

INFORMATION SCIENCE AND ENGINEERING

PRESENTS

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**Alva's Institute of
Engineering and
Technology**

**Shobhavana Campus, Mijar,
Moodbidri, D.K – 574225**

2023-24



MESSAGE FROM HOD

The Department, established in 2008, began with an intake of 60 students for its undergraduate program. Over the years, the course has gained significant popularity among students due to its academic rigor and the achievements of its graduates. The department prides itself on its well-qualified, experienced, and committed faculty who are dedicated to providing high-quality, industry-relevant education to students.

Faculty members are actively engaged in professional development, regularly attending workshops, faculty development programs, and seminars to stay updated with the latest technologies. In addition, they contribute extensively to the academic community by publishing research papers in renowned journals and conferences. The department is equipped with state-of-the-art laboratories that house advanced equipment, including computer systems with the latest configurations. These systems are fully networked and support a wide range of applications and development areas, ensuring students have access to the most current tools and technologies. The department is affiliated with Visvesvaraya Technological University (VTU), Belagavi, ensuring its curriculum aligns with the latest academic and industry standards.

DEPARTMENT VISION

To impart quality learning and nurture students to become successful technocrats by achieving excellence in information science and engineering field for addressing the evolving needs of the industry as well as the society

DEPARTMENT MISSION

M1: To provide quality technical education and research training for preparing competent professionals in the Information technology field.

M2: To provide a suitable infrastructure and environment that inculcates the best engineering practices for the Socio-economic development of society.

M3: To foster the students to become successful technocrats to meet the global competency in the field of IT industry.

M4: To develop entrepreneurship skills with active research and innovation by inculcating ethical values among students.

DEPARTMENT HIGHLIGHTS

**Competitions Workshops
Field Visits Company
Placed Students**

TECH- ILLUMINATO

2023-2024

PROGRAMME EDUCATIONAL OBJECTIVES (PEO's)

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PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1 : Apply the knowledge of computer networking, database and computations to provide solutions to real-world engineering problems.

PSO2 : Design, develop, test and maintain the software systems that satisfy the needs of the IT industry.

PSO3 : Develop programs and projects using different modern software tools for industrial & scientific applications.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1 : Apply the principles of Information Science & engineering and fundamentals of mathematics to provide solutions to societal needs.

PEO2 : Pursue higher education and engage in research to meet the challenges of cutting edge technologies.

PEO3 : Design and develop reliable software systems to satisfy industrial needs through multidisciplinary projects.

PEO4 : Able to work in various IT related fields and contribute to society.

Students' Editorial Board

Student

Ms.Ankitha B

3rd year student

Student

Ms.Chindan B V

3rd year student

Student

Mr.Manish K

3rd year student

LALA RAMJI
FATHER OF RAI K
(FOUNDER OF RAMJA
STATUE UNVEIL
DR.(MRS) KAVITA SHA
INDIA INTERNATIO
MR.ANIL KUMAR AGARV
GOVERNING
DR. RAJENDRA PRAS

PRINCIPAL'S MESSAGE



It is with immense pride and privilege that I welcome you all to this new academic year at our esteemed institution. As we continue to journey forward, we stand at the vibrant intersection of tradition and progress. Our college, built upon years of academic excellence and a commitment to holistic development, is now embracing a future brimming with endless possibilities. With the support of our dedicated faculty, staff, and students, we are continually enhancing our infrastructure, curriculum, and overall educational experience. Our vision is to foster an environment where learning is not only about imparting knowledge but also about nurturing curiosity, creativity, and critical thinking. The institution has always strived to deliver an education that bridges theoretical learning with practical applications. We remain steadfast in our goal to equip

our students with the skills and knowledge required to navigate and thrive in the ever-evolving global landscape. The achievements of our students, both academically and in extracurricular pursuits, stand as a testament to the nurturing environment we provide. It is indeed an honor to be part of this institution's ongoing journey of growth and transformation. As we continue to push boundaries and break new ground, I am confident that our students will rise to meet the challenges of tomorrow and make meaningful contributions to society and the world at large. This magazine is a reflection of the enthusiasm, dedication, and brilliance that define our college. Let us continue to innovate, explore new horizons, and strive for excellence in all that we do. I extend my best wishes to everyone for a successful and fulfilling year ahead!

-Dr.PETER FERNANDES

HOD'S MESSAGE



At the outset, I am truly privileged to be associated with the Department of Information Science and Engineering (ISE) at Alva's Institute of Engineering and Technology (AIET). Our department stands at the exciting crossroads of tradition and innovation, with a solid foundation built over the years. As we move forward, we are poised for significant growth and advancement. I, along with my dedicated team, am committed to enhancing the infrastructure, curriculum, and student experiences to ensure we meet and exceed current technological and educational standards. The ISE department has always strived for excellence, blending academic rigor with real- world application, and we continue to nurture young talent to tackle the challenges of tomorrow's technological landscape. It is an honor to be part of this journey, and I am confident that our students will continue to push boundaries, innovate, and contribute meaningfully to the world of technology. This magazine serves as a testament to the talent, energy, and dedication that defines our department. Let's continue to explore new horizons and bring innovation to life. Best wishes to all in the upcoming year!

-Dr.SUDHEER SHETTY.HOD

Innovative Project Competition

September 01, 2023



The Department of Information Science and Engineering in association with technical club of Coders of Alva's and Institution's Innovation Council organized Innovative Project Competition 2023, on September 01, 2023, at Alva's Institute of Engineering and Technology. The event drew participants from various technical backgrounds, showcasing their innovative projects, and promoting technological creativity.

The heart of the event was the project exhibition. Participants set up their projects in designated areas, creating an atmosphere buzzing with excitement and curiosity. Visitors, including students, faculty, and industry experts, had the opportunity to explore a wide range of innovative projects. The participants enthusiastically explained their projects to the judges and visitors, highlighting the technologies and methodologies used, as well as the impact and potential future applications of their creations.

A panel of experienced judges, comprising faculty members and industry professionals, evaluated the projects based on criteria such as product/service idea, special benefits unique features and presentation/demo. This phase was crucial in determining the winners of the competition.



The day concluded with an award ceremony. Dr. Peter Fernandes, Principal, Alva's Institute of Engineering and Technology was President of the program who honored the winners with Prize Money and Certificates in presence of Chief Guest Mr. Prajnesh Shetty, Software Engineer, CodeCraft Technologies Pvt. Ltd and Miss. Esther Raina Monterio, Software Engineer, CodeCraft Technologies Pvt. and Dr. Sudheer Shetty, Head of the Department, Department of Information science and Engineering. The categories for awards included Best Overall Project, Best Innovation, and Best Presentation. The closing ceremony also featured a vote of thanks and an expression of gratitude to all the participants, guests, and attendees who made the event a success.

