



**BMS Institute of Technology and Management**

(Accredited By National Assessment & Accreditation Council (NAAC))

(Approved by AICTE, New Delhi & Affiliated to Visvesvaraya Technological University, Belagavi)

Doddaballapura Main Road, Avalahalli, Yelahanka, Bengaluru-560119

# **“BYTESTREAM”**

**Volume-7 & issue-2**

**NEWS LETTER (JANUARY-AUGUST 2025)**

**DEPARTMENT OF  
COMPUTER SCIENCE  
AND ENGINEERING**

**ACCREDITED BY NATIONAL BOARD OF ACREDITATION**

# **Vision of the Institute**

To emerge as one of the finest technical institutions of higher learning, to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of the society.

## **Mission of the institute**

Accomplish stimulating learning environment through high quality academic instruction, innovation and industry-institute interface.

## **Vision of the Department**

To be a centre of excellence in Computer Science and Engineering education and research, nurturing technically competent, ethically responsible, and socially conscious professionals to meet global challenges and drive sustainable innovation.

## **Mission of the Department**

- M1. To impart quality education in Computer Science and Engineering by integrating fundamental knowledge with emerging technologies and industry practices.
- M2. To foster innovation, problem-solving, and research aptitude through a curriculum enriched with project-based learning, professional activities, and collaborative initiatives.
- M3. To develop graduates with strong ethical values, leadership qualities, and a commitment to lifelong learning through co-curricular and extra curricular activities

# Program Educational Objectives-PEO's

**PEO 1 - Professional Excellence:** Pursue successful careers in industry, academia, and entrepreneurship by applying the foundational knowledge of Computer Science and Engineering with professional competence.

**PEO 2 - Higher Education and Lifelong Learning:** Engage in higher studies, research, or professional development programs, demonstrating a commitment to lifelong learning in a rapidly evolving technological landscape.

**PEO 3 - Ethics and Social Responsibility:** Exhibit ethical behaviour, effective communication, teamwork, and leadership qualities, with a strong sense of responsibility toward society and the environment.

# Program Specific Outputs-PSO's

**PSO1:** Apply theoretical foundations, Algorithmic principles and software engineering practices to develop efficient and scalable IT solutions.

**PSO2:** Design effective systems by leveraging principles of computing and communication technologies.

# Program Outcomes (POs)

**PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

**PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4).

**PO3 Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5).

**PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiment modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

**PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resource and modern engineering & IT tools including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6).

**PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

**PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values diversity and inclusion; adhere to national & international laws. (WK9).

**PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

**PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

**PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments. technologies and  
iii) critical thinking in the broadest context of technological change. (WK8)

**PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for :**

- i) independent and life-long learning
- ii) adaptability to new and emerging technologies and
- iii) critical thinking in the broadest context of technological change. (WK8).

## **Knowledge Profiles (WK):**

- WK1:** Understanding of natural and social sciences.
- WK2:** Mathematics, numerical analysis, data analysis, and computing.
- WK3:** Engineering fundamentals.
- WK4:** Specialized engineering knowledge.
- WK5:** Engineering design and operations, including sustainability.
- WK6:** Engineering practice (technology)
- WK7:** Role of engineering in society, sustainability, and professional responsibility.
- WK8:** Current research literature and critical thinking.
- WK9:** Ethics, professional responsibilities, and inclusive behavior.

# HOD'S DESK



## **Dr. Thippeswamy G BE, ME, Ph.D.**

I am extremely happy to share with you the progress; Department of Computer Science & Engineering has made during the 2024 – 2025 even semester. The Department has been one of the most vibrant among all, in terms of students, faculty, facility, placements, internships, and incubation centres. The department is recognized as a Research Centre by VTU and 18 scholars who have enrolled for Ph.D. The department is supported by 61 qualified and experienced faculty members with Twenty one Doctoral degree holders in different domains. The department has a team of highly-skilled, motivated, proficient faculty, and technical staff members who are striving hard continuously to enhance the quality of education. The department has highly competent students who are undergoing internship in reputed companies getting stipends up to Eighty thousand rupees per month. The Department has adopted the practice of Outcome Based Education (OBE). The Undergraduate Programme is accredited by National Board of Accreditation (NBA), New Delhi, and Permanently Affiliated to Visvesvaraya Technological University (VTU), Belagavi. The department has set up student chapters like the IEEE student club and CSI on the campus to bridge the gap between industry and academia with a vision, "IT for Masses", thus enabling IT professionals and computer users to work towards making the profession an area of choice. With this, I am very confident that the department is poised to take on challenges to meet the industrial and societal needs in years to come...

# Professors



**Dr . Thippeswamy G**  
Professor & HOD



**Dr. Mahesh G**  
Professor & Associate  
Head cluster-1



**Dr. Veena N**  
Professor

## CLUSTER-1

### Professor/Associate Professor



**Dr. Bharathi R**  
Associate Professor



**Dr. Nagabhushan S V**  
Associate Professor



**Dr. Ashwini N**  
Associate Professor



**Dr. Dhanalakshmi B K**  
Associate Professor

# OUR FACULTIES

## Assistant Professor



**Mr. Jagadish P**  
Assistant Professor



**Dr. Vinutha K**  
Assistant Professor



**Dr. Shankar R**  
Assistant Professor



**Mr. Guruprasad S**  
Assistant Professor



**Mrs. Shilpa M**  
Assistant Professor



**Prof. Goutami  
Chenumalla**  
Assistant Professor



**Dr. Mohammed  
Khurram J**  
Assistant Professor



**Prof. S Packiya Lekshmi**  
Assistant Professor



**Prof. Arpitha Shivanna**  
Assistant Professor

# OUR FACULTIES



**Prof. Beerappa  
Belasakarge  
Assistant Professor**



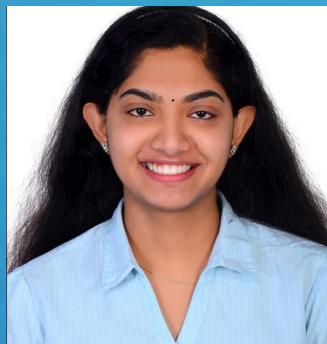
**Prof. Chaitanya V  
Assistant Professor**



