

NEWS-LETTER

Second Half 2023



Dr. Aparna Bannore
(HOD)
Department of
Computer Engineering

FROM THE HOD's DESK

Department of Computer Engineering of SIES GST started in year 2003 offers undergraduate programme in Computer Science where students are exposed to concepts of computer engineering to motivate their humanities, innovation, creative and problem solving abilities, intellectual honest and professional ethics, and capacity for teamwork in interdisciplinary, national and international environment. The students are nurtured to become better professionals in their career.

COMPUTER ENGINEERING DEPARTMENT
SIES GRADUATE SCHOOL OF TECHNOLOGY, NERUL
VOLUME 7 ISSUE 2

VISION

To be a centre of Excellence in Computer Engineering to fulfill the rapidly growing needs of the Society.

MISSION

- To Impart quality education to meet the professional challenges in the area of Computer Engineering.
- To create an environment for research, innovation, professional and social development.
- To nurture lifelong learning skills for achieving professional growth.
- To strengthen the alumni and industrial interaction for overall development of students.

Program Educational Objectives (PEOs)

- Practice Computer engineering in core and multi-disciplinary domains.
- Exhibit leadership skills for professional growth.
- Pursue higher studies for career advancement.

Program Specific Outcomes (PSOs)

- To apply computational and logical skills to solve Computer engineering problems.
- To develop interdisciplinary skills and acquaint with cutting edge technologies in software industries

FACULTY PROFILE

No	Name	Qualification	Designation	Area of Interest
1	Dr.Aparna Bannore	B.E(CSE) , M.E (CE), Ph. D	Professor	Cyber security and Signature security.
2	Dr. Rizwana Shaikh	B.E(I.T), M.E(CE), Ph.D	Associate Professor	Cloud Computing and Security
3	Dr. Varsha Patil	B.E, M.E (CE),Ph.D	Associate Professor	Image Processing, Data Mining, Machine Learning, Natural Language Processing
4	Mrs. Prachi Shahane	B.E(CSE) ,M.E (CE), Ph.D*	Assitant Professor	Artificial Intelligence, Internet Of Things
5	Mrs. Suvarna Chaure	B.E(CSE),M.E (CE), Ph.D*	Assitant Professor	Security
6	Mr. Sunil K Punjabi	B.E, M.E (CE)	Assitant Professor	Software Engineering
7	Ms. Ujwala Ravle	B.E, M.E (CE), Ph.D*	Assitant Professor	Network Security, Machine Learning
8	Ms. Kalyani Pampattiwar	B.E. (CSE), M.E (CE), Ph.D*	Assitant Professor	Security, Data Mining
9	Ms. Namrata Patel	B.E., M.E (CE), Ph.D*	Assitant Professor	Web Mining

FACULTY PROFILE

No	Name	Qualification	Designation	Area of Interest
10	Ms. Kranti Bade	B.E.(IT), M.E(CSE)	Assitant Professor	Data Mining
11	Ms. Masooda Modak	B.Tech (IT), M.E (CE), Ph.D*	Assitant Professor	Learning Analytics, Data Mining, E-learning
12	Ms. Anindita A Khade	B.E, M.E (CE),Ph.D*	Assitant Professor	Machine Learning, Data Analytics, Data Mining
13	Ms. Aarthi Boyanapalli	B.E, M.E (CE), Ph.D*	Assitant Professor	Computer Network
14	Ms. Urvashi Patekar	B.E, M.E (CE)	Assitant Professor	Cyber Security And Block Chain
15	Mrs. Poonam Jadhav	BE(IT),ME(IT),Ph.D*	Assitant Professor	Data Science, Artificial Intelligence
16	Mrs. Rina Bora	BE(CE), ME (CE), Ph.D*	Assitant Professor	Artificial Intelligence, Web Programming
17	Mrs. Reshma Rohan Koli	BE(IT),ME(IT),Ph.D*	Assitant Professor	Software Engineering,Data Security,Web Programming

