

## DEPARTMENT OF CSE

## AHALIA SCHOOL OF ENGINEERING AND TECHNOLOGY



Ahalia Health Heritages and Knowledge, Ahalia Campus, Kozhippara, Pudussery East, Kerala 678557

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## AHALIA SCHOOL OF ENGINEERING AND TECHNOLOGY (ASET)

### **ABOUT**

Ahalia School of Engineering & Technology (ASET), Palakkad, an ISO 9001:2015 certified institution, is approved by All India Council for Technical Education (AICTE) and is affiliated to the A. P. J. Abdul Kalam Technological University, Kerala. We provide world-class technical education and training in the fields of Science, Engineering, Technology and Management to meritorious students from diverse socio-economic backgrounds. The college is located in a lush green campus with a beautiful view of the Western Ghats. It provides a peaceful and congenial atmosphere, ideal for students for their overall holistic development. Ahalia School of Engineering and Technology offers five Bachelor of Technology (B.Tech.) courses in Civil Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Mechanical Engineering, that is complemented by various co-curriculur and extra-curriculur activities. ASET is one of the several institutions in Ahalia Campus.

## VISION

Grow as a centre of learning and research, transforming students to professionals with knowledge, skill, competence, commitment, confidence and ethics to serve the society

### **MISSION**

To impart value-based education and promote curricular, co-curricular & extracurricular activities amongst students through extensive theoretical & practical training by qualified and experienced personnel using state-of the-art facilities. To promote research and consultancy for institution development and contribution to the society

## **Message From Principal**



I am very happy that dept of computer science is bringing out this newsletter. It is my pleasure to present to you the new issue of "Techchronicles" covering various events and achievements of the students, faculty members, staff and alumni of CSE dept .We have conducted technical workshops, hands on sessions and expert sessions over these time period, which have brightened the young minds, so that they are ready to face the challenges ahead.

I am very happy and proud to note that the staff and the students have actively taken part in various academic, sports, cultural and research activities. In the days to come, staff and the students should try their best to learn advancements in AI, quantum computing, edge computing and programming for robotics. My heartiest congratulations to all of them for the wonderful achievements. Wish you a happy reading

## Dr. P.R. Suresh - Principal

## **Message From HOD**

## Dear Students,

It gives me immense pleasure to reach out to you all through this edition of our student magazine. I am proud to witness the incredible enthusiasm, innovation, and dedication each one of you brings to the Computer Science and Engineering (CSE) department. Your curiosity, hard work, and continuous drive for excellence are what make our department a thriving hub of learning and growth.



As we move forward in this rapidly evolving world, technology continues to shape every aspect of our lives. We are witnessing transformative advancements in areas such as Artificial Intelligence (AI), Machine Learning (ML), Blockchain, the Internet of Things (IoT), Quantum Computing, and Cybersecurity. These are no longer concepts of the future, but technologies that are actively shaping the present and demanding new skill sets. I encourage each one of you to explore these fields, stay updated, and actively engage with them in your projects and research work.

Ahalia School of Engineering and Technology College is committed to providing the best platform for you to build your future. With the introduction of newer technologies and collaborations with industry, we aim to equip you with the tools to innovate and lead in your careers. I urge all students to take advantage of these opportunities and strive to become pioneers in this dynamic and ever-evolving field.

Remember, learning is a lifelong journey, and the best way to predict the future is to create it. I wish you all the very best in your academic endeavors, and I look forward to seeing the remarkable achievements and contributions you will bring to the world of technology.

Dr. S. Gunasekaran Professor, Head of Department – CSE

## COMPUTER SCIENCE AND ENGINEERING

## **ABOUT**

The Department of Computer Science and Engineering at the Ahalia School of Engineering and Technology, Palakkad was started in the year 2012 at the time of starting of the engineering college and provides an outstanding academic environment complimented by excellence in teaching. The department offers B.Tech degree. The Department has a comprehensive syllabus on topics covering all the aspects of computer hardware and software with an emphasis on practical learning. The course structure includes courses on latest topics to equip our students with the latest developments in computer science and engineering.