**Prof. Aruna N  
Assistant Professor**



**Prof. Anusha K L  
Assistant Professor**



**Tresa Maria  
Josylin  
Assistant Professor**



**Ms. Renita Blossom  
Monteiro  
Assistant Professor**



**Prof. Manjula S D  
Assistant Professor**

# OUR FACULTIES

## TECHNICAL STAFFS



**Mr. P. Ashok Kumar**  
**Instructor**



**Mr. Srinivasmurthy**  
**Instructor**



**Mr. Liju C**  
**Assistant Instructor**



**Mr. Radhakrishna C K**  
**Assistant Instructor**



**Mrs. Rosary Josphene**  
**Mary**  
**SDA**

# CLUSTER-2

## PROFESSOR



## ASSOCIATE PROFESSORS



## ASSISTANT PROFESSORS



# OUR FACULTIES



**Dr. Jai Arul Jose G**  
**Assistant Professor**



**Prof. Chandini A**  
**Assistant Professor**



**Prof. Priyanka M R**  
**Assistant Professor**



**Prof. Soujanya S D**  
**Assistant Professor**



**Dr. Neetha P U**  
**Assistant Professor**



**Prof. Ajith S**  
**Assistant Professor**



**Ms. Srujana S N**  
**Assistant Professor**



**Ms. Simi Sara Mani**  
**Assistant Professor**



**Prof. Chetan D S**  
**Assistant Professor**



**Prof. Bhagyashree P**  
**Puje**  
**Assistant Professor**

# OUR FACULTIES

## TECHNICAL STAFFS AND SDA



**Mr. Ram Mohan S**  
Assistant Instructor



**Ms. ROSEMARY K  
RAPPALI ASST.  
INSTRUCTOR**



**Mr. Vishwanath Desai**  
Assistant Instructor



**Mr. Shiv Kumar**  
SDA

# CLUSTER-3

## PROFESSOR/ASSOCIATE PROFESSORS



**Dr. Anil G N**  
Professor & Vice  
Principal



**Dr. Radhika K R**  
Associate Professor &  
Associate Head



**Dr. Ravi Hosur**  
Associate Professor



**Dr. Arunakumari B N**  
Associate Professor



**Dr. Vidya R Pai**  
Associate Professor

## ASSISTANT PROFESSORS



**Mrs. Vishakha Yadav**  
Assistant Professor



**Dr. Anand R**  
Assistant Professor



**Mrs. Yoga Durgadevi  
Goli**  
Assistant Professor



**Mr. Rajesh N V**  
Assistant Professor



**Dr. Ambika G N**  
Assistant Professor



**Mrs. Mari Krithima A**  
Assistant Professor

# CLUSTER-3



**Dr. Ravikumar B N**  
Assistant Professor



**Mrs. Tanya Chandra**  
Assistant Professor



**Prof. Shama H M**  
Assistant Professor



**Prof. Gururaj P**  
Assistant Professor



**Prof. Belji T**  
Assistant Professor



**Prof. Likhita M**  
Assistant Professor



**Prof. Varshini S**  
Assistant Professor

## TECHNICAL STAFF AND SDA



**Mr. Raju T**  
Assistant Instructor



**Mr. Hareesh naik**  
Assistant Instructor



**Mr. Puneet Dodamani**  
Assistant Instructor



**Mrs. Asha**  
SDA

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## MoUs

1. An official signing of a MoU with ASHTAKSHA LABS Pvt Ltd on 20th June 2025 which has the objective to provide World-class Cyber Security/ AI&ML Services, Research, Training and Consultancy there by protecting the cyber space. We thank our Management, Principal, HoD – CSE and Team BMSIT for their support throughout this process, Coordinated by Dr.Usha B A, Professor Dept of CSE.



2. MoUs signed with Police Training School, Thanisandra and BMSIT&M on 6th Feb 2025, Coordinated by Dr.Usha B A, Professor Dept of CSE , BMSIT&M. We thank the Management, Principal and entire Team BMSIT&M for the support and encouragement.



# Faculty as Resource Person :

1. Dr. Gerard Deepak, Associate Professor, Department of CSE, BMSIT&M, has extended his support as a Resource Person for a three day workshop on Research Methodology and has delivered three independent sessions on Research Paper Writing, Methodologies in Research, Trends in Research at the Department of CSE Kishkinda University, Ballari from 13th Feb 2025 to 14th Feb 2025.



2. Dr. Usha B A, Professor Dept of CSE, BMSIT&M delivered the Invited talk on "Wireless Network Security, Security for TCP/IP Communication" on 8th of Feb 2025. It was the National Initiative under the aegis of MeitY, Govt of India implemented as part of ISEA Program by CDAC Hyderabad.



3. Dr. Muneshwara M S, Asst. Prof. Dept of CSE has extended their support as Resource person for "ChatGPT & Other Technologies" in the one day workshop on "An orientation of Emerging Technologies" on 20.05.2025 at S.E.A College of Science, Commerce and Arts (NAAC Accredited with B++ Grade), Bengaluru 560049.



# Faculty as Resource Person :

4. Dr Dhanalakshmi B K delivered a session on "Introduction to the Advanced Concepts in AI, ML, and DL" on FDP "Artificial Intelligence, Machine Learning, and Deep Learning in the Era of Data Revolution: Progress and Applications," from February 3rd to 5th, 2025, at ATMECE, Mysuru.
5. Dr.Usha B A, Professor, Dept. of CSE has delivered the Guest Lecture on "Security Analytics, Network Security Analysis" for the ongoing CISO Training programme which is the National initiative under the aegis of MeitY, Govt. of India. Implemented as part of ISEA Program by CDAC Hyderabad on 21st March 2025.
6. Dr.Usha B A, Professor, Dept of CSE has served as Resource Person for the 36th Batch Cyber Crime Investigation Course Organised by Police Training School, Thanisandra during 09.12.2024.

# Faculty Awards:

1. Dr. Muneshwara M S received BEST PAPER AWARD for the title "Developing a Translation Model to Bridge ASL and Indian Regional Languages Using Neural Networks" in IEEE International Conference on Computing for Sustainability and Intelligent Future (CompSIF-2025) 21st -22 nd March 2025.
2. Prof. Mohammed Khurram J has been awarded the prestigious degree of Doctor of Philosophy. The honour officially conferred during the Twenty-Fifth Annual Convocation (Part I) of Visvesvaraya Technological University (VTU), scheduled for Friday, 4th July 2025, at 11:00 a.m. The ceremony took place at the Dr. APJ Abdul Kalam Auditorium, "Jnana Sangama" Campus, VTU, Belagavi.