NON TEACHING STAFF

<u>Sr.No</u>	Name	Roles
1	Mr. Srinivas B.	Lab-Attendent
2	Ms Tanvi	Lab-Assistant
3	Mr. Bhagyashal W.	Lab-Assistant
4	Mr.Hanmanta Kaki	Lab-Attendent

CLASS STRENGTH

Year	Total Strength	Girls	Boys
SE	138	51	87
TE	138	43	95
BE	108	36	72

FACULTY ACHIEVEMENTS

BOOK CHAPTERS/PATENT/OTHERS

1. Dr. Aparna Bannore published book on “An Efficient Proxy Signature–Based Authority Delegation Scheme for Medical Cyber Physical Systems”.
2. Dr. Aparna Bannore published paper on Provably Secure Role Delegation Scheme for Medical Cyber-Physical Systems
3. Dr. Aparna Bannore published paper on Organ Donation and Transplantation challenges , opportunities and the role of blockchain
4. Dr. Rizwana Siddiqui published research paper on “Supervised Satellite image retrieval using defined pattern with ASMC” Paper Accepted in IEEE International Conference –DELCON 2023
5. Prof. Suvarna Chaure Presented and Published paper "Digital Forensic Framework for Protecting Data Privacy during Investigation" in EAI Endorsed Scal Inf System Journal. 2023 Sep.
6. Prof. Sunil K Punjabi Presented paper titled "Forensic Intelligence-Combining Artificial Intelligence with Digital Forensics" in IEEE , 2nd International Conference on Intelligent Technologies on 24-26 June 2022.

FACULTY ACHIEVEMENTS

BOOK CHAPTERS/PATENT/OTHERS

7. Dr. Varsha Patil published paper on Real-Time Convolution Neural Network for Emotion Classification
8. Dr. Varsha Patil published paper on Real-time Water Quality Management using IOT
9. Prof.Kalyani Pampattiwar published paper on Outfit Recommendation System Based on Colour Compatibility to Assist Colour Blind Users—A Survey in International Conference on Communication and Computational Technologies (pp. 983-1001). Singapore: Springer Nature Singapore.2023
10. Prof.Kalyani Pampattiwar published paper on “Secure query processing of outsourced data using privacy homomorphism”, ISSN 2319-8508, Vol XI, Issue II, May-Oct 2023
11. Prof. Namrata Patel published paper on “Attribute-based Hybrid Encryption & Privacy Preservation Framework for Securing Broadcast Communication Channels,” 2022 IEEE World Conference on Applied Intelligence and Computing (AIC), Sonbhadra, India, 2022.

FACULTY ACHIEVEMENTS

PAPERS PUBLICATIONS

12. Prof. Namrata Patel published paper on “Secure Query Processing of Outsourced Data using Privacy Homomorphism” Galaxy Link 10/1/2023
13. Prof. Masooda Modak published paper on “Adaptive learning and Correlative assessment of differential usage patterns for students with-or-without learning disabilities via learning analytics”, in ACM Transactions on Asian and Low-Resource Language Information Processing Accepted on November 2023.
<https://doi.org/10.1145/3632365>
14. Prof. Masooda Modak published paper on Neural Style Preserving Visual Dubbing. In: Tripathi, A.K., Anand, D., Nagar, A.K. (eds) Proceedings of World Conference on Artificial Intelligence: Advances and Applications. WWCA 1997. Algorithms for Intelligent Systems. Springer, Singapore.
https://doi.org/10.1007/978-981-99-5881-8_42
15. Prof. Anindita Khade published paper on “A Novel Approach for detecting Real Time Indian Sign Language using Deep Learning-AIP Conference”
16. Prof. Anindita Khade published paper on Design of an Optimized Self-Acclimation Graded Boolean PSO with Back Propagation Model and Cuckoo Search Heuristics for Automatic Prediction of Chronic Kidney Disease-River Publishers , Elsevier

