ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(A Unit of Alva's Education Foundation (R), Moodbidri)
Shobhavana Campus, Mijar-574225, Moodbidri, D.K., Karnataka.
Affiliated to VTU, Belagavi, Approved by AICTE New Delhi, Recognized by Govt. of Karnataka.
Accredited by NAAC with A+ & NBA

Department of
Information Science and Engineering
Presents

6"TECH-ILLUMINATO"

ENGINEER YOUR LIFE

E-Magazine   2024-25

"Code Beyond Limits, Innovate Beyond Imagination!"

ABOUT
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.

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.

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.

- 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

- **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 Pradeep V, HOD

STUDENT'S EDITORIAL - BOARD

WITH GUIDENCE OF BELOVED HOD

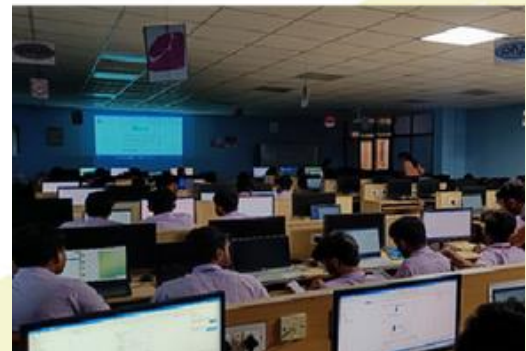DR.PRADEEP V

@ STUDENT
POOJA S SONNAD
YEAR III

@ STUDENT
SHUBHAM S VERNEKAR
YEAR III

@ STUDENT
DHANUSH B V
YEAR III

HANDS ON WORKSHOP ON RPA USING UI PATH

On 4th October 2024, we conducted an insightful session on Robotic Process Automation (RPA) using UiPath, delving into how automation is reshaping business processes. The event highlighted RPA's ability to streamline repetitive tasks, enhance efficiency, and reduce operational errors. UiPath emerged as a leader in this space, offering user-friendly tools that empower both technical and non-technical users to design robust automation workflows. Attendees explored real-world use cases and witnessed live demonstrations of UiPath's capabilities, from data entry automation to invoice processing. The session emphasized how RPA not only optimizes productivity but also enables employees to focus on more strategic tasks, fostering innovation and growth. This knowledge-rich event left participants inspired to integrate RPA into their operations, marking a step forward in embracing the future of work.

INDUSTRIAL VISIT
NOVIGO SOLUTIONS Pvt Ltd,
Manglore

On 6th November 2024, 15 students from the V Semester ISE department participated in an industrial visit to Novigo Solutions Pvt. Ltd., Mangalore, organized in association with TiE, Mangalore. The visit aimed to provide practical exposure to software development, cloud computing, and data analytics. Students were introduced to Novigo's agile development practices, cloud solutions using AWS and Azure, and data analytics powered by Big Data and Machine Learning. A guided tour of the development floor showcased collaborative working culture and industry-standard tools. Interaction with professionals provided insights into emerging technologies like AI, Blockchain, and career opportunities in the tech sector.
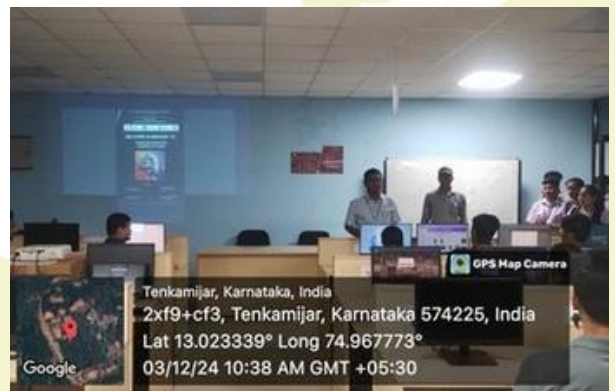
•Fostering Creativity:

Social Awareness Poster Competition by ISE and IIC

Participants : For Engineering Students
Date : 3rd December 2024

The Department of Information Science and Engineering at Alva's Institute of Engineering & Technology, in collaboration with the Institution's Innovation Council, organized a Poster Making Competition on "Social Awareness" on 5th December 2024. Held in the ISE Lab, the event engaged 44 enthusiastic participants from various departments, offering a platform to creatively address critical social issues. The competition aimed to cultivate awareness, encourage teamwork, and empower students to think critically about societal challenges. Guided by IIC's faculty co- ordinator Mr. Mounesh and student co-ordinators, participants explored themes like social disturbance, impactful communication, and creative problem-solving through hands-on sessions. Feedback from participants highlighted the event's value in promoting creativity, collaboration, and awareness, marking it as a significant step toward fostering social responsibility and personal growth.

