VIDYA PRATISHTHAN's
KAMALNAYAN BAJAJ INSTITUTE OF ENGINEERING AND TECHNOLOGY, BARAMATI
NAAC 'A+' Grade

Department of Computer Engineering
NBA Accredited

CompBits

December 2025

Department of Computer Engineering

ABOUT DEPARTMENT:

The Department of Computer Engineering at Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati. Computer engineering department is established in the year 2000. The vision of the department is to achieve excellence in field of computer engineering with consistent and collaborative efforts of every individual and the mission is to develop students with fundamental, advanced tools and technologies to work as skilled computer professionals with ethical values. Department ensure all activities to be conducted effectively and efficiently to develop and train students according to the needs of dynamically.

MISSON

- To achieve excellence in field of computer engineering with consistent and collaborative efforts of every individual.
- To Develop students with fundamental, advanced tools and technologies to work as a skilled computer professional with ethical values.
- To promote faculties for higher education and expose them to current trends to enrich educational quality.
- To provide appropriate environment with required resources to achieve academic excellence.
- To develop together relations with industries for catering institute-industry needs.
- To apply collaborative efforts to make students competent to provide solutions to social problems.

PROGRAM SPECIFIC OUTCOMES:

- Students will be able to apply the fundamentals, domain knowledge and modern technology of computer engineering to provide effective and innovative solutions to engineering problems.
- Students will be able to solve societal challenging and multidisciplinary problems applying suitable resources.
- Students will be able to work as competent professional as an individual and a team member.

Principal Desk

Dr. S. B. Lande
Principal,
Department of E & TC Engineering,
VPKBIET, Baramati

I am delighted to announce that the Department of Computer Engineering is releasing the december 2025 issue of its technical E-Newsletter, “CompBits”. This Newsletter serves as an excellent platform for faculty and students to create meaningful technical content and enhance their skills.

What makes this effort truly remarkable is its ability to showcase the diverse technical and analytical talents of budding engineers. I am pleased to invite all teachers and students to contribute to future editions, bringing forward innovative ideas and bright concepts.

I extend my best wishes to the Department of Computer Engineering for continued success in all their endeavors. My heartfelt congratulations to the Head of the Department, the Editor, and the dedicated committee for their invaluable efforts in bringing this issue to life. May this initiative not only nurture a land of ideas but also cultivate a forest of exceptional innovations.

HOD’s Desk

Dr. Arvind Jagtap

HOD,

Department of Computer Engineering,

VPKBIET, Baramati

Welcome to the Department of Computer Engineering at Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati. Computer engineering department is established in the year 2000. The vision of the department is to achieve excellence in field of computer engineering with consistent and collaborative efforts of every individual and the mission is to develop students with fundamental, advanced tools and technologies to work as skilled computer professionals with ethical values. Department ensure all activities to be conducted effectively and efficiently to develop and train students according to the needs of changing technology.

Computer engineering department is committed for ensuring great careers for its students. Computer Department is especially proud of the long and sustained placement records of our students in different multinational software companies and higher education at different graduates' universities worldwide. Consistently our placement is above 90% from last three years. Computer department has center of excellence with AWS Academy, Red Hat Academy, Software Engineering and Big data, etc to make the under graduates' industry ready. Our faculty members are associated with different industries for providing opportunities to students related to training, internship, and placement.

CESA (Computer Engineering Student Association)

The Computer Engineering Students' Association (CESA) is a student- driven organization dedicated to fostering innovation, collaboration, and professional growth in the field of computer engineering. CESA serves as a platform for students to explore emerging technologies, share knowledge, and develop technical skills through workshops, seminars, hackathons, and competitions. By connecting students with industry experts and alumni, CESA bridges the gap between academics and real- world applications, enhancing career readiness. The association also promotes teamwork, leadership, and community building, empowering students to thrive in a rapidly evolving technological landscape. CESA is a vibrant hub for aspiring engineers to excel and innovate together.

Objectives

CESA aims to inculcate among its members an awareness and appreciation of the various disciplines of not just Computer Engineering but also other relevant fields. By way of its activities CESA aims to be a platform for all the students of VPKBIET BARAMATI in general and particularly of the students of Computer department. CESA seeks to be an active organization of the computer department at VPKBIET which promotes their career interests. A man only learns in two ways, one by reading, and the other by association with smarter people. Leadership and learning are indispensable to each other.

CESA Activities

CreoVibe- CESA Logo & Tagline Making Competition:

Students and faculty showcased their creativity in the CESA Logo & Tagline Making Competition on the theme “Innovating Connections: The Power of Technology in Computer Engineering”. The event highlighted innovation, technology, and collaboration in the department.

About Event:

The Computer Engineering Students Association (CESA) organized a fully virtual Logo & Tagline Making Competition from 11th–13th August 2025. The theme, “Innovating Connections: The Power of Technology in Computer Engineering”, encouraged students and faculty to showcase creativity, innovation, and collaboration.
A total of 22 students from various departments participated, submitting original logos and taglines online. The event highlighted cross-departmental collaboration and provided a platform for participants to contribute to CESA’s visual identity while expressing their artistic and technical vision.

- Winner: Aryan Nitin Kondekar (SY-A)

Idea Spark Event

The Department of Computer Engineering successfully organized Idea Spark 2025, an institute-level event exclusively for Third Year (TY) Computer Engineering students. Held on 15th September 2025, the event aimed to nurture innovation, creativity, and practical problem-solving skills among budding engineers.

Idea Spark provided a dynamic platform for students to:

- Identify real-life problems
- Propose innovative and feasible solutions
- Showcase their ideas through posters, abstracts, and presentations

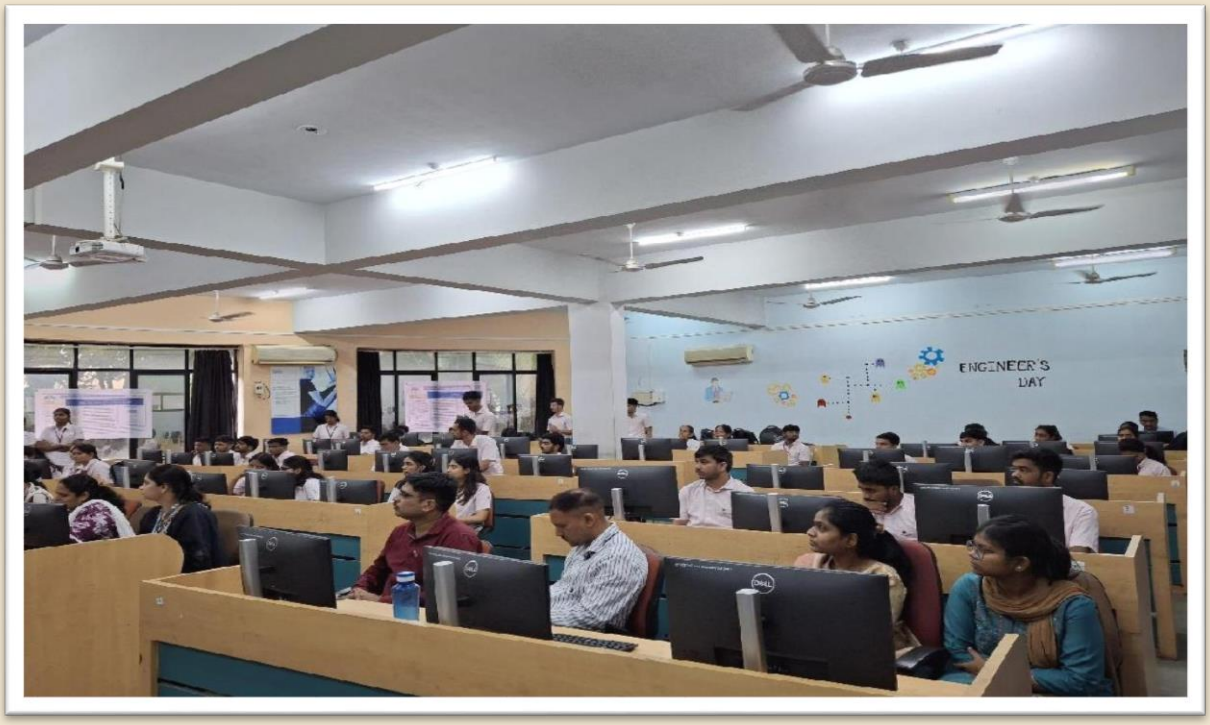
- Event Guests: Mr. Laxman Deokate, Dr. Jawahar Gawade, Dr. Vinod Todkari.

Participants presented their solutions using a standard poster template highlighting technical concepts, design thinking approach, and implementation feasibility

Details of Participants:

Class	No. of Teams	No. of Students
TY A	21 Teams	78 Students
TY B	21 Teams	85 Students
Total	**42 Teams**	**160 Students**


IDEA
SPARK


ENGINEER'S
DAY


IDEA
SPARK

Winners:

Position	Team Members	Project Title	Description
First Prize	Bhagwat Unnati Dada Bhambare Shrushti Pravin Bhosale Arya Rahul Chavan Pranjal Hemant	*Smart Donation Platform*	A digital platform designed to connect donors and recipients, making the donation process seamless, transparent, and accessible.
First Prize	Mansi Chotaliya Aditya Danawale Shrawani Dhamane	*Volunteer Management System*	A system developed to streamline and automate the process of managing volunteers for social and community events.
Second Prize	Rathod Sumit Ankushrao Shivjatak Sahil Shekhar Suryawanshi Sahil Sanjay Magade Tanmay Rahul	*A Digital Platform to Connect Blood Donors, Recipients, and Hospitals*	A real-time platform designed to connect donors, recipients, and hospitals for timely and accessible blood availability.
Third Prize	Thombare Gaurav Anil Wadhe Kartik Raju Wagatkar Harshad Rajaram Wath Piyush Ramkrushna, Yadav Rohan Jotiram	*Online E-Library System*	A secure online system that allows users to access and read digital books anytime and anywhere.