## VISION

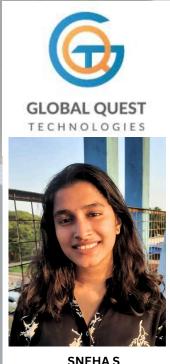
To develop engineers with knowledge and computing skills to become successful in their profession and service to the society.

## MISSION

To practice effective teaching-learning methods that would ensure the production of quality graduates. To expose students and faculty to advancements in the field of computer science and engineering through workshops, seminars, industrial collaboration, etc. To promote an understanding of other branches of knowledge through interdisciplinary research and projects. To develop a strong sense of ethics in the students and emphasise awareness about the social and legal issues.

## **PLACEMENTS**

Congratulations to the 2025 Batch students who have successfully secured placements at Global Quest Technologies, TeleStation, Planet Spark, Workohol, ESAF Bank. Your hard work and dedication have paid off, paving the way for a bright future ahead. Best of luck in your new journey!



SNEHA S CSE 2021-2025





SREYA P S CSE 2021-2025



ABHISHTA S CSE 2021-2025



NANDITHA KARTHIKEYAN CSE 2021-2025

## **WORKCOHOL**



ANNIKA MURALI CSE 2021-2025

## **WORKCOHOL**



ABHIRAM P CSE 2021-2025

## **WORKCOHOL**



VINAY S CSE 2021-2025

## **WORKCOHOL**



Thaaquib Husn Aliakbar CSE 2021-2025