•Industrial Visit

UniCourt India - Mangalore Infotech Solutions
Pvt. Ltd., Mangalore,

Participants : 15 Nos of V Semester B.E. ISE
Date : 7th November 2024

On 7th November 2024, 15 students from the V Semester ISE department participated in an industrial visit to UniCourt India - Mangalore Infotech Solutions Pvt. Ltd., Mangalore, organized in association with TiE, Mangalore. The visit aimed to bridge the gap between academic knowledge and industry practices, showcasing real-world applications of AI, data science, and machine learning in legal data automation. Students were introduced to UniCourt's legal data analytics platform, its use of NLP and machine learning, and the role of cloud computing in data management. The visit also included interactive sessions with software engineers and data scientists, discussions on career opportunities, and insights into the growing field of legal-tech. Students gained practical knowledge, observed the application of academic concepts, and learned about career prospects in technology and innovation. The visit successfully connected students with industry practices and inspired them to explore opportunities in emerging technologies.

• Industrial Visit

Material Recovery Facility (MRF) at Tenkayadapadava

Participants : 65 Nos of students of III Sem B.E. ISE
Date : 29th October 2024

As part of the Social Connect and Responsibility Initiative, the Department of ISE organized a visit to the Material Recovery Facility (MRF) at Tenkayadapadava village, Dakshina Kannada, on 29th October 2024. Sixty-five III Semester students observed how
10 tonnes of dry waste are processed daily into reusable resources using innovative, centralized waste management methods. The facility's advanced infrastructure and techniques for segregation, recycling, and co-processing inspired students by showcasing the importance of sustainability and community-driven environmental efforts. This visit provided students with valuable practical exposure, enhancing their awareness of modern waste management systems and the role of technology in environmental conservation. It fostered a sense of social responsibility, motivating them to adopt better waste practices and promote recycling awareness. Overall, the experience reinforced the importance of collective efforts in building a cleaner,   sustainable future while inspiring students to contribute positively to society

MEDIA APPRECIATION

Engg students develop portal for crowdfunding govt schools

Kevin.Mendonsa
@timesofindia.com

Mangaluru: The budding engineers, with the help of faculty and support from the Dakshina Kannada district administration, have developed a portal named Namagagi for crowdfunding govt schools in the district.

The portal was developed by students of Alva's Engineering College. In the first phase, it will help to bring funds to govt schools that are in need of infrastructure and other facilities. Donors can also directly approach the school and contribute to the cause. In the future, there are plans to have a dedicated bank account for the same and add more departments.

According to Pradeep Nayak, a guide from the department of information science and engineering at Alva's Engineering College, Moodbidri, DC Mullai Muhilan MP initiated the crowdfunding portal concept. The idea was discussed with Vivek Alva, managing trustee of Alva's Education Foundation, to develop a platform

> In the first phase, Namagagi portal will help to bring funds to govt schools that are in need of infrastructure and other facilities

for funding govt schools, anganwadis, hostels and other institutions.

"Based on the request, we started working, and after four months of brainstorming, we designed the Namagagi portal with the slogan 'Nimma Sahaya, Namma Belavanige'. The same was presented before district minister Dinesh Gundu Rao on Nov 1, and he appreciated the work. It will be laun-

ched officially in the coming weeks," said Nayak.

The portal was developed by students Shreyas Bhandari, Sampath GM, Prathiksha Jain from the department of computer science, and Syed Saleha, Muhammed Yamin from the department of information science and engineering.

Explaining the features, Nayak said that in the first phase, the portal will help raise funds for govt schools, which do not receive enough funds from the govt. The portal will upload verified project costs for the repair of each school in the district. The donor can look for schools they wish to help by entering their details on the portal. Later, the school heads will contact them. "Through this portal, we want to reach out to people across the globe who once studied in these govt schools or are well-wishers," added Nayak.

The subsequent phase will incorporate anganwadis, govt hostels and additional institutions into the crowdfunding portal.

Toshif Patil · 3rd+   ✓ Following ···
SAP BTP Enthusiast | UI5 Developer | Software Developer | I...
3mo · Edited · 🌐

Innovative Crowdfunding Solution for Government Schools in #DakshinaKannada

Engineering students from Alva's Institute of Engineering and Technology, Moodbidri have developed a groundbreaking crowdfunding portal called #Namagagi, designed to support government schools in need of infrastructure and facilities.