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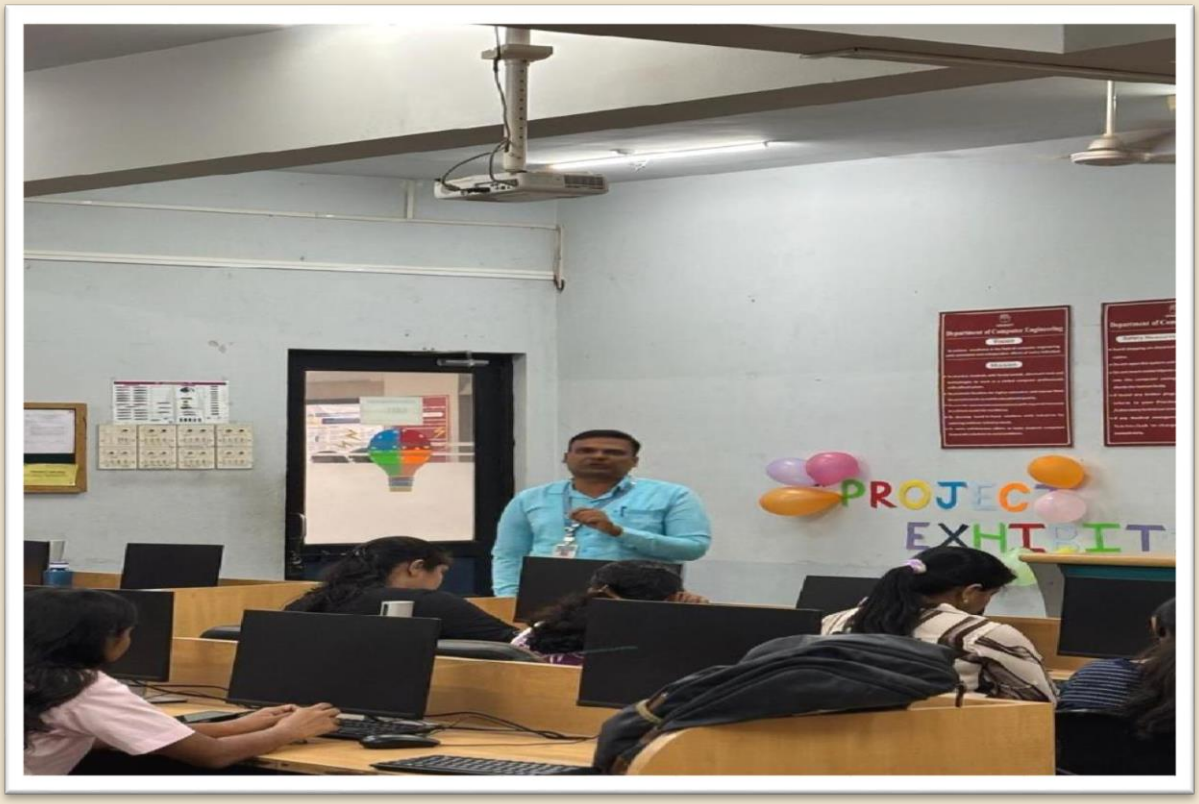
Mentor Contributions:

The success of the winning teams was greatly supported by their dedicated mentors.
Dr. Arvind Jagtap guided the First Prize team – Smart Donation Platform
Mrs. Samiksha Shingade mentored the Second Prize team – Volunteer Management System
Miss Shayantini Bala guided both the Third Prize team – Blood Donor–Recipient–Hospital Platform and the Consolation Prize team – Online E-Library System
Their expert guidance helped students refine their ideas and present impactful solutions

Special Appreciation from Judges

The judges recognized the following students for their innovative ideas and outstanding efforts, awarding them Special Appreciation.

Roll Number	Student Name	Project Title
23101047	Amey Jadhav	*Gram Panchayat Notice Board App*
23101050	Rajvardhan Jadhav	
23101057	Mangesh Kadam	
23101064	Kale Sakshi Balbhim	*SmartHostel: Web or App-Based Hostel Management for VP Campus*
23101065	Kamble Vaishnavi Madan	
23101068	Karnawar Sonali Gokul	
23101074	Kotkar Vaishnavi Sunil	
23101075	Kotwal Nikita Rajendra	
23101096	Palshikar Tanmay Prashant	*A Dashboard that Scans Digital Assets to Detect Hidden Compliances, Security, and Reputation Risk Before They Turn into Crises*
23101092	Nagulkar Radhesham Vitthal	
23101097	Patel Meet Bhavesh	
24201138	Agarwal Kalyani Nilesh	*Child Vaccination System*
24201147	Palve Pratik Dattatray	
24201148	Patil Ekta Amit	
24201152	Shinde Sakshi Bharat	



The students who received Special Appreciation from the judges were guided by their dedicated mentors: Dr. G. J. Chhajed , Dr. Santaji Shinde, Mrs. Monali More, and. Their guidance helped students refine ideas, enhance technical accuracy, and present projects effectively.

A special acknowledgment goes to Mrs. Monali More, CESA Coordinator, whose encouragement and insights played a key role in the successful execution of these innovative projects.

Outcomes

- Students showcased creativity and technical knowledge in solving real-world problems.
- Enhanced teamwork, presentation, and communication skills.
- Promoted innovation and entrepreneurial mindset among the students

The success of IDEA SPARK 2025 was made possible through the guidance and support of Dr. S. B. Lande, Principal, and Dr. Arvind Jagtap, HOD, Computer Engineering, whose encouragement ensured the smooth conduct of the event.

Special thanks to Prof. Monali More (CESA Coordinator), Mrs. Monika Jagtap, and Miss Gauri Bhelonde (Community Project Coordinator) for their valuable contributions. We also acknowledge the wholehearted involvement of all faculty and student coordinators, whose dedication made the event a grand success.

Expert Talk

Expert Talk

Expert Talk: Innovation and Entrepreneurship

On 21st August 2025, the Department of Computer Engineering organized an offline expert session on “Innovation and Entrepreneurship: Driving Change in the 21st Century” for third-year students, attended by 110 participants including students and faculty.

Resource Person: Dr. Vinod Todkari, Assistant Professor, Dept. of Mechanical Engineering, VPKBIET, Baramati

The session explored the significance of innovation and entrepreneurship today, highlighting emerging technologies, global trends, and real-world problem-solving. Students gained insights into developing creativity, critical thinking, risk-taking, and entrepreneurial mindset to drive societal and economic change.

Outcomes: Participants were motivated to think innovatively, embrace challenges, and apply entrepreneurial skills in their fields.

The Innovation and Entrepreneurship expert session was conducted successfully under the guidance of Dr. Arvind M. Jagtap, HOD, Computer Engineering, and coordinated by Mrs. Mayuri S. Devkate, IIC Coordinator. Their leadership and support ensured the smooth planning and execution of the event.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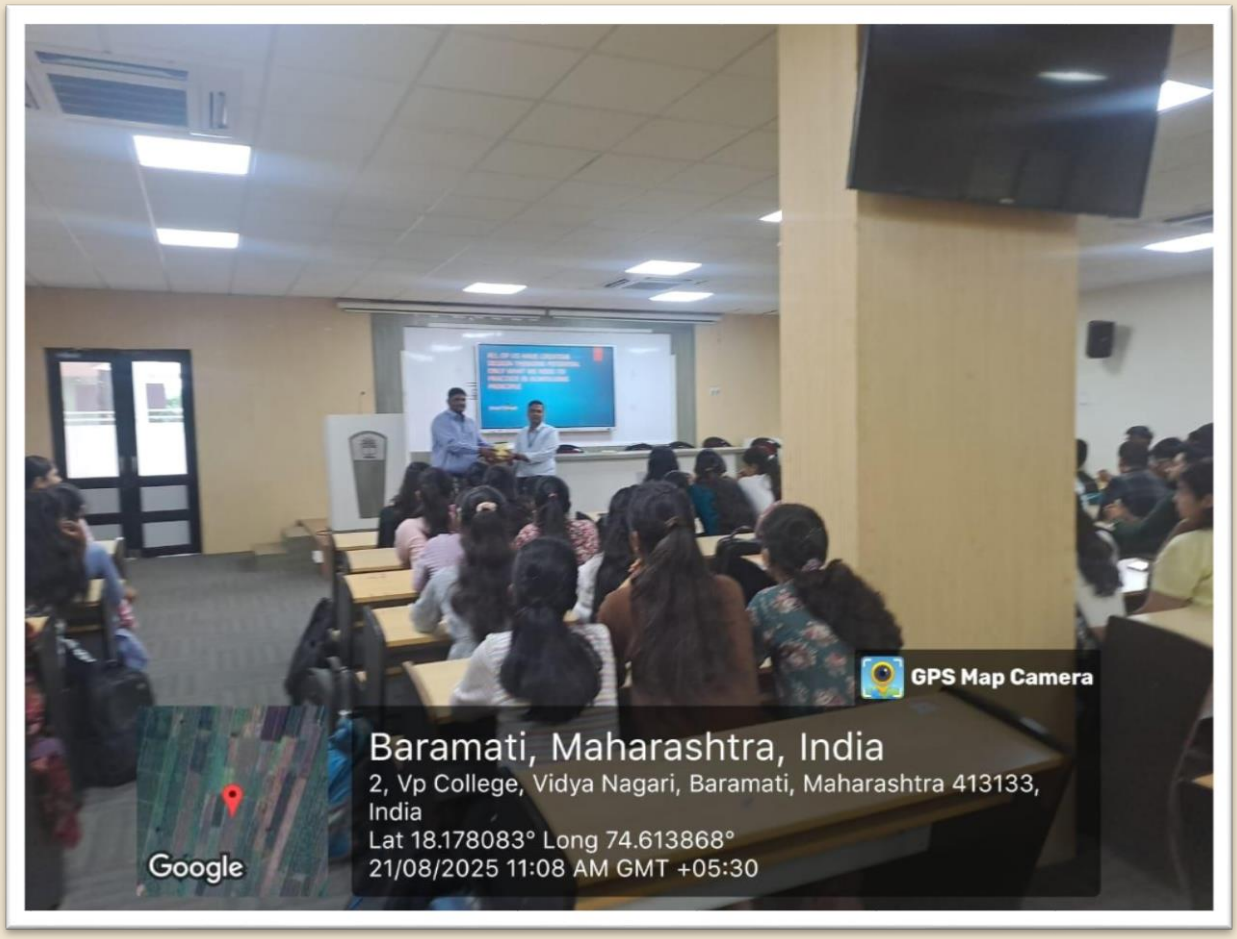
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LinkedInProfilePreparation

- Profile: UAE based data & AI Engineering Specialist
- Event Guests: Mr. Sanket Shinde (2011 batch alumina),
- Audience: SY and TY students of Computer Engineering department
- Date: 13 August 2025
- Venue: Conference hall
- Organizer: Dr. Gyankamal J. Chhajed, Head Co-curricular Activity
- Objective: To help students, especially those aiming for IT roles, create a strong, professional, and optimized LinkedIn profile that improves their visibility to recruiters and showcases their academic and technical potential effectively.