The Innovative Project Competition 2023 was a resounding success, fostering innovation and providing a platform for students to showcase their technical prowess. It not only promoted creativity but also encouraged collaboration and networking among the participants. This event undoubtedly left a lasting impression on the Alva's Institute of Engineering and Technology community, inspiring the next generation of tech enthusiasts to push the boundaries of innovation.

Innovation and Design Thinking

November 07, 2023



The Department of Information Science and Engineering in association with Institution's Innovation Council organized One-day Workshop on Innovation and Design Thinking, on November 07, 2023, at Alva's Institute of Engineering and Technology.

The workshop was a dynamic and insightful event aimed at immersing participants in the principles and practices of design thinking. The workshop featured a well-structured agenda that included introductory sessions on design thinking principles, hands-on activities, real-world case studies, and collaborative exercises. Each session was designed to progressively immerse participants in the iterative and user-centric design thinking process.



Key Highlights:

1. DesignThinkingConcepts:

– Participants gained a clear understanding of the fundamental principles and concepts of design thinking, emphasizing empathy, ideation, prototyping, and iteration.

2. Hands-on Learning:

– Practical exercises allowed participants to apply design thinking principles in real-time, fostering a deeper understanding of the methodology.

3. Real-world Case Studies:

– Engaging case studies showcased successful applications of design thinking across various industries, inspiring participants with tangible examples.

4. Collaborative Atmosphere:

– The workshop fostered a collaborative atmosphere, encouraging participants to work in teams on real-world challenges, thereby promoting cross-disciplinary collaboration.

5. Tools and Techniques:

– Participants were created awareness on practical tools and techniques used in the design thinking process, empowering them to integrate these approaches into their professional endeavors.

Conclusion

Feedback from participants was overwhelmingly positive, with many expressing appreciations for the learning experiences. Reflections indicated a newfound enthusiasm for applying design thinking principles in their interested fields. The workshop successfully achieved its objectives by providing a comprehensive and engaging learning experience. 56 Students of III-year B.E. were participated and benefited from the program.

Social Innovation through Field Visits

October 31, 2023

The Department of Information Science and Engineering has organized the event Social Innovation through Field Visits for the third-year B.E. students on 31st October 2023, in association with the Institution Innovation Council (IIC), an Initiative of MHRD.

The exploration of social innovation through field visits proved to be an enlightening and transformative experience. The objective was to delve into the heart of communities where innovation is not just a concept but a way of life. This event sought to uncover grassroots initiatives, understand their impact, and draw inspiration for future endeavors.

A total of 41 students had participated in the event which was divided into 8 teams. To emphasize the importance of collaboration between community members, organizations, and local authorities, the teams have visited to the following venues.

The event on social innovation through field visits provided a firsthand glimpse into the transformative power of grassroots initiatives. It served as a reminder that innovation is not confined to high-tech hubs but emerges organically from the hearts and minds of those directly impacted. As we reflect on these experiences, the call to action is clear: to champion collaboration, tailor solutions, and empower communities in our pursuit of meaningful social change.

Purpose/Study of Filed Visit:	Rain water harvesting
Venue of Field visit:	Mother of sorrow church, Udupi
Team Members:	AKASH DEVADIGA(4AL2IIS004) CHETAN BYAHATTI(4AL22IS402) KELVIN DMELLO(4AL2IIS021), SOORAJ(4AL2IIS054) SHARAVI R RAI(4AL2IIS048) SANNIDHI K S(4AL2IIS043)



Purpose/Study of Filed Visit:	Arecanut peeling machine
Venue of Field visit:	Siddakatte
Team Members:	ANANYA(4AL2IIS007), JAHNAVI(4AL2IIS019), PRAJNA(4AL2IIS036), SANJAY G K(4AL2IIS042), SHREYA RAI(4AL2IIS052), VITHIKA SHETTY(4AL2IIS063), CHARAN S V(4AL22IS401)



Purpose/Study of Filed Visit:	Smart street light
Venue of Field visit:	Orb energy, Opp Bejai church hall, Mangalore
Team Members:	ANKITHA B(4AL2IIS009), BHAGYASHREE R PUJARI(4AL2IIS010), BHUMIKA SUNIL KULKARNI(4AL2IIS012), BHARATH J(4AL2IIS011), Koushik ACHAR(4AL2IIS022), NISHANT KUMAR(4AL2IIS034)



Purpose/Study of Filed Visit:	Wet and Dry waste Segregation
Venue of Field visit:	Mother nature waste management and recycling industry, Baikampady
Team Members:	AFIZA A(4AL2IIS002), PRAGATHI G GOWDA(4AL2IIS035), SAPTHAMI(4AL2IIS044), SRIKANTH RAJU SRINIVAS(4AL2IIS056), SRUSTI P S(4AL2IIS058)



Purpose/Study of Field Visit:	Wet and Dry waste Segregation
Venue of Field visit:	Mother nature waste management and recycling industry, Baikampady
Team Members:	SARTHAK K JAIN(4AL21IS045), ANKITH(4AL22IS400), LOHITH H(4AL22IS403), NAMRATHA J SHETTY(4AL22IS404), RAHUL P SHETTY(4AL22IS405)



Purpose/Study of Filed Visit:	Rain water harvesting
Venue of Field visit:	Mother of sorrow church, Udupi
Team Members:	ADITHYA TEJASWI D(4AL21IS001), MANIKANTA(4AL21IS025), PREETHAM BYADAGI(4AL21IS039), SHASHIDHAR MAHADEV PATGAR(4AL21IS049)



Purpose/Study of Filed Visit:	Rain water harvesting
Venue of Field visit:	Mother of sorrow church, Udupi
Team Members:	AMAR B M(4AL2IIS005), CHINDAN B V(4AL2IIS015), GOWRISH N(4AL2IIS017), KARTHIK MADAKARI T P(4AL2IIS020), MANOJ M U(4AL2IIS029), SATEESH DYAVAPA SATYANNAVAR(4AL2IIS046)



Innovative Idea Competition

8th November 2023

The Department of Information Science and Engineering has organized Innovative Idea Competition for the third year B. E. students on 8th November 2023, in association with the Institution Innovation Council and COMED KARES Innovation Hub, Mangalore. A total of 42 students had participated in the competition which was divided into 8 batches. Following are the details of students along with the idea presented.

1. Title of Idea Presentation: Rain water harvesting

Team Members: AKASHDEVADIGA(4AL21IS004), CHETAN BYAHATTI(4AL22IS402), KELVINDMELLO(4AL21IS021), SOORAJ(4AL21IS054), SHARAVI R RAI(4AL21IS048), SANNIDHI K S(4AL21IS043).



