

ISSUE 7 | VOL. 8 | SEP 2023



KIT - KALIGNARKARUNANIDHI INSTITUTE OF TECHNOLOGY

AN AUTONOMOUS INSTITUTION

Kannampalayam Post, Coimbatore -641 402.

DEPARTMENT OF

COMPUTER SCIENCE AND ENGINEERING



“CODE TO INNOVATE, ENGINEER TO TRANSFORM.”

DEPARTMENT
MAGAZINE

CLISTE' 23

ISSUE DATE: 21-09-2023



KIT - KALIGNARKARUNANIDHI INSTITUTE OF TECHNOLOGY

AN AUTONOMOUS INSTITUTION

VISION OF THE DEPARTMENT :

To produce intellectual graduates to excel in the field of Computer Science Engineering and Technologies.

MISSION:

1. Providing excellent and intellectual inputs to the students through qualified faculty members.
2. Imparting technical knowledge in latest technologies through the industry institute interaction and thereby making the graduates ready for the industrial environment.
3. Enriching the student's knowledge for active participation in co-curricular and extracurricular activities.
4. Promoting research based projects in contexts to social, legal and technical aspects.





PROGRAM EDUCATIONAL OBJECTIVES (PEOS) FOR B.E (CSE):

PEO1: Graduates will be successful in their profession by taking part actively in the field of software and technology.

PEO2: Graduates will be proficient in analyzing and facing the challenges in Computer Science and Engineering.

PEO3: Graduates will engage in lifelong learning activities by adapting to the advanced software technologies for continuous professional development.

PROGRAM OUTCOMES (POs) FOR B.E (CSE):

A graduate of the Computer Science and Engineering will be able to:

PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex Computer Science Engineering problems.

PO2: Problem Analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and computer engineering sciences.

P03: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations in the field of Computer Science and Engineering.

P04: Conduct investigations of complex problems: Using research-based knowledge and computer science oriented research methodologies including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

P05: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex computer science engineering activities with an understanding of the limitations.

P06: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

P07: Environment and Sustainability: Understand the impact of the professional Computer Science Engineering solutions in societal and environmental contexts, and demonstrate the knowledge, and need for the sustainable development.

P08: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

P09: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.



P010: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

P011: Project management and finance: Demonstrate knowledge and understanding of the computer science engineering and management principles and apply these to one's own work, as a member and leader in a team and, to manage projects in multidisciplinary environments.

P012: Lifelong learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs) FOR B.E (CSE)

A graduate of the Computer Science and Engineering will be able to:

PSO1: Categorize the basic engineering knowledge to solve the problems in Computer Science and Engineering according to the environmental needs.

PSO2: Apply the modern tools to design and develop the software system ethically to the industrial needs.



Content

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DEPARTMENT PROFILE

"The Computer Science and Engineering department at KIT- Kalaigna Karunanidhi Institute of Technology Coimbatore was established in 2008. It boasts excellent infrastructural facilities with a highly experienced and dedicated team of faculty members. The students of the department have played a pivotal role in establishing it as one of the best departments in Coimbatore. The department focuses on cutting-edge areas of computer science, including artificial intelligence, data science, software engineering, and network security.

The department offers the following courses:

- **4-year UG course:** B.E. Computer Science and Engineering
- **2-year PG course:** M.E. Computer Science and Engineering

These courses empower graduates to excel in academic research and produce high-quality, technology-driven professionals with strong analytical understanding. The Department is well equipped with state-of-the-art precision instruments to meet the demands of the modern industry."



HOD'S MESSAGE

Dr.S.Raja Mohammed



The Computer Science and Engineering (CSE) Department is dedicated to the pursuit of innovative and high-quality education, setting rigorous standards to attain academic excellence. Our mission is to offer students a robust platform to reach their career aspirations. Comprising a dynamic team of seasoned and enthusiastic faculty members, we are committed to nurturing the potential of young minds, preparing them to excel on the global stage. Join us in our endeavor to elevate the Computer Science Department to new levels of success and achievement. Your participation will contribute significantly to our shared goal of shaping the future of computer science education.