Session Overview:

Topic	Details
Welcome & Introduction	Intro of speaker, purpose of session, importance of LinkedIn for IT job seekers.
LinkedIn Basics	Why LinkedIn matters for job/internship discovery in tech Profile vs Resume: What tech recruiters actually look for How LinkedIn fits into your GitHub, portfolio, and resume ecosystem.
Profile Walkthrough	✅Technical profile photo, custom banner with career theme ✅Headline with key technologies (e.g. Python | Java | ML Enthusiast) ✅Summary: Highlight academic projects, certifications, and goals ✅Experience: List internships, hackathons, freelance tech gigs ✅Projects: Add GitHub links, use bullet points to explain stack & outcome
	✅Certifications: Azure, AWS, GCP, Coursera, Udemy – relevance and listing ✅Skills: Python, SQL, JavaScript, React, DevOps, etc. ✅Recommendations from mentors, project guides or internship leads.
Content & Networking Tips	What to post as an IT student – project demos, learnings, certifications How to connect with alumni and tech professionals Using LinkedIn job alerts, hashtags (#100DaysOfCode, #TechJobs) Join communities (WomenWhoCode, Google Developers, etc.)
Live Profile Reviews / Walkthrough	Provide constructive feedback on: - Technical branding - Content clarity - Opportunity alignment - Tech job search strategy - Internships via LinkedIn - Building connections - Posting frequency
Closing & Resources	Share a checklist PDF for profile optimization Encourage regular updates & engaging with technical communities

Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati

Department of Computer Engineering

Presents a Session on

LinkedIn profile preparation

Resource Person

Mr. Sanket Shinde
Alumina -2011 batch

About Author

UAE-based Data & AI Engineering Specialist

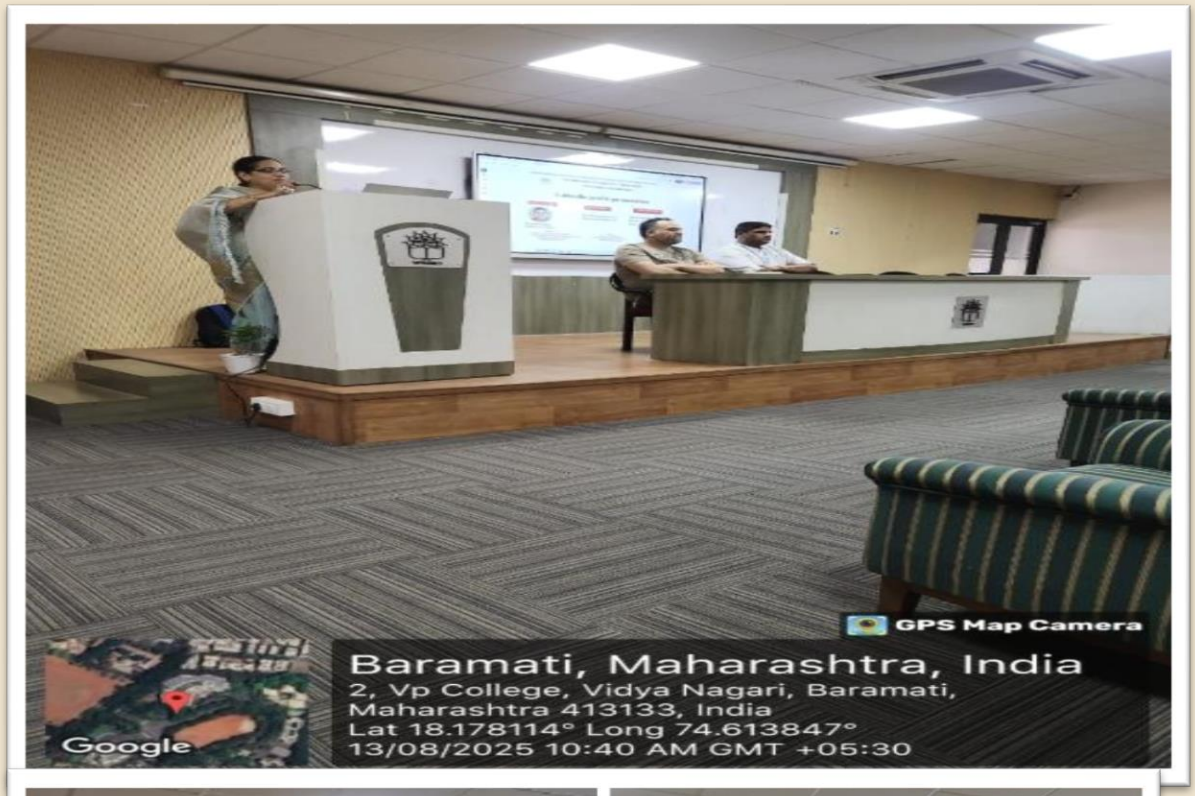
Date and Time

- ❑ 13th Aug 2025
- ❑ Time - 10.00am to 11.00am
- ❑ Venue-Conference Hall

Organizer
Dr. Mrs. Gyankamal J. Chhajed
Associate Professor ,Dept. of Comp.Engg.
Head Co-Curricular activity
VPKBIET, Baramati

H.o.D.
Dr. Arvind Jagtap
Head of Dept. of Comp.Engg.
VPKBIET, Baramati

Principal
Dr. S.B. Lande
VPKBIET, Baramati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Expert Session – General Aptitude

On 10 September 2025, the Department of Computer Engineering organized an expert session on General Aptitude for Third-Year students, conducted by Dr. Vinod Todakari and coordinated by Mrs. Monali U. More, CESA Coordinator.

The session covered topics like Time, Speed & Distance, Calendar Problems, Simplification, and Coding & Decoding, helping students enhance problem-solving and analytical skills for competitive exams and placements. We thank Dr. S.B. Lande, Principal, and Dr. Arvind Jagtap, HOD, for their support in making the session a success.


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Session On Public Speaking and General Aptitude

- Expert: Dr. Vinod Todakari, Faculty of Mechanical Engineering, VPKBIET, Baramati
- **Audience:** SY Computer Students
- **Date:** 26 August 2025
- Organizer: Mrs. Monika Jagtap, Co-curricular Activity Department Coordinator

The Department of Computer Engineering organized a session on Public Speaking and General Aptitude for Second-Year students on 26 August 2025 at the Conference Hall. Dr. Vinod Todakari, faculty from Mechanical Engineering, VPKBIET, conducted the session.

The expert focused on communication skills, stage confidence, voice modulation, body language, along with logical reasoning and problem-solving exercises. Students actively participated in interactive activities and public speaking practice.

The session-boosted students' confidence, analytical abilities, and presentation skills, preparing them for interviews, group discussions, and competitive exams.


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Bootcamp

Unmanned Aircraft System (Drone) Bootcamp

Advanced Computing Training School (ACTS), C-DAC, Pune, conducted a Bootcamp program on Unmanned Aircraft Systems (Drones and related technologies) on 4 August 2025 to 8 August 2025.

This program is organized under the "Capacity building for Human Resource Development in Unmanned Aircraft Systems (Drone and Related Technology)" programme under the HRD Division, MeitY, wherein C-DAC Pune is identified as a Participating Institute for the implementation of this programme with the primary objective is to leverage collaborative activities in human resource development through capacity building in education and training in the area of Unmanned Aircraft System (UAS).

In line with the objective of the programme, this boot camp is intended to promote an entrepreneurial mindset and nurture technical talent among the student community.

The participants who successfully completed this training program will be able to know the various applications, tools for drone assembly and will be also provided with demo. This was an opportunity to learn the new skills in the area of drone allied technologies.

Bootcamp Course Content:

- Introduction to UAS/ Drone
- Geospatial Technologies
- Internet of Drones
- AI and ML in Drone
- Drone Data Visualization
- Various Flight Simulation Tools
- Regulation of DGCA
- Various Drone components
- Drone Assembly and Flying Demo
- Drone Security

Benefits of Program:

- Theory & Hands-on experience on tools
- Session delivery by C-DAC and industry experts
- Certification upon successful completion


BOOTCAMP PROGRAMME ON
UNMANNED AIRCRAFT SYSTEM (UAS)-
DRONE TECHNOLOGIES
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BOOTCAMP PROGRAMME ON
UNMANNED AIRCRAFT SYSTEM (UAS)-
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Roll, Pitch and Yaw in Hover Aircraft
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TOGETHER
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FDP ON Artificial Intelligence and Green Skills

Particular	**Details**
Organized by	Department of Computer Engineering, VPKBIET, Baramati
In Association With	Edunet Foundation
Resource Person	Mr. Sagar Yadav (Expert Trainer, Edunet Foundation)
FDP Coordinator	Dr. Santaji Shinde
Dates	7th July 2025 to 12th July 2025
Mode	Offline
Venue	Computer Center, Department of Mechanical Engineering, VPKBIET, Baramati

Objective:

To empower faculty members with hands-on knowledge and practical experience in Artificial Intelligence (AI), Machine Learning (ML), and Deep Learning (DL) technologies, while introducing sustainable practices through green computing tools and frameworks.