## Reviewer for Journal / Conference :

1. Dr. HemaMalini B H, Associate Professor, Dept of CSE was a reviewer for the International Conference On Computing For Sustainability And Intelligent Future (Compsif 2025) Organized By BMS Institute Of Technology And Management, Yelahanka, Bengaluru-119, During 21-22 March, 2025.

2.Dr. Muneshwara M S was a Reviewer for "Computational and Structural Biotechnology" Journal , ISSN 20010370 , Publisher Elsevier B.V. Scopus Indexed Journal, Q-1 Quartile, August-2025.

<https://www.sciencedirect.com/journal/computational-and-structural-biotechnology-journal>

3.Dr. Neetha P U was a Reviewer for "Computational and Structural Biotechnology" Journal , ISSN 20010370 , Publisher Elsevier B.V. Scopus Indexed Journal, Q-1 Quartile, August-2025.

<https://www.sciencedirect.com/journal/computational-and-structural-biotechnology-journal>

4.Dr. Muneshwara M S Asst. Prof, Dept. of CSE Recognized as the Associate Editor in American Journal of Computer Science and Technology (ISSN Online: 2640-012X, ISSN Print: 2640-0111), [http://www.ajcst.org/editorial-team#Associate\\_Editor](http://www.ajcst.org/editorial-team#Associate_Editor) from August 2025

5.Dr. Gireesh Babu C N, Associate Professor, Department of CSE has extended their support as a Session Chair in the 2025 IEEE 2nd International conference on Information Technology, Electronics and Intelligent Communication Systems(ICITEICS) held at Vemana Institute of Technology, Bengaluru. during 30.08.2025 to 31.08.2025



# Students Achievements :

1. Mounesh V, a student of II semester CSE, has been offered a 4-week virtual internship as a Full Stack Developer, starting from June 2, 2025.
2. II semester CSE students Harshit Raj and Anuj Mathpal successfully participated in a 5 km Cyclothon organized by the NSS unit of BMSIT&M in collaboration with the Ministry of Youth Affairs and Sports and the Karnataka State Police (Rajanakunte). The event was held at SVIT College, Rajanakunte, Karnataka, on 12.06.2025.
3. VI semester CSE B section students Nithin Reddy P N, Sai Mohith S, and Sanath R participated in the Central India Hackathon 2.0 held at Suryodaya College of Engineering and Technology, Nagpur, on 23rd and 24th June 2025. They showcased their coding and problem-solving skills, and the team secured 2nd place at the Central India Hackathon 2.0 held on June 23.6.2025 TO –24.6.2025.



4. V Charith Reddy and Kalyan R of II semester CSE, showcased their knowledge and interest by participating in the IEEE ComSoc PowerPlay Cricket Quiz organized by IEEE at BMSIT on 28.5.2025.
5. Jujjarapu Haneesh of II Semester CSE, participated in the ComSoc PowerPlay 2K25 Quiz, organized by IEEE ComSoc BMSIT on 28.5.2025., demonstrating commendable zeal and aptitude.
6. Mounesh V of II semester CSE took part in the Build and Conqueror competition organized by the Institution's Innovation Council (IIC) and Alterino at BMSIT, exhibiting innovative thinking and team collaboration.

A large number of students demonstrated innovative thinking and creativity by participating in the Ideathon-Organized by Department of CSE, BMSIT , 24.5.2025. Participants included: Safakhanum Soudagar, Nihaarika PV, Rekha S, Prasad Balagouda Patil, Rohith Kumar, Nischal Poudel (Won First Prize), Poorvika N, Sanaa Kumari, Niharika R M, Nikhil Shukla, Prathiksha B, Rakshita Bhat, Pathakota Chaitanya Swarup Reddy, S MD Umar Talha Azeez, Ritesh Arun Kulakarni, Shivanand Manami, Rohith Raikar, Neha H, Rakshitha G, Sagar S H, Trinabh Chadha, Rakshith H.

## Students Achievements :

8. Nisha Nandisha, IV Semester CSE, actively participated in Gate Bootcamp (CS & AI Edition) – Organized by IEEE Computational Intelligence Society Student Branch, BMSIT on 16.5.2025, aimed at enhancing career readiness in competitive exams and AI fundamentals.
9. Trinabh Chadha, IV semester CSE, participate as volunteer on the event GIT Set Go – Organized by OScode Club, ON 29.5.2025, at BMSIT.
- 10.G. Ruchitha and Nalina Ramesh of IV semester CSE, won 3rd Prize in ALTERINO, organized by the Department of CSE, BMSIT on 23.5.2025.
11. Abdullah secured 3rd Prize in the Ideathon UI/UX Design Competition, conducted by the Department of CSE, BMSIT on 24.5.2025.
12. Milan Sampath, Mohammed Talha and Ashutosh Sharma (2nd Semester, CSE) have won the IoT Track Prize at Hacks 2025, a 48-hour National Level Hackathon hosted by Nitte Meenakshi Institute of Technology from 16.5.2025 to 18.5.2025.



13. Team INFINITECH from the VI semester CSE secured 1st Place at Hackathon 2025, organized by Nagarjuna College of Engineering & Technology. The winning team members: Nithin Reddy PN, Sai Mohith, Sanath R (1BY23CS414). Their project, NexWatt – an innovative wireless EV charging solution integrating both hardware and software – was recognized as the best among several top-notch entries. 30.5.2025 to 31.5.2025



# Students Achievements :

14.CSE 6th SEM 'A' Section students Ayesha Kouser B, Bhavish Ramesh Kunder, Aayush H Perampaddappu, Sumukha Kambaloor won First prize in a Hackathon "ADVAYA" held at BGSCET under the theme "Culture and Tourism" held during 11th and 12th April.

15. Adbhut Shukla, a Student from CSE 8th SEM 'A' Section Qualified GATE 2025 with a score of 540 and secured an All India Rank (AIR) of 103.

