INFOSPARK

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Departmental Newsletter

Department of Information Science and Engineering

A.J. Institute of Engineering & Technology

(A Unit of Laxmi Memorial Educational Trust ®)

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

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HOD's Message

Welcome to the Department of Information Science and Engineering (ISE), which offers an NBA-accredited undergraduate B.E. program dedicated to achieving excellence in technical education. Our vision is to become a center of excellence, empowering students to meet the evolving needs of industry and society. Our department is committed to nurturing future innovators and leaders in information science by providing a comprehensive curriculum that seamlessly integrates theoretical knowledge with practical skills.

With a team of experienced faculty, state-of-the-art laboratories, and collaborative industry partnerships, we prepare our students to thrive in the dynamic IT landscape.We have established strong Memorandums of Understanding (MOUs) with leading industries, enabling our students to gain invaluable real-world experience and stay abreast of the latest technological advancements. Furthermore, our robust alumni network offers valuable mentorship and career opportunities, fostering a community of continuous growth and success.

With Regards,
Dr. John Prakash Veigas
Professor & HOD,A.J. Institute of Engineering and Technology

EDITORIAL BOARD

FACULTY EDITORS

Dr. John Prakash Veigas
Assistant Professor & HOD
Dept. of ISE

Mrs. Sharanya P S
Assistant Professor
Dept. of ISE

STUDENT DESIGN TEAM

BREEJESH
Department of ISE

BHAVITH
Department of ISE

PAHIMA R UCHIL
Department of ISE

DEPARTMENT VISION

To be a center of excellence in Information Science & Engineering education, research and training to meet the growing needs of the industry and society.

DEPARTMENT MISSION

M1: To impart theoretical and practical knowledge through the concepts and technologies in Information Science and Engineering.

M2: To foster research, collaboration and higher education with premier institutions and industries.

M3: Promote innovation and entrepreneurship to fulfill the needs of the society and industry.

ABOUT US

The Department of Information Science and Engineering, established in 2016 as a founding branch of AJ Institute of Engineering and Technology in Mangaluru, has rapidly emerged as a leading academic unit. Offering an NBA-accredited Bachelor of Engineering program with an annual intake of 60 students, the department focuses on equipping students with both theoretical and practical skills for success in the rapidly evolving IT industry. With state-of-the-art infrastructure, including advanced computing facilities and specialized laboratories, students gain hands-on experience through innovative projects, research initiatives, and engagement with our vibrant startup ecosystem. Our dedicated faculty, with a strong background in both academia and industry, have published two textbooks, two book chapters, and over 100 research papers. Our curriculum, prescribed by Visvesvaraya Technological University (VTU), stays aligned with industry trends. We emphasize holistic student development through workshops, seminars, industry collaborations, and entrepreneurship opportunities, preparing graduates with the technical, leadership, and problem-solving skills necessary for impactful careers. The department remains committed to advancing the information technology sector locally and globally through education, research, innovation, and a thriving startup culture.

PROGRAM SPECIFIC OUTCOMES (PSOs)

1. Design, implement and maintain the information systems that fulfill the current needs of the industry and society.
2. Apply computational theory, storage and networking concepts to solve the day to day problems of the world

PROGRAM EDUCATION OBJECTIVES (PEOs)

PEO1 Analyse, design and implement solutions to the real-world problems in the field of Information Science and Engineering with multidisciplinary setup

PEO2 Keep abreast with the technology, innovation and pursue higher education with high standards of social and professional ethics

PEO3 Develop professional and entrepreneurship skills to work effectively as an individual and in a team to meet the ever-changing goals of the organization

PROGRAM OUTCOMES (POS)

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
2. Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural science and engineering sciences.
3. 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.
4. Conduct investigations of complex problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations
6. 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
7. Environment sustainability: Understand the impact of the professional engineering solutions in the societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
10. 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
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to ones own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Lifelong learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broader context of technological change.

DEPARTMENT ACTIVITES

Workshop on “Image Classification”

The session on machine learning and image classification, held on 08.06.2024 (9:00 AM - 1:00 PM) by Chaitra, V Dhanya, and Preethi (3rd Year, ISE, AJIET, Mangaluru), provided a comprehensive overview of ML as a leading field for intelligent systems. Attendees explored the fascinating world of image classification, a key aspect of AI transforming industries like healthcare and retail. The session deepened their understanding of how classification works, highlighting its efficiency and versatility across various applications. By delving into ML's algorithm-based approach to data analysis, participants gained insights into its powerful role in modern technology.