Key Project Highlights:
- Developed by Shreyas Bhandari L, Sampath G M, Prathiksha Jain, Syed Saleha, and Muhammed Yamin
- Initiated with support from the Dakshina Kannada district administration
- Slogan: "Nimma Sahaya, Namma Belavanige" (Your Help, Our Elevation)

Portal Features:
- Enables direct crowdfunding for government schools
- Uploads verified project costs for school repairs
- Allows donors to select specific schools to support
- Aims to connect global donors with local educational needs

Update: The portal is now #LIVE! the platform is ready for donors to support rural government schools.

Personal Reflection:
Proud to have been part of the initial stages of this transformative project. Witnessing the dedication and innovation of my fellow teammates has been truly inspiring.

#SocialInnovation #CommunityDevelopment #Engineering #StudentImpact

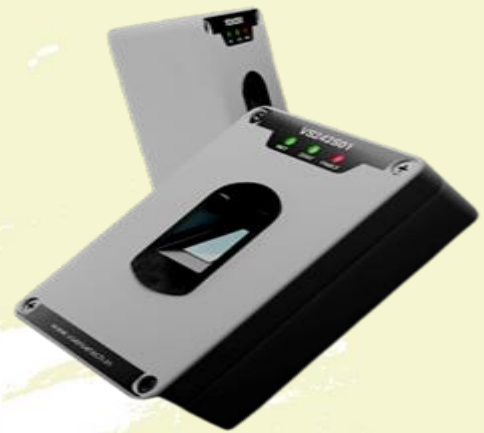Namagagi
cf.dakshinakannada.org

A group of engineering students from **Alva's Engineering College** have developed *Namagagi*, a crowdfunding portal aimed at supporting government schools in Dakshina Kannada district. With the help of faculty members and district administration, this initiative seeks to provide funding for schools in need of infrastructure improvements and essential facilities.

The portal was developed by *Shreyas Bhandari, Sampath GM, and Prathiksha Jain* from the *Department of Computer Science*, along with **Syed Saleha and Muhammed Yamin from the Department of Information Science and Engineering.** Guided by *Pradeep Nayak*, a faculty member from the *Department of Information Science and Engineering*, the team worked for months to design the platform under the initiative *Nimma Sahaya, Nama Belavanege*.

The project was presented to district minister *Dinesh Gundu Rao* on November 1, where it received appreciation for its innovative approach. The portal allows donors to browse government schools in need, view verified cost estimates for required repairs, and contribute directly to the cause.

"Through this platform, we aim to reach donors worldwide who wish to support government schools," said Nayak. Future phases of the project will expand the initiative to include *Anganwadis, government hostels, and other institutions*, further enhancing its impact on the education sector.

Vithsutra Technologies
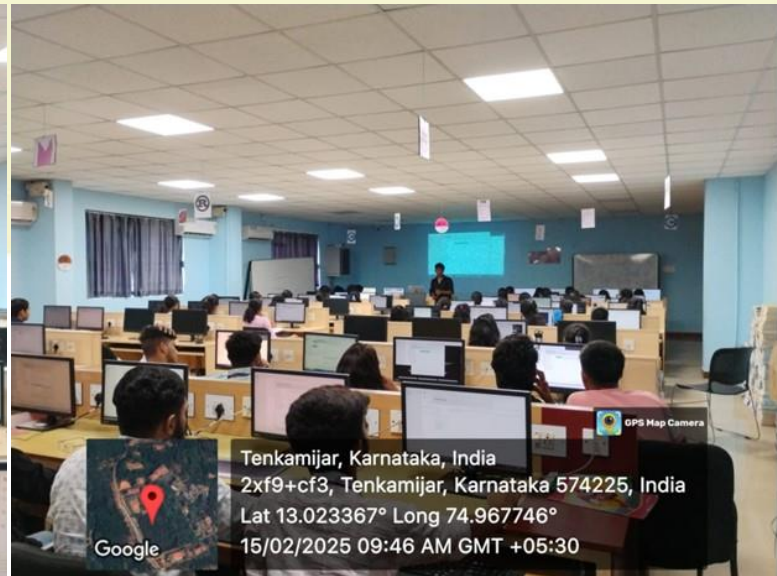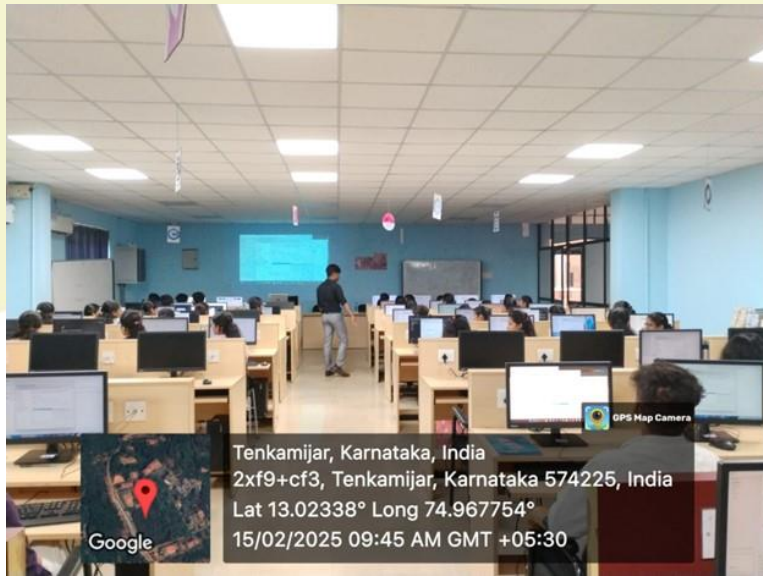## A Trailblazing Student Startup

