Alva's Institute of Engineering & Technology

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council

Hands-on Workshop on
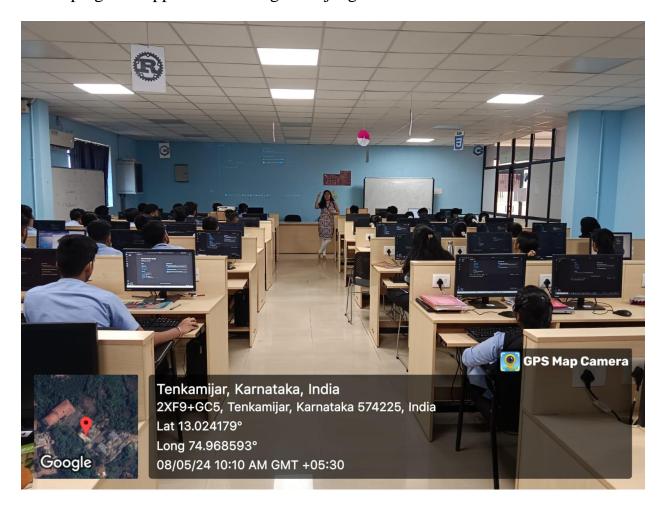## "Innovative Web Development: A Practical Approach with Django"

8th May 2024

Venue
ISE Lab

Event Report

Overview:

The Department of Information Science and Engineering, in association with the Institution's Innovation Council of Alva's Institute of Engineering & Technology, organized a hands-on workshop titled "Innovative Web Development: A Practical Approach with Django" on the 8th of May, 2024. The workshop was conducted to provide participants with practical knowledge and hands-on experience in developing web applications using the Django framework.

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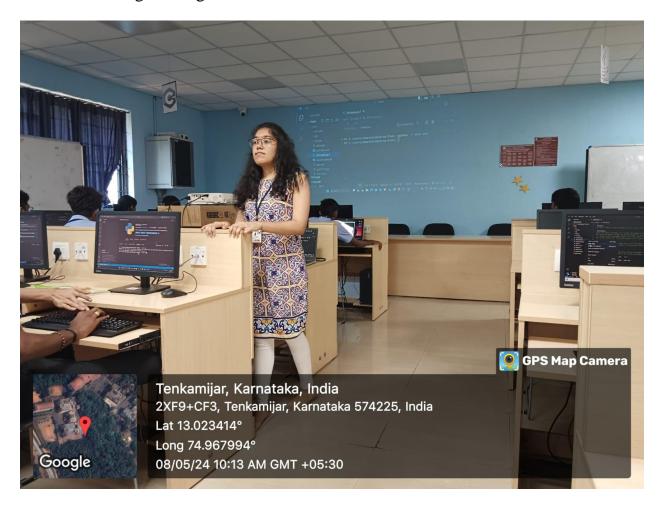08/05/24 10:10 AM GMT +05:30

Objectives:

- To introduce the fundamentals of the Django web framework.
- To provide a practical understanding of web development with Django.
- To foster innovation and creativity in web application development among students.
- To equip participants with the skills required to develop modern web applications.

Participants:

The workshop was attended by 68 students from the B.E. Department of Information Science and Engineering.

Key Highlights:

1. **Introduction to Django**:
   - Overview of the Django framework.
   - Key features and benefits of using Django for web development.
2. **Setting Up the Environment**:
   - Installation and configuration of Django.
   - Setting up a development environment for Django projects.
3. **Building a Django Project**:
   - Step-by-step creation of a Django project.
   - Understanding Django project structure.
4. **Creating Models and Views**:
   - Designing and implementing Django models.
   - Creating and managing views in Django.

5. **Implementing Templates**:
   - ○ Using Django templates for front-end development.
   - ○ Integrating templates with views to display data.
6. **Database Integration**:
   - ○ Connecting Django applications to databases.
   - ○ Performing database operations using Django ORM.
7. **Deploying Django Applications**:
   - ○ Preparing Django applications for deployment.
   - ○ Best practices for deploying Django projects.

Feedback:

The participants found the workshop to be highly informative and engaging. They appreciated the hands-on approach and the practical insights provided by Ms. Swetha Sharma. The interactive sessions and real-world examples helped in enhancing their understanding of Django and its applications in web development.

Conclusion:

The hands-on workshop on "Innovative Web Development: A Practical Approach with Django" was a successful event that achieved its objectives of educating and inspiring participants in the field of web development. The Department of Information Science and Engineering looks forward to organizing similar events in the future to continue fostering innovation and technical excellence among students.