FACULTY ACHIEVEMENTS

PAPERS PUBLICATIONS

17. Prof. Arathi Boyanpalli published 3 papers titled "Leafline: Plant Disease Detection Application", "Securely – A Golang CLI tool for secure sharing with Shamir's secret Sharing Scheme" and Hand Gesture Control system using OpenCV..
18. Prof. Sunil Punjabi and Prof. Suvarna Chaure presented a paper in IEEE , 2nd International Conference on Intelligent Technologies titled “Forensic Intelligence- Combining Artificial Intelligence with Digital Forensics” on June 15-17, 2022.
- 18 Prof. Kranti Bade published paper on "Bus tracker and Route Recommender using Google API- International journal of innovative science and research technology volume 8 –2023 Issue 5 May
- 19 Prof. Kranti Bade submitted paper on “Real Time water quality management using IOT “
- 20 Prof. Urvashi Patkar published 2 papers in UGC journal on literaure review of plastic waste management and palstic waste management using ML .
- 21 Prof. Urvashi Patkar published IEEE conference paper presentation on scan to eat mobile app

FACULTY ACHIEVEMENTS

PAPERS PUBLICATIONS

22. Prof. Namrata Patel published paper on " Bioinspired FHE model with recursive revokable selective access control for attribute-based privacy preservation Internation Journal of Information Technology " on 10/12/2023
23. Prof. Namrata Patel published paper on "Depression Detection International Conference on Trends in Engineering Applied Science andmanagement "(IC-TEAM 2022)
24. Prof. Namrata Patel published paper on "Real time water quality management using IoT"

STUDENT DEVELOPMENT PROGRAM (SDP)

Workshops/Seminars

1. Rizwana Shaikh conducted Session on Cloud Database is SDP Cloud Computing.
2. Prof. Ujwala Ravale conducted SDP on Data Visualization for Data Science June 2023.
3. Prof.Kalyani Pampattiwar conducted SDP on Ethical hacking and Digital Forensics, 26 June to 1 July 2023.
4. Prof. Namrata Patel conducted two SDP on Competitive coding in June 2022 and Dec 2022
5. Prof. Kranti Bade conducted SDP on Wen technology FH 2023

Value Added Courses

1. The Department of Computer Engineering organized a Value added course on “Data Visualization on Data science” for duration **26 June 2023 to 01 July 2023** .
2. The Department of Computer Engineering organized a Value added course on “**Ethical Hacking and Digital Forensics**” for duration **26 June 2023 to 01 July 2023**
3. The Department of Computer Engineering organized a Value added course on A Roadmap to Excelling in Technical and Communication skill, DevOps, Mobile and web app development in January 2024.

1. Prof. Namrata Patel attended FDP on Data science in Healthcare staffing industry organised by Fr. C rodrigues institute of technology , vashi 1/12/2023
2. Prof. Urvashi Patkar attended three FDP in “ Emerging techin ML “, ”Recents trends in High Frequency COmmunocation “ and in “Power BI”

STUDENT ACHIEVEMENTS

<u>Sr.No</u>	Name of the student	Name of the achievement	SE/TE/BE
1	Ambre Purva S	Winner in Badminton	TE
2	Naikar Madhavan	Third Rank in Elocution Competition	BE
3	Hirekurbure Manav	Third Place in Chess Tournament	SE
4	Abiram Nair Aryan Chalke	Third Place in Volleyball Inter collegiate competition	SE TE
5	Tanvi Sujit Hirlekar	Solo Event Classical Instrumental [Non-Percussion] Solo: Swarvadya (Music)	SE

INTERNSHIP & PLACEMENTS

INTERNSHIPS

Students are always proactively participating in the online and offline internship programs. College also provides internship opportunities through various student development programs on recent technologies. SE and TE students participate in such SDPs.