2.Title of Idea Presentation: Arecanut peeling machine

Team Members : ANANYA(4AL21IS007), JAHNAVI(4AL21IS019), PRAJNA(4AL21IS036), SANJAY G K(4AL21IS042), SHREYA RAI(4AL21IS052), VITHIKA SHETTY(4AL21IS063), CHARAN S V(4AL22IS401)



3.Title of Idea Presentation: Smart street light

Team Members:ANKITHAB(4AL21IS009),BHAGYASHREE R PUJARI(4AL21IS010), BHUMIKA SUNIL KULKARNI(4AL21IS012), BHARATH J(4AL21IS011), Koushik ACHAR(4AL21IS022), NISHANT KUMAR(4AL21IS034)



4.Title of Idea Presentation: Wet and Dry waste Segregation

Team Members :AFIZA A(4AL21IS002),PRAGATHI G GOWDA(4AL21IS035),
SAPTHAMI(4AL21IS044),SRIKANTH RAJU SRINIVAS(4AL21IS056), SRUSTI P S(4AL21IS058)



5.Title of Idea Presentation: Wet and Dry waste Segregation

TeamMembers : SARTHAK K JAIN(4AL21IS045),ANKITH(4AL22IS400),LOHITH
H(4AL22IS403), NAMRATHA J SHETTY(4AL22IS404), RAHUL P SHETTY(4AL22IS405)



5.Title of Idea Presentation: Rain water harvesting

TeamMembers:ADITHYATEJASWI D(4AL21IS001),MANIKANTA(4AL21IS025), PREETHAM BYADAGI(4AL21IS039), SHASHIDHAR MAHADEV PATGAR(4AL21IS049))



6.Title of Idea Presentation: Wet and Dry waste Segregation

TeamMembers:AMARBM(4AL21IS005),CHINDANB V(4AL21IS015), GOWRISH N(4AL21IS017), KARTHIK MADAKARI T P(4AL21IS020), MANOJ M U(4AL21IS029), SATEESH DYAVAPA SATYANNAVAR(4AL21IS046)



7. Title of Idea Presentation: Smart wheel chair

Team Members : HARSHITHA B(4AL2IIS018), KRUPASHREE R(4AL2IIS023),
R(4AL2IIS024), MANISH K(4AL2IIS026), PRASHANTH KUMAR B C(4AL2IIS038)

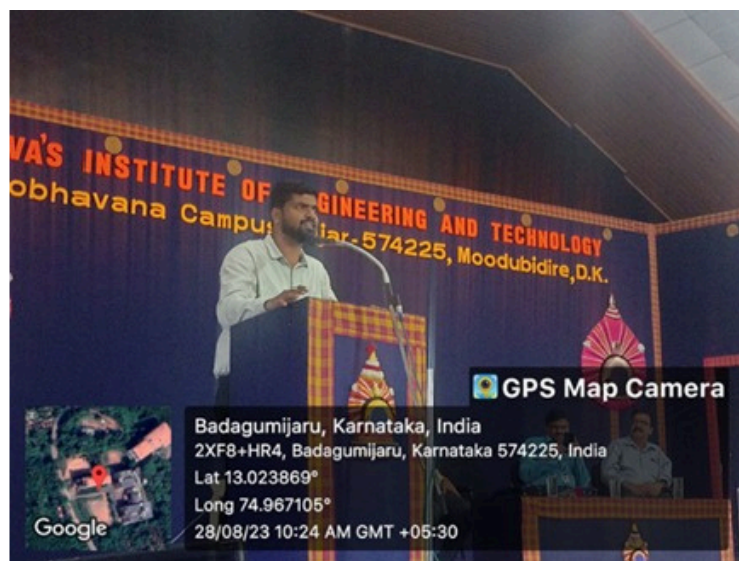
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The Innovative Idea Competition surpassed expectations in promoting a culture of innovation among students. It not only celebrated creativity but also provided a fertile ground for the exchange of ideas and the cultivation of an entrepreneurial mindset.

A One Day Orientation Workshop on “Innovation and Design Thinking”

August 28, 2023



The Entrepreneurship Development Cell (EDC) at Alva's Institute of Engineering & Technology, in collaboration with the Institution's Innovation Council (IIC) organized a one-day workshop on "Innovation and Design Thinking" on August 28, 2023. The workshop aimed to expose students to the design thinking process, provide practical experience, and help generate solutions for a specific design challenge using paper prototyping. Mr. Johnson Tellis, CEO of InUnity LLP, Mangaluru, and a prominent figure in promoting youth entrepreneurship, served as the resource person.

Mr. Tellis, a leader and co-founder of InUnity LLP, shared his experiences and insights on fostering an entrepreneurial mind set. He emphasized the importance of empathy, creativity, punctuality, and confidence in entrepreneurship. The workshop, starting with a welcome address by Dr. Sudheer Shetty, included a Design Thinking introduction, a Buildathon Team Demo, and a practical session where students worked in groups on a "Consumer Requirement of Super Market" design task.



The design thinking process involved five stages: Empathize, Define, Ideate, Prototype and Test. Students applied these stages to address the consumer needs, define problems, generate ideas, create prototypes, and test solutions. The iterative, non-linear nature of design thinking was highlighted, promoting creativity and unique problem-solving.

The outcomes of the workshop included enhanced interdisciplinary collaboration, a focus on overcoming preconceptions, and fostering a creative and cooperative environment. Students learned that design thinking is not a linear process but a series of modes contributing to the overall project. The concepts of design thinking improved students' ability to approach challenges from a designer's perspective, fostering creative solutions.

The workshop concluded with a vote of thanks from Dr. Sudheer Shetty, who expressed gratitude to the Chief Guest and resource persons. Overall, the event provided a valuable platform for students to develop their innovation and design thinking skills, empowering them to contribute meaningfully to entrepreneurial endeavours.

Student Induction Programme Guest Talk on “My Entrepreneurship Journey”

September 13, 2023



On September 13, 2023, the Entrepreneurship Development Cell (EDC) at Alva's Institute of Engineering & Technology organized a Student Induction Programme Guest Talk on "My Entrepreneurship Journey." The guest speaker was Shashidhar B Shetty, Director, Founder, and CEO of Shashi Catering Services (SCS), Baroda. The primary objective of the entrepreneurship program is to train students, faculty, and business leaders to create scalable businesses that bring positive, disruptive change to society.

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During the session, Sri Shashidhar B Shetty motivated students by sharing his entrepreneurial journey and personal struggles. He emphasized the importance of skills required for business, advised on dealing with life's challenges, and encouraged cultivating a positive mind set. Topics such as innovation, punctuality, smart work, and confidence were discussed. Sri Shetty announced a generous donation of Rs. 1 crore for future Alva's entrepreneurs.

Mr. Vivek Alva spoke on Shashidhar B Shetty's business success, emphasizing the significance of culture and discipline for students' future success. The event included an appreciation and felicitation for Shashidhar B. Shetty's social service. The program concluded with a vote of thanks from student Shwetha Sharma.