Workshop on “Gen-AI and Prompt Engineering”

A machine learning session was held on 30.11.2024 (9:00 AM - 1:00 PM), providing an overview of ML as a key driver for intelligent systems. A Generative AI (Gen-AI) and Prompt Engineering workshop, led by Aravinda Venugopalan, equipped students with skills to use Gen-AI for content creation, automation, and problem-solving. It emphasized Prompt Engineering, teaching students to craft effective prompts for AI tools like ChatGPT. The hands-on session allowed students to practice and observe AI responses, enhancing their understanding of text generation and summarization. The session successfully inspired students to explore Gen-AI tools and AI-driven industries.

Two Day Workshop on “Building Smart Solutions with IOT”

A workshop on "Building Smart Solutions with IoT" organised on 22-11-2024 & 23-11-2024 9.00 am to 5.00 pm by Prof. Ajay Prinston Pinto Asst. Professor, Dept. of AI & DS, SIT, Valachil, Mangalore Prof. Padma Prasad Asst. Professor, Dept. of AI & DS, SDMIT, Ujire typically focuses on introducing participants to the world of the Internet of Things (IoT), teaching them how to design, implement, and deploy IoT solutions for real-world applications. The workshop may involve a blend of theoretical learning and hands-on projects, covering topics such as IoT architecture, sensors, data communication, cloud platforms, and the integration of smart devices.

NITK Solve Virtual Lab Visit and Workshop

A visit to Center for System Design: SOLVE Virtual Labs, NIT Surathkal, Karnataka, and an Introductory Workshop on Virtual Labs and System Design was organized for 1st-semester Information Science & Engineering (E section) students of AJIET. The resource person provided a hands-on demonstration and explained the workshop's benefits.

Virtual Labs, an initiative by MHRD, Government of India (NMEICT), allow students to learn at their own pace and conduct experiments. They also offer a learning management system with various tools to enhance student engagement and understanding.

AYUDHA POOJA CELEBRATION

The Ayudha Pooja celebration took place on October 11, 2024, at 8:00 AM in the Hardware Laboratory, attended by Principal Dr. Shantharam Rai C, Vice Principal Dr. Antony P J, Dean Dr. P Mahabaleshwarappa, ISE HOD Dr. John Prakash Veigas, Coordinator Mrs. Arpitha Kumari G, faculty, and students. The event featured ceremonial rituals, a soulful Bhajana performance by ISE students, and beautiful floral decorations and rangoli. Organized by ISE students, it concluded with prasadam distribution, marking a successful and harmonious celebration.

BRANCH ENTRY AND ASSOCIATION INAUGRATION (NOVUMEST)

A grand celebration for the Branch Entry and Association Inauguration (Novumest) was held on October 3, 2024, at Seminar Hall-3, starting at 1:30 PM. The event was attended by Chief Guest Mr. Abdul Rehaman (Associate VP, Cyber Security, Standard Chartered Bank-GBS India), Principal Dr. Shantharama Rai C, Vice Principal Dr. Antony P J, ISE HOD Dr. John Prakash Veigas, Coordinator Mrs. Arpitha Kumari G, faculty, and students. Organized by ISE students under faculty guidance, the event featured a formal function, engaging games, and a well-executed dance performance.

FACULTY PUBLICATIONS

**Dr.John Prakash Veigas published a paper Emotion Recognition of elderly people using Deep Learning in International Journal of Advanced Research In Computer And Communication Engineering.
ISSN:2394-1588 Volume:11 Issue:04 April,2024**

**Dr. Suresha D published a paper AI Yoga Gesture Detection International Journal for Multidisciplinary Research.
ISSN:2582-2160 Volume:6 Issue:03 May,2024**

**Prof. Rakesh M R published a paper BlissfulCycle: An Innovative Fostering Holistic Menstrual Well-Being in International Journal of Advanced Research In Computer And Communication Engineering.
ISSN:2319-5940 Volume:13 Issue:04 April,2024**