Brief Report:

The Department of Computer Engineering at Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology (VPKBIET), Baramati organized a One-Week Faculty Development Program (FDP) on *"Artificial Intelligence and Green Skills"* in association with Edunet Foundation. The FDP was conducted from 7th July to 12th July 2025, coordinated by Dr. Santaji Shinde, and received the esteemed guidance of Principal Dr. S. B. Lande and HoD Dr. Arvind Jagtap.

The sessions were led by Mr. Sagar Yadav, expert trainer from Edunet Foundation. His well-structured modules provided in-depth theoretical knowledge and hands-on training on current AI and ML techniques, tools, and frameworks. The FDP also emphasized the integration of green skills, encouraging efficient and ethical use of technology.

The program's success was driven by the dedicated efforts of FDP Coordinator Dr. Santaji Shinde, the constant encouragement of Principal Dr. S. B. Lande, and the continuous support of HoD Dr. Arvind Jagtap. The Department of Computer Engineering expresses sincere gratitude to Edunet Foundation and all participants for making this initiative a grand success.


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Vidya Prathishthan's
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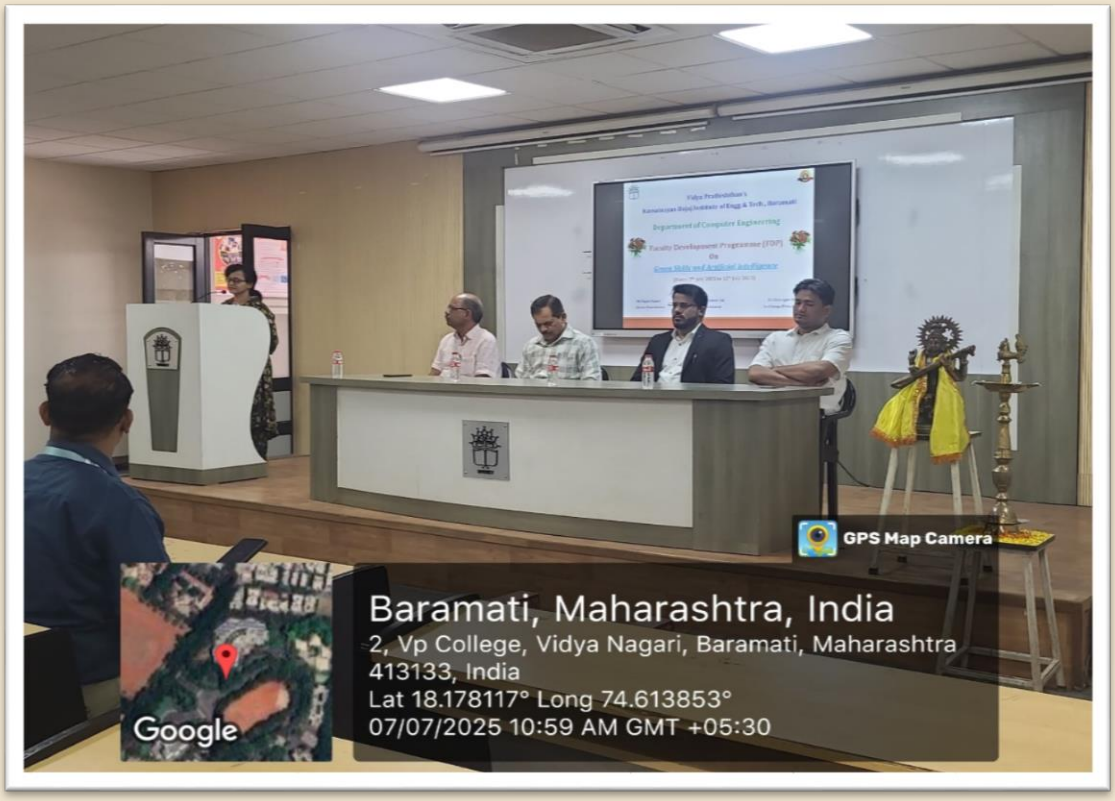
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Faculty Development Programme (FDP)
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Vidya Prathishthan's
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Department of Computer Engineering
Faculty Development Programme (FDP)
On
Green Skills and Artificial Intelligence
(Date: 7th July 2025 to 12th July 2025)
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Industrial Visit

Industrial Visit

Title	Details
Department	Computer Engineering, VPKBIET, Baramati
Visited Organization	ICAR–National Institute of Abiotic Stress Management (NIASM), Baramati
Date of Visit	12th September 2025
Number of Students	101
Faculty Members Accompanied	6
Time	10:30 am to 3:30 pm

The Department of Computer Engineering at VPKBIET, Baramati organized an industrial visit to ICAR–National Institute of Abiotic Stress Management (NIASM), Baramati, on 12 September 2025. The primary objective of this visit was to bridge the gap between classroom learning and real-world applications by exposing students to interdisciplinary research in agriculture, particularly focusing on abiotic stress management and how computer-engineering tools can support advancements in this domain.

Objective of the Visit

The visit aimed to:

- Introduce students to ongoing research and technologies used in agriculture to manage abiotic stress.
- Understand the scope for applying computer engineering solutions such as Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT), data analytics, and software development in agricultural research.

Highlights of the Visit

- Plant Phenotyping Facility:

  Mr. Rohit Babar, Senior Research Fellow provided an in-depth explanation of the Plant Phenotyping Facility at NIASM. Students learned how datasets are created using dual-camera systems capturing plant images from six different angles. This setup plays a crucial role in analyzing plant traits under various stress conditions, aiding researchers in developing stress-resilient crops. The discussion emphasized the role of image processing, machine learning, and data analytics in agricultural research


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Google

We would like to extend our sincere gratitude to Dr. Ravi Kumal for his insightful session on institutional research, and to Mr. Rohit Babar for providing a detailed explanation of the Plant Phenotyping Facility. We are also thankful to Mr. Rajesh Pawar for his excellent administrative coordination, and to the entire NIASM team for their support and cooperation during the visit. Our heartfelt thanks go to Dr. S. B. Lande, Principal, VPKBIET, for his constant encouragement and support in facilitating such academic initiatives, as well as to Dr. Arvind Jagtap, Head, Department of Computer Engineering, for his valuable guidance and continuous motivation throughout the planning and execution of the visit. We also acknowledge the efforts of our faculty coordinators; Mr. Pankaj Ambole, Mrs. Sushma Nangaonkar, Ms. Gauri Bhelonde, and Ms. Sayantani Bala, for their continuous support in making this visit a success.

Alampata 2025 – Ganesh Festival Celebration

This Ganapati Festival 2025 with unmatched enthusiasm, artistic brilliance, and spiritual vibrance at Vidya Pratishthans Kamalnayan Bajaj Institute of Engineering and Technology Baramati, from 27/08/2025 to 06/09/2025. It was more than a religious celebration—it became a canvas for expression, innovation, and reflection.

This year's theme, "Samudra Manthan – The Engineering Within", struck a deep chord among students and faculty alike. Based on the mythological tale of the churning of the ocean by the Devas and Asuras, the theme served as a metaphor for every engineering student's journey—a churning of ideas, values, emotions, pressures, and dreams. The festival highlighted how both 'poison' (challenges, distractions, stress) and 'nectar' (innovation, collaboration, growth) coexist in the academic journey.

The Department of Computer Engineering at VPKBIET, Baramati organized a devotional celebration of *Alampata 2025 (Ganesh Festival)* on Friday, 5th September 2025 in the Workshop Building. The event was held as part of the institute's tradition to bring together students, faculty, and staff in a spirit of devotion, unity, and cultural bonding.

A special acknowledgment goes to the CESA team, whose active involvement and sincere efforts greatly contributed to the smooth organization of the event. The team assisted in planning, decoration, coordination, and hospitality, ensuring that the celebration was well-managed and memorable for everyone.

Ganesh Aarati was organized by the Computer Engineering Department on 5th September 2025. The program was graced by the esteemed presence of faculty members, including: Dr. Arvind Jagtap, HOD, Computer Engineering, along with his family, Dr. Gyankamal Chajjed, Mrs. Monali More, Mrs. Monika Jagtap, Ms. Gauri Bhelonde, Mr. V. V. Rampurkar, Mrs. Monali Bhosale

Their participation and blessings added warmth to the celebration and motivated the students. The enthusiastic involvement of students and staff made the festival a grand success. Overall, the Ganesh Festival celebration under *Alampata 2025* served as a reminder of cultural traditions while strengthening the bond among all members of the institute.

From Campus to Corporate 2024-25

	Name of the Students	Name of the Employer
1	Shrushti Jagatap	Cognizant
2	Aadarsh Salunkhe	Cognizant
3	Vaishnavi More	Cognizant
4	Vaishnavi Shinde	Cognizant
5	Saurabh Yadav	Cognizant
6	Neha Chhajed	Infosys
7	Gayatri Yadav	Infosys
8	Ishwari Gund	Infosys
9	Ruchita Bagal	Infosys
10	Trushna Bagade	Infosys
11	Kiran Wable	Infosys
12	Vivek Vijapure	LTI Mind Tree
13	Siddhi Ingale	LTI Mind Tree
14	Priya Ghadge	LTI Mind Tree
15	Pranjal Kshirsagar	LTI Mind Tree

16	Anushka Shah	LTI Mind Tree
17	Amruta Deokate	LTI Mind Tree
18	Karan Jadhav	Deloitte
19	Abhishek Shirke	Capgemini
20	Amit Swami	Capgemini
21	Sakshi Ugale	Capgemini
22	Siddhant Burle	Capgemini
23	Aditya More	Capgemini
24	Aditya Taware	Capgemini
25	Vedika Jadhav	Capgemini
26	Rohit Gadhave	Capgemini
27	Prathmesh Shinde	Capgemini
28	Smita Deshmane	Capgemini
29	Prajkta Kelkar	Capgemini
30	Aditya Kondekar	Capgemini
31	Siddhant Golande	Capgemini
32	Aarti Karche	Capgemini
33	Abhishek Harkar	Cognizant
34	Yash Bhosale	Cognizant
35	Vaishnavi Salunkhe	Cognizant
36	Rohit Gadhave	Cognizant
37	Neelam Bhapkar	Cognizant

