 3.To foster holistic student development by promoting leadership, ethical and societal values.
- 4.To prepare students to adapt to evolving technological trends through continuous learning opportunities.

Program Education Objectives

- 1. Solve real-world problems by applying knowledge of computer engineering and emerging technologies.**
- 2. Develop an innovative and entrepreneurial attitude.**
- 3. Demonstrate leadership skills and lifelong learning ability.**



Program Specific Outcomes

- 1. Graduates will be able to apply core Computer Engineering theories including Algorithms, Data Structures, Operating Systems, Databases, Networks, Artificial Intelligence, and Software Engineering to analyze and model computational problems and evaluate appropriate solutions.**
- 1. Graduates will be able to design, develop, test, and deploy computing solutions using modern programming languages, frameworks, tools and professional practices, while demonstrating hands-on proficiency, teamwork, and adaptability to real-world and emerging technological challenges.**



From the HOD's Desk



Welcome to this edition of “Echo”, a celebration of the achievements, growth, and excellence demonstrated by the Department of Computer Engineering during the academic year 2025-26.

This year, the Department of Computer Engineering continues to strive for excellence in teaching, learning, research, innovation and leading to the holistic development of students.

The Department Newsletter “Echo-33” reflects the academic environment, achievements, and memorable activities that have shaped our department throughout the academic year. This academic year has been particularly significant as the department received NBA Accreditation again, reaffirming our commitment to quality technical education and continuous improvement. Another landmark achievement has been the establishment of the Ph.D Research Centre, creating new opportunities for advanced research, innovation, and scholarly contributions.

Guided by the vision and values of our institution, we remain committed to nurturing competent professionals equipped to meet the challenges of a rapidly evolving technological world.

The department has continued to strengthen its industry-oriented learning initiatives through collaboration with multiple industries under a Memorandum of Understanding (MoU).

The establishment of the Microsoft Learn Student Chapter has been a significant milestone for the department, providing students with access to industry-relevant learning resources, technical training, and opportunities to enhance their professional skills and industry readiness.

The academic year has been filled with numerous accomplishments by our students in academics, technical competitions, innovation-driven projects, cultural events, sports, and community engagement activities. Their enthusiasm, perseverance, and innovative spirit have brought recognition to the department and enriched the overall learning environment. We again got the- "Best Department" award. We are particularly pleased to see our students secure valuable placement and internship opportunities, reflecting their preparedness, skills, and commitment to professional excellence.

Our faculty members have continued to make significant contributions through research, publications, patents, professional development activities, and industry engagement. Their unwavering commitment to quality education, innovative pedagogy, and student mentoring plays a pivotal role in shaping competent professionals and lifelong learners.

I extend my heartfelt congratulations to all students and faculty members for their achievements and valuable contributions. I also appreciate the efforts of our student committees and volunteers whose commitment and teamwork have played a crucial role in organising various events and fostering a vibrant learning environment.

I express my sincere gratitude to our respected Principal, Dr. Madhuri Khambete Madam, and the management of our Samstha for their constant encouragement, invaluable guidance, and unwavering support, without which these achievements would not have been possible.

I also acknowledge the contributions of our students, faculty, staff, alumni, and industry associates who continue to strengthen the department through their dedication and collaboration.

As we celebrate the accomplishments of this year, let us continue to pursue knowledge, encourage innovation, and work together to achieve greater success in the years ahead.

Dr. Sunita Jahirabadkar

Head of Department, Computer Engineering,

Cummins College of Engineering for Women, Pune

From the Editor's Desk



Welcome to the 33rd edition of Echo!

Bringing this edition of Echo to life has been a rewarding and memorable journey for our team. As students of the Computer Engineering Department, we are delighted to contribute to a platform that showcases the achievements, talents, and innovative ideas of our students and faculty members.

From planning content and collecting contributions to designing the final publication, every step of the process has been filled with learning, creativity, collaboration and fun. Working together on this edition strengthened our teamwork and allowed us to present the vibrant spirit of our department decoratively.

We sincerely thank our faculty members for their constant encouragement, valuable guidance, and unwavering support throughout this journey. Their mentorship has played a vital role in making this edition possible.

We hope this edition of Echo informs, inspires, and celebrates the remarkable accomplishments of our department. Thank you for being a part of our journey, and we wish you an enjoyable reading experience.