**Mrs. Sharanya P S published a paper Mindcare:A Mental Health Intervention System Using Linguistic Intelligence in International Journal of Advanced Research In Computerand Communication Engineering.
ISSN:2319-5940 Volume:13 Issue:05 May,2024**

**Mrs. Divya published paper Emoassist Counseling Chatbot in International Journal Of Advanced Research In Computer And Communication Engineering
ISSN:2319-5940 Volume:13 Issue:04 April,2024**

**Mrs .Archana Priyadarshini published a paper Tune Detect:Musical Mastermind For Musicians in International Journal Of Advanced Research In Computer And Communication Engineering .
ISSN:2319-5940 Volume:13 Issue:05 May,2024**

Faculty FDP/Workshops/Talk attended

Dr.John Prakash Veigas attended 5 days FDP on Data Science and applications organised by DON BOSCO from 13th to 17th may 2024

Prof. Rakesh M R attended 5 days FDP on cloud infrastructure at Dr.B R ambedkar Institute of technology 21st to 25th august 2023.

Prof. Rakesh M R attended 5 days workshop on Trends in technological intelligence 2023 Northern institute of technology, Lucknow from 21st to 25th august 2023.

Mrs. Sharanya P S completed Introduction to machine learning NPTEL course of 12 Weeks from Jul-Oct 2024

Mrs. Sharanya P S attended FDP of 1 week on Network Science using python from NIITR, Chandigarh from 13th to 17th may 2024

Mrs. Sharanya P S attended 5 days FDP on cloud infrastructure at Dr.B R ambedkar Institute of technology 21st to 25th august 2023

Mrs. Archana Priyadarshini Rao attended 5 days workshop on FULL STACK DEVELOPMENT WITH DJANGO 8th to 12th April, 2024.

STUDENT ACHIEVEMENTS

The **DaanSethu project**, developed by Athin P B, B Nagendra Nayak, Darpan, and Likith M Shet from the Information Science and Engineering Department, AJIET, under the guidance of Prof. Rakesh M R, secured a **Top 7 position** at the State-Level Anveshan Fest 2025, organized by Agastya International Foundation on 31st January – 1st February at SDM Engineering College, Dharwad. Competing against 40 projects from across Karnataka in the final round, the team showcased their innovation and technical expertise.

Name of the Student	USN	Year of studying	Type of the event participated	Name of the Event	Prize Own	Location of the event
Chaitra	4JK21IS008	4	Cultural	Group Singing	Second	VTU, Belagavi
Nishanth Shetty B	4JK22IS039	3	Cultural	Nukkad Natak(A street Play)	Second	VTU Collage, Belagavi
Pahima R Uchil	4JK23IS035	2	Sports	100mtrs	First	AJIET Mangalore
Pahima R Uchil	4JK23IS035	2	Sports	200mtrs race	First	AJIET Mangalore
Pahima R Uchil	4JK23IS035	2	Sports	Long jump	Second	AJIET Mangalore
Gaurav B S	4JK21IS017	4	Cultural	Treasure hunt	First	Shree Devi, kenjar
Thanishka Salian	4JK23IS057	2	Sports	Shortput	First	AJIET Mangalore
Sanjana Shetty	4JK23IS047	2	Cultural	Pookalam	First	AJIET Mangalore
Pratheeksha	4JK23IS040	2	Sports	Relay	Second	AJIET Mangalore
Pahima R Uchil	4JK23IS035	2	Sports	Relay	Second	AJIET Mangalore

Suhani V Amin	4JK23IS053	2	Cultural	Collage competition	First	AJIET Mangalore
Thanvi Shetty	4JK23IS058	2	Sports	400mts race	First	AJIET Mangalore
Prashastha	4JK23IS038	2	Cultural	Pokalam	First	AJIET Mangalore
Pavan Shettigar	4JK21IS034	4	Cultural	Reel Making	First	SDIT, Kenjar
Fathima Shafa	4JK23IS011	2	Cultural	Collage	First	AJIET Mangalore
Jyothi	4JK21IS021	4	Sports	Table Tennis	First	NMAMIT, Nitte