Internship is provided on **Software Design Skills, Blockchain Technology, Network Security & Ethical Hacking, Advanced HTML and Web Technology, Data Science Using R, Advanced C Programming, Web Development Technologies, Modelling Robot Kinematics.**

Students have completed internship program from various government as well as private organization like Cloud Counselage Pvt. Ltd., Smart bridge, DXC Technology, Denkali, LM UX Innovates, Indian Oil Corporation, KPMG.

INTERNSHIP & PLACEMENTS

PLACEMENTS

Computer department placement is consistently good. Students are placed in various esteemed companies. Their selection is through **aptitude test, programming test, group discussion and technical interviews.**

In this **academic year 2023-2024**, students are placed in companies like **Connect-wise, nvent, jio platforms, zeus learning, link-group, newgen technologies, LTI, TCS, Capgemini, Tech Mahindra, Wipro, Code array, GEP, Xoriant, Hexaware, Perkin Elmar, Neosoft, Quinnox, Ideaforge, infosys, etc.**

INTERNSHIP & PLACEMENTS

PLACEMENTS

Sr. No	Batch	Total strength	Eligible	Placed
SH 2023	Batch 2024	132	109	44

STUDENT TOPPERS

S.E. - SECOND HALF 2023(Semester III)

Overall Toppers

Sem	Rank	Roll No.	Name of Student	Total Marks
III	1	122A1069	CHOUGHULE OMKAR RAJESH RASIKA	677
III	2	122A1113	TIRTHESH SANTOSH TANDEL MALINI	664
III	3	122A1120	VELLAPANDI VIGNESH SUNDARARAJ PUDIASELVAKUMARI	660

Subject Toppers

Sem	Roll No.	Name of Student	Total Marks	Subject
III	122A1025	CHOUDHARY CHAITRA MAHESH MANISHA	99	EM-III
III	122A1037	HARIRAJAN MANIVANNAN VAIRAMUTHU	99	
III	122A1090	SUVARNA SHLOKA PRASHANTH RASHMI	99	
III	122A1095	SURVE SNEHAL SANTOSH SANIKA	99	
III	122A1114	KHAN TUFAIL AHMED SIRAJUDDIN ZAHEDA	99	
III	122A1004	UDAIYAR ABHISHEK MURUGADASS SELVI	85	DSGT
III	122A1113	TIRTHESH SANTOSH TANDEL MALINI	85	
III	122A1120	VELLAPANDI VIGNESH SUNDARARAJ PUDIASELVAKUMARI	91	DS
III	122A1069	CHOUGHULE OMKAR RAJESH RASIKA	89	
III	122A1120	VELLAPANDI VIGNESH SUNDARARAJ PUDIASELVAKUMARI	77	DLCOA
III	122A1069	CHOUGHULE OMKAR RAJESH RASIKA	77	
III	122A1095	SURVE SNEHAL SANTOSH SANIKA	90	CG
III	122A1069	CHOUGHULE OMKAR RAJESH RASIKA	89	

S.E. – SECOND HALF 2023(Semester IV)

Overall Toppers

Sem	Rank	Roll No.	Name of Student	Total Marks
V	1	121A1103	SHREELAKSHMI DHANARAJ NAIR DEVI	653
V	2	121A1068	NANDE SANIYA RAJESH KALPANA	651
V	3	121A1029	JADHAV APURV DIPAK SANDHYA	643

Subject Toppers

Sem	Roll No.	Name of Student	Total Marks	Subject
V	121A1103	SHREELAKSHMI DHANARAJ NAIR DEVI	85	TCS
V	121A1124	THAKUR YASH JOGENDRA SADHANA	85	
V	121A1107	SONAKSHI MANIVI RENU MANI	81	SE
V	121A1068	NANDE SANIYA RAJESH KALPANA	78	
V	121A1103	SHREELAKSHMI DHANARAJ NAIR DEVI	90	CN
V	121A1117	TILAKSHANKAR SAKTHIKUMAR SHANTHI	88	
V	121A1113	TEMGIRE DEVDATTA RAMDAS SANGEETA	88	
V	121A1103	SHREELAKSHMI DHANARAJ NAIR DEVI	92	DWM
V	121A1029	JADHAV APURV DIPAK SANDHYA	91	
V	121A1120	VEDANT VILAS KESARKAR VAISHALI	91	
V	121A1005	ALISHA FATIMA NIKHAT FATHIMA	91	
V	121A1032	JOSHI NIMISHA NITIN NEHA	80	IP
V	121A1103	SHREELAKSHMI DHANARAJ NAIR DEVI	81	PGM
V	121A1074	PAWAR PRANAV ABHAY YOGITA	81	
V	121A1005	ALISHA FATIMA NIKHAT FATHIMA	86	ADBMS