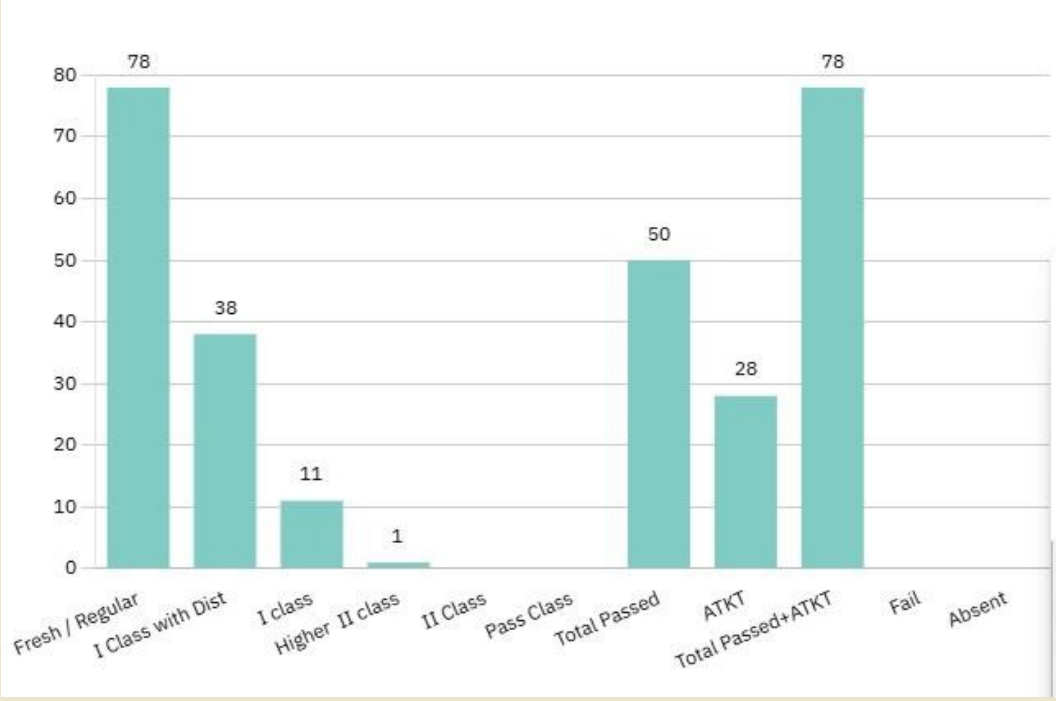
38	Shivam Bagade	Cognizant
39	Yash Mehta	Aceis Services
40	Sejal Talekar	Cognizant
41	Abhishek Darekar	Qualitykiosk
42	Ruksan Shaikh	Cognizant
43	Saurabh Jagtap	Cognizant
44	Aditya Kanase	Cognizant
45	Rohan Nalage	Cognizant
46	Gayatri Sagade	Capgemini
47	Manjiri Makode	Capgemini
48	Sakshi Mohite	Capgemini

2025-26		
	Name of the Students	Name of the Employer
1	Anirudh Kumbhar	Cognizant
2	Ashwini Masal	Cognizant
3	Ayush Lunawat	Cognizant
4	Ayush Borhade	Cognizant
5	Darshan Nyahalde	Cognizant
6	Hrushika Khose	Cognizant, Infosys
7	Kshitij Barge	Cognizant

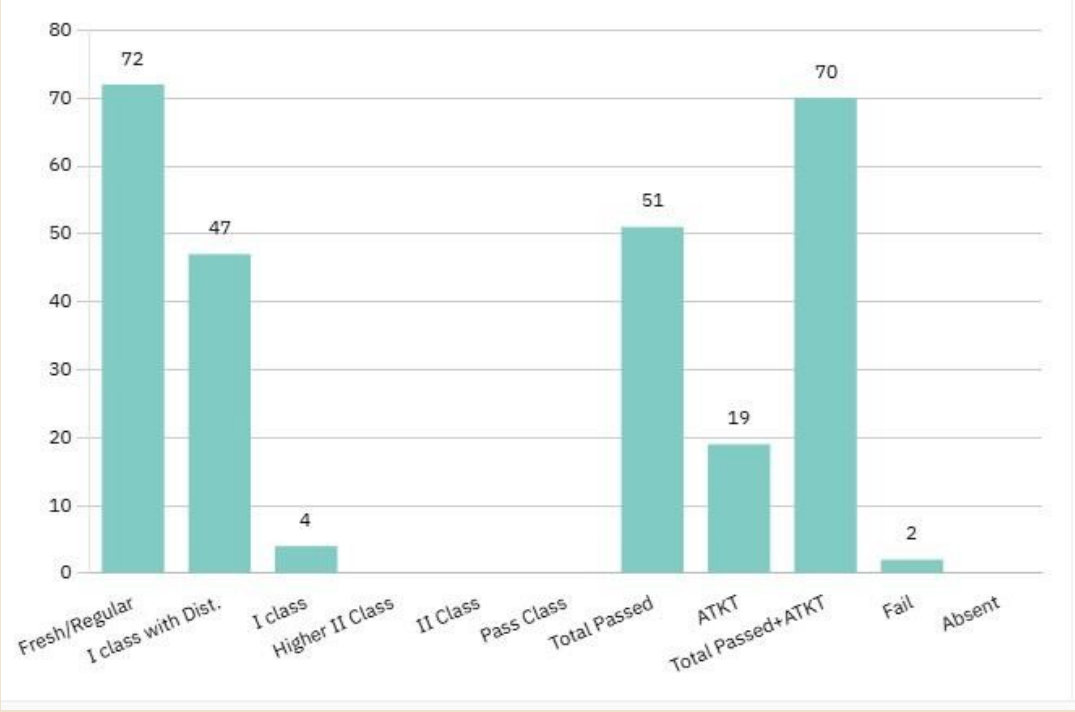
8	Pranav More	Cognizant
9	Radhika Akhare	Cognizant, Infosys
10	Sayali Jadhav	Cognizant, Infosys
11	Swapnil Gavali	Cognizant
12	Tanmay Gawade	Cognizant
13	Tanvi Alhat	Cognizant, Infosys
14	Tejas Jadhav	Cognizant
15	Nayana Ghalme	Infosys
16	Pooja Bansode	Infosys
17	Pooja Wagh	Infosys
18	Pratiksha Raut	Infosys
19	Shreya Gaikwad	Infosys
20	Yadnya Patil	Infosys

RESULT SUMMARY 2025

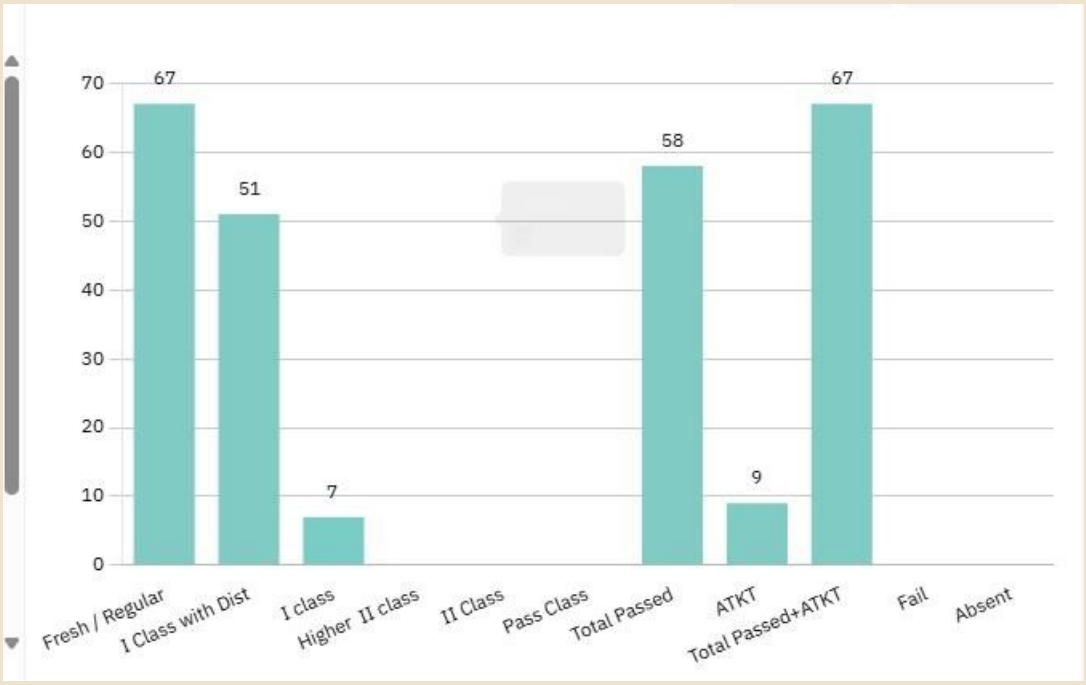
Result Summary of SPPU MAY_JUNE_2025 Examination SY A COMP