STUDENT SPORTS/CULTURAL/TECNICAL EVENT PARTICIPATION DETAILS

Name of the Student	USN	Year of studying	Type of the event participated	Name of the Event	Prize Own	Location of the event
Thanishka Salian	4JK23IS057	2	Sports	400mtr Running	Participation	AJIET Mangalore
Thanishka Salian	4JK23IS057	2	Sports	Long Jump	Participation	AJIET Mangalore
Thanishka Salian	4JK23IS057	2	Technical	Smart India Hackathon	Participation	AJIET Mangalore
Thanishka Salian	4JK23IS057	2	Cultural	Mehendi Competition	Participation	AJIET Mangalore
Thanishka Salian	4JK23IS057	2	Cultural	Pookalam	Participation	AJIET Mangalore
Srushti S	4JK23IS052	2	Cultural	POOKALAM	Participation	AJIET Mangalore

Chaitra	4JK21IS008	4	Cultural	Group Singing	Participation	St. Aloysius College, Manglore
Ashwin M	4JK21IS003	4	Sports	Volley ball	Participation	AJIET Mangalore
Poorvi J Poojary	4JK23IS036	2	Cultural	Pookalam competition	Participation	AJIET Mangalore
Pratheeksha	4JK23IS040	2	Cultural	Group singing	Participation	St. Aloysius College, Manglore
Vidhathri Bhat A	4JK23IS062	2	Cultural	Aloysian Fest	Participation	St. Aloysius College, Manglore

TOPPERS LIST

Year	First Topper	Second Topper
1	Vinayaka	Prathiksha
2	Sanjana Shetty	Poorvi J Poojary
3	Shallen Crissle Sequeira	Sameeksha
4	Thanvi R Shetty	Bhoomika Surendra Naik

PROJECT FUNDS DETAILS

KSCST FUNDED PROJECT

Sl.No	Project team & team ID	Student name	USN	Guide name	Project title	Sanctioned Amount
1	Team – 14 AJIET/ISE/PROJECT/ 2023-24/Team-14	Ajay Kumar Sonkar	4JK20IS007	Mrs.R.Sahaya Shamini	MACHINE LEARNING FOR EARLY STAGE AUTISM DETECTION	4,000.00
		Shadeed Shukoor	4JK20IS045			
		Krithik Kumar	4JK20IS025			
2	Team – 13 AJIET/ISE/PROJECT/ 2023-24/Team-13	Shreya Y	4JK20IS051	Dr. Suresha D	ENHANCING ROAD SAFETY WITH MACHINE LEARNING-BASED POTHOLE DETECTION	4,000.00
		Shifali Devadiga	4JK20IS047			
		Abhishek	4JK20IS003			

CONFERENCE ATTENDED DETAILS

Project team & team ID	Student name	USN	Guide name	Project title	Conference and College Name	Date
Team – 2 AJIET/ISE/PROJECT /2023-24/Team-02	Aksha	4JK20IS056	Mr.John Prakash Veigas	Emotion Recognition of elderly people using Deep Learning	DIGITAREV-International Conference by P.A. College of Engineering	23/04/2025
	Ananya S Adappa	4JK20IS008				
	Adithya Shetty	4JK20IS006				
	A Navya	4JK20IS001				

PROJECT FUNDS DETAILS

Team – 12 AJIET/ISE/PROJECT /2023-24/Team-12	Prithviraj	4JK20IS038	Mrs. Sharanya P S	Mindcare:A Mental Health Intervention System Using Linguistic Intelligence	JNANASANGAMA-National level Conference by Vivekananda College of Engineering and Technology	03/05/2024
	Roopesh	4JK20IS040				
	Vaishnavi Kotian	4JK20IS041				
	Shreesha Rao S	4JK20IS050				
Team – 6 AJIET/ISE/PROJECT /2023-24/Team-06	Sanjana V S	4JK20IS044	Mrs. Sharanya P S	I-Narrate:Image to Brallie Conversion using Deep Learning	JNANASANGAMA-National level Conference by Vivekananda College of Engineering and Technology	03/05/2024
	Swasthik	4JK20IS052				
	Vignesh Nayak	4JK20IS054				
	Yashas M Bhandary	4JK20IS055				