16. Meghana Prasad, a student from CSE 8th SEM 'A' Section received a "Best Outgoing Student Award" from CSE department for the year 2025.

17. CSE 4th SEM 'A' Section student Abdullah won Third place in "IDEATHON UI/UX Design Competition" held on 24/05/2025, organized by Computer Science Department, BMSIT&M Yelahanka.

18. CSE 4th SEM 'B' Section students G Ruchitha, Nalina Ramesh won Third place and a cash reward of Rs 1000 at "Build and Conquer- A hackathon by Alterino" held on 23/05/2025, organized by Alterino club, at BMSIT&M Yelahanka.

19. The students of CSE Sarthak Patel, Tarin Agarwal, Vedika won the first runner up prize in Code sprint 3.0 event organised by NMIT on 4th April and won a cash prize of Rs.12,000/-.



# Students Achievements :



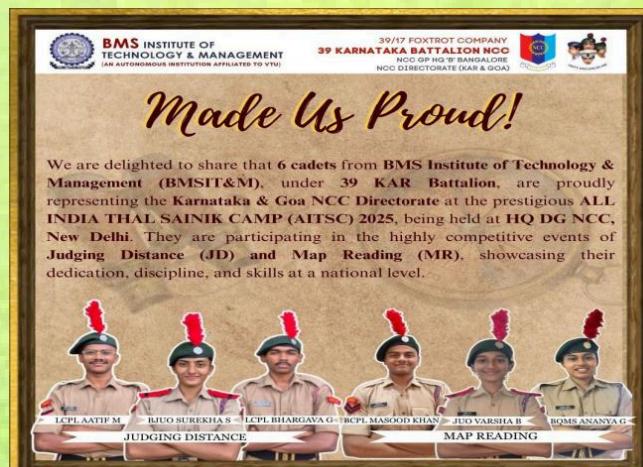
20. The students of CSE Department with group named(Free\_Attendance) and students were Anant Singh, Advaita Srivastav, Harleen Kaur and Ankit Singh secured 3rd position in Incception that was 8 hours internal hackathon organized by computer science department of BMSIT.

21. Tamanna Patel has been awarded the best outgoing student of Batch 2024-25.



22. Team Samay secured 2nd place in gameforge organized by Reva university which comprised of members Priya, Sambhram, Tarin Agarwal, and Sai Karthik.

23. Varsha B (1BY23CS260) have represented Karnataka and Goa NCC directorate at a ALL INDIA THAL SAINIK CAMP(AITSC) 2025 held at HQ DG NCC, New Delhi. The participation was in highly competitive events of Judging Distance and map reading showcasing skills at national level.



# Faculty Achievements:

## Funded Projects from KSCST

1. Project titled "AQUABOT: SMART ROBOTICS FOR PIPELINE HEALTH " under the Guidance of Dr. Ambika G.N Assistant Professor, CSE Department.
2. Project titled "WOMEN'S SAFETY DEVICE WITH FINGERPRINT AUTHENTICATION, REAL TIME ALERTS, AND VULNERABILITY MAPPING" under the Guidance of Dr. Anil G.N, Professor CSE Department

## Faculty MOOC'S :

- 1 Prof Priyanka M R, Assistant Professor of CSE department has successfully completed the NPTEL SWAYAM MOOCs Course of 3 credits in July-Dec 2024 cycle on Accreditation and Ranking Systems with 68%.
2. Prof. Ajith S, Assistant Professor, CSE, completed course on "Augmenting Design Thinking with Human-Computer Interaction" offered through NPTEL on date Feb-April 2025
- 3 Dr. Muneshwara M SCompleted 92.5 Total Hours of online course on "Front End Web Development Ultimate Guide" online course offered by UDEMY on 15.04.2025

## Students Hackathon/Workshop conducted/organised :

1. The Department of CSE organized the Ideathon – UI/UX Design Competition on 24.5.2025, centered on the theme Indian Knowledge System (IKS). Students from 1st to 3rd year of CSE, ISE, and AI/ML showcased their creativity by designing logos and developing mobile and web application prototypes using Figma.



2. The webinar on Identity & Access Management (MFA, Azure AD & Access Controls), organized by BMS Institute of Technology & Management in collaboration with CloudThat and Microsoft, was held on 8th April. The session covered critical topics like Azure AD, Multi-Factor Authentication, and IAM best practices, featuring hands-on demos and career insights from Microsoft Certified Trainer Vani Chakraborty. Participants gained access to Microsoft Learn resources. The event successfully bridged industry-academia gaps, attracting 150+ attendees and enhancing skills in cloud security. Future workshops are planned to build on this initiative.



## Students Hackathon/Workshop conducted/organised :

3. InCSEption-2025 was conducted by the CSE Department. Over the course of 8 hours, participants had to collaborate, innovate, and challenge themselves to develop solutions for the given problem statements. The event provided an outstanding platform for students from the Computer Science and Engineering department to demonstrate their technical expertise by working on real-world challenges. This hackathon not only enabled students to enhance their coding and problem-solving capabilities but also allowed them to compete for rewarding prizes and recognition. The hackathon took place on 27th March 2025: Attended by 1st, 2nd and 3rd year students of CSE Department. The prize pool was Rs. 27,000. The judges, Mr. Krishnan Kumar Agrawal and Dr. Balbadra Kishore, initially mentored the teams. Later, they evaluated the projects and decided the winners.



4. The Department of Computer Science and Engineering at BMS Institute of Technology and Management (BMSIT&M), Yelahanka, Bengaluru, organized a hands-on workshop titled "Agentic AI Projects – Re-defining Customer Experience Across Industries" on Monday, 5th May 2025 at 1:00 PM in the Aryabhata Lab for 6TH SEM 'A' section students. The session was held in collaboration with Hebbale Academy under the Institution's Innovation Council (IIC) initiative. The workshop was facilitated by Mr. Shashank Shankar, Co-Founder and Chief Tech Mentor at Hebbale Academy, and coordinated by Dr. Dhanalakshmi B.K, Assistant Professor & Prof. Anusha K L, Assistant Professor.