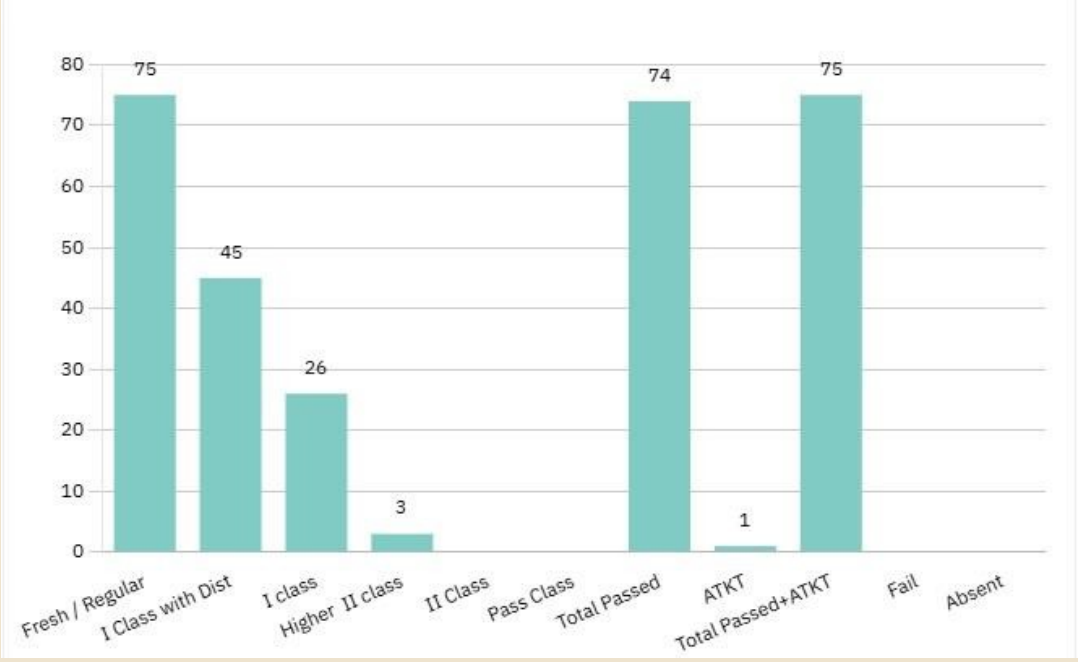
Result Summary of SPPU MAY_JUNE_2025 Examination SY B COMP



Result Summary of SPPU MAY_JUNE_2025 Examination TE COMP

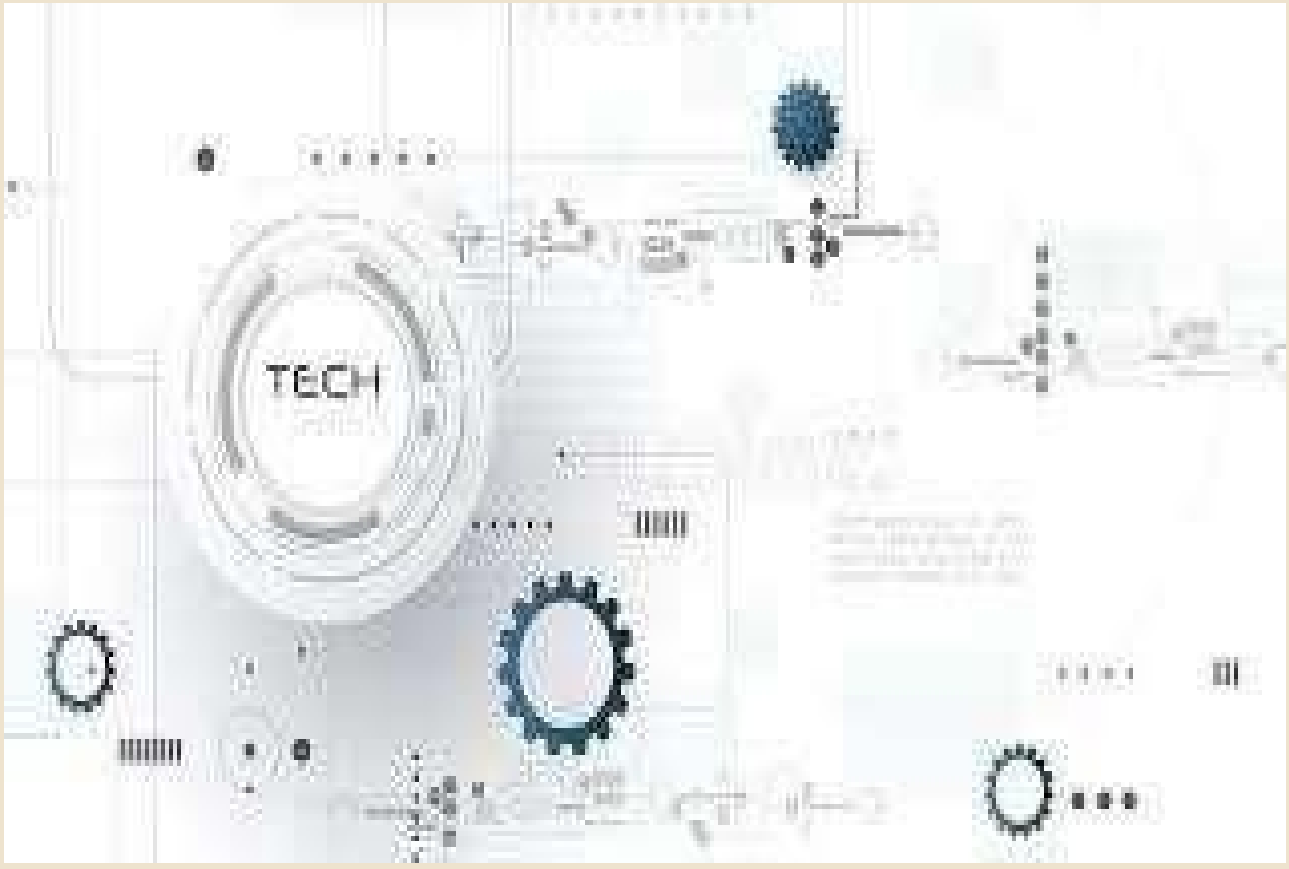


Result Summary of SPPU MAY_JUNE_2025 Examination BE COMP



FACULTY

Publications 2025



Sr. No	Name of Faculty	Title of Publication	Journal/Conference	ISSN/DOI	Indexing
1	Dr. Arvind Jagtap	Advancements in Plant Disease Classification Using Deep Learning: Trends, Hybrid Models, and Future Directions	2nd International Conference on Sustainable Computing and Intelligent Systems		scopus indexing
2	Dr. Arvind Jagtap	Predictive Modelling of Bone Mineral Density: An ANN and Regression based approach	Journal of Scientific & Industrial Research Vol. 84, , pp. 862-870	DOI: 10.56042/jsir.v84i8.16731	scopus indexing
		Plant Disease Detection: PyramidNet- ICNN Architecture With Modified BIRCH Segmentation Plant Disease Detection: PyramidNet- ICNN Architecture	Journal of Phytopathology	https://doi.org/10.1111/jph.70068	scopus indexing
		Artificial Intelligence in Predicting Performance of Sustainable Marine Materials	Journal of Mines Metals and Fuels	DOI:10.18311/jmmf/2025/49603	scopus indexing

3	Manoj Shelar	Classification of malware family in large executable files using NeASA-Net in MapReduce framework	International Journal of Advanced Mechatronic Systems	https://dx.doi.org/10.1504/IJAMECHS.2025.149352	scopus indexing
		Intelligent Video Monitoring for Classroom Management	International Conference on Sustainability, Innovation & Technology (ICSIT 2025)		

4	Vyankatesh Rampurkar	An Intelligent Framework for Fraud User Identification using Machine Learning Techniques	ijieeb journal	https://doi.org/10.5815/ijieeb.2025.05.03	scopus indexing
5	Barkha Shahaji	Real-Time Vehicle Plate Detection and Recognition	IEEE conference	10.1109/WorldSUAS66815.2025.11199079	scopus indexing

FACULTY

DEVELOPMENT

PROGRAM-FDP 2025

Sr. No	Name of Faculty	Name of Activity (Please write complete and authentic title as per the certificate)	Duration (In Days)	Organized By (Full Name of organizing Body)
1	Dr. Arvind Jagtap	Python Programming Essentials: From Basics to Beyond (Summer Training Program)	4-Weeks	IIIT, Nagpur
2	Dr. Santaji Shinde	FDP On Artificial Intelligence and Green Skills	5 days	VPKBIET Baramati
3	Dr. G.J. Chhajed	BOOTCAMP Augmented and Virtual Reality under the "FutureSkills PRIME" Programme	5 days	CDAC, Pune and Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati
3	Mr.Rajaram Hanuamant Ambole	IPR and Patenting: An Academic Perspective	6 days	Ajinkya DY Patil School of Engineering, Pune
4	Mr.Rajaram Hanuamant Ambole	Agentic AI for smarter, Adaptive and responsible Future	5 days	Vishkakarma Institute of Technology, Pune

5	Mr. Manoj D. Shelar	IPR and Patenting: An Academic Perspective	6 days	Ajinkya DY Patil School of Engineering, Pune
6	Mr. Manoj D. Shelar	Next Gen NLP: LLM and Generative AI Models	10 Days	E & ICT Academy NIT Warangal
7	Mr. Manoj D. Shelar	Innovative Teaching and Learning Pedagogy	7 Days	Organized By: Research Foundation of India & RFI Care
8	Mrs Monali U More	FDP On Artificial Intelligence and Green Skills	6 days	VPKBIET wity Edunet foundation Baramati
9	Mrs. More Monali U.	FDP on High Performance Computing	5 days	NSM Sponsored Faculty Development Program (FDP) being organized by the Department of Information Technology, VPKBIET Baramati, in association with CDAC Pune and Walchand College of Engineering, Sangli, under the aegis of the National Supercomputing Mission, Government of India
10	Mrs. More Monali U.	One Week Online FDP on MATLAB Moves: Trends Shaping Multidisciplinary Engineering	5 days	VPKBIET in association with Matlab.
11	Mrs. Priya Manoj Shelar	Next-Gen AI: Innovations in Machine Learning, Deep Learning, and Generative Models"	1 week	Marathwada Mitra Mandal's Institute of Technology, Lohgaon, Pune