Sincerely,

Ms. Rucha Walvekar

Ms. Rujuta Walavalkar

Ms. Mrinmayee Aole

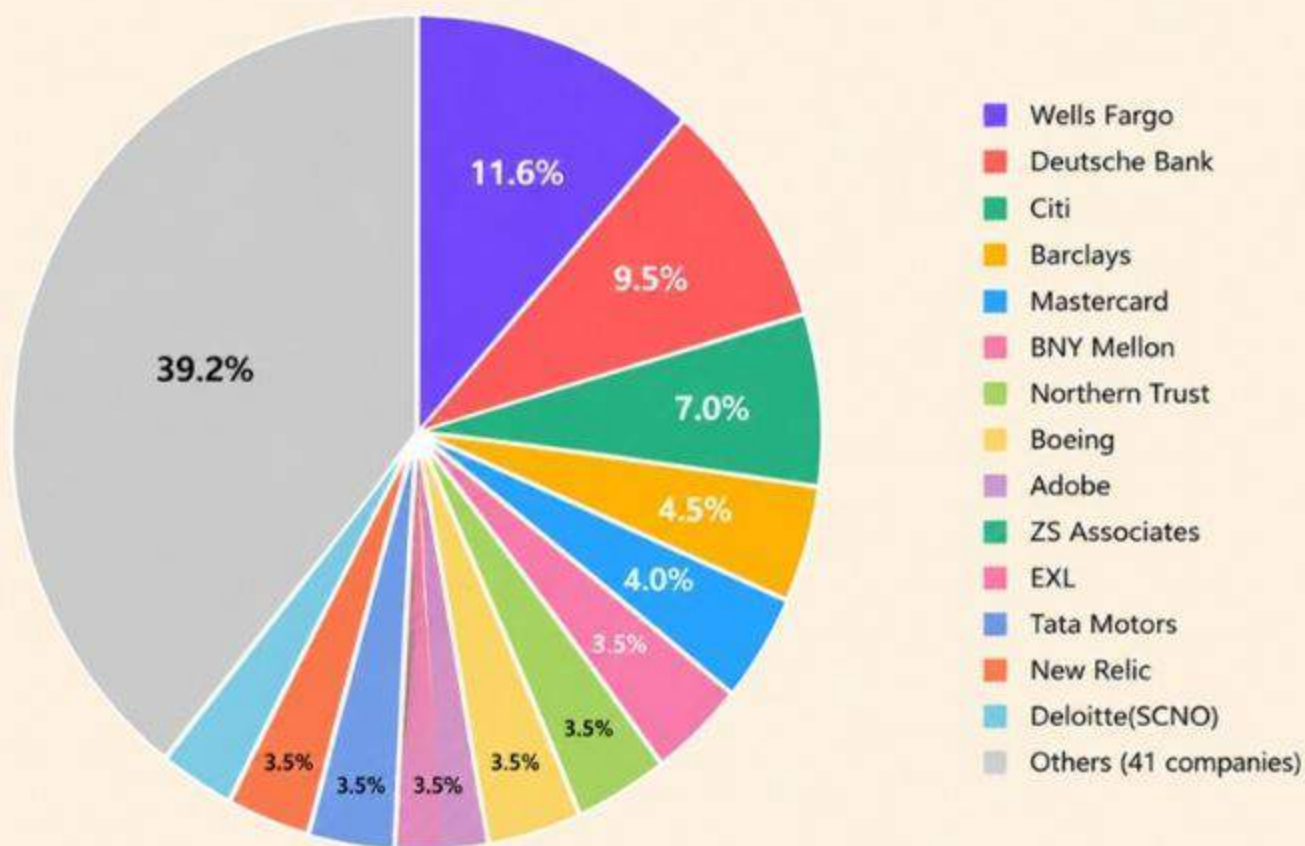
Ms. Manasvi Pardeshi

Best Department Award 2025-26



Computer Engineering Department

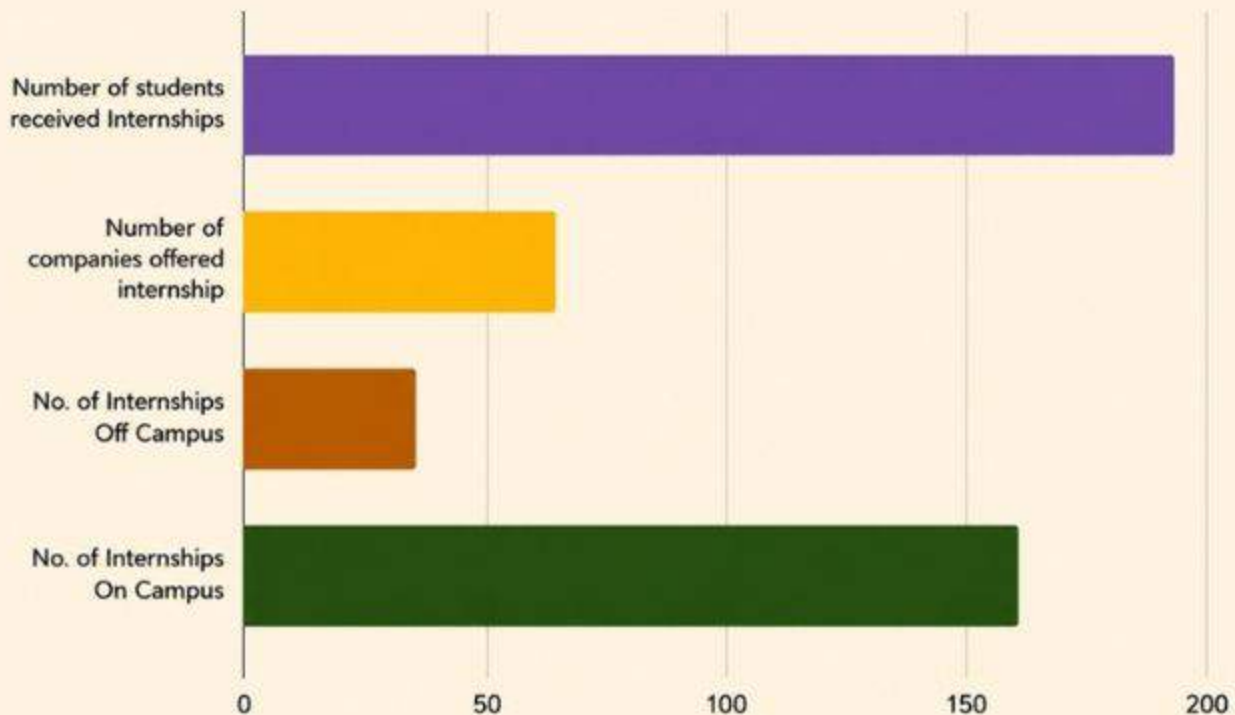
Placements 2025-26



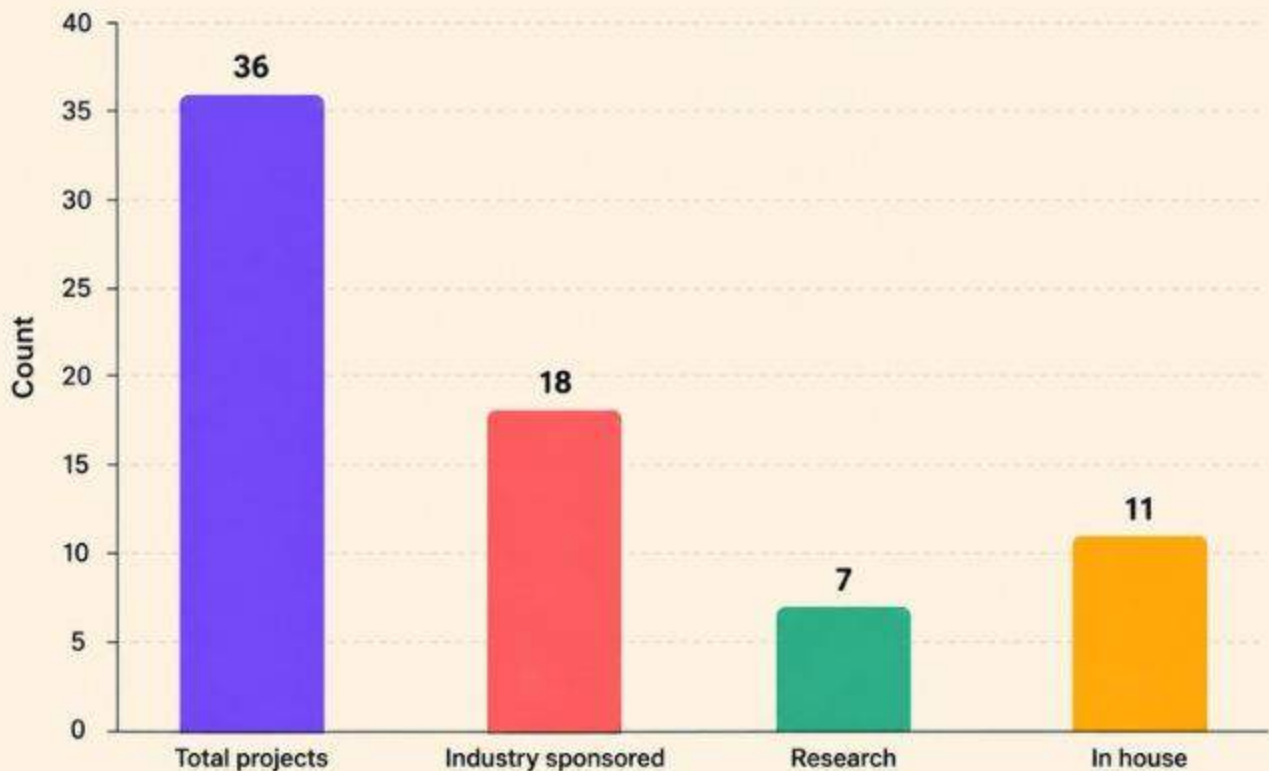
Total Students Placed	89.20%
Maximum Package	53.35 LPA
Average Package	16.5 LPA
Median Package	13.5 LPA
No. of students with Max Package (Adobe)	5
No. of Companies for placements	62

Internships 2025-26

Total Students completed Internships	195 / 242 (80.91 %)
Maximum stipend	1.25 L
Companies provided maximum stipend	Microsoft Intuit
No. of companies for internships	63
Number of Students received Pre-Placement Offer (PPO)	100 (51 %)



Projects 2025-26



Number of projects	36
Number of industry sponsored projects	18
Number of research projects	7
Number of in house projects	11

Echoes of Excellence

Alumni Spotlight

SAEE
SAPRE



Executive Director at
Morgan Stanley

1999 passout

Actively involved in college life as Assistant Cultural Secretary, Branch Representative, and a regular performer in Gandhaar during her college life.

An accomplished technology leader with over two decades of experience across global organisations, currently leading Power Platform and Gen AI enablement at Morgan Stanley. From Java and full-stack development to Agile transformation and emerging technologies, her journey reflects continuous learning, adaptability, and innovation.



LEADER



INNOVATOR



MENTOR



INSPIRATION



01

You have worked across IBM, State Street, FIS, and Morgan Stanley. How has the software industry evolved over the last two decades? ✨



“ The biggest lesson from my journey is that no curriculum or degree can fully prepare you for every technology shift — and that is okay. When I completed my engineering degree, our syllabus included C and COBOL, but the industry was already moving toward Java. I did not wait for the perfect course or opportunity; I rented a computer after graduation and started learning Java on my own.

“ Over the years, I have seen the industry move from enterprise Java, web frameworks and database-driven applications to Agile delivery, cloud, automation, low-code platforms and now AI-assisted development. Each shift felt new at the time, but the pattern has been the same: the people who keep learning, experimenting, and adapting are the ones who stay relevant.

“ For students, my message is simple: do not measure your readiness only by what is in the syllabus. Use college as a strong foundation, but build the habit of learning beyond it. Pick up emerging tools, work on practical projects, ask questions, and stay open to change. In technology, your ability to learn continuously will matter as much as what you know today.

02

Your role sits at the intersection of technology, finance, and leadership. How important is it for engineers today to develop skills beyond coding, and which interdisciplinary skills have been most valuable in your career? ✨



“

For anyone in technology, one of the most important yet underrated skills is understanding what stakeholders truly need, not just what they initially ask for. What gets requested and what eventually gets built can differ, often because uncovering the real requirements, asking the right questions and surfacing hidden assumptions takes time—especially when teams work across locations. This is why domain interest matters. For example, it is difficult to build effective equity swaps reporting if you do not understand what an equity swap is or why the report matters to the business.

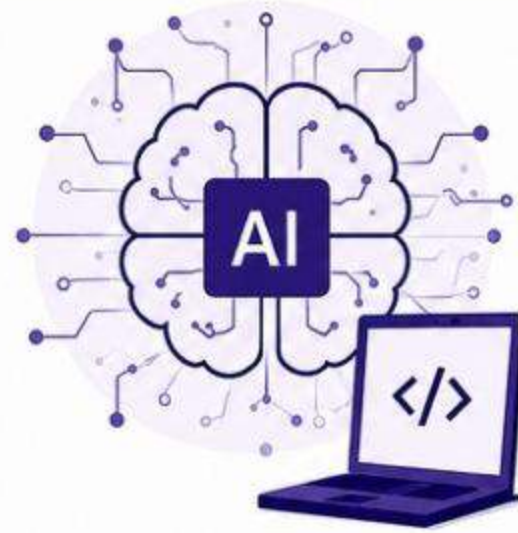
“

Leadership also often shows up through influence, not just authority. It means helping people with different priorities—business teams focused on speed, compliance teams focused on control and engineering teams focused on stability—align around a practical decision. It also requires explaining trade-offs clearly, being willing to say when something will not work, even to senior stakeholders, and creating an environment where people feel safe to raise risks early rather than hide them.

“

The most valuable skills have not been technical, but understanding people, asking better questions, and being curious about the business. These are the skills that compound over time and make the biggest difference.

Generative AI has transformed software engineering in just a few years. How do you see AI changing the role of software developers over the next five years? ✨



“

I wish I had a crystal ball to predict exactly how the role of software developers will evolve, but this is without question the biggest technology disruption I have seen since the internet. AI is already making legacy code migration and new software development significantly easier, while also raising expectations for speed, quality and security. As cyber risks increase and clients expect faster delivery to capture revenue opportunities, developers who can use coding assistants effectively will be in high demand.

“

The real differentiator will not just be generating code, but applying AI thoughtfully to architect and deliver secure, enterprise-grade, bug-free software. I also see varying levels of adoption across teams, which shows that applied AI skills matter: some developers are already using these tools to transform end-to-end development through agents, while others are still using them mainly for code generation.



04

Drawing from your professional journey, what changes would you recommend colleges adopt to make students more industry-ready? How do you see Cummins evolving to meet these expectations? ✨



Curriculum agility: It is encouraging that Cummins is now a Deemed Institution, as that gives the college more flexibility to refresh courses in line with industry change. When I was a student, we still had COBOL labs and projects, even though industry demand had already shifted significantly. To become more industry-ready, I had to pursue Java training and certification on my own.



AI-native readiness: A similar shift is needed today. Colleges should prepare students to be AI-native from the start—not just by teaching AI concepts, but by helping students apply AI in practical, industry-relevant ways across software development, problem solving and productivity.



More hands-on learning: This can be supported through practical courses, project-based work and enough flexibility in the curriculum to evolve quickly as technology changes. The goal should be to help students graduate with skills that reflect how the industry is actually working, not just what was current when the syllabus was first designed.