Revolutionizing Waste Management

Editor: Saahil Shaikh BE-CE, Varun Sondur BE-CE.

Title: Revolutionizing Waste Management: A Technical Overview of Smart Waste Management

Abstract: Waste management is a vital yet often overlooked aspect of daily life, encompassing the entire process from collection to disposal. In our modern world, the generation of waste is prolific, necessitating efficient and effective waste management to avert potential crises. While conventional methods involve routine garbage collection, a critical issue often escapes notice – the improper management of garbage trucks. This oversight leads to overfilled bins, fuel wastage, and the spread of diseases. This article proposes a simple yet impactful solution to this problem: the integration of ultrasonic sensors into garbage bins. These sensors relay real-time information about bin status to a central server, enabling smart allocation of garbage trucks based on actual need. By optimizing routes and relaying the same to the concerned drivers and addressing specific areas requiring attention, this innovative approach minimizes fuel consumption, mitigates health risks, and ensures timely and efficient waste clearance. The implementation of smart waste management, as described herein, represents a practical and sustainable solution to the challenges associated with traditional waste disposal methods.

1. Introduction:

The article begins by emphasizing the critical role of waste management in contemporary society and highlights the often-neglected issues associated with conventional garbage collection methods.

2. Components of the Smart Bin Monitoring System:

a. **Ultrasonic Sensors:** Explores the functionality of ultrasonic sensors in measuring bin fill levels accurately.

Discusses the technology behind these sensors and their suitability for waste management.

b. Communication Protocols:

Describes the communication mechanisms employed for transmitting real-time data to a central server. Explores secure and efficient protocols to ensure reliable data transfer. c. Centralized Server System: Details the architecture of the server system responsible for collecting and analyzing data. Discusses the implementation of cloud-based storage and processing. d. Server connected Application: Relays the optimized path from the concerned truck's location to the required bins

3. Operational Efficiency and Environmental Impact:

a. Optimized Garbage Truck Routes: Explores how real-time data facilitates the intelligent allocation of garbage trucks. Highlights the reduction in fuel consumption and associated environmental benefits. b. Disease Prevention and Public Health: Examines the role of smart waste management in mitigating health risks associated with overflowing garbage bins. Discusses the potential impact on public health.

4. Implementation Challenges and Solutions:

a. Security Measures: Addresses potential security concerns associated with sensor data. Proposes encryption and authentication mechanisms for secure data transmission. b. Infrastructure Requirements: Discusses challenges related to sensor deployment and network infrastructure. Explores potential solutions and advancements in technology.

5. Conclusion:

The article concludes by emphasizing the transformative potential of smart bin monitoring in waste management. It highlights the dual benefits of enhanced operational efficiency and a positive environmental impact, underlining the importance of embracing innovative solutions to address the challenges in waste management that are often overlooked.

EDITORIAL BOARD

Editorial Board:

- **Dr. Aparna Bannore [HoD]**
- **Mrs. Tejali Mhatre**

Editorial board is glad to release the current issue of our Department Newsletter Dec 2023. We appreciate the efforts taken by the editorial board in compiling useful information & activities by department. The contribution and dedication of faculty members, students is continuously helping the newsletter in stepwise manner for achieving new milestone.

Newsletter divulge that the department is trying hard to achieve various dimensions such as academic, co-curricular and extra co-curricular activities.