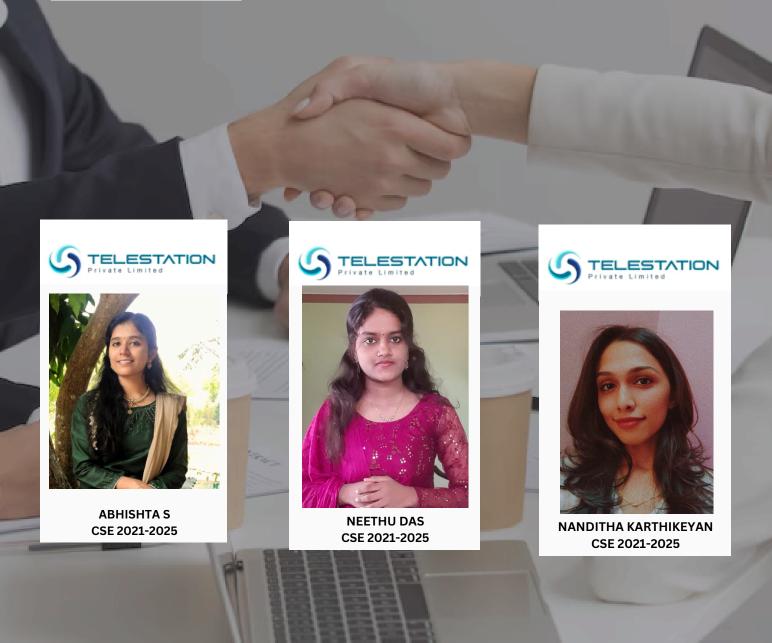


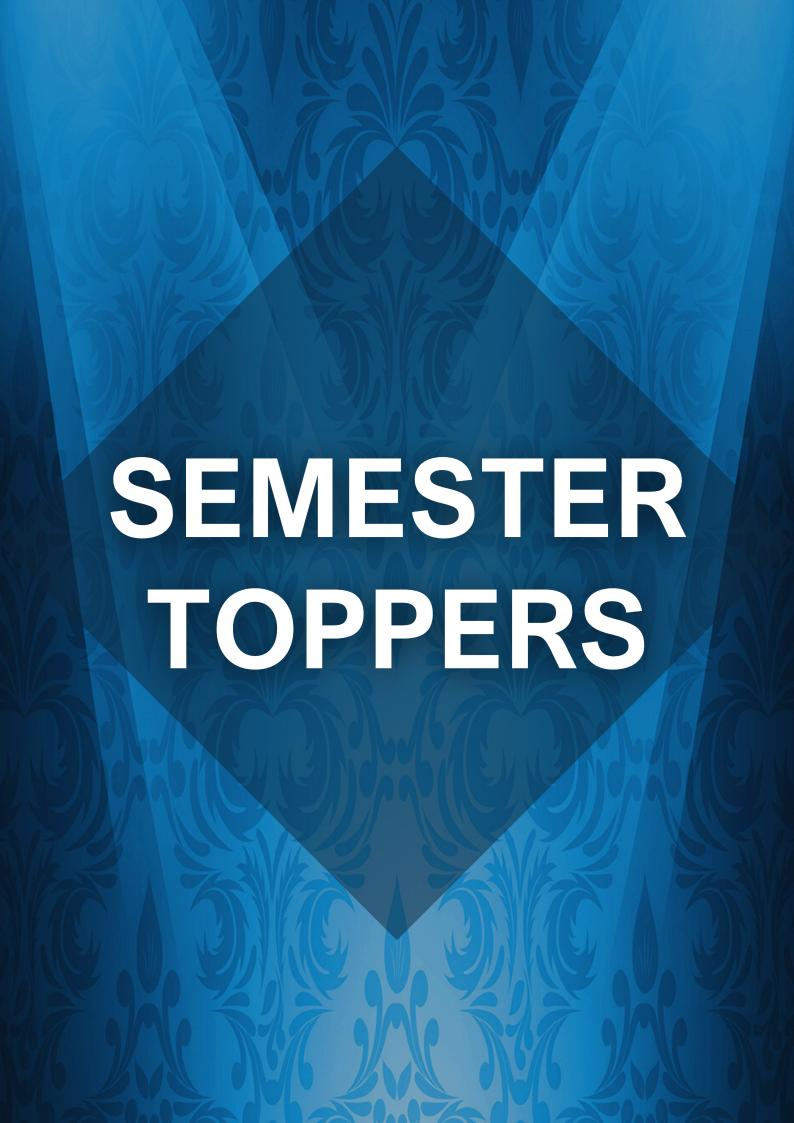




ABHISHTA S
CSE 2021-2025

NANDITHA KARTHIKEYA
CSE 2021-2025





## S3 CSE-A



MRINAL V (SGPA: 9.00)



RITHU P (SGPA: 8.64)



MIDHUN V (SGPA: 8.59)



DHARSHIN R (SGPA: 8.59)

## S3 CSE-B



DIYA KRISHNA MD (9.23)



NITHYA S (9.14)



MIDHUN M (8.45)

## S5 CSE



NAZNA N (8.91)



RIYA MARJUM MR (8.91)



KIRAN GAUTHAM (8.72)



AMAL SASIMOHAN (8.7)

## S7 CSE



SREYA PS (9.8)



ANIKA KUMARI (9.73)



NANDITHA KARTHIKEYAN (9.7)



NEETHU DAS (9.7)



## **COURSE COMPLETION**

## S6 CSE



MIHIKHA S (PROGRAMMING IN JAVA)



MINIKHA S (PROGRAMMING IN JAVA)



GOPIKA PUSHPAN (GOOGLE CLOUD COMPUTING)



UPANYA K (PROGRAMMING IN JAVA)



THOIBA (PROGRAMMING IN JAVA)



NIKHIL SANJAY (C PROGRAMMING)



AJAY M
(ETHICAL HACKING)



NAVANEETH M (WATER SOCIETY AND SUSTAINABILITY)



VAISHAK V NAIR (GOOGLE CLOUD COMPUTING)



NANDHANA S (PROGRAMMING IN JAVA)



ALZEENA A (INTERNET OF THINGS)



KRUTIKA SURESH (WATER SOCIETY AND SUSTAINABILITY)



GAUTHAMI GANESAN (PROGRAMMING IN JAVA)



S.RIYA LAKSHMI (INTERNET OF THINGS)



KRIPA S (PROGRAMMING IN JAVA)



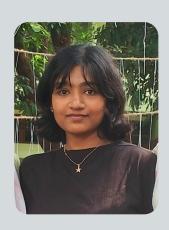
H.S.SREENIDHI
(DEVOLOPING SOFT SKILLS AND PERSONALITY)