THE COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

Faculty Achievements



FACULTY ACHIEVEMENTS



RESEARCH PUBLICATIONS IN INTERNATIONAL JOURNALS

S.N O	Name of the Authors	Title of the Paper	Name of the Journal	Vol	Issue	Year Month & of Publication
1	Dr.C.Deepa	Influence of fiber surface treatment on the tribological properties of Calotropis gigantea plant fiber reinforced polymer composites	Materails Today: Proceedings	5	12	May 2020
2	Dr.R.AdalineSuji	An Efficient Classification of medical Images using Deep Learning Technique	International Journal of Pharmaceutical Research	12	4	May 2020
3	Dr.S.Raja Mohamed	Optimizing the parameters of 3 link robotic fish using bht simulator	International Journal of Recent Technology and Engineering	8	4	August 2020
4	J Senthil Kumar	Analysis of Deep Learning Techniques for Tuberculosis Disease	SN Computer Science	2		May 2020



FACULTY ACHIEVEMENTS

S.NO	Name of the Authors	Title of the Paper	Name of the Journal	Vol	Issue	Year Month & of Publication
5	Dr. K. Mahalakshmi	Certain Investigation On Attacker Detection Automation To Recognize And Obstruct Rushing Attack Using Random Late Detection And Swift Implicit Response Round Trip Time	Solid State Technology	63	6	May 2020
6	Dr. K. Mahalakshmi	A Timeline Optimization Approach of Green Requirement Engineering Framework for Efficient Categorized Natural Language Documents in Non-Functional Requirements	International Journal of Business Analytics (IJBAN)	8		May 2020
7	Dr. K. Mahalakshmi	Improving Throughput of Underwater Communication by Massive-MIMO	International Journal of Business Analytics (IJBAN)	29	3	August 2020



FACULTY ACHIEVEMENTS

S.N O	Name of the Authors	Title of the Paper	Name of the Journal	Vol	Issue	Year & Month of Publication
8	Dr.S.Santhi, Mr.E.Udayakumar	An Efficient Classification of medical Images using Deep Learning Technique	International Journal of Pharmaceutic al Research	4	1	May 2020
9	Dr S Raja Mohamed	Identification of Water Bodies from High and Multi - level Resolution satellite Images Using Novel feature extracting Technique	Advance in Water Resource and Protection	2	3	May 2020
10	Dr. C. Deepa	Impact of Silane Treatment on Characterization of Ipomoea Staphylina Plant Fiber Reinforced Epoxy Composites	Journal of Natural Fibers	1	12	August 2020

INTERNATIONAL CONFERENCE

S.NO	Name of the Student	Title	Venue	Date
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1 KARTHIK J Emerging Trends in Digital Technologies -2021 VELLORE INSTITUE OF TECHNOLOGY Jan 2021

2 PRAGADEESH V Artificial Intelligence and machine learning CENTRAL UNIVERSITY OF TAMILNADU Sept 2020

3 NIVETHA S Blockchain, cryptocurrency Technologies bitcoin, K.RAMAKRISHNA COLLEGE OF TECHNOLOGY OF Dec 2020

4 ANTONY ALEX R Information Technology and business management VELLORE INSTITUE OF TECHNOLOGY Oct 2020



ASSOCIATION ACTIVITIES

S.NO	ACTIVITY (FDP/SEMINAR/WORKSHOP/ GUEST LECTURES)	RESOURCE PERSON	DATE
1	Future of Industrial IOT	Mr.NageshShetty, APPSYMPHONY, Bangalore	17.06.2020
2	Learning based analysis of Images and videos using Python	Dr.T.Senthil Kumar, Associate Professor/CSE,	16.11.2020 - 21.11.2020
3	A Crash Course on Ethical Hacking	Mr.Anujgaur, Managing director, coptechwire industry, Coimbatore Mr.S.Keerthi Vasan, Associate Manager, VIRTUSA polaris, chennai	04.01.2021 - 12.01.2021
4	Artificial Intelligence with Cyber Security	Mr.Yash Manivannan, Founder and CEO, WATTS	05.01.2021 - 06.01.2021
5	Emerging Trends and Opportunities in IT Industry	Mr.P.Veek, CEO,Thoughtbees, Coimbatore	06.03.2021
6	A Crash Course on Ethical Hacking Alpha Version 1.0	Mr.Arul selva Thomas, Brisk infotech chennai	05.04.2021 - 07.04.2021
7	Artificial Intelligence and Machine Learning in Cyber Security	Ms.Sandhiya, Founder and Director, ABG cyber solutions	08.03.2021 - 11.03.2021
8	Cybercrime Awareness for Students	Mr.P.Arun, Inspector of Police, Singanallur Coimbatore	27.12.2021