05

If you could walk into our campus today and attend one class or event, what would it be and why? ✨



“

I would love to experience Gandhar again. It was special to spend the entire night on campus with classmates, watching performances, waiting for our turn, and soaking in the energy of the event. I performed in a dance every year, so it remains one of my fondest college memories.

“

The class I would choose is Professor Tikhe Madam's second-year Data Structures class. It was a foundational subject, and she taught it exceptionally well.

06

Finally, if you could give one piece of advice to every Cummins engineering student reading this newsletter, what would it be? ✨

“

My advice is to stay curious and keep learning. Technology changes quickly, so it is important to keep approaching your career with a student's mindset. For me, that has meant continuously adapting—from Java to Python, from evolving databases and UI/backend frameworks to cloud platforms, and now to AI tools.



”



AMAZING COMPUTER FUN FACTS

Little facts. Big knowledge!



1

The first computer “bug” was an actual bug!

In 1947, a moth was found causing
a malfunction in the Harvard Mark II computer.

First actual bug!



2

More than 90% of the world’s data was created in the last two years!

We are generating data faster
than ever before.



3

Wi-Fi stands for “Wireless Fidelity”!

It was chosen because the sound “Hi-Fi”
was already a registered trademark.



4

The “Ctrl + Z” shortcut wasn’t always around!

It became popular in the 1980s
with word processors.



5

The first computer mouse was made of wood!

It was invented by Douglas Engelbart
in 1964.





Student's Achievements

Celebrating the **talent**, **hard work**
and **dedication** of our students.



Dream.

Have big dreams.



Achieve.

Work hard & stay focused.



Excel.

Keep improving every day.



Inspire.

Lead, uplift & make a difference.

Best Outgoing Student (2025-2026)



MS. ISHA BHAGAT

Meritorious Student (2024-2025)



MS. SANIYA DIGHE

SY Toppers 2024-25

Sr. No	Name of Student	CGPA
1.	JUI SANTOSH KULKARNI	9.51
2.	NARMATA BHAT	9.51
3.	SHREEYA NARAYANAN	9.46
4.	AISHWARYA PAWAR	9.45

TY Toppers 2024-25

Sr. No	Name of Student	CGPA
1.	SANJANA INAPAKOLLA	9.49
2.	APOORVA ATRE	9.46
3.	MAHADIK ADITI	9.34
4.	GUNGUN RAMCHANDANI	9.31



Congratulations !

Final Year Toppers 2024-25

Sr. No	Name of Student	CGPA
1.	SANIYA DIGHE	9.5
2.	SHREYA AGRAWAL	9.48
3.	SANIYA MAHALLE	9.46
4.	KETAKI PARANJAPE	9.39



Congratulations !

STUDENT PANEL POSITIONS

Name of the Student	Post/ Team
Kajal Israni	Technical Secretary
Gayatri Muttepawar	Treasurer
Namrata Hirani	Branch Representative
Anusha Kinikar	Placement Cell Representative
Gauri Bankar	Library Representative
Wamika	Assistant Cultural Secretary(SY)
Shikha Pawar	Assistant Cultural Secretary(TY)
Arya Hawaldar	Assistant Operations Secretary
Vaishnavi Waghole	Assistant Technical Secretary
Swara Veer	Assistant Treasurer(SY)
Shruti Srinivasan	Magazine Editor--English
Girija Annirudh Joshi	Magazine Editor--Hindi
Manasi Jog	Magazine Editor--Marathi
Gauri Somani	Social Media And Graphics
Shruti Shinde	Social Media And Graphics





SY Co-Curricular Activities

1. Saumya Belgi, Yashsree Chakkarwar received a scholarship of 3000 Euros each by Allianz Technology in November 2025.
2. Avisha Moghe won the Design Development Challenge (DDC) in Design Report Category at the SAEISS DDC, representing Team Bharadwaj, held in Chennai in February 2026.
3. Tanushri Khatriv, Priya Bharat Pawar, and Anushkaa Pawar secured a place among the Top 30 teams nationwide and won a cash prize of ₹2,00,000 in March 2026.
4. Unnati Ingole and Samrudhhi Dangra as part of Team AAVEG, secured the 1st Runner-Up position, hosted by SGGS Institute of Engineering and Technology, Nanded in March 2026.
5. Rutuja Zawar won the runner-up position for MVPM Hackathon in April 2026, organised by Maheshwari Vidya Pracharak Mandal, Pune
6. Harshada Pande, Saumya Belgi, Aishwari Bakshi and Disha Patil secured 2nd prize along with a cash prize of Rs. 10,000 in Navira Software Hackathon sponsored by BNY, Amdocs, in Innovation, MKSSS's Cummins College of Engineering for Women.
7. Khushi Rao, Rutuja Zawar and Nidhi Patil as part of E-Cell Yukta, secured AIR 19 at the NEC conducted by E-Cell IITB



SY Co-Curricular Activities

INNOVATION 2026
Transcending into a new dimension defined





TY Co-Curricular Activities

1. Samruddhi Dargode, Tasnim Shaikhand and Vardayini Deshmukh received a scholarship of 3000 Euros each from Allianz Technology in November 2025.
2. Sanjana Kulkarni received the **"Rising Star in Cybersecurity"** Award from International Information System Security Certification Consortium (ISC2) for her exceptional research contribution in the paper writing competition in December 2025.
3. Tanaya Chemate, Sanika Deokule and Eshwari Borade have been selected for the WE Local Pune Student Registration Grant. This grant offers them an incredible opportunity to engage with industry leaders, attend technical sessions, and network at a premier conference for women in engineering in October 2025.
4. Jui Kulkarni and Hirani Namrata secured 2nd place in the college-level Citi Hackathon, organised by Citi Bank.
5. Sanika Deokule and Eshwari Borade participated in the SWE STEMinist – Student Community program, organised by CCOEW, and received a conference entry pass worth ₹2500 each.
6. Tanisha Chavan participated in Hacknovate 2K25, a state-level hackathon organised by Karmveer Bhaurao Patil College of Engineering, Satara, and was a finalist, receiving a certificate and ₹5000.

7. Advika Khorgade secured 1st Runner-Up position in the Citi Bank Hackathon at the national level and was also a semi-finalist in the Flipkart Online Hackathon at the national level.
8. Iqra Irfan Shaikh participated in the Coder's 24 Hours Hackathon held in Pandharpur at the national level and received the Best Women in Tech Award.
9. Dargode Samruddhi secured the Winner position in the WCE Hackathon at the national level, organised by Walchand College of Engineering.
10. Ananya Shroff also secured a Runner-Up position in a Blockchain Hackathon organised by Citi at the national level.
11. Vaishnavi Ahire secured the Winner position in Katathon 2025 and Katalyst Tech Fest 2026 at the national level, organised by Katalyst India.
12. Ichcha Bhat participated in an Ideathon organised by IEEE PES at the national level and secured 6th position.
13. Aarya Kulkarni secured the Winner position in the WCE Hackathon 2026 at the national level, organised by Walchand College of Engineering.
14. Aarya Kulkarni also secured a Winner position in the NariYukti TechHack at the national level, organised by Infosys Hubballi in collaboration with KLE Technological University and Poornima University.
15. Vrunda Deshpande participated in CommitVerse Innovation 2026, a national-level competition focused on open-source contributions on GitHub, organised by CCOEW, Pune, and secured a Winner position for the project competition.



TY Co-Curricular Activities





SY Extra Curricular Activities

1. Samiksha Magdum, Saniya Mujavar, Mrudula Bhosale and Abha Bondre of Team Kalawant secured Second Prize in the Street Play Competition at UDAAN 3.0, held at Christ College, Pune, in March 2026.
2. Arya Ramdasi and Ketaki Bhate secured the Runner-Up position in the Yogasana Competition held at Vishwakarma University, Kondhwa, in September 2025 at the Intercollegiate level.
3. Avani Limaye and Poonam Gaikwad secured 3rd Winner position in the Volleyball Competition organised by SPPU in October 2025 at the Intercollegiate level.
4. Arya Bafna secured a Bronze Medal in the Badminton Competition organised by SPPU in November 2025 at the Intercollegiate level.
5. Janhavi Bhosale secured the 2nd Winner position in the SPPU Inter College Chess Competition held at Cummins College of Engineering for Women in October 2025 at the University level.
6. Janhavi Bhosale secured 1st Winner position in the Damini Inter Collegiate Chess Tournament held at Cummins College of Engineering for Women in February 2026 at the University level.

7. Mrudula Bhosale, Saniya Mujavar and Samiksha Magdum secured 1st prize in the Street Play Competition held at YIN Kala Mahotsav, PCET College, Pune in April 2026.
8. Bhoomika Hirani and Anshita Sarda won a cash prize of ₹15,000 in the dance competition “Esmeralda” organised by Army Institute of Technology in April 2026.
9. Bhoomika Hirani and Anshita Sarda won a cash prize of ₹6,000 in the dance competition “Crescendo” organised by Vishwakarma Institute of Technology in April 2026.
10. Bhoomika Hirani and Anshita Sarda won a cash prize of ₹8,500 in the dance competition “AVYANNA ” organised by SMCW College (Symbiosis Medical College for Women), Pune in March 2026.
11. Bhoomika Hirani and Anshita Sarda won a cash prize of ₹15,000 in the dance competition “BHARTIYUM ”organised by Bharti Vidyapeeth, Pune in February 2026.
12. Bhoomika Hirani won a cash prize of ₹12,000/- at DIVINE MOVES organised by NIA (National Insurance Academy), Pune in February 2026
13. Rucha Walvekar secured 2nd prize in an essay competition on “The Role of Education in Achieving Social Equality” organised by the book club, Cummins College of Engineering, Pune in April 2026.
14. Shreya Babar, Vaishnavi Walvekar, Arya Bafna and Arnavee Lande participated in Kho-Kho at the SPPU Intercollegiate competition organised by SPPU and secured Fourth Place.