E A AADITH KUMAR (CLOUD COMPUTING)



SOORYA R (DEVOLOPING SOFT SKILLS AND PERSONALITY)



**NITHYA** (INTERNET OF THINGS)

## S4 CSE



GOPIKA (PROGRAMMING IN JAVA)



RITHU (PROGRAMMING IN JAVA)



HARITHA (PROGRAMMING IN JAVA)



AFREEN (PROGRAMMING IN JAVA)



SNEHA (PROGRAMMING IN JAVA)



PAVITHRA (PROGRAMMING IN JAVA)



SREELAYA (THE JOY OF COMPUTING PYTHON)



VARUNA (THE JOY OF COMPUTING PYTHON)



VARSHA (PROGRAMMING IN JAVA)



DHANYA (THE JOY OF COMPUTING PYTHON)

## S8 CSE



SREYA P S (CLOUD COMPUTING AND DISTRIBUTED SYSTEMS, DATA SCIENCE FOR ENGINEERS)



ANUPAMA R (CLOUD COMPUTING)



MEERA S (CLOUD COMPUTING)



THEJA M S (PROGRAMMING IN JAVA)

## "TURNING DREAMS INTO REALITY"



## Ms. Happy.A Assistant Professor, CSE

Every great achievement begins with a dream. But dreams don't come true by chance—they become reality through vision, perseverance, and action.

- **Define Your Vision** A clear goal is the first step toward success. What does your dream look like?
- **Take Consistent Action** Small steps, taken daily, lead to big transformations.
- Overcome Challenges Every setback is a lesson in disguise. Keep pushing forward! Challenge yourself to take one step closer to your dreams. Whether it's learning a new skill, starting a project, or simply believing in yourself—go for it!

Every great achievement in history began as a simple dream. From ground-breaking inventions to personal success stories, the journey always starts with a vision—but it's the action behind the dream that turns it into reality.

Many people dream, but few take the necessary steps to make those dreams come true. Why? Because the road to success is filled with challenges, self-doubt, and moments that test our resilience. But here's the secret: every challenge is an opportunity in disguise.



3 Key Steps to Turning Dreams into Reality

- ✓ Clarify Your Vision Define what success looks like for you. A dream without a plan is just a wish! Write it down, visualize it, and set clear goals.
- ✓ **Take Action, Every Day** No step is too small. Whether it's learning a new skill, networking with the right people, or simply believing in yourself–progress is progress!
- ✓ Embrace Challenges Roadblocks aren't meant to stop you; they're meant to prepare you. Every setback carries a lesson that strengthens you for the next step.

Hitting a block while chasing your dreams is completely normal-it happens to everyone! But what separates those who succeed from those who give up is their ability to push through challenges.

Here are some powerful ways to overcome roadblocks and keep moving forward:

- 1. Reconnect with Your 'Why'
- 2. Break It Down
- 3. Change Your Approach
- 4. Strengthen Your Mindset
- 5. Rest, But Don't Quit

Stay patient, keep pushing, and remember-you are capable of more than you think!

Dream big, take action, and keep moving forward. Your future self will thank you!

## "NAVIGATING THE FUTURE OF AI, IOT AND DATA ANALYTICS"

## Ms. Amritha Devadasan Assistant Professor, CSE

As technology evolves at an unprecedented pace, staying ahead of the latest trends and advancements is crucial for professionals across industries. In this issue, we explore key developments shaping the future, with a focus on artificial intelligence (AI), the Internet of Things (IoT), and data analytics, and their impact across various sectors.