THE COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

Career Outcomes Reportment



PLACEMENT DETAILS

S.NO	NAME OF THE STUDENTS	COMPANY NAME
1	BALA NIVETHA A	HEXaware TECHNOLOGIES
2	ABILESH K	ITC INFOTECH
3	ABIRAMI R	STAN VENTURES
4	AKHIL M	MSYS TECHNOLOGIES
5	ANTONY ALEX R	ACCENTURE
6	ARUN E	TRIAD SQUARE INFOSEC
7	ARUN KUMAR	TCS
8	ASWINTH M	KRYON KNOWLEDGE WORKS
9	BALAJI KUMARAN C S	ACCENTURE
10	HARINI PRIYA K	KGISL
11	HARI PRASANTH R	QONO TECHNOLOGIES
12	JOTHIKA K	KGISL
13	KARTHIK J	TCS
14	KESAVAN M	TNQ TECHNOLOGIES
15	MATHAN KUMAR M	OPTIMUM INFO SYSTEMS
16	MUKESH KANNAN M	TRIAD SQUARE INFOSEC



17	NANCY C	AMPHISOFT
18	NANDHINI J	DXC TECHNOLOGY
19	NITHESH KUMAR E	EXPLEO SOLUTIONS
20	NIVETHA S	INFOSYS
21	PRAGADEESH V	TCS
22	PRATHAP K	TRIAD SQUARE INFOSEC
23	PRAVEEN S	FINAN CONSULTING LLP
24	RAGHUL S	I-EXCEED SOLUTION PVT
25	SHRUTHI R	HEXAWARE TECHNOLOGIES
26	SHYAM SUNDARAJ R	ACCENTURE
27	SRIVITHYA E	BRIGOSHA TECHNOLOGIES
28	STEEBAN V	CTS(Cognizant Technology Solutions)
29	VARSHA V	TNQ TECHNOLOGIES
30	VIDHYA S	CTS(Cognizant Technology Solutions)
31	VISHAL M	JUSPAY TECHNOLOGIES,
32	PRASANTH S	YASHASWI ACADEMY FOR SKILLS
33	YUVARAJ PANDIYAN S	APPENING INFO TECH PVT



34	KAVIMARAN S	SIDCORP TECH LLP
35	KEERTHIKA K	OPTIMUM INFO SYSTEMS
36	MANGAYAKARASI K	TCS
37	MANIKANDAN SURYA N	HCL TECHNOLOGIES
38	MANOJ D	FINAN CONSULTING LLP
39	MANOJ KUMAR V	SIDCORP TECH LLP
40	PRASANTH K	OPTIMUM INFO SYSTEMS
41	RANJTH KUMAR A	TRIAD SQUARE INFOSEC
42	SARANYA E	YASHASWI ACADEMY FOR SKILLS
43	SURYA DHARAN D	KAASHIV INFO TECH
44	THIRUNAVUKARASU S	KAASHIV INFO TECH
45	NITHYANANDHAM M	OWLER
46	ABISHEK N	SIDCORP TECH
47	PREM A	BRIGOSHA TECHNOLOGIES
48	SAGAR ANAND NAHIND	JUSPAY TECHNOLOGIES



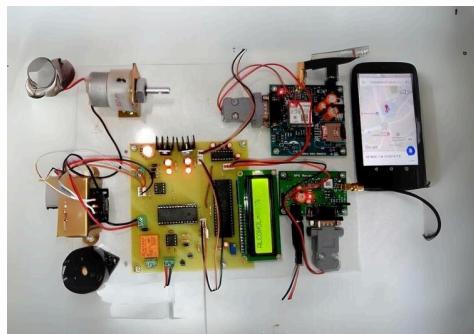
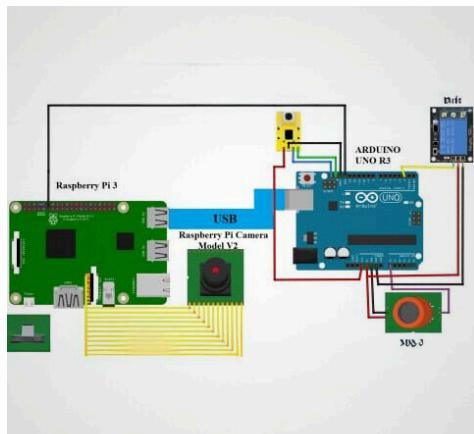
Students Impressive Achievements