TY Extra Curricular Activities

1. **Vaishnavi Machale, Vibhavari Patil, Rutuja Kale, Snehal Jagtap and Mimansa Gupta** won second place in the **kho-kho** in the **Damini** event in February 2026, organised by CCOEW.
2. **Sayee Deshamane - (Director, Writer) Team Kalawant** participated in the Skit Competition held at YIN Kala Mahotsav at PCET College, Pune, and secured Third Prize
3. **Asmita Ahire** participated in **Yoga** at the **SPPU Intercollegiate** competition organised by SPPU and secured a Runner-Up position.



Extra Curricular Activities





Final Year Co-Curricular Activities

1. **Anushka Kinikar** received **Best UI prize** in **Inspiron 5.0 Hackathon** held by Computer Society of India in April 2026
2. **Shweta Bagade** is winner in **Blockchain track** in **PVG Ignition HackVerse 2026** held at Pune Vidyarthi Gruh's College of Engineering in April 2026
3. **Sara Khare** won second **prize** in **Technophinx- AI solution Challenge** coding competition held at Cummins college of Engineering pune in September 2025



SMART INDIA
HACKATHON
2025

SIH 2025

Shortlisted Teams

Sr. no	Team Name	Team Lead and members	Department	Mentor name	Topic under
1	VISSDOM	Vedika Kurhade Mahi Mahalle Sharvari Somvanshi Shreya Jadhav Isha Gawade Dnyaneshwari Khatke	Comp	Dr. Pranjali Deshpande	Ministry of Earth Sciences
2	GeoNomeX	Aishwari Baksi Disha Patil Shreya Jaripatke Anushka Dumbre Harshada Das Dhanshree Gedam	Comp	Dr. Dipti Patil	ISRO: Dept. of Space
3	CivicShaktii	Tanushri Khatri Shreya Gholap Khushee Dengale Priya Pawar Utkarsha Patil(Entc) Shravani Umbrajkar (Mech)	Comp, Entc, Mech	Mrs. Rakhi Doangaonkar	Kochi Rail Metro
4	ArogyaAsha	Riya Khare Sara Jaiswal Mihira Bhalerao Harshada Pande Tanishka Khanapurkar Diya Jaiswal (Entc)	Comp and Entc	Mr. Satish Ranade	Govt of Maharashtra

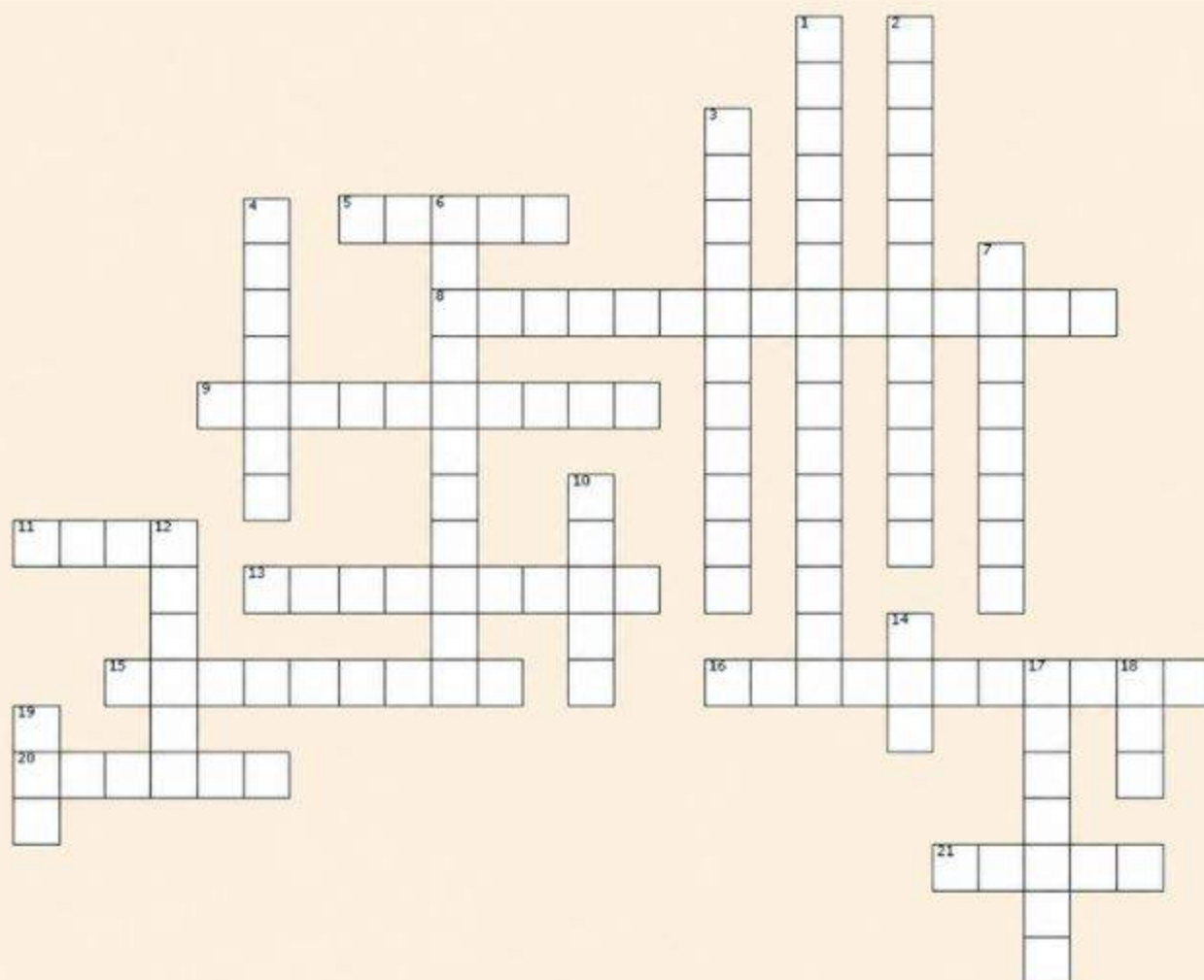


Sr.no	Name	Course	Achievement
1	Madhura Inamdar	Deep Learning (IIT Ropar)	Elite+Gold- Top 2%
2	Srushti Rajiv Kotgire	Introduction to Internet of Things	Elite+Gold - Top 5%

Little laughs 😂



CROSSWORD CORNER



ACROSS

5. Data structure commonly used in Depth-First Search (DFS).
8. Mechanism used to coordinate access to shared resources in concurrent systems.
9. CPU scheduling algorithm that allocates equal time slices to processes.
11. Cyberattack that overwhelms a server with excessive requests.
13. Database transaction property ensuring all operations succeed or fail together.
15. Process of finding and fixing errors in code.
16. Process of converting source code into machine code.
20. Network device that forwards data packets between networks.
21. Data structure that follows the First-In-First-Out (FIFO) principle.

DOWN

1. Software that manages hardware resources and provides services to applications.
2. Operating System capability of running multiple processes simultaneously.
3. Type of memory that retains data even when power is removed.
4. Collection of interconnected devices that communicate and share resources.
6. OOP concept that hides implementation details from the user.
7. Shortest-path algorithm used in graph theory.
10. Secure protocol used for communication over the World Wide Web.
12. SQL command used to retrieve data from a database.
14. Smallest unit of data in computing
17. Database normalisation form that eliminates transitive dependencies
18. Programming paradigm based on objects and classes.
19. Cache Replacement policy that removes least recently used item



Faculty Corner



Recognizing the **guidance, passion**
and **commitment** of our amazing faculty.



Mentor.

Guiding with knowledge
and experience.



Inspire.

Encouraging curiosity
and creativity.



Innovate.

Driven by ideas,
focused on impact.



Empower.

Building confidence and
shaping tomorrow.



Thank You! ♥

For shaping minds and inspiring futures.

Faculty Achievements

- Dr. Chhaya Gosavi received the SPPU Best Innovative Teaching Award on University Foundation Day, 10 February 2026, in recognition of excellence and innovation in teaching
- Dr. Sushila Shingade received the Outstanding Woman Researcher in Data Mining award from Venus International Foundation, Chennai, for significant contributions and achievements in Engineering
- Dr. Pranjali Deshpande successfully completed her Ph.D. in Computer Engineering under the guidance of Dr. Sunita Jahirabadkar. She was registered at department of Technology at Pune University
- Dr. Anjali Naik completed Innovation Ambassador Training (Re-Skilling Levels) organized by the Ministry of Education Innovation Cell on 27 February 2026
- Dr. Shilpa Deshpande elevated to the prestigious IEEE Senior Member grade in recognition of significant professional experience and achievements

NPTEL

Faculty Toppers

Sr.no	Name	Course	Achievement
1	Dr. Sunita Jahirabadkar	Ethics in Engineering Practice	Top 1%
2	Dr. Sandhya Arora	Introduction to ML (IITKGP)	Top 2%
3	Dr. Shilpa Deshpande	User-centric Computing For Human Computer Interaction	Top 2%
4	Dr. Madhuri Tasgaonkar	ML & DL Fundamentals	Top 5%
5	Mrs. Nilofer S Kittad	Augmenting Design Thinking with Human-Computer Interaction	Top 5%