## Students Hackathon/Workshop conducted/organised :

5. The Department of Computer Science and Engineering at BMS Institute of Technology & Management (BMSIT&M), in association with CloudThat and the Institution's Innovation Council (IIC), organized an enriching workshop titled "Demystifying AI and Generative AI – Concepts, Capabilities, and Real-World Impact" on Friday, May 23, 2025. The event was held at the Aryabhata Lab, 3rd Floor, Lab Block, from 10:00 AM to 12:00 PM.

The session was led by Mr. Sunil Kumar G R, a Subject Matter Expert in Azure at CloudThat and a Microsoft Certified Trainer, who brings with him over 18 years of experience in academia and professional training.

The workshop was coordinated by Prof. Beerappa (Assistant Professor, CSE-1) and Prof. Akshay Arya (Assistant Professor, CSE-2), who ensured the smooth execution of the event. The session was well-received by students and faculty, who appreciated the practical knowledge and future-ready skills shared by the trainer.



6. The AR VR HUB of CSE & AIML had organized the orientation session on 20th May 2025 at 11:00 AM for The Changemakers World Cup, powered by 1M1B (1 Million for 1 Billion) – a global initiative aligned with the UN to empower young leaders and innovators. This prestigious platform identifies India's Top 500 student changemakers, offering life-changing opportunities including:

- National recognition as a Top Changemaker.
- Leadership and innovation on campus.
- Chance for the Top 50 to present at the 1M1B Activate Impact Summit at the United Nations HQ, New York.



## Students Hackathon/Workshop conducted/organised :

7. The Department of Computer Science and Engineering at BMS Institute of Technology and Management (BMSIT&M), Yelahanka, Bengaluru, organized a workshop titled "Building LLM Applications With Prompt Engineering" on Saturday, 24th May 2025 at 8:30 AM – 5 PM in the Aryabhata Lab, 411A (lab), 411C (lab) for 6TH SEM 'A', 'B' & 'C' section students.

The workshop was facilitated by Dr. Vivek Mehta, Assistant Professor, Benne University of the Times Group, Greater Noida, U.P. and coordinated by Dr. Mohammed Khurram J (Cluster 1), Assistant Professor , Prof.Ajit S (Cluster 2), Assistant Professor, Dr. Neetha P U (Cluster 2), Assistant Professor, Prof. Shama H M (Cluster 3), Assistant Professor



**Event Overview:** InCSEption-2025, hosted by the Computer Science and Engineering (CSE) Department, took place on 27th March 2025. This 8-hour hackathon encouraged students to collaborate, innovate, and push their technical abilities to the limit while working on real-world challenges. The event provided an excellent platform for CSE students to demonstrate their coding and problem-solving skills, with the opportunity to compete for prizes and recognition.

**Key Organizers:** Dr. Thippeswamy G, HoD, CSE Department, BMSIT&M, Dr. Mahesh G, Dr. Satish Kumar T, Dr. Radhika K R Associate Heads, CSE Department, BMSIT&M, Dr. Bharathi R, Ms. Shama H M, Mr. Akshay Arya, Mrs. Aruna N (IIC Coordinators, BMSIT&M)

The organisers introduced the participants to the significance of hackathons, emphasizing their academic and practical value in nurturing the next generation of technologists and innovators.

**Event Highlights:** The event began with an introduction from the CSE department organisers, emphasizing the significance of hackathons in fostering creativity, collaboration, and hands-on experience. Students were encouraged to think outside the box and develop transformative tech solutions, applying their theoretical knowledge to real-world challenges. The hackathon promoted teamwork, with participants collaborating in teams of four to brainstorm and solve complex problem statements, reflecting the department's emphasis on practical learning.

## Students Hackathon/Workshop conducted/organised :

The event was structured in two phases:

1. Phase 1 involved registration and PPT submission, where 55 teams (220 students) submitted their project ideas and proposed solutions.
2. Phase 2 featured project presentations, mentoring by judges Mr. Krishnan Kumar Agrawal and Dr. Balbadra Kishore, followed by an evaluation round to determine the winners.

**Prize Distribution:** The prize pool was Rs. 27,000, distributed among the top teams from each year as follows:

Year	Prize	Amount	Team Name
1st year	1st prize	Rs. 4,000	CivicX
	2nd prize	Rs. 3,000	Fulcrum
	3rd prize	Rs. 2,000	Free_Attendance
2nd year	1st prize	Rs. 4,000	VoidMain{}
	2nd prize	Rs. 3,000	MAVERICKS
	3rd prize	Rs. 2,000	Quantum Leapers
3rd year	1st prize	Rs. 4,000	INFINTECH
	2nd prize	Rs. 3,000	Inglourious Basterds
	3rd prize	Rs. 2,000	Health Hackers

## **Students Hackathon/Workshop conducted/organised :**

Conclusion: InCSEption-2025 proved to be an outstanding event that allowed students to display their technical expertise and creativity. It fostered a strong sense of teamwork, innovation, and real-world problem-solving. The hackathon was a huge success in providing a dynamic and challenging environment for students, pushing them to explore new horizons in technology. It also helped build a spirit of collaboration and learning, ensuring that participants gained valuable hands-on experience in tackling complex challenges.

## **CSE Department Events**

**Orientation for Mini Project and Dissemination of Department Vision and Mission**

An Orientation program and Dissemination of Department Vision and Mission to the students of 5th semester for Mini Project (BCS506) on 22nd August 2025 at 10:50 AM.



# Alumni Interaction:

Partial delivery for the course Principles of Programming using C was held on 14th June 2025 for the first year students of Section 7, Section 8 and Section 9. The First interactive session was handled by our esteemed alumna Ms. Roobini G (2018-2022) on Structures and Unions. The second Interaction was by our esteemed Alumna Mr. Sunil Kumar Sreedhar (2008-2012) on Pointers.

Both the Alumni members have discussed the application of these topics from the placement and Industry perspective. They mentored the students about the significance of Internship during the period of studies and preparation of the placements.



**BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT**  
 (Autonomous Institution Under VTU)  
 Velikankula, Bengaluru - 560089

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
 CLUSTER - 3

**PARTIAL DELIVERY ON**  
**"Principles of Programming using C (BPOP23)"**  
 for the First year Students



**Mr. Sunil Kumar S.**  
 Engineering Manager - Application Development  
 Philips (Client)  
 Sutherland Healthcare solutions Pvt. Ltd.