12	Mrs. Priya Manoj Shelar	"Faculty Development Program on IPR and Patenting: An Academic Perspective"	5 days	Department of Computer Engineering, ADYPSOE, Pune
13	Mrs.Monali R Bhosale	"Faculty Development Program on IPR and Patenting: An Academic Perspective"	5 days	Department of Computer Engineering, ADYPSOE, Pune
14	Mrs.Monali R Bhosale	FDP On Artificial Intelligence and Green Skills	6 days	VPKBIET wity Edunet foundation Baramati
15	Ms. Gauri Bhelonde	AI and Graph Theoretic based Advancements for Medical Imaging: A Hands on Workshop	6 days	Jointly organized by Visvesvaraya National Institute of Technology, Nagpur & Electronics and ICT Academy, (Phase II) Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing, Jabalpur
16	Mrs. Ashwini B Gawade	FDP On Artificial Intelligence and Green Skills	6 days	VPKBIET wity Edunet foundation Baramati
17	Mrs.Samiksha S Shingade	Python for Data Science	4 week	NPTEL-AICTE
18	Mrs.Samiksha S Shingade	"5 days Faculty Development Program on IPR and Patenting: An Academic Perspective"	5 days	ADYPSOE, Pune
19	Mrs.Mayuri S Devkate	Python for Data Science	4 week	NPTEL-AICTE
20	Mrs.Mayuri S Devkate	"5 days Faculty Development Program on IPR and Patenting: An Academic Perspective"	5 days	ADYPSOE, Pune
21	Ms. Monika P. Jagtap	Python Programming Essentials: From Basics to Beyond	21 days	IIIT, Nagpur
22	Ms. Monika P. Jagtap	Workshop on MATLAB and Python Programming	5 Days	NIT, Jamshedpur

23	Mrs. Nisha Vikram Jagadale	AI in Cybersecurity: Securing Intelligent Systems against Evolving Threats	5 Days	Marathwada Mitra Mandal's Institute of Technology, Lohgaon, Pune

ACHIEVEMENT

ACHEIVEMENTS

Jallosh Cultural Youth Fest – Proud Moments for Our Department ✨

The Department of Computer Engineering proudly congratulates our talented students for their remarkable achievements at the "Jallosh" Cultural Youth Fest. Their dedication, teamwork, and passion have brought laurels to the department and the institute.

🏆 Winners & Achievements:

🎶 Indian Group Song & Western Group Song – Silver Medal

- Harsh Ainchwar (TY Comp-A)
  Piyush Wath (TY Comp-B)

Folk Orchestra – Silver Medal

- Harsh Ainchwar (TY Comp-A)
- Satvik Rokade (TY Comp-B)
- Piyush Wath (TY Comp-B)

Folk Dance – Bronze Medal

❖ Ranbeer Reddy (TY Comp-B)

(Solo western music):

- Kartik Shirode : Second Prize
- Siddhant Pathak : Third Prize

❖ We are proud to announce that Ms. Arya Bhosale has emerged as the Winner of ELYSIUM's Prestigious Miss *Elysium Competition*. She was recognized for her exceptional skill and excellence at the event held at V.P.K.B.I.E.T. on 25 September 2025.

❖ We are pleased to announce that Ms. Sakshi Pramod Gavale secured Second Prize in the Mehendi competition at Jallosh–2024, a district/divisional level cultural event jointly organized by Savitribai Phule Pune University, Student Development Board and allied bodies.

👏 The department applauds all the winners for their outstanding performances and for showcasing cultural excellence on a competitive platform. We wish them continued success in all their future endeavours.

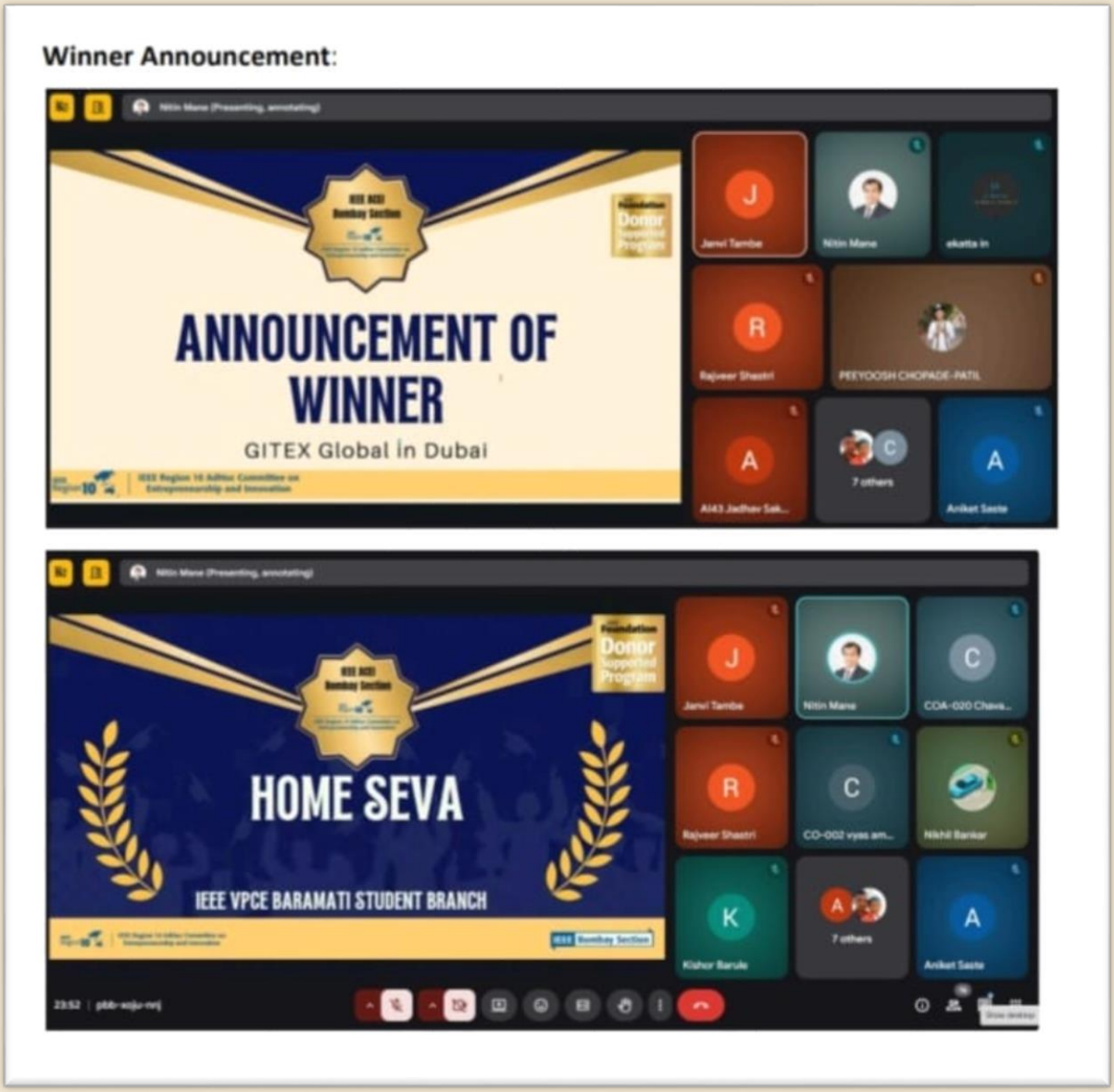
Outstanding Achievement in IEEE ACEI Competitions 🌟

We are delighted to share the remarkable achievement of our department students in the prestigious IEEE ACEI Competitions 🎉

Our student team HomeSeva secured 1st Prize at the IEEE Bombay Section ACEI Regional Pitching Competition, showcasing exceptional innovation and presentation skills. Building on this success, the team was further selected among the Top 30 teams across the Asia-Pacific Region in the IEEE R10 ACEI Regional Pitching Competition, a truly commendable accomplishment at the international level.

👏 Heartiest Congratulations to the team members:
Aman Vyas, Kishor Barule, Unnati Bhagwat, Chirag Bhole, and Pranjal Chavan
for their outstanding performance and dedication.

Special appreciation to Dr. Arvind Jagtap Sir for his invaluable guidance, mentorship, and continuous support throughout this inspiring journey.



❖ Proud Moment:

345 SY, TY, and BE Computer Engineering students successfully completed the Spoken Tutorial Certification Courses conducted by IIT Bombay.

Student Participation Highlight – SIH 2025 (Software Edition)

The Department of Computer Engineering is pleased to share the participation of our students in the prestigious Smart India Hackathon (SIH) 2025 – Software Edition. This national-level competition provides a platform for students to solve real-world problems using innovative technological solutions.

Student Participants

- Puru Bhoite
- Tanmay palshikar
- Rajat Bawane
- Jay Gahine
- Anurag Jagtap

Guide / Mentor

Ms. Gauri Bhelonde

ProblemStatement

"FloatChat – AI-Powered Conversational Interface for ARGO Ocean Data Discovery and Visualization"

The team worked on developing an AI-driven conversational system aimed at enhancing access, discovery, and visualization of ARGO oceanographic data. Their participation reflects strong technical skills, teamwork, and a research-oriented approach toward solving complex societal and scientific challenges.

👏 The department congratulates the students and their mentor for actively participating in SIH 2025 and encourages more such innovative contributions in the future.

- Ms. Subhashita Kiran Jagtap successfully participated in and completed a Summer Training Program on *"Python Programming Essentials: From Basics to Beyond"*, organized by the Department of Computer Science and Engineering, Indian Institute of Information Technology (IIIT), Nagpur.

- Ananya Nitin Navale has participated in the "Question Quiz (Prashna Manjusha)" competition at Jallosh–2024, a district/divisional level cultural event jointly organized by Savitribai Phule Pune University, Student Development Board, and Dada Patil College, Karjat.

- Jaydeep Khalate is awarded this certificate with appreciation in recognition for participation in Think Hammer competition with 1st rank on the occasion of Engineer's Day, held on 15/09/2025.

- Nimbalkar Yashraj Amol has successfully completed the Bootcamp on Augmented & Virtual Reality Acceleration conducted by C-DAC Pune in association with Vidya Pratishthan'sKamalnayan Bajaj Institute of Engineering & Technology

❖ Student Achievement – Certificate of Excellence

❖ We are pleased to announce that Ms. Kanchan Shrikant Gaikwad, from Savitribai Phule Pune University (SPPU), Pune, has been awarded a Certificate of Excellence for securing 76th rank in the Daily Quiz (Management).