VIDHYA INCUBATION CENTRE

Project

In a groundbreaking venture that fuses technology with responsibility, our team emerged victorious with our revolutionary project - the Alcohol Consumption Detector with Engine Locking System. This cutting-edge system stands as a beacon of progress in the realm of road safety, showcasing our commitment to creating a safer and more responsible driving environment.



Our triumph in this project is a testament to the power of innovation when aligned with a noble cause. By addressing the pervasive issue of drunk driving, our team is contributing to a collective effort to make roads safer for all. As we celebrate this achievement, we remain steadfast in our dedication to technological solutions that prioritize the well-being of society.

In the photo: Captured in the winning moment, our team proudly stands alongside the prototype of the Alcohol Consumption Detector with Engine Locking System. The gleaming trophy reflects not only our success in the competition but also the potential impact of our project in shaping a safer future for drivers and pedestrians alike.

This milestone serves as an inspiration for future endeavors, reinforcing our commitment to using innovation as a force for positive change. Together, we drive towards a future where road safety is paramount, and technology is harnessed for the greater good.

Alcohol consumption detector with engine locking system

Our winning project not only clinched the top spot in the project presentation but also paved the way for a transformative approach to combating drunk driving. The Alcohol Consumption Detector with Engine Locking System is a sophisticated integration of advanced sensor technologies and vehicular systems, designed to detect and deter alcohol-impaired driving.

This innovative device employs state-of-the-art sensors capable of accurately measuring alcohol levels in the driver's breath. Upon detection of an elevated alcohol level beyond the permissible limit, the system swiftly engages the engine locking mechanism, preventing the vehicle from starting. This formidable combination of real-time alcohol detection and immediate intervention ensures enhanced safety on our roads, reducing the risk of accidents caused by impaired driving.



Dharaneesh
2nd Year -CSE



Siranjeevi
2nd Year -CSE

AI in Education: Personalized Learning and Intelligent Tutoring Systems

In a solo odyssey of academic exploration, I presented an enlightening discourse on "AI in Education: Personalized Learning and Intelligent Tutoring Systems." This snapshot captures the solitary pursuit of knowledge, symbolizing the uncharted territories of educational innovation navigated by a lone mind.



ASHWIN CS
CSE - 2nd Year



Witness a solitary figure standing at the intersection of tradition and technological advancement—a lone voyager exploring the frontiers of education. The photo, more than a documentation of a presentation, is a visual testament to the audacity of dreaming beyond the conventional boundaries of pedagogy. The essence of the project lies in the gaze of the solo presenter—a visionary on a mission to redefine education. The paper unravels the potential of "Personalized Learning and Intelligent Tutoring Systems," showcasing how a single mind can pioneer a revolution in the way we perceive and impart knowledge.

The image encapsulates the fervor of an academic pioneer, embracing the challenge of not just presenting but advocating for a future where education is a bespoke experience. The prototype, a companion in solitude, stands as a beacon of innovation, embodying the dedication to creating a learning environment tailored to individual aspirations.

In this photo, there is a singular pride—a quiet triumph that echoes the courage to stand alone in the pursuit of a transformative educational vision. The presenter is not just narrating findings; they are authoring a narrative of change, where technology meets education on a canvas painted by a single hand. The snapshot tells a story of commitment to the belief that even a solo endeavor can influence the trajectory of education. The presenter is not just presenting; they are crafting a legacy—a testament to the potency of a singular voice in the vast chorus of educational progress.

In the captivating photo, the solo presenter stands as a resilient symbol of educational revolution. With unwavering determination, they embody the spirit of change, serving as a solitary torchbearer in the quest for a redefined learning landscape. The prototype, a manifestation of their singular vision, transforms beyond a project, becoming a tangible testament to the potency of an

individual mind to pioneer transformative journeys into unexplored realms of educational innovation.