Acknowledgments:

We would like to express our gratitude to Ms. Swetha Sharma for her valuable contribution as the resource person for the workshop. We also thank the Institution's Innovation Council, Alva's Institute of Engineering & Technology, and all the participants for their enthusiastic participation and support.

Institute of Engineering & Technology

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

Alv ALVA'S Education Foundation® a's

Department of Information Science and Engineering

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Hands-on Workshop on "Advanced GitHub Features for Collaborative Innovation"
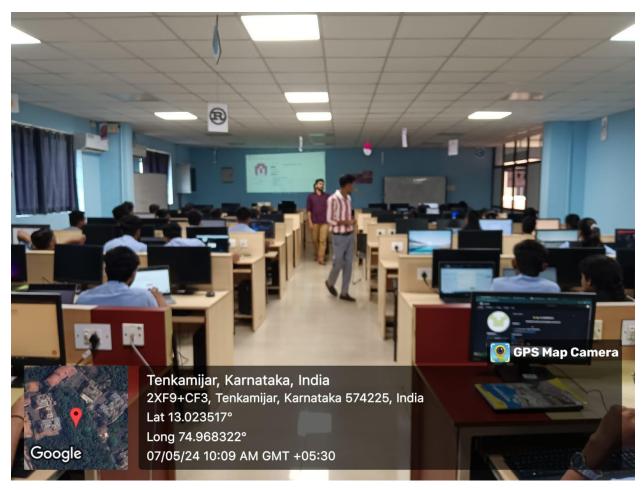
7th May 2024

Venue
ISE Lab

Event Report

Overview:

The Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council of Alva's Institute of Engineering & Technology, successfully conducted a hands-on workshop titled "Advanced GitHub Features for Collaborative Innovation" on the 7th of May, 2024. The event took place in the ISE Lab and was attended by 68 enthusiastic students from the B.E. Department of Information Science and Engineering. The workshop was led by two final year B.E. students: Mr. Abhishek and Mr. Sujan, who provided their peers with practical insights and guidance on advanced GitHub features.

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Objectives:

The primary objective of the workshop was to provide students with advanced knowledge and practical skills in utilizing GitHub for collaborative innovation. The workshop aimed to empower students with the ability to manage projects efficiently, collaborate seamlessly with team members, and leverage advanced features of GitHub to enhance their innovative capabilities.

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Workshop Content:

The workshop was divided into several interactive sessions, each designed to cover different aspects of advanced GitHub functionalities:

1. **Introduction to GitHub:**

   - Overview of GitHub and its significance in modern software development.
   - Understanding repositories, branches, and commits.

2. **Advanced Features of GitHub:**

   - Using pull requests and code reviews for collaboration.
   - Implementing GitHub Actions for continuous integration and deployment.
   - Exploring GitHub Projects for project management.

3. **Collaborative Workflows:**

   - Best practices for managing open source projects.
   - Utilizing GitHub for team collaboration and communication.
   - Handling merge conflicts and maintaining a clean project history.

4. **Hands-on Sessions:**

   - Practical exercises on creating and managing repositories.
   - Collaborative coding sessions to simulate real-world development scenarios.
   - Implementing continuous integration workflows using GitHub Actions.

Participant Feedback:

The workshop received positive feedback from the participants, who appreciated the interactive and hands-on approach. The students found the sessions highly informative and beneficial for their academic and professional growth. The practical exercises were particularly well-received, as they provided an opportunity to apply the concepts learned in real-time scenarios.

Conclusion:

The "Advanced GitHub Features for Collaborative Innovation" workshop was a resounding success, equipping the students with essential skills to leverage GitHub for their future projects. The Department of Information Science and Engineering, in association with the Institution's Innovation Council, looks forward to organizing more such events to foster innovation and excellence among students.