At **Alvas Institute of Engineering and Technology**, a spark of innovation ignited when two ambitious students, **Sathwik KD** and **Srujan KM**, from the **Department of Information Science and Engineering**, transformed their ideas into a groundbreaking venture. Along with a passionate team of six, they launched **Vithsutra Technologies Pvt. Ltd.**, a startup dedicated to revolutionizing technology for practical applications.

From their pioneering Biometric Attendance Monitoring System to an advanced IoT-enabled Dryer and Boiler Control System for SKF Pvt. Ltd., the team has consistently pushed the boundaries of innovation. Their expertise extends to telecommunication solutions, proving their adaptability in multiple domains.

Driven by a vision to merge education with industrial impact, Vithsutra Technologies stands as a beacon of student-driven entrepreneurship. Their journey is not just a success story—it's an inspiration for aspiring innovators, proving that with passion and persistence, the future is limitless.

CODERS OF ALVAS
Session for SQL

At **Alvas Institute of Engineering and Technology**, the **Department of Information Science and Engineering** continues to nurture innovation and practical learning through impactful training sessions. On **15th February 2025**, a comprehensive **SQL training session** was organized, facilitated by **Mr. Yash**, to equip students with essential skills in **Structured Query Language (SQL)**. The session offered an in-depth introduction to SQL, emphasizing its critical role in database management systems. Participants explored key concepts including **DDL and DML commands**, **query execution** using SELECT, INSERT, UPDATE, DELETE, various **types of joins**, **indexing for optimization**, and **real-time query practices**. The interactive session allowed students to engage in hands-on activities and meaningful Q&A discussions, enhancing their understanding of SQL syntax, **database normalization**, and **integrity constraints**. Mr. Yash enriched the session with practical examples and real-world scenarios, making the learning experience both insightful and application-oriented. The positive feedback highlighted the session's success in building a solid foundation for database management. Looking ahead, it is recommended to conduct follow-up sessions focusing on advanced topics like **stored procedures, triggers**, and **database security**, along with workshops for in-depth query writing and optimization. This initiative reflects the department's commitment to bridging the gap between academics and industry readiness, continuing the legacy of excellence as demonstrated by student ventures.

The Karnataka State Council for Science and Technology (KSCST) supports innovative student projects by providing financial assistance to promote research and development in various fields of engineering and technology. Below is the list of student projects from our institution that have received funding under KSCST.

- **Funded Projects**

2024-2025

Project Title: AgriChain: Blockchain-Enabled Agricultural Supply Chain

Students:
- 4AL21IS027 - Manjunath R
- 4AL21IS049 - Shashidhar Mahadev Patgar
- 4AL21IS057 - Srujan K M
- 4AL21IS050 - Shravan R Poojary
- Guide: Ms. Suma J

PLACED STUDENTS

Congratulations!! placement certificates — Department of Information Science and Engineering, Alva's Institute of Engineering and Technology:

- SATEESH D S — USN: 4AL21IS046 — Placed @ Jutgo Studios
- Nishant Kumar — USN: 4AL21IS036 — Batch - 2021-25 — Placed @ KVP Business Solutions
- Bharath J — USN: 4AL21IS011 — Batch - 2021-25 — Placed @ QUALITYKIOSK TECHNOLOGIES
- Sapthami — USN: 4AL21IS044 — Batch - 2021-25 — Placed @ Infosys
- Afiza A — USN: 4AL21IS002 — Batch - 2021-25 — Placed @ Infosys
- Pragathi G Gowda — USN: 4AL21IS039 — Batch - 2021-25 — Placed @ Infosys