FACULTY PATENTS 2025-26



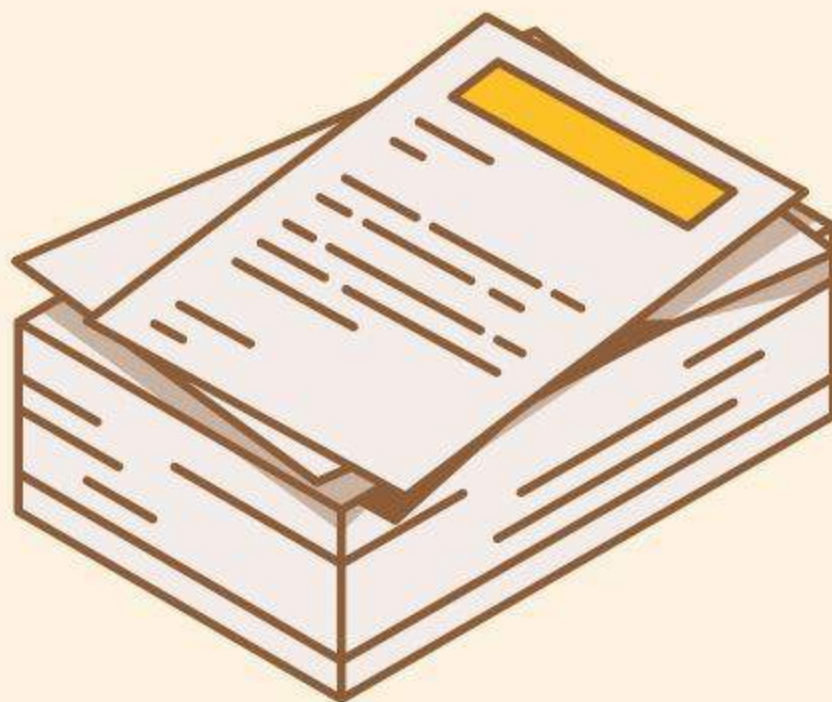
1. Dr. Sunita Jahirabadkar, Aditya R., Punam Pande, Prajakta Narsay, Gargi Deshpande, Shivani Pharande, Anusha Kitture, Sai Gokhale, Grishma Deshmukh, Sejal Chaudhari, and Raahi Kadu were granted the Indian patent "A System and Method for the Classification of Space Objects to Identify Debris." The patent was based on her research work which was funded by "ISRO"(Indian Space Research Organization) in April 2026.
2. Dr. Sunita Jahirabadkar, Maitreyee Mhaskar, and Dr. Sandhya Arora were granted the Indian patent "System and Method for Recognizing Handwritten Devanagari Characters." The patent was based on their Research funded by BCUD, SPPU, Pune in August 2025.
3. Dr. Pranjali Deshpande, Pradnya Kandarkar, Radhika Joshi, Rafiya Sheikh and Riya Tirole were granted the Indian patent "System and Method for Sarcasm Detection on Devanagari Sentences."
4. Dr. Madhuri Tasgaonkar, Sakshi Dhokrat, Devina Dhuri, Utkarsha Funde, Prajakta Gawali were granted the Indian patent "A System and Method for Capturing User Gestures to Interact with Virtual Environment Thereof."
5. Dr. Sandhya Arora and Prof. Nutan Deshmukh published the Indian patent "System and Method for Personalized Glucose Monitoring in Glucometers."
6. Dr. Neeta Maitre, Dr. Sushila Shelke, and Prof. Nutan Deshmukh published the Indian patent "An Automated Pills Dispensing System and Method Thereof."
7. Dr. Sheetal Barekar, and Prof. Nutan Deshmukh published the Indian patent "A System and Method for Autonomous Remote Structural Health Monitoring Bridges."

8. Dr. Anjali Naik, Ketaki Paranjape and Rajasi Barapatre published the Indian patent "Real-Time Deep Learning Enabled Auditory Scene Interpretation in Wearable Eyewear for Visually Impaired Users."
9. Dr. Anjali Naik, Rajasi Barapatre and Ketaki Paranjape published the Indian patent "Real-Time Multi-Modal Sign Language Recognition and Translation."
10. Dr. Chhaya Gosavi, Prof. Shilpa Pant, and Dr. Ashwini Rajurkar filed the Indian patent "A System and Method for Continuous Monitoring and Remote Assessment of Various Patients by using Comfortable Advanced Smart (CAS)-Sheet."





FACULTY JOURNAL PUBLICATIONS





FACULTY JOURNAL PUBLICATIONS

- Dr. Sandhya Arora and Deepa Mane published a paper on "IndiaScene365: A Transfer Learning Dataset for Indian Scene Understanding in Diverse Weather Condition" in Frontiers in Artificial Intelligence, Volume 8, in January 2026
- Dr. Sandhya Arora published a paper on "Behavioral Analysis of Malicious Activities in Network Traffic Using Machine Learning Algorithms" in the International Journal of Applied Mathematics, Volume 38, Issue 1S, in September 2025
- Dr. Sandhya Arora, Mihika Pandit, Saniya Mahalle, Srushti Pekamwar, and Vaishnavi Rohokale published a paper on "Deep Learning Approaches for Early Detection of Skin Cancer" in the International Journal of Applied Mathematics, Volume 38, Issue 4S, in October 2025
- Dr. Sushila Shelke and Dr. Neeta Maitre published a paper on "Energy-Efficient Graph Learning with Blockchain-IoT Integration for Secure Smart City Energy Management" in Electrical Engineering, Volume 108, in January 2026
- Prof. Meenal Kamlakar, Dr. Mahendra Deore, and Dr. Supriya Kelkar published a paper on "SHAP-based GNN-GRU Model for TB Surveillance" in the International Research Journal of Multidisciplinary Scope (IRJMS), Volume 7, Issue 2, in April 2026
- Dr. Sandhya Arora and Prof. Priya Deokar published paper on "Privacy Preserving Data Aggregation and Authentication Schemes in Smart Grid: An Overview" in the Information Security Journal, Volume 24, Issue 1–6, in October 2025



FACULTY JOURNAL PUBLICATIONS

- Prof. Rakhi Dongaonkar, Gungun Ramchandani, Samiksha Jadhav, Sakshi Jain and Namrata Idhole published a paper on "An Automated Framework for Detecting and Quantifying Alcohol-Related Content in Movies" in the International Journal of Computing and Digital Systems, in April 2026
- Prof. Nilofer Attar published a paper on "Enhanced ASD Detection Using 3D Facial Landmark Localization with Convolutional Shape Appearance Model and Graph-Randomized XGBoost" in Sadhana – Academy Proceedings in Engineering Sciences, Volume 51, Article No. 30, in January 2026
- Prof. Gitanjalee Salunkhe, Prof. Sarika Joglekar, and Prof. Jyoti Kengale published a paper on "Enhancing Car Safety with Multimodal Emotion Recognition Using CNN-LSTM Networks" in EVERGREEN – Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy, Volume 12, Issue 03, in September 2025
- Dr. Sushila Shingade published a paper on "Efficient Supply Chains in Agriculture Through Cluster-Based Route Optimization" in Operations Research Forum, Volume 7, Issue 13, in January 2026
- Dr. Sushila Shingade published a paper on "Single Block Over Network (SBON): A Paradigm for Efficient Fine-Tuning of Neural Networks in Medical Imaging" in Multimedia Tools and Applications, Volume 85, Issue 106, in February 2026



FACULTY JOURNAL PUBLICATIONS

- Mrs. Varsha Pimprale, and Dr. Mahendra Deore published a paper on "A Systematic Survey of AI-Generated Text Detection, Humanization, and Grammar Correction Techniques" in the International Journal of Engineering Trends and Technology, Volume 74, Issue 3, in March 2026
- Prof. Shilpa Pant and Riya Chaudhari published a paper on "Fraud Detection in Credit Card Transactions Using a Hybrid Approach of GNN+XAI: A Review" in the International Journal of Electronics and Communication Engineering, Volume 13, Issue 3, in March 2026
- Dr. Shilpa Deshpande, Snehal Athghara, Apoorva Atre, Shweta Bagade, and Gayatri Muttepawar published a paper on "A Deep Learning-Based Framework for Actor Recognition and Screen Presence Analysis in Bollywood Films" in the International Journal of Electrical and Electronics Engineering (IJEEE), Volume 13, Issue 4, in April 2026
- Dr. Shilpa Deshpande, Prof. Sakshi Khanapure, Brishti Basu, Arundhati Korlahalli, and Anandita Rathore published a paper on "Cyberbullying Detection, Categorization and Severity Classification in Networking Platforms for Teenagers and Young Adults" in the International Journal of Engineering Trends and Technology (IJETT), Volume 73, Issue 9, in September 2025
- Prof. Jyoti Bangare, Prof. Nilofer Kittad, and Prof. Sulakshana Nagpurkar published a paper on "Vision Transformer-Enabled Chest CT Analysis for Enhanced Tuberculosis Diagnosis in Clinical Settings" in the Indian Journal of Tuberculosis, Volume 72, Supplement 3, in October 2025



FACULTY JOURNAL PUBLICATIONS

- Dr. Madhuri Tasgaonkar, Rujuta Joshi, Harshada Chavan, and Nilesh Rathi published a paper on "Deepfake: A Boon for Pediatric Dental Patients" in Engineering, Technology & Applied Science Research, Volume 15, in October 2025
- Mrs. Sarika Joglekar, Dr. Ashwini Rajurkar, and Mrs. Purnima Kawale published a paper on "Intelligent IoT Sensing Systems for Real-Time Irrigation Optimization" in International Journal of Computer Information Systems and Industrial Management Applications", Vol. 18, in June 2026

FACULTY CONFERENCE PUBLICATIONS



- Dr. Sunita Jahirabadkar and Mrs. Pranjali Deshpande presented a paper on "Shabda Anveshak: Comparative Review and Analysis of Marathi Part of Speech Tagging Approaches" at the 1st International Conference on AIML-Applications for Engineering & Technology (ICAET), Pune, India, held on 16–17 January 2025.
- Prof. Shilpa Pant, Rhucha Deodhar, Tanya Gadwal, Ananya Bhat, Aditi Hinge, and presented a paper on "Vision Based Real-Time Indian Sign Language (ISL) Detection" at the 10th International Conference on ICT for Sustainable Development, held on 17–19 July 2025.
- Dr. Chhaya Gosavi, Smakshi Alhat, Aayushee Gujarathi, Bhakti Chougule, Shreya Mokalikar, and presented a paper on "Experimental Study of Static Analysis Frameworks for Incremental Data Flow Analysis" at the 10th International Conference on ICT for Sustainable Development, held on 17–19 July 2025.
- Mrs. Varsha Pimprale (with students) presented a paper on "A Smart Disaster Management System for Emergency Hospital Allocation" at the International Conference on Modern Sustainable Systems (CMSS-2025), sponsored by IEEE, held on 12–14 August 2025.
- Dr. Shilpa Deshpande, Prof. Vaishali Salgar, Prof. Aparna Hajare, Shriya Fale, Ishita Sali, Sakshi Patil, Vaidehi More presented a paper on "REST API Smart Auditing Solution: Tracking Changes and Enhancing Security" at the 2025 IEEE 3rd Global Conference on Wireless Computing and Networking (GCWCN), held on 22–23 November 2025.
- Dr. Anjali Naik (with student) presented a paper on "Interpretable Fake News Detection Using Neural Networks and LIME" at the 10th International Conference on ICT for Sustainable Development, held on 17–19 July 2025.