Alva's Institute of Engineering & Technology

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council

Technical Talk on
"Innovative Project Solutions through Soft Computing"

6ᵗʰ May 2024

Resource Person

Prof. Manamohana K

Department of Computer Science & Engineering
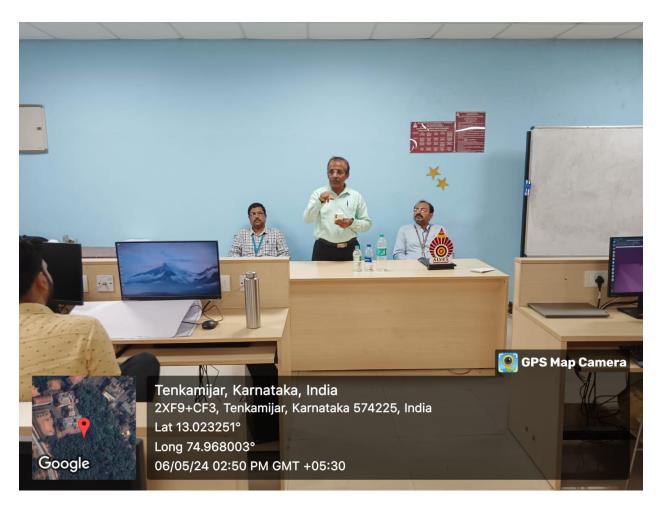Manipal Institute of Technology, Manipal

Event Report

Overview

On the 6th of May 2024, a technical talk on "Innovative Project Solutions through Soft Computing" was held at ISE Computer Lab, AIET. The event was organized by the Department of Information Science and Engineering in association with the Institution's Innovation Council. It was attended by 65 students from the III year B.E. Information Science and Engineering program.

Speaker

The session was led by Prof. Manamohana K, a distinguished expert in the field of soft computing. Prof. Manamohana K has extensive experience and numerous contributions in the area of soft computing, making him a highly respected figure in the academic and professional communities.

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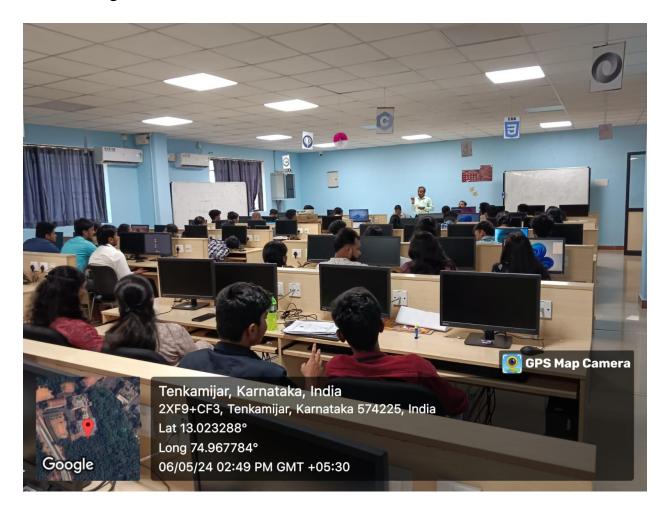**Key Topics Discussed**

1. **Introduction to Soft Computing:**
   o Definition and scope of soft computing.
   o Differences between hard computing and soft computing.
   o Historical development and evolution of soft computing techniques.

2. **Core Components of Soft Computing:**
   o Fuzzy Logic: Basics, applications, and case studies.
   o Neural Networks: Types, training methods, and real-world applications.
   o Evolutionary Computation: Genetic algorithms, evolutionary strategies, and their use in optimization problems.

3. **Applications of Soft Computing in Innovative Project Solutions:**
   o Real-life case studies where soft computing techniques were successfully implemented.
   o The role of soft computing in solving complex, real-world problems.
   o Integration of soft computing with other technologies such as IoT and big data.

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4. **Future Trends and Research Directions:**
   o Emerging trends in soft computing.
   o Potential research areas and opportunities for students and professionals.

Interactive Session

The talk included an interactive Q&A session where participants had the opportunity to ask questions and discuss their own projects and challenges. Prof. Manamohana K provided insights and guidance on how to approach these problems using soft computing techniques.

Conclusion

The event concluded with a vote of thanks by Dr. Sudheer Shetty, Head of Department of ISE, expressing gratitude to Prof. Manamohana K, the participants, and the organizing committee for making the event a success. Attendees left with a deeper understanding of soft computing and its potential to drive innovation in project solutions.

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council

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

20th February 2024

Introduction:

The Department of Information Science and Engineering, in collaboration with the Institution's Innovation Council, organized an insightful event on Social Innovation through Field Visit on February 20, 2024. A total of 123 students from the III Semester ISE and CSE (IoT) actively participated in the event.

Venue:

The field visit took place at the Solid Waste Management Unit located in Ujire, a prominent gram panchayat in the taluk of Beltangady. Ujire is experiencing rapid development with a population exceeding 18,000 residents and approximately 4,500 households. The area is home to various educational institutions, commercial complexes, and medical facilities, making it a priority city in the taluk.