PLACEMENTS

SI No	USN	Student Name	Company Name	Designation	Package
1	4JK21IS031	Nidhi J M	MuSigma	Trainee Decision Scientist	5LPA
2	4JK21IS051	Shravya M R	Teachnook	Business Developement Associate	6LPA
3	4JK21IS058	Swathi Bhat S	Teachnook	Business Developement Associate	6LPA
4	4JK21IS006	Bhoomika Surendra Naik	Teachnook	Business Developement Associate	6LPA
5	4JK21IS045	Risha Jesika Gonsalves	Teachnook	Business Developement Associate	6LPA
6	4JK21IS007	Bhuvan S Shettigar	Teachnook	Business Developement Associate	6LPA
7	4JK21IS040	Pratiksha Niranjana karkera	Teachnook	Business Developement Associate	6LPA
8	4JK21IS054	Sneha Ghode	Teachnook	Business Developement Associate	6LPA
9	4JK21IS004	Athin P B	Qspiders	Software Test Engineer	4.8LPA
10	4JK21IS026	Likith M Shet	Qspiders	Software Test Engineer	4.8LPA
11	4JK21IS034	Pavan Shettigar	Qspiders	Software Test Engineer	4.8LPA
12	4JK21IS042	Rahil Yusuf Abubakkar	Qspiders	Software Test Engineer	4.8LPA
13	4JK21IS051	Shravya M R	Qspiders	Software Test Engineer	4.8LPA
14	4JK21IS054	Sneha Ghode	Qspiders	Software Test Engineer	4.8LPA
15	4JK21IS061	V Dhanya	Qspiders	Software Test Engineer	4.8LPA
16	4JK21IS065	Sunil Kumar	Qspiders	Software Test Engineer	4.8LPA

PLACEMENTS

SI No	USN	Student Name	Company Name	Designation	Package
17	4JK21IS009	Darpan	Pentagon Space	-	-
18	4JK21IS040	Prathiksha Niranjan Karkera	Pentagon Space	-	-
19	4JK21IS065	Sunil Kumar	Pentagon Space	-	-
20	4JK21IS017	Gaurav B S	Juego Studios	Trainee Software Engineer level 2	4.5LPA
21	4JK21IS030	Naveena	Juego Studios	Trainee Software Engineer level 3	4.5LPA
22	4JK21IS017	Gaurav B S	Sasken	Associate Software Engineer	5LPA
23	4JK21IS030	Naveena	Sasken	Associate Software Engineer	5LPA
24	4JK21IS034	Pavan Shettigar	Mangalore Infotech	Quality Assurance Engineer	5LPA
25	4JK21IS037	Prajna Shivani	Mangalore Infotech	Quality Assurance Engineer	5LPA
26	4JK21IS051	Shravya M R	Mangalore Infotech	Quality Assurance Engineer	5LPA
27	4JK21IS012	Devesh	Palle Technologies	Software Developer Trainee	4LPA
28	4JK21IS013	Dhanush	Palle Technologies	Software Developer Trainee	4LPA
29	4JK21IS017	Gaurav B S	Palle Technologies	Software Developer Trainee	4LPA
30	4JK21IS034	Pavan Shettigar	Palle Technologies	Software Developer Trainee	4LPA
31	4JK21IS037	Prajna Shivani	Palle Technologies	Software Developer Trainee	4LPA
32	4JK21IS045	Risha Jesika Gonsalves	Palle Technologies	Software Developer Trainee	4LPA
33	4JK21IS051	Shravya M R	Palle Technologies	Software Developer Trainee	4LPA

PLACEMENTS

SI No	USN	Student Name	Company Name	Designation	Package
34	4JK21IS052	Shreenikethan R Bhat	Palle Technologies	Software Developer Trainee	4LPA
35	4JK21IS063	Vikram Balachandra Naik	Palle Technologies	Software Developer Trainee	4LPA
36	4JK21IS008	Chaitra	Palle Technologies	Software Developer Trainee	4LPA
37	4JK21IS009	Darpan	Palle Technologies	Software Developer Trainee	4LPA
38	4JK21IS018	Gautham Shetty	Palle Technologies	Software Developer Trainee	4LPA
39	4JK21IS021	Jyothi	Palle Technologies	Software Developer Trainee	4LPA
40	4JK21IS031	Nidhi J M	Palle Technologies	Software Developer Trainee	4LPA
41	4JK21IS044	Ramitha Shetty	Palle Technologies	Software Developer Trainee	4LPA
42	4JK21IS055	Sudheeksha K Shetty	Palle Technologies	Software Developer Trainee	4LPA
43	4JK21IS063	Vikram Balachandra Naik	Mangalore Infotech	Software Engineer Intern	5LPA
44	4JK21IS019	Himmath Kumar	Infomatics Corp India	Software Developer Intern	3.5LPA
45	4JK21IS031	Nidhi J M	Infosys	System Engineer	3.6LPA