**Ms. Roobini Ganesan**  
 Lowcode practitioner,  
 Crafting a path towards MAANG

**COORDINATORS**  
 Dr. Anand R.  
 Dr. Vidya R Pai  
 Mrs. Vishakha Yadav



SATURDAY  
 14th June 2025



09:30 AM - 01:30 PM  
 APJ Abdul Kalam Lab,  
 4<sup>th</sup> Floor, Lab Block

# Research Work

## Research Proposals submitted :

1. Dr Srivani P, Associate Professor, Department of AI/ML, Dr Satish Kumar T, Professor & Associate Head, Department of CSE and Prof Ajith S, Assistant Professor Department of CSE submitted research proposal to Department of Science and Technology on 26-05-2025 and the title of the project is "Development of Generative AI frame work for Computational Interpretation of Siribhoovalaya to decode numeric script into text with Kannada Translation."

## Partial Delivery conducted :

1. As part of Partial Delivery of lecture for the course: Blockchain Technology, workshop on BLOCKCHAIN APPLICATION DEVELOPMENT ON ETHEREUM was conducted on 23.05.2025 and 29.05.2025. Mr. Kushal Lokesh, Web3 Expert & Tech Innovator, NFTThings, Bengalur, was the resource person for the workshop. Sixty students participated in the workshop.



# Publication of Research Papers by the Faculty Members

## International Journal/ Conference/Magazine/ Book Chapters:

1. Nithya H S, Dr. Hemamalini B H, "Skin Cancer Detection from Lesion Images using Deep Learning", Journal of Systems Engineering and Electronics, Volume 35, Issue 2, 2025, 1-5.
2. Suhani Kumari, Dr HemaMalini B H, Vaibhav Kumar, Varidhi Gumaste, Tarun Agarwal, "Student Pilot Pro: A chatbot integrated application for college students", Journal of Systems Engineering and Electronics, Volume 35, Issue 2, 2025, 97-101.
3. Dr. HemaMalini B H, Dr. Suresh L, Dr. Suma V, Shankar M M, "Analysis of Educational attainment of Students using Anova Test", TANZ (ISSN NO: 1869-7720) VOL 20 ISSUE 01 2025, pp 12-25.
4. Dr. Vidya and Dr. Ravikumar B N, published a paper on "Fruit Quality Monitoring System using CNN" in the International Conference on Intelligent Systems and Computational Networks (ICISCN)-2025-IEEE.
5. Deep Learning with IoT-Based Solar Energy System for Future Smart Agriculture System Vidya M S Ravi Kumar B. N: Anil G. N: Ambika G. N published paper in International Journal of Advanced Computer Science and Applications(ijacsa), Volume 15 Issue 9, 2024.indexed in scopus
6. Ravi Hosur, Daneshwari A Noola, "Artificial Intelligence and Machine Learning", Deccan International Academic Publishers, ISBN:978-93-49092-68-6

## International Conference :

1. Louay Al-Nuaimy, Mohammad Mastan, G. Jai Arul Jose, Ruwaiya Al-Rabaani, "Exploring Student Perspectives on ChatGPT: Knowledge, Attitude, Concerns and Usage Patterns at Oman College of Management and Technology", International Conference on Smart Solutions for Modern Design, Business and Computer Innovations (OCMT'2025), April 16-17, 2025
2. Khan, Irshad, D. Somshekhar, N. Harikrishnan, P. U. Neetha, and D. Pavithra. "Hierarchical Meta-Reinforcement Learning for Uncertainty-Aware Resource Allocation in C-V2X Networks." In 2025 International Conference on Machine Learning and Autonomous Systems (ICMLAS), pp. 167-172. IEEE, 2025.
3. Srujana S.N, Veena N, Karthik S.A, VijayaShetty.S. "Controlled Face Generation using Conditional GAN." International Conference on Computing for Sustainability and Intelligent Feature, May 202

## Publication of Research Papers by the Faculty Members

4. Meghana Prasad, Preethi K R, Pruthvi Shetty S, R Nithish Kumar Reddy, Muneshwara M S, Swetha M S " Advance Infrastructure Maintenance Using Parallel Data Processing With Visual Analytics and IoT", ISBN:979-8-3315-3853-8 ,DOI: 10.1109/COMP-SIF65618.2025.10969884 ,International Conference on Computing for Sustainability and Intelligent Feature., May 2025.
5. Rachana C V, Jai Arul Jose G "Optimizing Plant Disease Detection Using Convolutional Neural Networks and Docker Environment", ISBN:979-8-3315-3853-8,DOI:10.1109/COMP-SIF65618.2025.10969965, International Conference on Computing for Sustainability and Intelligent Feature., May 2025.
6. Dr Nagabhushan S V, "Improving Face Recognition for Smart Home Security: A Study of ResNet, Siamese Networks, and Attention Mechanisms", Proceedings of International Conference on Computing for Sustainability and Intelligent Future (Comp-SIF 2025).
7. Dr Shankar R, "Women safety alert system using IoT with fingerprint authentication and real-time alerts", Proceedings of International Conference on Computing for Sustainability and Intelligent Future (Comp-SIF 2025).
8. Dr Shankar R, "Design and Development of Monitoring Smart Waste Management System", 2nd International Conference on Computing Systems and Intelligent Applications (ComSIA- 2025) organized jointly by Campus of Open Learning, University of Delhi, and Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, on 28th-29th March 2025.
9. Mahadev, Natesh, Shankar R, Sowmya V L, Anitha Premkumar, Rajesh Natarajan, Thangarasu N, and Shashi Kant Gupta. 2025. "AI-Based Intelligent System for Healthcare Application Using Edge-Based Neural Random Back Propagation Technique". International Research Journal of Multidisciplinary Technovation 7 (3):15-26. <https://doi.org/10.54392/irjmt2532>.
10. Dr Dhanalakshmi B K, A Contemporary Framework for Detection of Phishing Website for Cyber Societal Safety (2025) 6:392 <https://doi.org/10.1007/s42979-025-03942-1>, 15 april 2025.(scopus,Q1)

### **Text Book:**

Dr. Ravi Hosur, Dr. Daneshwari A Noola, "Artificial Intelligence and Machine Learning", (2025), Deccan International Publisher, ISBN-978-93-49092-29-7