FACULTY CONFERENCE PUBLICATIONS



- Dr. Chhaya Gosavi presented a paper on "NeuroNest: A Multimodal Mobile Application for Cognitive Rehabilitation and Assistive Support in ADHD, MCI, and Autism Spectrum Disorder" at IEEE PuneCon 2025, held on 12–14 December 2025
- Dr. Chhaya Gosavi presented a paper on "AI/ML-Based Detection of Post-Traumatic Stress Disorder (PTSD)" at IEEE PuneCon 2025, held on 12–14 December 2025
- Dr. Chhaya Gosavi presented a paper on "Multi-Modal Artificial Intelligence System for Early Detection of Neurological Diseases: A Comprehensive Approach to Alzheimer's, Parkinson's, and Epilepsy Diagnosis" at the International Conference on Emerging Informatics (ICEI), PICT, held on 9–11 January 2026
- Dr. Chhaya Gosavi, Prof. Aparna Hajare, Rutika Khedkar, and Deepti Manoj Singh presented a paper on "Anomaly Detection Methods in Social Networks" at the International Conference on Emerging Informatics (ICEI), PICT, held on 9–11 January 2026
- Dr. Sandhya Arora presented a paper on "Statistical Analysis of the Israeli–Palestinian Conflict: Patterns and Dynamics" at the World Conference on Information Systems for Business Management, held on 24 September 2025
- Dr. Sandhya Arora, N. Malpani, V. Gaikwad, and S. Thakur presented a paper on "Accessible Intelligence: Deep Learning-Driven Voice Assistant" in Data Mining and Information Security: Proceedings of ICDMIS 2024, Volume 4, published on 28 August 2025
- Dr. Sandhya Arora, P. Patil, Prof. H. Dhage,, Prof. S. Badgujar, and Prof. R. Narayankar presented a paper on "EfficientNetB1-Based Model for Brain Tumor Classification in MRI" at the International Conference on Computational Intelligence in Data Science in 2025

FACULTY CONFERENCE PUBLICATIONS



- Dr. Sandhya Arora and Prof. Priya Deokar presented a paper on "Multiparty Computation for Privacy-Preserving Communication in the Smart Grid" at the International Conference on Smart Trends for Information Technology and Computer Communications, held in 2025
- Dr. Pranjali Deshpande presented a paper on "Bridging Linguistic Scripts: A Comprehensive Survey of Transliteration Techniques Across Languages" at the International Conference on ICT for Sustainable Development, held on 17–19 July 2025
- Prof. Nutan Deshmukh and Arya Bafana presented a paper on "An Empirical Analysis of Sudoku Solving Algorithms: A Comparative Study of Backtracking and Dancing Links (DLX)" at the 10th International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2025), held on 15–17 December 2025
- Dr. Neeta Maitre, Niharika Patil, Pradnya Patil, Prof. Maitreyee Patil, Khushi Jha, Rashmi Apte, and presented a paper on "Attire Classification in Indian Cinema" at the International Conference on ICT for Sustainable Development, held on 17–19 July 2025
- Dr. Anjali Naik, Ananti Mulay, Gargee Dorle, and Shruti Kulkarni presented a paper on "Per-Pixel Adversarial Perturbations for Proactive Deepfake Defense" at the MCT4SD Manila, Philippines Conference 2025, held on 11–13 December 2025
- Dr. Anjali Naik and Maitreyee Londhe presented a paper on "Virtual Gold Chain Try-On Using Augmented Reality" at the 6th International Conference on Data Engineering and Communication Technology, held on 1–2 December 2025

FACULTY CONFERENCE PUBLICATIONS



- Dr. Anjali Naik presented a paper on "Detecting Bank Frauds: A Unified Solution in a Fragmented Domain" at the 4th World Conference on Information Systems for Business Management, held on 24–26 September 2025
- Dr. Sandhya Arora and Snehal Athghara presented a paper on "A Comparative Analysis of Air Quality Index Forecasting Using LSTM, GRU and Multi-Variate NBEATS" at the 10th International Conference on Communication and Electronics Systems (ICCES), held on 26–28 October 2026
- Dr. Sandhya Arora and N. Chatterjee presented a paper on "Time-Aware Hybrid Stacking Ensemble for Air Quality Prediction" at the 10th International Conference on Communication and Electronics Systems (ICCES), held on 26–28 October 2026
- Prof. Nutan Deshmukh, Aditi Singnurkar, Jui Baviskar, Ankita Nahire, and Bhoomi Shekapure, and presented a paper on "Educational Game Design Using Data Structures: A Time Travel Adventure Through Ancient and Medieval Eras" at the 5th International Conference on Advances in Science, Engineering & Technology, held on 22–23 March 2026
- Prof. Meenal Kamlakar, Anuja Kelkar, Pradnya Kardile, Aditi Dudhe, and Prajakta Chaudhari, presented a paper on "Lifestyle Influences on Menstrual Cramps: ML Analysis and EHG Monitoring with a Low-Cost Device" at the ICTIS Conference, held on 9–11 April 2026
- Dr. Sandhya Arora, Aashita Rai, and Rujuta Walavalkar presented a paper on "A Hybrid Quantum-Classical Neural Network for EEG-Based Classification of Harmful Brain Activity" at the 10th International Conference on Communication and Electronics Systems (ICCES 2025), held on 26–28 October 2025

FACULTY CONFERENCE PUBLICATIONS



- Dr. Shilpa Deshpande, Prof. Vaishali Salgar, Gayatri Joshi, Siddhi Chipade, Ashlesha Kagane, and Namita Mahamuni presented a paper on "Smart Chatbots for Human Assistance" at the IEEE International Conference on Emerging Informatics (ICEI 2026), held on 9–11 January 2026
- Dr. Sandhya Arora, N. Dhingra, G. Kale, H. Chavan, and presented a paper on "Behind the Words: Unmasking Bias Lurking in LLMs and Data" at the 10th IEEE International Conference on Communication and Electronics Systems (ICCES), held on 26–28 December 2025
- Prof. Meenal Kamlakar,, Isha Bhagat, Rishita Chourey, Anjali Kurhade, Vedika Desai, P Vishal Goswami, and Nayan Wagh presented a paper on "A Review of Worker Safety Assurance and Automated Industrial Quality Inspection and the Proposed AI-Powered System" at the ICTIS Conference, held on 9–11 April 2026.



ISTE Approved One-Week STTP on "Agentic AI: Foundations, Frameworks, Security & Applications"

The Department of Computer Engineering, MKSSS's Cummins College of Engineering for Women, Pune, successfully organized a one-week ISTE Approved Short-Term Training Program (STTP) in online mode on **"Agentic AI: Foundations, Frameworks, Security & Applications"** from 9th to 14th March 2026. The program was coordinated by Dr. Anjali Naik, Dr. Ashwini Rajurkar, and Mrs. Jyoti Langhi-Kengale.

The STTP aimed to provide participants with a comprehensive understanding of the rapidly evolving field of Agentic AI. The sessions covered fundamental and advanced concepts including Large Language Models (LLMs), Prompt Engineering, Retrieval-Augmented Generation (RAG), AI agents, agentic workflows, planning and decision-making, multi-agent systems, AI security, evaluation techniques, and domain-specific applications. A strong emphasis was placed on practical implementation through demonstrations and hands-on exercises, enabling participants to develop and deploy intelligent AI agents using contemporary tools and frameworks.

A total of 36 participants from academia and industry attended the program. The STTP featured 17 technical sessions, each of two hours, delivered by 10 expert speakers from academia and industry, including faculty members from Cummins College of Engineering for Women. The sessions provided participants with exposure to both theoretical foundations and practical aspects of Agentic AI technologies.

Participant feedback indicated an excellent response to the program. Most participants rated the session content and its relevance to their profession at the highest level. The feedback also reflected that the sessions were well organized, informative, and significantly enhanced participants' understanding of AI, Agentic AI, RAG, prompt engineering, AI frameworks, security considerations, and real-world applications. Participants particularly appreciated the hands-on activities, practical demonstrations, and discussions on emerging research directions in Agentic AI.



Memorandum of Understanding(MOU)

A Memorandum of Understanding (MoU) was signed between Cummins College of Engineering for Women, Pune and Deenanath Mangeshkar Hospital and Research Center, Pune to promote collaborative research in healthcare applications using Artificial Intelligence and Machine Learning. The collaboration focuses on developing machine learning models using retrospective clinical data for obesity and diabetes research. Dr. Ashwini Joshi from Deenanath Mangeshkar Hospital and Research Center is serving as the Principal Investigator for the project. Dr. Anjali Naik, Dr. Madhuri Tasgaonkar, Prof. Aparna Hajare, and Prof. Vaishali Salgar Madam are associated with the project as Co-Investigators from Cummins College of Engineering for Women. The initiative aims to strengthen interdisciplinary research and enhance industry-academia collaboration in emerging technologies and medical research. The collaboration was made possible with the valuable support and encouragement of the Head of the Computer Engineering Department and the Principal Madam of Cummins College of Engineering for Women.