- 1. Artificial Intelligence & Machine Learning AI and ML continue to redefine industries, with breakthroughs in generative AI, automation, and natural language processing. Organizations leverage AI to enhance decision-making, optimize operations, and improve customer experiences. Recent innovations include AI-driven chatbots, predictive analytics, self-learning systems that adapt in real-time, and multimodal AI models that integrate text, images, and speech for more seamless human-computer interactions.
- **2.** AI in Cybersecurity With increasing cyber threats, businesses must adopt AI-powered security frameworks. Emerging trends include AI-driven threat detection, behavior analysis to identify anomalies, and automated response systems that neutralize attacks in real time. Additionally, AI plays a critical role in threat intelligence, helping organizations stay ahead of cybercriminal tactics.
- **3.** AI and IoT: The Power of Smart Connectivity The convergence of AI and IoT is revolutionizing industries by enabling intelligent automation and real-time decision-making. Smart devices powered by AI are enhancing efficiency in smart homes, healthcare, industrial automation, and agriculture. AI-driven predictive maintenance is reducing downtime in manufacturing, while smart sensors optimize energy consumption in smart cities.
- **4.** Data Analytics: Transforming Business Insights With vast amounts of data generated daily, advanced analytics is crucial for extracting meaningful insights. AI-powered data analytics enables businesses to enhance customer experiences, streamline operations, and identify emerging trends. From big data platforms to real-time analytics, organizations leverage these tools to drive data-driven decision-making and competitive advantage.

- **5.** AI, IoT, and Edge Computing The combination of AI, IoT, and edge computing is accelerating innovation by enabling real-time data processing closer to the source. This trend enhances efficiency in applications such as autonomous vehicles, smart grids, and industrial automation. AI-powered edge computing reduces latency and improves security by processing data locally rather than relying solely on the cloud.
- 6. AI and Quantum Computing Quantum computing is moving from theory to application, with AI playing a crucial role in accelerating complex problem-solving. Researchers are exploring AI-powered quantum algorithms that could revolutionize cryptography, materials science, and drug discovery, pushing the boundaries of computational capabilities.
- **7.** AI for Sustainability and Green Computing Sustainability is a growing priority, with AI being leveraged to optimize energy consumption, reduce emissions, and improve supply chain efficiencies. AI-driven solutions help in designing energy-efficient data centers, carbon-neutral cloud services, and ecofriendly hardware, reducing the tech industry's environmental footprint.

Conclusion AI, IoT, and data analytics are continuously reshaping our world, driving innovation across industries. Staying informed about these trends enables businesses and individuals to adapt, innovate, and thrive in an ever-evolving digital landscape. Stay tuned for our next edition, where we delve deeper into industry-specific technological advancements.



## How Mark Zuckerberg came up with the idea for Facebook

## ARTICLE BY SHREYA SURESH {CSE-B S2}

"You could find music; you could find news; you could find information, but you couldn't find and connect with the people that you cared about, which as people is actually the most important thing.

"So that seemed like a pretty big hole that needed to get filled."

In 2003, Zuckerberg, a second-year student at Harvard, wrote the software for a website called Facemash. He put his computer science skills to questionable use by hacking into Harvard's security network, where he copied the student ID images used by the dormitories and used them to populate his new website. Website visitors could use Zuckerberg's site to compare two student photos side-by-side and determine who was "hot" and who was "not."

Facemash opened on October 28, 2003—and closed a few days later, after it was shut down by Harvard execs. In the aftermath, Zuckerberg faced serious charges of breach of security, violating copyrights, and violating individual privacy. Though he faced expulsion from Harvard for his actions, all charges against him were eventually dropped.

"Facebook was not originally created to be a company. It was built to accomplish a social mission - to make the world more open and connected."



"That was a basic need, where I looked around at the internet and there were services for a lot of things that you wanted," says Zuckerberg, according to a transcript.



On February 4, 2004, Zuckerberg launched a new website called The Facebook. He named the site after the directories that were handed out to university students to help them get to know one another better. Six days later, he got into trouble again when Harvard seniors Cameron Winklevoss, Tyler Winklevoss, and Divya Narendra accused him of stealing their ideas for an intended social networking website called Harvard Connection. The claimants later filed a lawsuit against Zuckerberg, but the matter was eventually settled out of court.