## Patent Applied /Published/Approved:

1. "BREAKAGE" on 28-05-2025 by our esteemed faculty inventors Dr. Ashwini N (CS&E Dept), Dr. Manjunath T N (IS&E Dept) and brilliant student inventors Brinda P, Nikitha P, Ramachandra V G S, Harish S of IS&E Dept., Batch 2017-18.
2. BMS Institute of Technology & Management, Chidananda K, Mayuri K P, Amitha S K, Sonnegowda K, Ravi Hosur, and Balaraju G, "ULTRA MOBILE RADIOLOGY X-RAY MACHINE WITH NEURAL NETWORK VISUALIZATION SYSTEM", Indian Patent Design No.-449285-001



3. Dr. Muneshwara, M. S Applied for a Design Patent titled "LEGAL PROCEEDING MANAGING DEVICE", CBR Number: 217475, CBR Date: 11/08/2025 20:26:05, Application Number 469367-001, <https://search.ipindia.gov.in/DesignApplicationStatus>
4. Dr. Muneshwara, M. S Applied for a Patent Title "Artificial Intelligence-Based Predictive Maintenance System for Industrial Machinery Utilizing IoT and Big Data Analytics" Patent Application, Application Number- 202541070129 Journal Number- 202541070129, Journal Date: 23.7.2025 - Indian Patent Office

## Book Chapter Publication:

1. M. S. Muneshwara, M. S. Swetha, R. Anand, Pramath V. Bhat & B. C. Pranav "Health Link: A Healthcare System Leveraging IoT, Blockchain and IPFS for Enhanced Data Security" Lecture Notes in Electrical Engineering (LNEE, volume 1399), Advances in Data Science and Artificial Intelligence Proceedings of ERCICA 2024, Volume 1, Conference proceedings © 2025, [https://link.springer.com/chapter/10.1007/978-981-96-4430-8\\_34](https://link.springer.com/chapter/10.1007/978-981-96-4430-8_34), DOI [https://doi.org/10.1007/978-981-96-4430-8\\_34](https://doi.org/10.1007/978-981-96-4430-8_34), pp 465–478 Karnataka, Bengaluru, 16.07.2024, BGSCET Publisher Name Springer, Singapore Print ISBN 978-981-96-4429-2, Online ISBN 978-981-96-4430-8, First Online: 23 July 2025
2. Multi-Class Classification of Alzheimer's/Dementia using Deep Learning Paperback – 13 March 2025 by Dr. Neetha P U (Author), Dr. Pushpa C N (Author)

## Copyright:

Dr. Muneshwara M S Asst. Prof, Dept. of CSE was Applied for a copyright titled " Legal Proceeding Managing Device" Copyright application number : LD-34496/2025-CO Link : <https://copyright.gov.in/frmStatusGenUser.aspx> , August-2025.

# BICEP Activities:

## **CSE Faculty Involved in BICEP**

Prof. Bharathi R – CSE-1 Faculty Coordinator

Prof. Akshay Arya – CSE-2 Faculty Coordinator

Prof. Shama H M – CSE-3 Faculty Coordinator (also Innovation Coordinator & Event Coordinator)

Dr. Harish – CSE-4 Faculty Coordinator

Dr. Veena – CSE-5 Faculty Coordinator

Prof. Shama H M also served as Section Head – Innovation Centre and coordinated bootcamps,

hackathons, and Tech Transform events.

## **CSE Department Events (Tech Transform 2025)**

Under Tech Transform – Inter-Department Hackathon (27.03.2025), CSE organized two events:

- InCSEption

- Hacksphere

Best-performing teams from CSE were rewarded and mentored by BICEP for prototype

development and pitching in larger competitions.

The event aimed to encourage ideation, coding, and impactful solutions to societal problems.

Event Coordinator: Prof. Shama H M, Dept. of CSE

Prize Pool: ₹2,00,000 with cash awards up to ₹10,000/- each.

## **CSE Students in BICEP Activities**

World Environment Day at JN Planetarium (05.06.2025):

- Vaibhav B – 1BY23CS255

- Milan – 1BY24CS164 (Team 1)

- Talha – 1BY24CS180 (Team 1)

- P. Deepthi Jain – 1BY24CS189 (Team 2)

- Ashutosh – 1TE24CS074 (Team 2)

They showcased projects at U R Rao Auditorium, JN Planetarium, Bengaluru.

The event was attended by Hon'ble Deputy Chief Minister of Karnataka, Shri

D.K. Shivakumar, who

appreciated their initiative.

# BICEP Activities:

## Achievements / Recognitions with CSE Involvement

1. Tech Transform – Inter Department Hackathon (27.03.2025):
  - Best-performing CSE team (InCSEption & Hacksphere) recognized.
  - Winners mentored for prototype development and pitching in larger competitions.
  - Prize pool of n2,00,000 with cash awards up to n10,000/- each.
2. Anveshana 2025 – National Level Prototype Competition (28.03.2025):
  - National event with 198+ teams from IITs, NITs, VIT, etc.
  - CSE students from BMSIT&M participated and showcased prototypes.
  - 84 teams shortlisted, 56 reached finale.
  - No CSE student winners explicitly named, but active participation confirmed.
3. Event Coordination:
  - Prof. Shama H M (Dept. of CSE) coordinated Tech Transform, Innovation & Entrepreneurship events, Pitch-Off and related IIC events.
4. Milan Sampath and Mohammed Talha (2nd Semester, CSE) have won Second Prize in BYTE ME, a sub-event of Pitch Off, an event aimed at fostering problem-solving, idea pitching, and entrepreneurial thinking, organized by IIC BICEP, BMSIT&M. May-2025.



# Industrial Visit:

Glimpses of Academic Research Institute Interaction for M.Tech CSE students at PRAYOGA Institute of Education Research on 8th July 2025.

The visit to PRAYOGA was very meaningful and we could also explore Innovative pedagogy.

Thanks to our Management, Principal and HoD-CSE for giving us the opportunity for the visit.