STUDENTS ARTICLES

THE IMPACT OF CLIMATE CHANGE ON PUBLIC HEALTH

A Global Crisis Unfolding Climate change isn't just an environmental issue-it's a public health emergency. As temperatures rise and extreme weather events become more frequent, the consequences for human well-being are severe. From the spread of infectious diseases to the mental toll of natural disasters, climate change is transforming the world in ways that threaten public health on a massive scale.

A Growing Health Crisis Extreme weather events like heatwaves, floods, and wildfires are on the rise, and they don't just cause immediate harm-they strain healthcare systems, overwhelm hospitals, and lead to long-term health problems. Vulnerable groups, such as the elderly, children, and those with pre-existing conditions, are hit the hardest. Heat-related illnesses, such as dehydration and heatstroke, are becoming more common, while extreme weather events also spread waterborne diseases like cholera and typhoid, particularly in regions with weak health infrastructure.

The Spread of Infectious Diseases Climate change is creating ideal conditions for disease-carrying vectors, like mosquitoes and ticks, to expand their reach. Diseases like malaria, dengue fever, and Lyme disease, once confined to tropical areas, are now making their way into regions previously unaffected. As the environment shifts, so do the patterns of wildlife migration, bringing with them new and unpredictable risks.

Mental Health: The mental toll of climate change is just as alarming as its physical effects. For those directly affected by natural disasters, the psychological impact can be devastating, leading to anxiety,depression, and PTSD. For many, the constant threat of environmental disasters creates a pervasive sense of fear and uncertainty. This eco-anxiety is especially felt by younger generations, who face an uncertain future in a warming world.

Health Inequality: The Most Vulnerable Suffer Climate change disproportionately affects marginalized communities. Those living in areas exposed to pollution, flood zones, or without access to quality healthcare face the greatest risks. Indigenous communities and low-income urban populations are particularly vulnerable, often bearing the brunt of climate-related health issues without the resources to cope.

Solutions: Acting Now While the challenges are immense, there is still hope. Immediate action is crucial. Reducing greenhouse gas emissions, transitioning to renewable energy, and adopting sustainable practices can slow the impact of climate change. Public health systems must also be strengthened to respond to these challenges, and more equitable urban planning can protect vulnerable populations.

A Call to Action Climate change is already affecting our health, and the longer we wait, the more devastating the consequences will be. The time to act is now. By recognizing the connection between a healthy planet and healthy people, we can mitigate the damage and build a more resilient, sustainable future for all.

The clock is ticking-but together, we can turn the tide and safeguard our health and our future.

Nidhi J M
4th Year ISE

Explainable AI (XAI) in Forensics

"AI doesn't just find the truth—it explains it. Forensics powered by intelligence, guided by transparency."

"Explainable AI (XAI) in Forensics is transforming crime investigations by making AI-driven decisions transparent and understandable. Traditional AI models identify suspects based on patterns in forensic data, but XAI helps explain why and how a suspect is identified. By using techniques like LIME and Grad-CAM, investigators can see which features (such as facial characteristics, fingerprints, or crime scene details) influenced the AI's decision. This enhances trust and accountability in forensic applications."

XAI improves forensic decision-making by reducing bias and increasing accountability. By visualizing how AI reaches conclusions, investigators can validate AI-driven results instead of blindly trusting them. This makes AI a powerful tool in solving crimes while maintaining ethical and legal standards

Explainable AI (XAI) is transforming forensic science by making AI-driven crime investigations transparent and interpretable. Unlike traditional AI models that function as "black boxes," XAI provides insights into how and why decisions are made.
Forensic experts can now use AI to analyze crime scene evidence, match fingerprints, and identify suspects using facial recognition. With XAI techniques like LIME (Local Interpretable Model-Agnostic Explanations) and Grad-CAM (Gradient-weighted Class Activation Mapping), investigators can understand which features influenced AI's decision-making.