Background:

As Ujire continues to grow, waste management has emerged as a significant challenge. Recognizing the importance of addressing this issue, a proactive solution was implemented at an early stage - the establishment of a Waste Resources Center. This center plays a crucial role in managing and recycling the waste generated by the local population.

Facility Overview:

The Waste Management Unit at Ujire has dedicated spaces for segregating different types of waste, including bottles, clothes, footwear, electronics, and fancy items. The facility also focuses on the production of organic manure from vegetable, food, and fruit waste. The waste collection extends to all wards within the panchayat, making it a comprehensive and inclusive initiative.

Achievements and Impact:

The proactive approach adopted by the Ujire Gram Panchayat Waste Management Unit has positioned it as a model for other gram panchayats facing similar challenges. The success of this initiative lies in its ability to not only manage waste effectively but also contribute to environmental sustainability through recycling and the production of organic manure.

Educational Significance:

The visit provided an invaluable learning experience for the participating students. Witnessing firsthand the practical application of waste management strategies and social innovation has broadened their understanding of the challenges and solutions associated with sustainable development.

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Conclusion:

The Social Innovation through Field Visit to the Solid Waste Management Unit in Ujire has been a commendable initiative, highlighting the importance of proactive measures in waste management for growing communities. The success of this model serves as an inspiration for other regions facing similar challenges, emphasizing the role of education and innovation in addressing societal issues. The event has undoubtedly contributed to the academic and social awareness of the participating students, fostering a sense of responsibility towards environmental sustainability.

Alva's Institute of Engineering & Technology

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

Department of Information Science and Engineering

in association with

and

Innovative Idea Competition

8th November 2023

Event Report

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.

Title of Idea Presentation:	Rain water harvesting
Team Members:	AKASH DEVADIGA(4AL21IS004), CHETAN BYAHATTI(4AL22IS402), KELVIN DMELLO(4AL21IS021), SOORAJ(4AL21IS054), SHARAVI R RAI(4AL21IS048), SANNIDHI K S(4AL21IS043)

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)

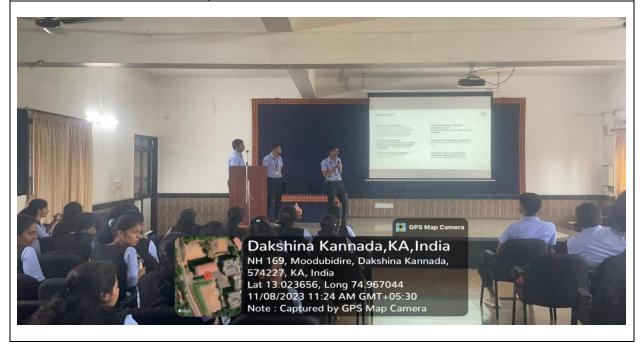| Title of Idea Presentation:	Smart street light
Team Members:	ANKITHA B(4AL21IS009), BHAGYASHREE R PUJARI(4AL21IS010), BHUMIKA SUNIL KULKARNI(4AL21IS012), BHARATH J(4AL21IS011), KOUSHIK ACHAR(4AL21IS022), NISHANT KUMAR(4AL21IS034)

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)

Title of Idea Presentation:	Wet and Dry waste Segregation
Team Members:	SARTHAK K JAIN(4AL21IS045), ANKITH(4AL22IS400), LOHITH H(4AL22IS403), NAMRATHA J SHETTY(4AL22IS404), RAHUL P SHETTY(4AL22IS405)

Title of Idea Presentation:	Rain water harvesting
Team Members:	ADITHYA TEJASWI D(4AL21IS001), MANIKANTA(4AL21IS025), PREETHAM BYADAGI(4AL21IS039), SHASHIDHAR MAHADEV PATGAR(4AL21IS049)

Title of Idea Presentation:	Rain water harvesting
Team Members:	AMAR B M(4AL21IS005), CHINDAN B V(4AL21IS015), GOWRISH N(4AL21IS017), KARTHIK MADAKARI T P(4AL21IS020), MANOJ M U(4AL21IS029), SATEESH DYAVAPA SATYANNAVAR(4AL21IS046)

Title of Idea Presentation:	Smart wheel chair
Team Members:	HARSHITHA B(4AL21IS018), KRUPASHREE R(4AL21IS023), LAYA R(4AL21IS024), MANISH K(4AL21IS026), PRASHANTH KUMAR B C(4AL21IS038)

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.

Alva's Institute of Engineering & Technology

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council

Workshop
on
Innovation and Design Thinking

7th November 2023

Event Report

Event Objective:

- Familiarize participants with the principles and concepts of design thinking.