# FDP ATTENDED

1. Dr.Usha B A, Professor, Dept. of CSE attended Six Days Faculty Development Program on "Hands-on Session On Enhancing Cyber Security through Digital Image Forensics" organized by Electronics & ICT Academy IIT Guwahati in association with Ashtaksha Labs Private Limited and Dept of CSE, Global Academy of Technology, Bengaluru from 3rd to 8th March 2025.
2. Mr. Jagadish.P, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
3. Dr. SHANKAR R, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI:Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
4. Dr. Dhanalakshmi b k, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
5. Mrs. Arpitha Shivanna, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
6. Ms. Chaitanya V, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
7. Mr. Beerappa, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
8. Mr. Mohammed Khurram J, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.

# FDP ATTENDED

9. Dr. Mahesh G, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
10. Dr. Ashwini N, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
11. Dr. Nagabhushan S V, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
12. Mrs. Shilpa M, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
13. Mrs. Gowthami CH, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
14. Mrs. Packiya Lekshmi, Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Deep Dive into AI: Latest Trends using Machine Learning and Deep Learning at REVA UNIVERSITY from 13/01/2025 to 18/01/2025.
15. Dr. Bharathi R, successfully completed the #include.her women's Entrepreneurship Bootcamp held on February 27, 28th & March 1st.
16. Dr. Muneshwara M S attended 5-Day FDP on "Next-Gen Cyber Security & Ethical Hacking" 28.07.2025 to 01.08. 2025, Dept. of ISE, Bangalore Institute of Technology, K R Road, V V Pura, Bengaluru, Karnataka, 560004.

# TECHNICAL ARTICLES

## From Iron Man's JARVIS to Reality: How Close Are We?



Name :- Reyyi Shreyas

Year - 2nd

AIML dept

We've all watched Tony Stark talking to JARVIS, his AI assistant, and thought: "I want that in real life." Saying, "JARVIS, design me a suit," or "JARVIS, calculate the safest escape route" feels magical. In reality, we dream of asking AI to handle mundane tasks like attendance, assignments, reminders while we munch something in the mess. But creating something like JARVIS is not just fancy coding , it's combining a dozen complex technologies into one seamless mind.

Today's assistants like Siri, Alexa, Google Assistant feel smart, but they are more like well trained waiters than companions. You ask, "Play my favorite song," and they do it. Ask, "Cancel tomorrow's reminder," and they obey without question. They rely on speech recognition pipelines that convert your voice waves into digital signals and then Natural Language Understanding (NLU) breaks sentences into intents and entities. Then, a language model predicts the most probable response. In technical terms, it's all pattern matching, probabilities, and pretrained embeddings that are numerical vectors representing words and concepts. There's no memory of your habits, no reasoning, no personality.

JARVIS, however, wasn't a script-following assistant. He remembered Tony's routines, anticipated needs, cracked jokes, and sometimes scolded him. To emulate this, an AI would need memory augmented neural networks systems that don't just process the current question but store and recall relevant events over time. Imagine your brainstorming habits , you always wake up late on Mondays. A memory augmented AI notices the pattern and gently warns, "Sir, Mondays are risky. Maybe start earlier today." Achieving this requires not just storing data, but embedding it in a network that can retrieve relevant memories contextually, weigh importance, and update beliefs with new experiences.

Reasoning is another hurdle. Most AI today is probabilistic. Ask, "What is  $2 + 2$ ?" and it says 4. Argue, "No, it's 5," and some models will eventually agree. Why? Because AI predicts what seems plausible, not what is true. For a JARVIS like system, you need reasoning layers and contradiction detection , mechanisms that cross check facts internally and decide when to challenge user input. It's like having an internal logic engine that calculates consequences of suggestions, compares probabilities, and ensures safety and truth before answering.

## TECHNICAL ARTICLES

Then there's the multi tasking challenge. JARVIS controlled suits, labs, weapons, and the house simultaneously. To replicate that, we need multi agent systems, where different AI modules like one for speech, one for vision, one for motion, one for planning and communicate constantly. Each module produces a belief about the world, together they merge these beliefs to act coherently. Imagine five friends trying to plan a surprise party, each responsible for one task, constantly updating each other, and making sure nothing clashes. That's what multi agent orchestration looks like in AI.

Even with multi agent systems, AI needs to sense and act. Computer vision allows it to recognize objects, gestures, and environments. Robotics control systems translate decisions into precise movements, balancing physics like gravity, force, and trajectory. Reinforcement learning trains the AI to try, fail, and improve, just like a child learning to ride a bike. Except the AI evaluates millions of trials virtually, adjusting policies to maximize success while avoiding harm.

Finally, all of this must handle uncertainty and hallucination. AI can generate plausible outputs that are false. For example, predicting the best escape route for Tony Stark's suit isn't just using GPS and finding the shortest route, the system must consider environmental hazards, energy levels, and threat probabilities. Probabilistic modeling and uncertainty calibration ensure the AI doesn't blindly trust wrong information, which is critical when controlling physical systems.

Right now, pieces of JARVIS exist. Voice assistants process language. Robots can walk, lift objects, and navigate. Predictive AI can suggest actions. But integrating memory, reasoning, planning, sensing, acting, and emotional context into one system is the grand challenge. Technology is progressing significantly, memory augmented networks, multi agent orchestration, reinforcement learning, and probabilistic reasoning are improving rapidly. Ten years ago, video calls on a hostel 4G network were impossible, today they are routine. Similarly, AI companions that can reason, remember, and act autonomously may exist in our lifetime.

Until then, JARVIS remains both a dream and a benchmark. It pushes us to bring together perception, memory, reasoning, and action into a single, smooth system. It makes students like us dream beyond writing code and imagine what AI could really achieve. When that day comes, our AI companions might do more than just design suits, they could organize our schedules, help us with learning, and maybe even convince the mess bhaiya to serve gulab jamun on a weekday, all while thinking, predicting, and learning alongside us.

# EDITORIAL TEAM

## STAFF EDITOR



**Dr. MUNESHWARA M S**  
**ASSISTANT PROFESSOR**  
**CSE DEPT.**

## Cluster coordinators



**Prof. Arpitha Shivanna**  
**Assistant Professor**



**Prof. Priyanka M R**  
**Assistant Professor**



**Prof. Rajesh N V**  
**Assistant Professor**

## STUDENT EDITOR



**Rakshitha C**  
**5th sem CSE**