Key outcomes emphasized during the session included the importance of following one's passion, continuous learning, expecting failure as an opportunity for growth, self-belief, building a great team, and taking action despite challenges. The session provided valuable insights into entrepreneurship, inspiring students to pursue their passion, embrace continuous learning, and navigate challenges with resilience. The lessons shared by Sri Shashidhar B Shetty and the outlined outcomes serve as a guide for aspiring entrepreneurs in building successful ventures

Student Induction Programme Panel

Discussion on “Emerging

Entrepreneurs: Youth Leading the Way”

September 13, 2023



The Student Induction Program at Alva's Institute of Engineering & Technology included a panel discussion on "Emerging Entrepreneurs: Youth Leading the Way" on September 13, 2023, organized by the Entrepreneurship Development Cell (EDC). The panelists, including successful entrepreneurs like Mr. Ronald Silvan D'Souza, Ashwath Hegde, and Ms. Shilpa Ghorpade, shared their experiences and insights.

Mr. Ronald Silvan D'Souza, Executive Director of Leksa Lighting Technologies highlighted his journey from a middle-class background to establishing a successful business in the lighting industry. Mr. Ashwath Hegde, Founder & Managing Director of EnviGreen Biotech, discussed his innovative eco-friendly and biodegradable products. Ms. Shilpa Ghorpade, an entrepreneur at Detailing Devils, shared her story of starting with chocolate distribution and expanding into various ventures.



Dr. Arun M. Isloor, Head of Incubation Centre (STEP) at NITK, moderated the panel bringing in his expertise. The discussion covered topics like the role of youth in entrepreneurship, benefits to youth, entrepreneurship in Indian development, skills for empowerment, and advice for aspiring entrepreneurs.

The panel emphasized qualities essential for entrepreneurs, including resilience, adaptability, passion, vision, leadership, and innovation. They discussed challenges such as uncertainty, financial stress, work-life balance, and managing failure. The importance of sustainable business practices, social responsibility, and ethical goods/services were highlighted.

Furthermore, the panel discussed the impact of young entrepreneurs on societal and environmental challenges, suggesting practices like sustainable business, social responsibility, advocacy campaigns, and collaborations with non-profits. The role of emerging technologies like AI, block chain, IoT, AR/VR, 5G, biotechnology, robotics, renewable energy, cybersecurity, and edge computing was explored, with advice for young entrepreneurs to capitalize on these trends. Mr. Vivek Alva, the Managing Trustee & event's president, expressed gratitude to the panellists and stressed the significance of students' culture and discipline for future success. The outcomes included a focus on youth empowerment and inspiration, urging young people to engage in entrepreneurial endeavours.

A Visit to "Coastal MSME & Start Up Conclave 2023"

November 4, 2023



On November 4, 2023, Alva's Institute of Engineering & Technology team comprising of 11 students and the EDC coordinator Dr. Sudheer Shetty, had the opportunity to participate in the "Coastal MSME & Start Up Conclave 2023" held at St. Aloysius College (Autonomous), Mangaluru hosted by Mangalore Branch of on entrepreneurship, branding, marketing, global opportunities, and MSMEs and startups in the food, agri, and fisheries sectors.

In the inaugural session, Mr. Uday Kumar B V, Regional Director of State Bank of India, Mangaluru, lit the lamp to commence the program. Session 1, led by Dr. Meera Venkat, emphasized the need to promote entrepreneurship among youth and women. She discussed challenges like access to capital and societal biases and suggested strategies such as educational initiatives and mentorship.

Session 2, conducted by Dr. Cany Mendoza, centred on branding, marketing, and digital transformation for MSMEs and startups. Dr. Mendoza highlighted the importance of effective marketing and shared examples of successful businesses utilizing these strategies.



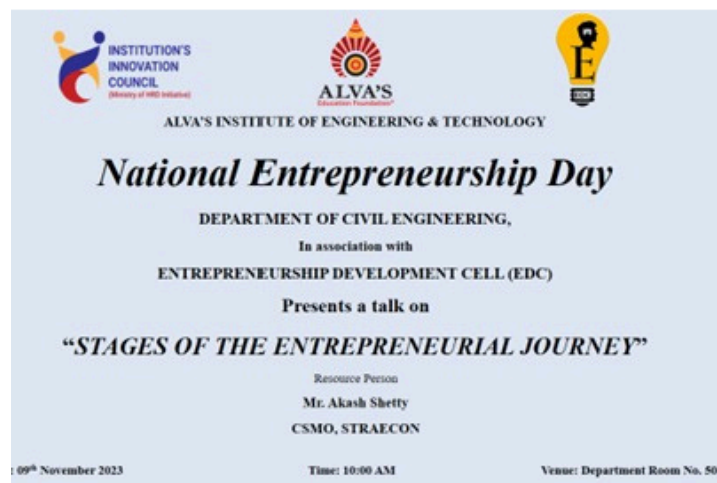
Session 3, led by Dr. A P Achar and Dr. Manesh Thomas, explored global opportunities for Indian startups. They discussed the evolving landscape and how Indian startups can succeed globally with continuous learning and adaptation.

Session 4, presented by Dr. Adarsh Gowda and Dr. Shivakumar Magada, focused on opportunities in the food, agri, and fisheries sector. The session discussed the profitable nature of the fish industry and encouraged organic farming.

Session 5, featuring CA Sanketh S Nayak, covered schemes and incentives for MSMEs, along with various funding options. The discussion included traditional options like bank loans and government schemes, as well as alternative options like venture capital and crowdfunding.

The overall conclusion highlighted the enlightening nature of the conclave, providing valuable insights into entrepreneurship and various aspects of the startup ecosystem. The event's success was attributed to the participation of diverse stakeholders, leaving attendees inspired and equipped with knowledge to pursue their entrepreneurial aspirations.

“National Entrepreneurship Day” Celebration



The Department of Civil Engineering at Alva's Institute of Engineering & Technology in association with Entrepreneurship Development Cell (EDC) organized a talk on National Entrepreneurship Day, featuring Mr. Akash Shetty, Chief Sales & Marketing Officer of STRAECON. Mr. Shetty was welcomed and introduced to the audience by Dr. H Ajith Hebbar, the department head of Civil Engineering. Dr. Sudheer Shetty, the coordinator of the institute's EDC, delivered the National Entrepreneurship Day preamble. The workshop was coordinated by Ms. Anusha B. Rao, the EDC Civil Department Coordinator.

Mr. Shetty, with nine years of industry experience, founded STRAECON in 2021, specializing in technology-based engineering services. The session began with an overview of entrepreneurship, its current scenario in India, and Mr. Shetty's insights. He emphasized staying informed about current affairs, managing finances, and generating business ideas through group discussions.