EVEN MORE AMAZING COMPUTER FUN FACTS!

Little facts. Big knowledge!



1

The first computer program was about playing chess!

It was written in 1951 by Alan Turing



2

Google processes over 8.5 billion searches every single day!

That's thousands of searches per second



3

Spam makes up more than 45% of all emails!

Almost half of the emails sent every day are spam.



4

The first hard drive weighed over 550 pounds!

It was made by IBM in 1956 and could store only 5 MB of data.



5

"LOL" was the Oxford Word of the Year in 2011!

It stands for "Laugh Out Loud" and shows how tech shapes our language.



FACULTY AS A RESOURCE PERSON FDP/STTP

SN	Name of the Faculty as Resource Person	Name of the STTP/FDP	Organized by
1	Dr. Sandhya Arora	“Interdisciplinary Applications of AI in Electronics & Communication”	AMIEE Association in collaboration with MIT Academy of Engineering (MITAOE), Alandi, Pune
2	Dr. Supriya Kelkar	One Day State Level Quality Improvement Programme(QIP) on Cyber Security Awareness and Precautions for Library Staff sponsored by Savitribai Phule Pune University	Cummins College of Engineering for Women, Pune
3	Dr. Chhaya Gosavi	ISTE approved STTP on Agentic AI: Foundations, Frameworks, Security and Applications	Cummins College of Engineering for Women, Pune
		NEP 2020 revised pattern 2024 AI&DS	MMIT, Lohagaon in association with SPPU BOS Computer Engineering
		National Conference on “Artificial Intelligence in Education- Multidisciplinary Perspective	Tilak College of Education, Pune

FACULTY AS A RESOURCE PERSON FDP/STTP

SN	Name of the Faculty as Resource Person	Name of theSTTP/FDP	Organized by
4	Dr Anjali Naik	Innovation, Design and Entrepreneurship (IDE) Bootcampfor Principal & Teachers of PM SHRI Schools	Wadhawani Foundation, AICTE and Ministry of education
		Innovation, Design and Entrepreneurship (IDE) Bootcampfor students & Teachers of PM SHRI Schools	Wadhawani Foundation, AICTE and Ministry of education
		SPPU Startup Bootcamp for students	<u>Wadhawani Foundation, SPPU</u>
		ISTE approved STTP on Agentic AI: Foundations, Frameworks, Security and Applications	Cummins College of Engineering for Women, Pune
5	Dr. Madhuri Tasgaonkar	Workshop on LLMs, Agentic AI, and Vibe Coding under Collaborative Forum for Knowledge sharing	MES's Mukunddas Lohia College of Engineering, Pune
		ISTE approved STTP on Agentic AI: Foundations, Frameworks, Security and Applications	Cummins College of Engineering for Women, Pune

FACULTY AS A RESOURCE PERSON FDP/STTP

SN	Name of the Faculty as Resource Person	Name of the STTP/FDP	Organized by
6	Dr. Pranjali Deshpande	1-Week Online Faculty Development Programme on “Unlock the Power of AI in Education and Research”	Pimpri Chinchwad University
		ISTE approved STTP on Agentic AI: Foundations, Frameworks, Security and Applications	Cummins College of Engineering for Women, Pune
		Dadasaheb Paranjape Lecture series on Artificial Intelligence	Ganesh Mofat Vachanally Talegaon Dhabhade,
		8th Nationalistic Literature Conference, 2026	Firodia Auditorium, Fergusson College, Pune
		Two-Day Bhartiya Bhasha Pariwar Conference jointly Organised by Deccan Education Society's Fergusson College (Autonomous), Pune and Bhartiya Bhasha Samiti, Ministry of Education, Government of India	I.M.D.R. Pune
		Media Dialogue Conference organized for journalists by Vishva Samvad Kendra, Pune, and Vithai Multipurpose Educational and Social Institution.	Vithai Institution, Pandharpur



Industry Visits 2025-26

Inteliment, ClearRoute & TCS



EXPERT LECTURES 2025-26

The Department of Computer Engineering organized a wide range of expert lectures, workshops, and industry interaction sessions for Second Year, Third Year, Final Year, Honors, and Open Elective students during the academic year. A total of 30 sessions were conducted, covering emerging technologies, core computer engineering subjects, enterprise systems, software development, artificial intelligence, cybersecurity, UI/UX, cloud computing, blockchain, and sustainability.

These sessions were delivered by industry experts, researchers, startup founders, architects, consultants, and senior professionals from reputed organizations such as Google, Dell Technologies, Infosys, IBM, Microsoft, Deutsche Bank, Snowflake, Apple India, Citi, HCLTech, Sony Research, BMW TechWorks, Tata Digital, C-DAC, Cybage, and Deutsche Bank. The initiative helped students connect academic concepts with practical industry applications, recent technological trends, and career opportunities.

Highlights of the Expert Lecture Series:

- Total number of expert lectures/sessions conducted: **30**
- Target audience covered: **SY, TY, Final Year students including honors students, and Open Elective courses**
- Industry exposure from leading organizations: **Google, IBM, Microsoft, Apple India, Dell Technologies, Infosys, Sony Research, Deutsche Bank, HCLTech, Snowflake, Tata Digital, C-DAC, Citi, BMW TechWorks, and more**
- Highest participation recorded: **254 students**
- Key focus of sessions: **industry-readiness, practical exposure, advanced technologies, research trends, and interdisciplinary applications of computing**

Broad Domains Covered:

The 30 expert lectures collectively covered a wide spectrum of domains relevant to Computer Engineering:

- **Core Computing**

1. Database Management Systems (DBMS)
2. Digital Systems & Logic Design
3. Data Structures & Algorithms
4. Operating Systems
5. Theory of Computation



- **Artificial Intelligence & Data Science**

6. Statistical Analysis & Predictive Analytics
7. Data Visualization & Business Intelligence
8. Evolutionary Algorithms
9. Convolutional Neural Networks (CNNs)
10. Artificial Intelligence Applications in Industry



- **Enterprise Systems & Business Technologies**

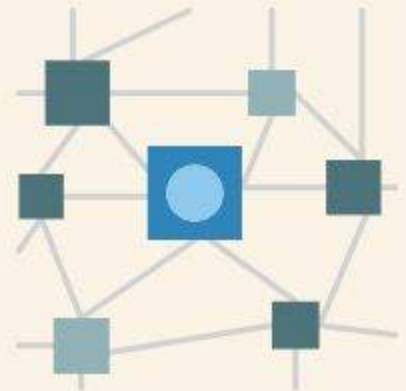
11. Enterprise Resource Planning (ERP)
12. Product Lifecycle Management (PLM)
13. Cloud-Based ERP Systems
14. Executive Information Systems (EIS)
15. ETL/ELT & Data Integration



Broad Domains Covered:

- **Software Development & Frameworks**

1. Agile Software Development
2. Spring Framework & Enterprise Java
3. React & Modern Frontend Development
4. Node.js & Backend Development
5. Next.js & Full-Stack Web Development
6. JDBC & Database Connectivity
7. Hibernate & ORM
8. Apache Kafka & Event-Driven Architecture



- **Cybersecurity, Cloud & IoT**

1. SQL Injection & Secure Database Practices
2. Cross-Site Scripting (XSS)
3. Kerberos-Based Authentication & Security
4. Cloud Computing & Emerging Cloud Trends



- **Blockchain & Emerging Technologies**

1. Blockchain Frameworks & Applications
2. Smart Contracts & Decentralized Applications

- **UI/UX, Design & Entrepreneurship**

1. Design Thinking, UX/UI Trends & Digital Product Design





Faculty Articles

Insights. Experiences. Knowledge.
From our mentors, for our community.



“

Exploring ideas, sharing perspectives,
and **inspiring minds**.

”



Thoughtful
Perspectives



Knowledge
that Inspires



Building a Stronger
Community

The Questionnaire That Learned to Listen:

“How an adaptive chatbot rethinks mental health screening”

Dr. Sandhya Arora, Professor, Department of Computer Engg.

One night, while a student is sitting alone to complete a mental health screening on the internet, they discover and fill out the online mental health screening. Twenty six questions are staring at her, the same ones she gets every visitor, whether it be a little stressed out about an exam or something deeper.



When numbers don't seem to pertain, she speeds through them; when numbers seem too personal, she underplays them; when she is halfway through the numbers, she doesn't know if the number at the end really means something. This is the "silent" problem with static questionnaires: they ask everyone the same question, in the same order, no matter who they're in front of.

The researchers at Cummins College of Engineering for Women decided to remedy this, not through a shorter test, but by creating a listener. The system consists of a carefully designed model on the RoBERTa family of language models, which is trained to understand the emotional tone in free-text answers to questions, coupled with a reinforcement learning agent that determines, question by question, what to ask next. The student just types her feelings, and RoBERTa converts those feelings into severity scores for anxiety, depression, and stress, all based on thresholds on the ROC curves of the three clinical instruments used by doctors – the GAD-7, PHQ-9, and PSS-10.

The true transformation takes place below, as the agent observes the conversation as a memory that never forgets, with the recursive layers of PPO-LSTM. For each answer, it will query: "Has this person's stress score already surpassed the threshold, or is there something unknown about them?". Clearly if the threshold is met, the agent moves on; if it is clearly not met, the agent moves on without having to ask the student another question that would only be a further source of fatigue with no improvement in understanding. If there is still doubt, it is a part of that thread until it is resolved. If too little, the reward function will punish a premature guess, if too much, the redundant punishment. After 20,000 iterations, the agent's actions stabilized to an average of 27 questions with no set sequence, but rather selected for their usefulness.