- Encourage participants to think creatively and explore innovative solutions to problems.

- Develop participants' abilities to identify and solve complex problems through a human-centered approach.

- Create an interactive learning environment that fosters engagement and collaboration.
- Foster a collaborative atmosphere where participants can work in teams to tackle challenges.
- Cultivate a mindset that embraces ambiguity, iteration, and a willingness to experiment.

Resource Persons:

Ms. Ashwini Tirkey
Centre Manager

Ms. Sushmitha M K
Makerspace Assistant

COMED KARES Innovation Hub, Mangalore

Introduction:

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. Design Thinking Concepts:

   - 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.

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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.

Alva's Institute of Engineering & Technology

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council

Social Innovation through Field Visits

31st October 2023

Event Report

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.

Purpose/Study of Filed Visit:	Rain water harvesting
Venue of Field visit:	Mother of sorrow church, Udupi
Team Members:	AKASH DEVADIGA(4AL21IS004), CHETAN BYAHATTI(4AL22IS402), KELVIN DMELLO(4AL21IS021), SOORAJ(4AL21IS054), SHARAVI R RAI(4AL21IS048), SANNIDHI K S(4AL21IS043)

Purpose/Study of Filed Visit:	Arecanut peeling machine
Venue of Field visit:	Siddakatte
Team Members:	ANANYA(4AL21IS007), JAHNAVI(4AL21IS019), PRAJNA(4AL21IS036), SANJAY G K(4AL21IS042), SHREYA RAI(4AL21IS052), VITHIKA SHETTY(4AL21IS063), 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(4AL21IS009), BHAGYASHREE R PUJARI(4AL21IS010), BHUMIKA SUNIL KULKARNI(4AL21IS012), BHARATH J(4AL21IS011), KOUSHIK ACHAR(4AL21IS022), NISHANT KUMAR(4AL21IS034)

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(4AL21IS002), PRAGATHI G GOWDA(4AL21IS035), SAPTHAMI(4AL21IS044), SRIKANTH RAJU SRINIVAS(4AL21IS056), SRUSTI P S(4AL21IS058)

Purpose/Study of Filed 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(4AL21IS005), CHINDAN B V(4AL21IS015), GOWRISH N(4AL21IS017), KARTHIK MADAKARI T P(4AL21IS020), MANOJ M U(4AL21IS029), SATEESH DYAVAPA SATYANNAVAR(4AL21IS046)

Purpose/Study of Filed Visit:	Smart wheel chair
Venue of Field visit:	Alva's health centre
Team Members:	HARSHITHA B(4AL21IS018), KRUPASHREE R(4AL21IS023), LAYA R(4AL21IS024), MANISH K(4AL21IS026), PRASHANTH KUMAR B C(4AL21IS038)

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.

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

Department of Information Science and Engineering

in association with

Institution's Innovation Council
&
CODERS OF ALVA'S CLUB

Innovative Project Competition

1st September 2023

Event Report

Event Objective:

- Cultivate Creativity: Spark imaginative thinking by challenging participants to push boundaries and explore novel concepts.

- Encourage Collaboration: Foster a culture of teamwork, drawing on diverse skills and perspectives to create projects that blend expertise.

- Talent Spotting: Identify emerging talents and rising stars in the field, offering a platform for recognition and potential future engagements.

- Problem Solving: Address real-world challenges through innovative projects, contributing to tangible solutions that benefit society or industry.

- Skill Development: Provide a platform for participants to hone their skills, gain valuable experience, and refine their abilities in a competitive yet supportive environment.

- Knowledge Exchange: Stimulate the sharing of ideas and expertise, promoting a culture of continuous learning and improvement.

Highlights:

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.

Inaugural ceremony was organised at MBA Seminar Hall. Mr. Vivek Alva, Managing Trustee of Avla's Education Foundation was the President of the program, inaugurated the Project Competition in the presence of Dr. Peter Fernandes, Principal, Alva's Institute of Engineering and Technology and Chief Guest Mr. Prajnesh Shetty, Software Engineer, CodeCraft Technologies Pvt. Ltd and Miss. Esther Raina Monterio, Software Engineer, CodeCraft Technologies Pvt. Ltd.

With a considerable turnout of 44 teams, the Project Competition 2023 witnessed a diverse group of participants, ranging from novices to experienced programmers and innovators. This diversity in participation added a vibrant atmosphere to the event, fostering an environment of learning and healthy competition.

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.