The session summarized the Five Stages of Entrepreneurship:

1. Ideation: Focusing on generating viable business ideas based on passion, addressing market issues, or targeting specialized markets.
2. Planning: Stressing the importance of a comprehensive business plan for cost estimation, risk identification, and attracting investors.
3. Execution: Highlighting the need for effective plan implementation, acknowledging inevitable errors, and learning from mistakes.
4. Scaling: Discussing strategies for growing a successful business, whether through external funding or bootstrapping.
5. Hypergrowth: Exploring the challenges and benefits of experiencing exponential growth, emphasizing product innovation, scalable systems, and a dedicated team.

“Social Innovation Prototype Expo” Competition

November 4, 2023



The "Social Innovation Prototype Expo" organized by Alva's Institute of Engineering and Technology's Department of Information Science & Engineering, in collaboration with Entrepreneurship Development Cell (EDC), Institution's Innovation Council (IIC), and ComedKares Innovation Hub, took place on November 18, 2023. The event aimed to showcase innovative prototypes created by students and promote social innovation.

The program commenced with a warm welcome by Dr. Sudheer Shetty, Professor and Head, Department of ISE and EDC Coordinator. In the presence of Managing Trustee Mr. Vivek Alva, Dean Student Affairs Prof. Durgaprasad Baliga, AIML HoD Prof. Hari Kunder, and CSD HoD Prof. Venugopal Rao, the program was formally inaugurated by the chief guests, Mr. Orwin Noronha, Managing Director, Leowin Solutions Pvt. Ltd. and Mr. Rithwik Ammunje Nayak, Managing Director, Life Essential Water Solutions Pvt. Ltd. The managing trustee Mr. Vivek Alva precedes the programme addressing the students regarding the need for social connect and the importance of innovation. He appraised the EDC cell for conducting an innovative competition of this kind. Mr. Noronha, a visionary serial innovator, presented his revolutionary "MozziQuit" Mosquito Trap, showcasing his mission to combat mosquito-borne diseases sustainably. He also highlighted his innovative "Specialized Concrete Design" for roads, challenging conventional norms. His inspirational journey as an entrepreneur emphasized the importance of perseverance and problem-solving.



The expo featured 20 innovative prototypes, and the top three were awarded prizes. The first prize went to the team from Computer Science & Design for the "Smart Street Lighting System," utilizing piezoelectric materials to generate electricity. The second prize was awarded to the Information Science & Engineering team for "Farmbot: Seeding and Water Management," a multipurpose agricultural robot. The third prize was secured by the Artificial Intelligence & Machine Learning department for "Conservation and Reuse of Rain Water," employing soil moisture and smoke sensors for efficient water management.

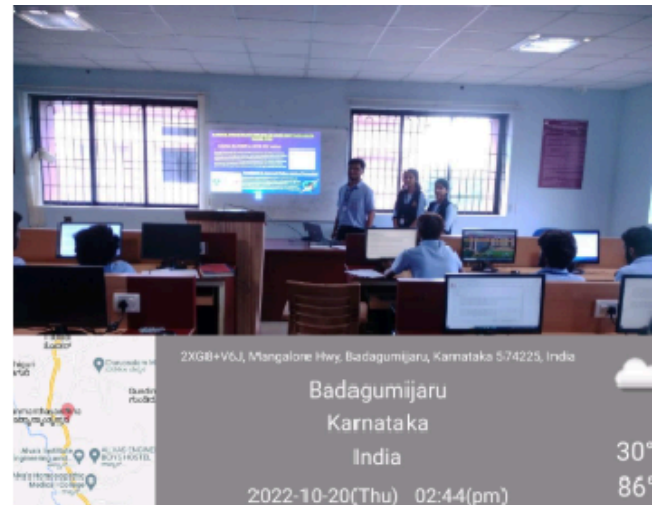
The event concluded with Dr. Sudheer Shetty presenting mementos to the resource persons. The "Social Innovation Prototype Expo" provided valuable insights into innovative solutions, emphasizing social impact and community well-being through prototyping in social innovation labs.

Hands-on Workshop on Innovative Web Programming



The Department of Information Science and Engineering organized a Hands-on Workshop on Innovative Web Programming on 14th February 2023, in collaboration with the Institution Innovation Council (IIC). The workshop aimed to enhance students' creativity and knowledge of current web programming trends. Resource persons Mr. Devdutt and Ms. Nistara from BACCE Foundation led sessions covering HTML, CSS, JavaScript, web design, and form validation. The workshop engaged 54 second-year B.E. students, faculty, and IIC coordinators. It provided practical insights into web development, encouraging students to become creators in the digital world.

Innovative Idea Contest



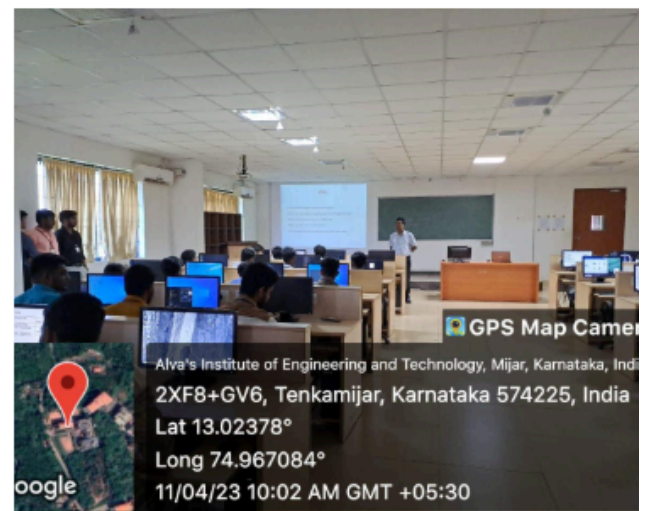
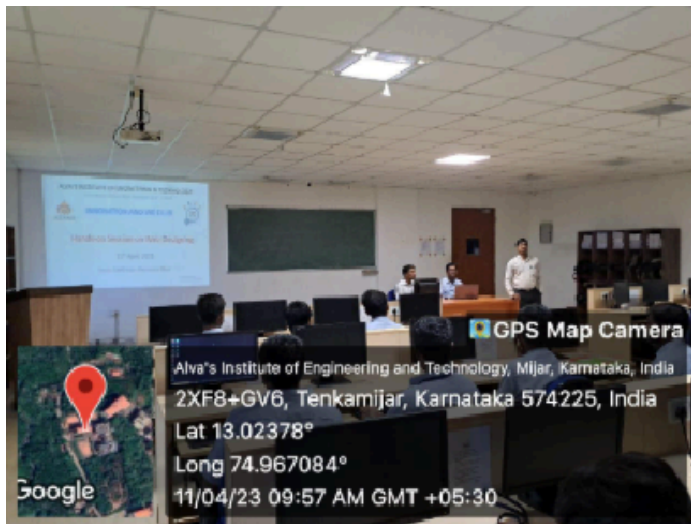
The Department of Information Science and Engineering, in association with the Institution's Innovation Council, celebrated Innovation Day on 20th October 2023, commemorating the birth anniversary of Dr. A. P. J. Abdul Kalam. To mark the occasion, an Innovative Idea Contest was organized, where second-year ISE students presented their creative ideas. The students' presentations were followed by a questionnaire session, which focused on key aspects such as the relevance and validation of the problem, societal impact, feasibility of the solution, and creativity in the proposed ideas. The contest aimed to encourage students to think critically about real-world problems and propose innovative solutions. It provided a platform for students to showcase their problem-solving skills and foster creativity. The evaluation process was based on the practical applicability and potential impact of the ideas. Overall, the event successfully motivated students to explore innovative thinking and contribute to societal advancements.