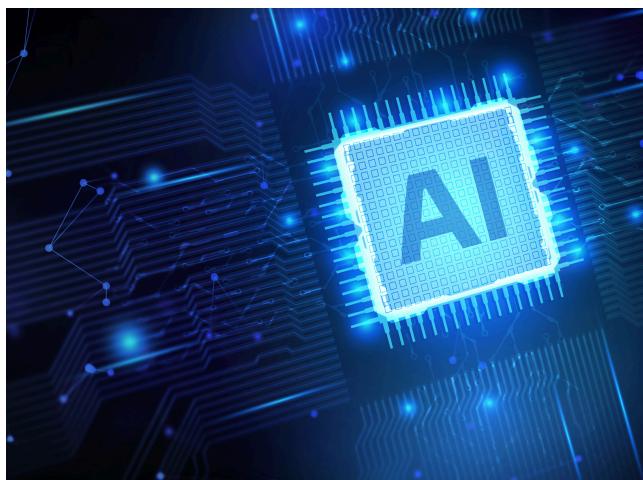
Amidst the shadows of conventional wisdom, this solo venture illuminates the possibilities when passion meets purpose. The photograph captures not just a moment of presentation but a chapter in the chronicles of educational evolution written by a lone mind, determined to reshape the narrative of learning through the lens of artificial intelligence.

“Embracing AI in education transforms the learning journey from one-size-fits-all to tailored experiences, where technology becomes a personalized guide, unlocking the full potential of every student.”

THE RISE OF ARTIFICIAL INTELLIGENCE

"The Rise of Artificial Intelligence" marks an epochal shift in the technological landscape, heralding an era where machines emulate human intelligence. This phrase encapsulates the rapid advancements, profound implications, and transformative potential that artificial intelligence (AI) introduces to our world. As AI permeates diverse sectors from healthcare and finance to education and beyond, it reshapes the way we live, work, and interact. This rise signifies a paradigmatic evolution, blurring the lines between the realms of human ingenuity and machine capabilities.

In this grand ascent, the intricate dance of algorithms, machine learning, and neural networks converges to redefine the boundaries of what is achievable. The rise of AI is not merely a technological trend but a societal transformation, stirring debates on ethics, privacy, and the very nature of work. As we navigate this unfolding narrative, the rise of artificial intelligence stands as a testament to human innovation, pushing the boundaries of what was once thought impossible and opening doors to a future where the synergy between human and machine intelligence reshapes the trajectory of progress.



BLOCKCHAIN E-VAULT *Project* FOR BANKING

In the pulsating heart of collaborative innovation, our formidable team of five—comprising the visionary minds of Ashwin, Jayaharish, Amrish, Muthumanikandan, and Asha—emerged as trailblazers during the highly acclaimed Smart India Hackathon. Their collaborative efforts birthed a paradigm-shifting creation: the Blockchain E-Vault for Banking. Each luminary in this constellation played an indispensable and distinctive role, infusing their expertise and fervor into the very fabric of this transformative initiative.

In the intricate narrative of our project, Ashwin, the Architect of Security, stands as the sentinel entrusted with fortifying our Blockchain E-Vault for Banking. His role transcends titles; he's the custodian of our project's integrity, meticulously crafting cryptographic foundations that form impregnable fortresses against potential threats.

With surgeon-like precision, Ashwin etches code layer by layer, ensuring every strand of sensitive financial data within our e-vault is encapsulated by an impenetrable exoskeleton of encryption.

Jayaharish, recognized as the Maestro of Blockchain Integration, orchestrated the seamless integration of cutting-edge blockchain technology into our e-vault. With an artistic precision, he elegantly interwove each transaction and every block, crafting a distributed ledger that stands as a beacon of transparency in the intricate landscape of the banking system.



In the intricate symphony of our project's development, Amrish emerges as the unparalleled Code Artisan extraordinaire. His mastery over a myriad of programming languages and algorithms is nothing short of virtuosic, bringing the intricate lines of logic to life with a level of proficiency that surpasses conventional standards. His role extends beyond mere functionality; Amrish becomes the architect of innovation within our Blockchain E-Vault for Banking, breathing life into its digital veins.