The test was whether the student would lose accuracy if the conversation was shortened. It didn't. When compared to the full, unabridged versions of the GAD-7, PHQ-9, and PSS-10, the adaptive system's diagnoses were highly comparable — 90% accuracy for anxiety, 87% for depression and 96% for stress with a perfect accuracy and specificity for each of those diagnosis. The sentiment model itself was able to correctly classify severity 92.62% of the time. The student in this story receives the diagnostic integrity that a static questionnaire has promised but in a conversation rather than an interrogation: fewer and fewer irrelevant questions, more enough space for what is really needed to be said. The researchers do not say this isn't a last resort, but note that this is a screening partner, not a professional partner. But the concept behind this is that a Mental Health Questionnaire can be changed and can learn question by question, when to keep asking and when to stop.

Testing AI Design Generators Across User Perspectives

Industry Immersion: Faculty Internship at Digi Palettes

Prof. Sakshi Mandke, Professor, Department of Computer Engg.

Staying relevant in today's classrooms means stepping outside the lecture hall and diving straight into modern industry practice. During my time interning at Digi Palettes, a digital marketing agency, I wanted to experience firsthand how modern creative teams tackle daily client demands.

One of my core assignments during the internship was to explore a question every brand currently faces: Can AI tools effectively generate marketing campaigns that cater to different customer mindsets? To find out, I designed an experiment testing three major platforms: ChatGPT, Claude, and Gemini. Rather than asking them for generic graphics, I put them through their paces across three distinct stages of the digital consumer journey.

Here is what I discovered from the agency trenches:

1. Catching the Eye: The Awareness Stage

When you are trying to grab the attention of a casual online scroller, visual appeal is everything. Google's Gemini emerged as the most expressive tool for this job. It routinely generated dynamic visual concepts, custom character styles, and bold graphics that naturally drew the eye. ChatGPT proved to be a reliable alternative for sleek, structured branding, whereas Claude is operating purely as a text engine which stayed on the sidelines for visual asset creation.



Claude



2. Educating the Audience: The Information Stage

Once a user is curious, the focus shifts toward providing value through educational content, like multi-slide carousels and feature breakdowns. This is where ChatGPT shined on the visual side, producing clean slide sequences with clear, legible text. However, Claude secretly became the engine behind the strategic design. While it could not output finished image files, it calculated exact layout proportions for different screen formats and structured the most coherent educational frameworks.

3. Inspiring Action: The Conversion Stage

For promotional content aimed at turning interested readers into active clients, messaging precision matters far more than flashy graphics. Claude stood out remarkably in this arena. It demonstrated a deep understanding of customer pain points, writing natural, persuasive call-to-action copy that felt compelling rather than overly aggressive. When paired with ChatGPT's ability to cleanly place promotional text onto banner templates, the combination produced ready-to-run marketing assets.

What This Means for Our Students:

Experiencing this workflow firsthand at Digi Palettes made one thing abundantly clear: the future of digital design doesn't belong to a single tool. In professional environments, real efficiency comes from combining platforms into a unified creative stack—using Claude to architect campaign strategy and messaging, Gemini to spark fresh visual ideas, and ChatGPT to pull the final assets together. Bringing these practical workflows directly into our courses ensures our students graduate with the exact skill set modern agencies are looking for.



Figure 1: Sample social media marketing post template generated during the Digi Palettes experiment. Source: PosterMyWall



Figure 2: Generated post on ChatGPT



MORE AMAZING COMPUTER FUN FACTS!

Little facts. Big knowledge!



1

The first programmer was a woman!

Ada Lovelace wrote the first algorithm designed for a machine in the 1840s.



Ada
Lovelace

2

A computer can solve millions of problems in just one second!

Modern computers can perform over a quintillion calculations per second.



3

The first email was sent in 1971!

It was a test message sent by Ray Tomlinson to himself.



4

There are more computers than people!

There are over 7 billion computers in use today worldwide.



5

Video calls use less data than you think!

A 1-minute video call uses about the same data as sending a short email.





Student Chapters

Empowering **students**. Building **communities**.
Creating **impact** together.



ACM Student Chapter

A global community of learners and innovators, exploring ideas beyond the classroom.



CSI Student Chapter

Nurturing professional skills, industry connect, and technical excellence.



MLSC (Microsoft Learn Student Chapter)

Empowering students through learning, collaboration, and real-world impact in technology.

“ Alone we can do so little; **together** we can do so much. ”



ACM CCEW Events 2025-26

Sr. No	Name of the Event	Resource Person/ Organization/Participants	Participation
1	Code IT, coding competition	First Year, SY & TY Students (Open to All Colleges all branches, regional event)	Approx 110 students participated
2	Industry Day: "Cyber security Challenges in digital Technology"	The event was jointly organized by COEP, CUMMINS, MIT, PICT, PCCOE ACMW chapters. Open to All Colleges all branches, regional event. Panel discussion, talks and project presentations. Speakers were Dr. Sachin Lodha, Dr. Atul Kahate, Ajit Hatti, Himanshu Dubey, Dr. Mukul Joshi	Approx 110 students participated
3	Shinigami Stack	For First year students. To help them start their DSA journey	Approx 101 First year students attended
4	ACMW Distinguished speaker program	All colleges, all stream students	Approx 70 students attended
5	Women's day: Raise the glass ceiling	Intercollege students	Approx 120 students attended
6	Axiomive 2.0 ideathon	All colleges, all stream students	Approx 70 teams participated



CSI CCEW

Events 2025-26

Sr. No.	Name of the Event	Resource Person/ Organization/Participants	Participation
1	Cybersecurity Awareness Community Event	Mr. Deepak Pawar, Prof. Pranjali Deshpande	Citizens
2	First Year Induction Program	CSI Representatives & Student Coordinators	First-year students
3	Agentic AI Guest Session	Guest Speaker (AI Expert)	Students across years/branches
4	Bits of Paper	Internal coordination (papers by Dr. Sunita Jahirabadkar, Parag Kulkarni, etc.)	Students across years/branches
5	Cybersecurity Awareness Community Event (2)	Mr. Deepak Pawar, Prof. Pranjali Deshpande	Students across years/branches
6	Vibe Coding Session, by TeemGenie Labs Pvt. Ltd.	Dr. Sandeep Deshmukh, CEO and Founder, TeemGenie Labs Private Limited Mr. Vivek Samant AI Product Developer, TeemGenie Labs Private Limited Former Data Science Engineer, Persistent Systems Ms. Manasi Bokil Talent Acquisition Team, TeemGenie Labs Private Limited	Students across years/branches



MLSC Events 2025-26

Name of the Event	Date	Resource Person/ Organization/Participants	Participation
MLSC LAUNCH EVENT	6th October 2025	Faculty Advisors: Prof. Sakshi Mandke , Dr. Sunita Jahirabadkar Guest Speaker : Mr. Bhushan Gawale	180+ Students
MICROSOFT IMAGINE CUP 2026	December 2025	Students Across all Branches built Minimum Viable Products (MVPs), prepared startup-style pitches and more.	30+ Entries
ANVAY 2026: THE BLOCKCITY EDITION	7th March 2026	All years and streams students MLSC Representatives & Student Coordinators	100+ Participants



I will always choose
a lazy person
to do a *difficult job*,
because, he will find
an easy way to do it.
– Bill Gates



Events Gallery 2025-26





TEAM ECHO

ACADEMIC YEAR 2025-26



**HOD,
Computer Engineering**

Dr. Sunita Jahirabadkar



Faculty Coordinators

Dr. Ashwini Rajurkar
Prof. Sakshi Mandke



**Student Coordinators
(L-R):**

Mrinmayee Aole
Manasvi Pardeshi
Rujuta Walavalkar
Rucha Walvekar

Thank You!

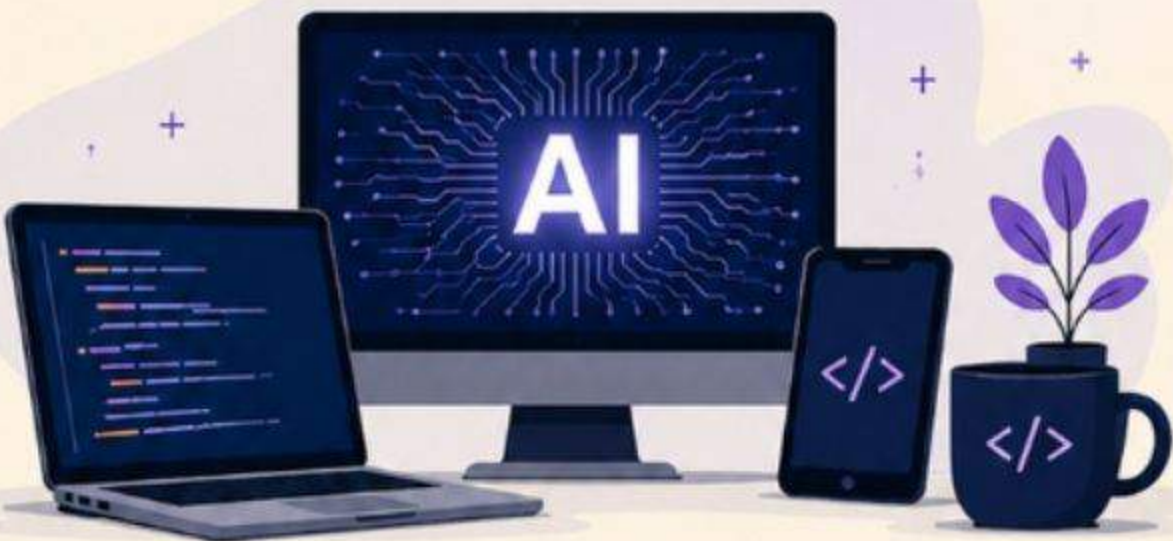
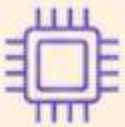
— FOR READING —

ECHO

We hope you enjoyed this newsletter.

Stay curious. Keep learning.

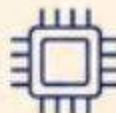
Keep innovating.



CODE.
CREATE.



LEARN.
INNOVATE.



THINK.
SOLVE.



BUILD.
THE FUTURE.

See you soon!



STAY CONNECTED. STAY INSPIRED.