Students' Innovative Project Competition



The Department of Information Science and Engineering has organized Students' Innovative Project Competition for the final year students of ISE department on 26th April 2023, in association with the Institution Innovation Council (IIC), an Initiative of MHRD. Dr. Ahamed Shafeeq B M, Professor, Department of Computer Science & Engineering, Manipal Institute of Technology, Manipal, Karnataka was the external judge and Dr. G. Srinivasan, Professor, Department of Computer Science & Engineering, Alva's Institute of Engineering & Technology is the internal judge for evaluating the projects. A total of 66 students had participated in the competition which was divided into 17 batches. Following are the details of students along with project title

Hands-on Session on Innovative Web Designing



The Institution's Innovation Council of Alva's Institute of Engineering & Technology organized a "Hands-on Session on Innovative Web Designing" on 11th April 2023, from 9:30 am to 12:30 pm at the CAMD Lab – Mechanical Block. The session aimed to ignite creativity and enhance students' knowledge of current trends in web designing. Mr. Pradeep V, Sr. Asst. Professor, Dept. of Information Science and Engineering, was the resource person. He covered key topics, including HTML, creating documents, markup tags, working with text, and introducing hyperlinks, images, and multimedia. Dr. Satyanarayan, Coordinator of Innovation and We Club, along with faculty coordinators, organized the event. A total of 42 students from Mechanical, Civil, and ECE departments participated and benefited from the session.

Innovative Project Competition



The Department of Information Science and Engineering, in association with the Coders technical club and Institution's Innovation Council, organized the Innovative Project Competition 2023 on September 1st at Alva's Institute of Engineering and Technology. The event aimed to cultivate creativity, encourage collaboration, spot emerging talent, solve real-world problems, develop skills, and promote knowledge exchange. The inauguration was graced by Mr. Vivek Alva, Dr. Peter Fernandes, and Chief Guests Mr. Prajnesh Shetty and Miss. Esther Raina Monterio from CodeCraft Technologies Pvt. Ltd. A total of 44 teams participated, showcasing their innovative projects in a vibrant exhibition. Participants had the opportunity to explain their projects to a panel of judges, including faculty members and industry experts. The competition evaluated projects based on idea, uniqueness, features, and presentation. The event concluded with an award ceremony, recognizing winners in categories like Best Overall Project, Best Innovation, and Best Presentation. The competition successfully fostered a culture of innovation, creativity, and collaboration within the Alva's Institute of Engineering and Technology community.

Visit to Incubation Centre (COMED Kares Innovation Hub, Mangalore)



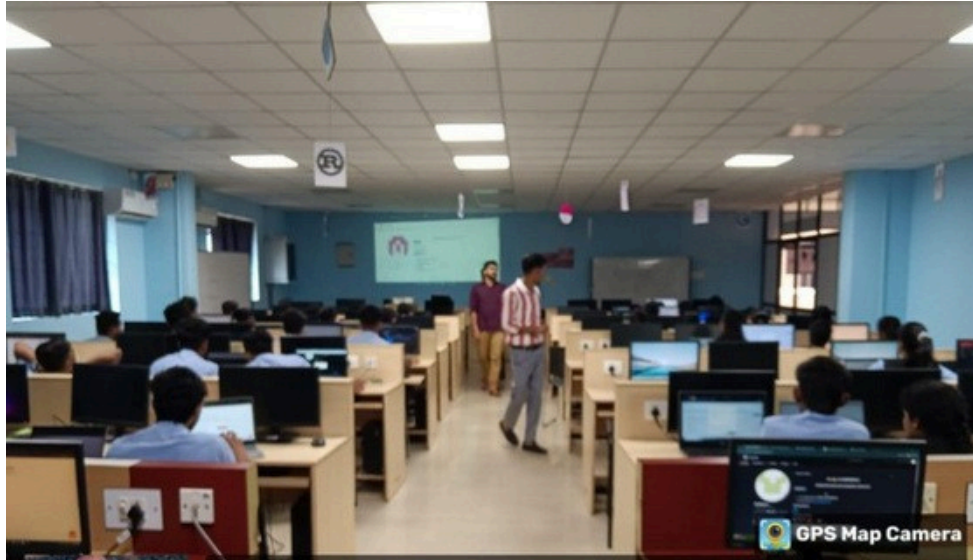
The Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, organized a visit to the COMED Kares Innovation Hub in Mangalore on January 5, 2024. The 62 participating students explored the concept of design thinking and its application in technology and innovation. The visit began with an interactive session introducing the principles of user-centric problem-solving. Students toured the makerspace, where they were exposed to tools and equipment for prototyping. A hands-on session allowed students to work on small projects, applying design thinking in real-world scenarios. This practical experience enhanced their understanding of the prototyping process. The visit motivated students to explore entrepreneurship and creative problem-solving. It also fostered teamwork, collaboration, and effective communication. The experience enriched their knowledge of innovation and sparked their curiosity about turning ideas into tangible solutions.

Technical Talk on “Innovative Project Solutions through Soft Computing”



On May 6, 2024, the Department of Information Science and Engineering, in association with the Institution's Innovation Council, organized a technical talk on “Innovative Project Solutions through Soft Computing” at AIET. The event, attended by 65 III-year B.E. Information Science and Engineering students, featured Prof. Manamohana K, a respected expert in soft computing. Key topics included the definition and scope of soft computing, differences between hard and soft computing, and its evolution. Prof. Manamohana K also discussed core components like Fuzzy Logic, Neural Networks, and Evolutionary Computation. Applications of soft computing in real-world problems, particularly in IoT and big data, were explored. Emerging trends and research opportunities in soft computing were also highlighted. The session included an interactive Q&A where participants engaged with the speaker on their projects. The event concluded with a vote of thanks from Dr. Sudheer Shetty, the Head of Department. The talk provided students with valuable insights into applying soft computing for innovative project solutions.