This breakthrough enhances trust, accountability, and accuracy in forensic investigations, reducing biases and improving legal reliability. The integration of XAI in forensic science is a major step toward a future where AI-driven crime-solving is not just powerful but also explainable and fair.

"Technology reveals the truth, AI explains it."

Ethical AI in Forensic Science

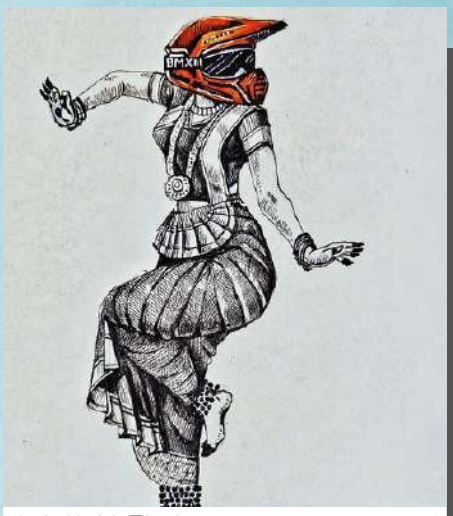
As forensic science embraces artificial intelligence, the role of ethics and transparency becomes increasingly important. While AI models enhance criminal investigations, their decisions must be explainable and unbiased to ensure fair trials and justice.

- Building Trust in AI – Forensic AI systems must be transparent, ensuring that legal professionals and investigators can interpret and verify AI-driven evidence.
- Human-AI Collaboration – Rather than replacing forensic experts, AI assists them in analyzing complex crime scene data, allowing for faster and more accurate case resolutions.
- Future of AI in Law Enforcement – As technology evolves, forensic AI will continue to improve with enhanced accuracy, better interpretability, and reduced biases, making justice systems more reliable and efficient.

Name: Chaitra
USN: 4JK21IS008
Dept of ISE, AJIET, Mangalore

The Art of Living

Charandeep K S
4JK23ISQQ5 | 2ND YEAR



Likith M Shet
4JK21ISQ26 | 4TH YEAR

Charandeep K S
4JK23ISQQ5 | 2ND YEAR

Charandeep K S
4JK23ISQQ5 | 2ND YEAR

Charan
4JK23ISQQ4 | 2ND YEAR

Charan
4JK23ISQQ4 | 2ND YEAR

Likith M Shet
4JK21ISQ26 | 4TH YEAR

Charandeep K S
4JK23ISQQ5 | 2ND YEAR

Ankitha R Devadiga
4JK22ISQQ6 | 3RD YEAR

Charandeep K S
4JK23ISQQ5 | 2ND YEAR

Vaishali U
4JK22ISQ6Q | 3RD YEAR

Charan
4JK23ISQQ4 | 2ND YEAR

Charan
4JK23ISQQ4 | 2ND YEAR

Vaishali U
4JK22ISQ6Q | 3RD YEAR

Ankitha R Devadiga
4JK22ISQQ6 | 3RD YEAR

Vaishali U
4JK22ISQ6Q | 3RD YEAR

Likith M Shet
4JK21ISQ2G | 4TH YEAR

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Major goal of the department

- To produce highly knowledgeable, competent and resourceful young engineers who can excel in their respective profession.
- To be a center of excellence in Information Science & Engineering education, research and training to meet the growing needs of the industry and society.
- To impart theoretical and practical knowledge through the concepts and technologies in Information Science and Engineering.
- To foster research, collaboration and higher education with premier institutions and industries.
- Promote innovation and entrepreneurship to fulfill the needs of the society and industry.

Features of the Department

- Smart Classrooms
- Well-equipped Laboratory with great software support
- Soft skill training programs
- Real time projects and exposure to industry
- Excellent teaching staffs with adopting innovativeness to excel in the academics
- Skilled supporting staff with good experience
- Effective syllabus coverage
- Faculty prepared study material
- Consistently achieving excellent results in all the semesters

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

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