Amrish's virtuosity is the driving force behind our project's success in surpassing the exacting standards set by the Smart India Hackathon. His code doesn't just execute; it innovates, pushing boundaries and redefining what's possible within the e-vault. In the grand



tapestry of our technological narrative, Amrish's expertise is the vibrant thread that weaves functionality and innovation into a seamless composition, elevating our project to new heights.

In the grand narrative of our project's journey, Asha assumes the pivotal role of our Communication Virtuoso, wielding the power of language to translate the intricate nuances of our Blockchain E-Vault for Banking into a compelling narrative. Her role surpasses the conventional; she becomes the maestro orchestrating the symphony of our project's essence through the art of words.

Asha's eloquence and clarity are not mere facets of communication; they are the guiding lights that permeate through project documentation and the presentation script. Through her skillful articulation, she not only conveys the depth of innovation and unwavering dedication embedded in our project but also paints a vivid picture of the potential societal impact that our Blockchain E-Vault for Banking System holds. It is her ability to infuse our technological endeavors with a human touch that resonates with the esteemed judges at the Smart India Hackathon, transcending the boundaries of technical details to showcase the profound story of innovation and societal transformation that our project unfolds.

In the intricate narrative of our project's evolution, Anjali emerges as the Luminary of Collaboration, infusing unity into the very fabric of our technological tapestry. Her role extends beyond conventional expectations; she becomes the orchestrator of cohesion, seamlessly blending the diverse talents and perspectives within our team.

Anjali's collaborative spirit serves as the unifying force, harmonizing the collective efforts of our team towards a common goal. With a deft touch, she navigates the interplay of ideas, fostering an environment where every member's contribution is not just recognized but seamlessly integrated into the symphony of



Her ability to weave unity extends beyond the team; Anjali becomes the bridge that connects our project with the broader context of the Smart India Hackathon. Her collaborative prowess is a beacon that guides our team through challenges, transforming our collective vision into a reality that transcends individual efforts.

In the grand ensemble of our project, Anjali's luminescence is more than a role; it's the radiant thread that binds our collective aspirations, creating a tapestry that reflects not only our technological prowess but also the strength of collaboration that defines our journey.

Captured in a candid snapshot, our team is immortalized in the throes of collective brilliance—a visual testament to the fusion of focused minds, the symphony of a collaborative spirit, and the shared aspirations that define our journey. The Blockchain E-Vault for Banking System transcends the boundaries of being a mere project; it stands as the tangible result of our collective genius, passion, and unwavering determination—an embodiment of what can be achieved when minds synchronize in the pursuit of innovation on the grand stage of the Smart India Hackathon.

INNOVATE

TECH



“**LOOKING BACK,
MOVING FORWARD**

As we turn the pages of this magazine, we find ourselves immersed in the vibrant tapestry of accomplishments, innovations, and camaraderie that define the Computer Science and Engineering (CSE) Department. Reflecting on our collective journey, we celebrate the achievements of each student, faculty member, and staff who has contributed to the department's growth.

In this space, we acknowledge the resilience that fueled late-night coding sessions, the collaboration that sparked innovative projects, and the passion that drove research endeavors. As we bid farewell to the pages of this magazine, let us carry forward the spirit of curiosity, determination, and community that defines our CSE family.

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DEPARTMENT MAGAZINE

CLISTE' 23

ISSUE 7 | VOL. 8

| SEP 2023



LAKANA magazine

As we close the cover of this magazine, we gaze not only at the pages behind but towards the horizon of possibilities ahead. The Computer Science and Engineering (CSE) Department is not just an academic entity; it's a hub of innovation, a crucible of ideas, and a community that thrives on the pursuit of knowledge.

On this back cover, we invite you to join us in envisioning a tomorrow where algorithms transcend limitations, where codes unlock new dimensions, and where each student becomes a pioneer in the digital frontier. As the pages of this magazine unfold into the future, let our collective aspirations resonate in the corridors of the CSE Department, shaping a legacy that continues to redefine what is conceivable in the realm of technology.

Here's to the dreamers, the creators, and the architects of the digital era. The journey doesn't end here—it evolves, adapts, and propels us into a future where the spirit of the CSE Department continues to illuminate the path to innovation.