Hands-on Workshop on “Advanced GitHub Features for Collaborative Innovation”



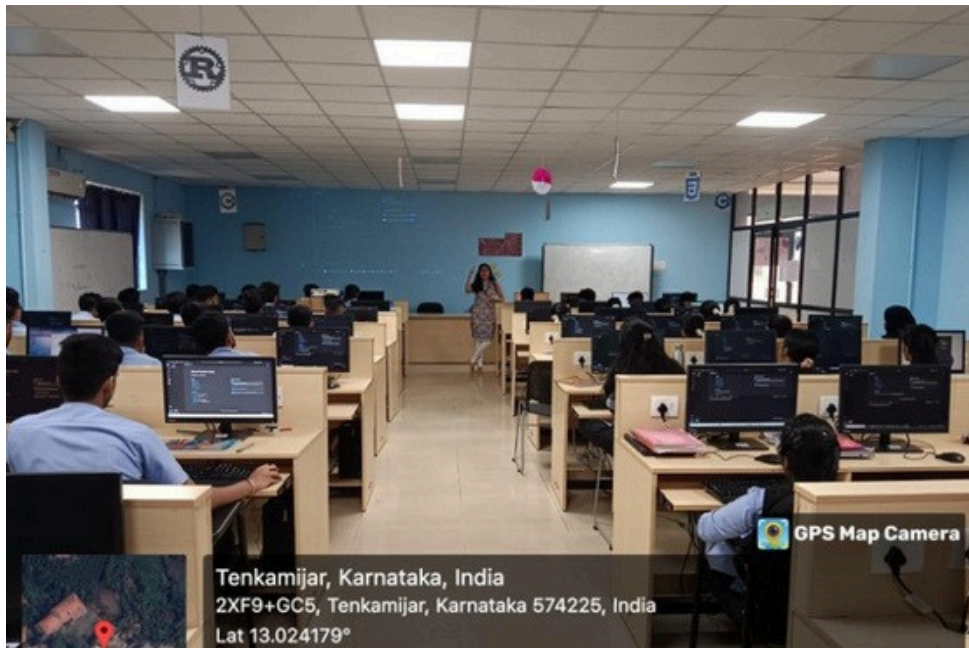
On May 7, 2024, the Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, conducted a hands-on workshop titled “Advanced GitHub Features for Collaborative Innovation.” The event, held at the ISE Lab, was attended by 68 B.E. students and led by final-year students Mr. Abhishek and Mr. Sujan. The workshop aimed to equip students with advanced GitHub skills for effective project management and collaboration. Topics covered included repositories, branches, pull requests, GitHub Actions, and project management tools. Participants engaged in hands-on exercises, including collaborative coding and implementing continuous integration workflows. The workshop received positive feedback for its interactive format and practical application. Students found the sessions highly beneficial for their academic and professional development. The event successfully enhanced students' skills in using GitHub for innovative collaborative work.

Workshop on Innovation and Design Thinking



On November 7, 2023, the Department of Information Science and Engineering, in association with the Institution's Innovation Council, organized a one-day workshop on Innovation and Design Thinking at Alva's Institute of Engineering and Technology. The workshop aimed to immerse participants in design thinking principles through introductory sessions, hands-on activities, and real-world case studies. Topics covered included empathy, ideation, prototyping, and iteration. Practical exercises allowed participants to apply design thinking in real-time. Case studies from various industries inspired attendees, while collaborative exercises fostered teamwork and cross-disciplinary collaboration. Participants were introduced to tools and techniques used in design thinking. The workshop was attended by 56 III-year B.E. students, who found the sessions highly beneficial. Positive feedback highlighted the impact of the workshop, sparking enthusiasm to apply design thinking in their fields.

Hands-on Workshop on “Innovative Web Development: A Practical Approach with Django”



On May 8, 2024, the Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, organized a hands-on workshop titled “Innovative Web Development: A Practical Approach with Django” at Alva's Institute of Engineering & Technology. The workshop aimed to provide participants with practical knowledge in developing web applications using the Django framework. Attended by 68 students, the workshop covered Django's fundamentals, project setup, creating models, views, templates, database integration, and deploying Django applications. Ms. Swetha Sharma led the sessions, providing real-world examples and interactive learning. Participants appreciated the hands-on approach, which enhanced their understanding of web development with Django. The workshop successfully met its objectives, fostering innovation and technical skills. Future events are planned to continue this educational initiative.

Innovative Idea Competition



On November 8, 2023, the Department of Information Science and Engineering, in association with the Institution Innovation Council and COMED KARES Innovation Hub, organized an Innovative Idea Competition for third-year B.E. students. A total of 42 students participated, divided into 8 teams, each presenting unique ideas. The ideas included Rainwater Harvesting, Arecanut Peeling Machine, Smart Street Light, Wet and Dry Waste Segregation, and Smart Wheelchair. Teams demonstrated creativity and innovation through their presentations, addressing real-world problems. The competition fostered collaboration and an entrepreneurial mindset among students. It provided a platform for the exchange of ideas and inspired innovative thinking. The event was successful in promoting a culture of innovation within the department.

Social Innovation through Field Visit to Solid Waste Management Unit, Ujire



On February 20, 2024, the Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, organized an event on Social Innovation through Field Visit. A total of 123 students from the III Semester ISE participated in the event. The field visit took place at the Solid Waste Management Unit in Ujire, a rapidly developing gram panchayat in Beltangady taluk. Ujire, with a population of over 18,000 and around 4,500 households, is an important area with educational institutions, commercial complexes, and medical facilities. The visit aimed to provide insights into effective waste management practices and the role of social innovation in addressing community challenges. The event offered students an opportunity to learn about sustainable practices and their impact on urban development.

Institution's Innovation Council

Social Innovation through Field Visits



On October 31, 2023, the Department of Information Science and Engineering organized the Social Innovation through Field Visits event for third-year B.E. students, in association with the Institution Innovation Council (IIC). The event aimed to explore grassroots social innovations, showcasing how innovation thrives within communities. A total of 41 students participated, divided into 8 teams, visiting various locations to understand the impact of local initiatives. The goal was to emphasize collaboration between communities, organizations, and local authorities. The visit provided students with valuable insights into how social innovation drives positive change at the grassroots level, inspiring them for future endeavors.

AVANI - KESARD ONJI DINA



AVANI - KESARD ONJI DINA was an event hosted by the Department of Information Science and Engineering in collaboration with Techgeekz-Student Forum, focusing on the impact of technology on agriculture. Aimed at raising awareness of the challenges rural farmers face, the event engaged around 500 students from Alva's Institute of Engineering and Technology and Alva's Naturopathy College. It provided a platform to explore how technology can empower farmers and promote sustainable practices. The promotional campaign ran from October 14th to 19th, featuring posters, banners, and social media engagement. A lively flash mob on October 19th marked the event's poster release, blending traditional and modern elements. The event aimed to bridge the gap between traditional agriculture and modern technology, fostering empathy and inspiring tech-based solutions for the farming community.