Computer Engineering (NPTEL Results – AY 2025–26, Sem I)

A total of 98 Computer Engineering students and faculty members successfully completed NPTEL courses during June–December 2025, showcasing strong participation and excellent academic engagement in online certification programs.

Participation of Students

SELECTED GROUPS FOR AVISHKAR RESEARCH CONVENTION 2025-26 INSTITUTE LEVEL COMPETITION

- Project Title: Home-Seva

  Student Names: Unnati Bhagwat, Kishor Barule, Praful Chavan, Aman Vyas, Chirag Bhosle

  Guide Name: Dr. Arvind Jagtap

- Project Title: Diagnosis of neurological disorder using AI

  Student Names: Kshitij Barge, Ayush Lohar, Tanmay Gawade, Satyam Vidyakar

  Guide Name: Gauri Bhelonde

- Project Title: Cross-platform app for flood disaster management & water related issues

  Student Names: Rania Sandi, Kuldip Lakhera, Siddhant Bhosale, Sandip Sawant

  Guide Name: Mr. V. V. Rampurkar

- Project Title: Development of Intelligent Tracking System for Mahamining using ML

  Student Names: Darshan Nhade, Pratik Pardeshi, Pranav More, Shubham Gujar

  Guide Name: Dr. Santaji Shinde

JALLOSH 25 – Computer Department Participation

The Computer Engineering Department actively participated in JALLOSH 25, with enthusiastic involvement from students across various events, showcasing their talents, teamwork, and vibrant cultural spirit.

- Ranbeer Reddy (TY COMP)
- Siddhant Pathak (BE COMP)
- Piyush Wath (TY COMP)
- Harsh Ainchwar (TY COMP)

- Kartik Shirode (SY COMP)
- Harshal Gavhane (SY COMP)
- Vaishnavi Lahoti (SY COMP)
- Sakshi Makhare (SY COMP)
- Satvik Rokade (TY COMP)

Spoken Tutorial Certification Courses conducted under IIT Bombay.Data Sem I (2025)

Class	Course	Certificates
SY	C++ (CPP)	144
TY	RDBMS – PostgreSQL	139
BE	Web Development – JavaScript	62

TECH ARTICLES

STUDENTS

Streaming Conversations: Engineering Real-Time Spoken Dialogue

Introduction

Early voice assistants worked as command processors: detect speech, transcribe, interpret, respond, and synthesize speech. This approach is effective for single-shot voice commands but does not resemble actual human dialogue. In natural speech, we interrupt each other, adjust tone and emphasis, plan sentences as we speak, and expect immediate conversational feedback. A human-like conversational system therefore requires continuous listening, ongoing reasoning, streaming output and barge-in awareness.

2. Core Components of Streaming Conversation Systems

a) Low-Latency Audio Frontend

The audio frontend includes microphone capture, acoustic echo cancellation and voice activity detection. Echo cancellation prevents the system from transcribing its own synthetic voice. Voice activity detection helps determine who is speaking and when turns change.

b) Streaming Speech-to-Text (STT)

Instead of waiting for full sentences, modern STT emits partial text tokens continuously. These partial recognitions are refined as more audio arrives. Because the dialog manager receives text fragments early, it can begin interpreting user intent while the user is still talking.

c) Token-Streaming Language Model

A language model performs incremental reasoning over partial text. It does not wait for complete sentences and can generate reply tokens as it becomes confident. Memory is preserved across turns to ensure continuity and personalization.

d) Streaming Text-to-Speech (TTS)

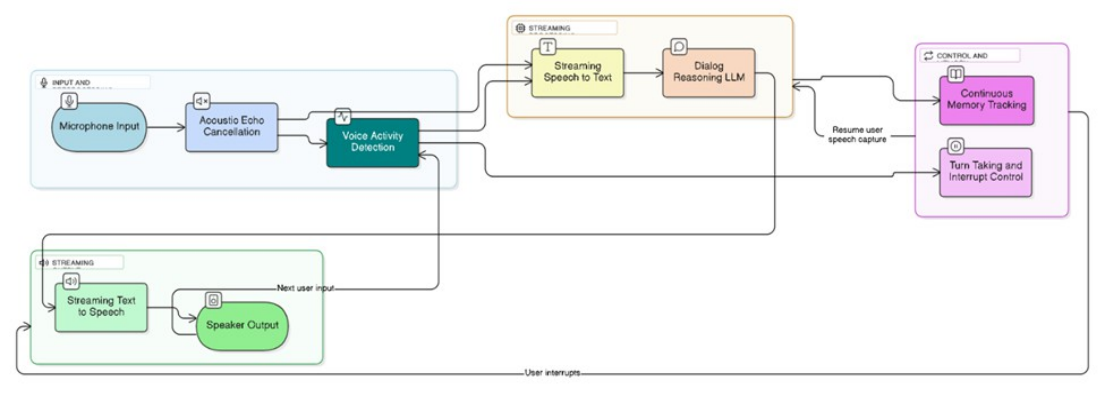
The TTS engine converts output tokens into speech as soon as they arrive, producing natural prosody, pauses, emphasis and emotional tone. Streaming TTS allows the AI to begin speaking even before the full reply is generated, similar to how humans speak while planning their next words.

e) Smooth Turn-Taking and Barge-In

When the user begins speaking while the AI is talking, the system must detect the interruption, pause speech instantly, resume streaming speech recognition and preserve reasoning state. This ability to interrupt naturally is essential for lifelike dialogue.

f) Short-Term and Long-Term Memory

Short-term memory retains recent turns and emotional context. Long-term memory stores preferences, names, history or personalized knowledge. Memory ensures the system does not reset after each command and allows true continuity.



3. Streaming Conversational Dataflow

- A real-time dialogue system processes speech continuously across all components:
- The user speaks into a microphone.
- Echo cancellation removes the system's own generated audio.
- Voice activity detection determines speaking status.
- Streaming STT generates partial words and refines them.
- The dialog model begins interpreting intent immediately using token fragments.
- Streaming TTS begins speaking as soon as response tokens arrive.
- When interruptions occur, the system switches roles smoothly without losing context.
- Every component runs simultaneously. No stage waits for the other to finish.

Application Areas

- Streaming conversational AI enables:
- Customer service kiosks
- Educational tutoring systems
- Assistive robotics and accessibility tools
- Smart home assistants and ambient interfaces
- Augmented reality voice agents

Streaming systems represent a major shift in conversational AI. They no longer treat speech as a static command. They listen, think and speak at the same time, allow interruption, express emotion and maintain memory. This architecture transforms voice interfaces into true conversational partners.

M r. Mandar Wagh
Student (S Y B T E C H)
Dept of Computer Engineering
VPKBIET, Baramati.

VL-JEPA: Joint Embedding Predictive Architecture for Vision–Language

Introduction

Vision–Language Models (VLMs) are a crucial part of modern AI systems that interact with the real world. They enable machines to understand images and videos and respond using natural language. Traditional VLMs rely on autoregressive token generation, which is computationally expensive and introduces latency. VL-JEPA proposes a new paradigm by predicting semantic embeddings instead of generating tokens directly.

Background: Joint Embedding Predictive Architecture

Joint Embedding Predictive Architectures (JEPA) focus on predicting abstract representations rather than reconstructing raw data. Earlier JEPA models such as I-JEPA and V-JEPA demonstrated that learning in embedding space improves efficiency and representation quality. VL-JEPA extends this idea to joint vision–language learning.

Core Idea of VL-JEPA

VL-JEPA predicts continuous embeddings of target text instead of tokens. The model learns semantic meaning rather than surface-level linguistic structure. Text decoding is performed only when required using a lightweight decoder.

Architecture

VL-JEPA consists of four components: a vision encoder (X-Encoder), a predictor, a text encoder (Y-Encoder), and an optional text decoder (Y-Decoder). The predictor maps visual embeddings and textual queries into target text embedding.

Training Strategy

VL-JEPA is trained in two stages: large-scale pretraining on image–text and video–text data, followed by supervised fine-tuning for VQA and related tasks. Training is performed using embedding-space losses such as InfoNCE.

Selective Decoding

One of the most important features of VL-JEPA is selective decoding. Since the model produces continuous semantic embeddings, decoding into text happens only when meaningful semantic changes occur. This reduces decoding operations by approximately 2.85×.

Experimental Results

VL-JEPA outperforms CLIP, SigLIP2, and Perception Encoder on classification and retrieval tasks. On VQA benchmarks, VL-JEPA achieves performance comparable to large VLMs while using fewer parameters.

Advantages and Limitations

VL-JEPA offers lower latency, better efficiency, and unified multitask capability. However, it still depends on high-quality text encoders and has limited evaluation on long-form reasoning tasks.

Conclusion

VL-JEPA demonstrates that embedding-based learning is a powerful alternative to token-based generation. It is especially suitable for real-time and resource-constrained vision–language applications.

Mr. Kartik Akash Shirode

Student (SY BTECH)

Dept. of Computer Engineering

VPKBIET, Baramati.

EDITORIAL

Dear Readers,

Warm greetings from the Computer Engineering team!

We hope this message finds you and your loved ones safe and well. Benjamin Franklin once said, *"Learning never exhausts the mind."* – Leonardo da Vinci Inspired by this philosophy, the creative minds of the Computer Engineering Department at VPKBIET have come together to bring you this edition of *CompBits*.

We extend our heartfelt congratulations to every student and faculty member who contributed to this initiative. It fills us with pride to showcase the incredible imagination and innovation of our very own VPKBIET community—a testament to ideas that stretch far beyond horizons.

We would like to express our sincere gratitude to the Management and faculty members for their unwavering support and trust in the Editorial Board. Their belief in us, coupled with the freedom to curate and design this magazine, has been instrumental in making *CompBits* a reality.

We hope this magazine serves as a source of inspiration and motivation for every student, encouraging them to strive for excellence and carry forward the legacy of *CompBits*.

Happy reading!

Warm regards,

The Editorial Team

For any suggestions reach us at: ashwini.gawade@vpkbiet.org