Alva's Institute of Engineering and Technology
Shobhavana Campus, Mijar, Moodbidri, D.K – 574225
Department of Information Science and Engineering
Session for Internal Students by Innovation
Ambassador



On 21st February 2024, the Institution's Innovation Council (IIC) at AIET hosted a session on "Innovation in Computing," led by Dr. Pradeep V, Innovation Ambassador and Associate Professor in the Department of Information Science and Engineering. The session aimed to inspire students by highlighting the significance of innovation in computing, covering topics like AI, machine learning, blockchain, and quantum computing. Dr. Pradeep shared real-world applications of these technologies in sectors like healthcare, finance, and environmental sustainability. The session also featured interactive discussions, case studies, and career guidance, emphasizing the importance of staying updated in the evolving field of computing. A total of 62 students from the III-year B.E. ISE program attended the session. The event was well-received, fostering curiosity and a spirit of innovation among participants.

Alva's Institute of Engineering and Technology
Shobhavana Campus, Mijar, Moodbidri, D.K – 574225
Department of Information Science and Engineering
The Indian Institute of Science (IISc) &
Visvesvaraya Industrial and Technological Museum
Bangalore



On 21st February 2024, the Institution's Innovation Council (IIC) at AIET hosted a session on "Innovation in Computing," led by Dr. Pradeep V, Innovation Ambassador and Associate Professor in the Department of Information Science and Engineering. The session aimed to inspire students by highlighting the significance of innovation in computing, covering topics like AI, machine learning, blockchain, and quantum computing. Dr. Pradeep shared real-world applications of these technologies in sectors like healthcare, finance, and environmental sustainability. The session also featured interactive discussions, case studies, and career guidance, emphasizing the importance of staying updated in the evolving field of computing. A total of 62 students from the III-year B.E. ISE program attended the session. The event was well-received, fostering curiosity and a spirit of innovation among participants.

Material Recovery Facility (MRF)
Nitte village, Karkala taluk, Udupi zilla panchayat,
Karnataka



On 10th February 2023, a batch of 2nd Year Information Science and Engineering students, along with faculty members Prof. Sudheer Shetty and Prof. Lolakshi, visited a Material Recovery Facility (MRF) in Nitte village, Karkala taluk, set up by the Udupi Zilla Panchayat. The visit aimed to provide students exposure to innovative methods of handling and processing dry waste. The MRF processes 10 tonnes of dry waste daily, segregating it into 30 sub-components and recovering over 90% of resources with minimal manpower. Students learned about the efficient centralised handling of waste and the use of machines like conveyor belts, bailing machines, and stackers. The facility's eco-friendly approach includes sending recyclable waste to recycling units and non-recyclable waste to cement factories. The visit was informative and offered valuable insights into sustainable waste management practices.

Alva's Institute of Engineering and Technology
Shobhavana Campus, Mijar, Moodbidri, D.K – 574225
Department of Information Science and Engineering
Innovative Project Competition



The Innovative Project Competition 2023, organized by the Department of Information Science and Engineering in collaboration with the Coders of Alva's Technical Club and the Institution's Innovation Council, was held on September 1, 2023, at Alva's Institute of Engineering and Technology. The event aimed to spark creativity, encourage collaboration, and identify emerging talent. It brought together 44 teams from various technical backgrounds, showcasing innovative projects that addressed real-world challenges. The inauguration ceremony featured key dignitaries including Mr. Vivek Alva, Dr. Peter Fernandes, and industry experts from CodeCraft Technologies Pvt. Ltd. The event's highlight was the project exhibition, where participants presented their projects to a panel of judges, who evaluated them based on innovation, benefits, and presentation. The competition concluded with an award ceremony where winners received prizes for Best Overall Project, Best Innovation, and Best Presentation. The event successfully promoted technological creativity, skill development, and networking among students and industry professionals.

**Workshop
on
Innovation and Design Thinking**



The Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, organized a one-day workshop on Innovation and Design Thinking on November 7, 2023, at Alva's Institute of Engineering and Technology. The workshop aimed to familiarize participants with design thinking principles, encouraging creative and human-centered problem-solving. It featured resource persons Ms. Ashwini Tirkey, Centre Manager, and Ms. Sushmitha M K, Makerspace Assistant, from the COMED KARES Innovation Hub, Mangalore. Key highlights included sessions on design thinking concepts, hands-on learning, real-world case studies, and tools used in the process. Participants worked in teams, applying design thinking to solve real-world challenges. The interactive format fostered collaboration, and feedback was overwhelmingly positive, with 56 students from the III-year B.E. program benefiting from the workshop.

Faculty Publications

2023-24						
Journals				Conference		
SCI	Scopus	Others	Total	Scopus	IEEE	Total
1	2	11	14	19	4	23

SCI (Web of Science) Indexed Journals:

- 1.Pradeep V et al. (2024) – Research on hyperparameter tuning using Lévy flight and interactive crossover-based reptile search algorithm for eye movement classification. Published in Frontiers in Physiology (Indexed in Scimago Q1, Web of Science, PubMed, Scopus).

Scopus Indexed Journals:

- 1.Karuppan, S. et al. (2024) – Study on real-time social distance monitoring using computer vision and deep learning. Published in Salud, Ciencia Y Tecnología – Serie De Conferencias.
- 2.Pradeep V et al. – Paper on detecting driver sleepiness using computer vision and deep learning, accepted by International Journal of Computational Vision and Robotics.

Other Journals:

- 1.Multiple papers on a range of topics including smart dustbins, 5G wireless systems, data virtualization, networking topologies, and security in ad-hoc networks, all published in various international journals such as International Journal of Advanced Research in Science, Communication and Technology and International Journal of Advance Research and Innovative Ideas in Education.

Conference Papers Indexed in Scopus:

- 1.Multiple conference papers have been presented at international conferences such as ISCComm-2023, SGCNSP, and AIDE-2023. Topics range from AI applications in fire detection, Alzheimer's prediction, image processing in music control, accident detection using computer vision, and more.
- 2.Several papers are accepted for publication in Springer CCIS Series and Lecture Notes in Electrical Engineering.

Conference Papers Indexed in IEEE Digital Library:

- 1.Pradeep V et al. – Paper on face emotion detection using CNN and OpenCV accepted for publication in the IEEE Xplore digital library.
- 2.Uma M S et al. – Research on Monarch Butterfly Optimization-based CNN for lung cancer classification, also accepted for IEEE Xplore publication.

Key Themes:

- **AI and Machine Learning Applications:** These studies explore AI and deep learning for various practical applications like eye movement classification, sleepiness detection, and traffic flow prediction.
- **Computer Vision:** Many papers leverage computer vision techniques for tasks such as driver sleepiness detection, accident detection, and facial emotion recognition.
- **5G and Networking:** Topics include 5G systems, ad-hoc network security, and network topologies.
- **Health and Safety:** Focus on real-time monitoring systems, disease detection (such as Alzheimer's), and safety (e.g., fire and accident detection).

This list showcases a strong emphasis on advanced computational techniques like deep learning, computer vision, AI optimization, and their applications in various domains. The contributions span multiple reputed journals and conferences, ensuring broad visibility within the scientific community.

Company Placed Students 2023-24



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