Membership to the website was at first restricted to Harvard students. Over time, Zuckerberg enlisted a few of his fellow students to help grow the website. Eduardo Saverin, for example, worked on the business end while Dustin Moskovitz was brought on as a programmer. Andrew McCollum served as the site's graphic artist and Chris Hughes became the de facto spokesperson. Together the team who invented facebook expanded the site to additional universities and colleges. In 2004, Napster founder and angel investor Sean Parker became the company's president. The company changed the site's name from The Facebook to just Facebook after purchasing the domain name facebook.com in 2005 for \$200,000.

While Zuckerberg's antics and the site's profits eventually led to him becoming the world's youngest multibillionaire, the man who invented Facebook has done his part to spread the wealth around. In 2010, he signed a pledge, along with other wealthy businessmen, to donate at least half of his wealth to charity. Zuckerberg and his wife, Priscilla Chan, have donated \$25 million toward fighting the Ebola virus3 and announced that they would contribute 99% of their Facebook shares to the Chan Zuckerberg Initiative to improve lives through education, health, scientific research, and energy.

## Federated Learning: A Decentralized Approach to Al Training

## Introduction

In the era of big data and artificial intelligence (AI), traditional machine learning methods rely heavily on centralized data collection. However, privacy concerns, data security, and regulatory restrictions have made it challenging to gather data from multiple sources. Federated learning (FL) offers a groundbreaking solution by enabling machine learning models to be trained across decentralized devices while keeping data local.

## What is Federated Learning?

Federated learning is a machine learning technique where multiple devices or edge servers collaboratively train a shared model without transferring raw data to a central server. Instead of uploading data, only model updates (such as gradients or model parameters) are shared. This ensures that personal and sensitive information remains on the user's device, addressing privacy concerns.

The concept of federated learning was introduced by Google in 2016 as a way to train AI models on smartphones without compromising user privacy. Since then, it has been widely adopted in various fields, including healthcare, finance, and IoT (Internet of Things).

## Applications of Federated Learning

- Healthcare: Hospitals can collaboratively train AI models on patient data without sharing sensitive medical records.
- Finance: Banks can improve fraud detection models while maintaining customer data privacy.
- 3. Smartphones & IoT: Virtual assistants like Google Assistant use FL to improve speech recognition without storing user conversations.
- 4. Autonomous Vehicles: Self-driving cars can learn from road conditions without exposing proprietary data.



Written by Aaryan Menon (CSE-A S2)



## How Federated Learning Works?

Federated learning operates in multiple stages:

- Model Initialization: A global model is initialized by the central server and sent to participating devices.
- Local Training: Each device trains the model using its local data and computes model updates (gradients).
- Model Aggregation: Instead of sending raw data, each device sends only the computed model updates to the central server.
- Global Model Update: The central server aggregates updates from all devices and improves the global model.
- 5. Repetition and Convergence: The process repeats until the model reaches the desired accuracy.

This iterative process allows the model to learn from diverse data sources without direct access to private data.

## Al vs. ROCK:

KARANJITH KJ ->S2
ANEESH R ->S2
NIDHIN J ->S2
AADITH KS ->S2
DILNA SUNIL T ->S2

## Can Machines Capture the Soul of Rock 'n' Roll?

## 1, AI in Rock Music: Hype or Revolution?

## Al is stepping into rock with tools like:

- Magenta (by Google) Al-generated music compositions.
- OpenAl's Jukebox Creates full rock songs in the style of legends.
- AIVA AI composing rock instrumentals.
- Amper Music Al-powered music production for artists

While AI can mimic classic rock sounds, does it really understand the soul of rock?

## 2, Why AI Will Never Be a Rockstar

Al-generated music lacks the imperfection, raw emotion, and chaos that define rock. Even with tools like:

- Guitar Pro Al Auto-generates guitar riffs.
- LANDR Al-powered mastering for rock songs.
- Endlesss Al-driven music collaboration.

Al still can't thrash a guitar like Hendrix or stage-dive like Cobain.

## 3, The Future: Al as a Tool, Not the Star

Al is best used as an assistant, not a replacement. Programs like

- Autotune AI Helps vocalists refine their sound.
- Cresta AI Generates lyrics and song structures
- Al Music Prodigy Assists in songwriting.

These tools support human creativity, but rock will always belong to real musicians, not machines.

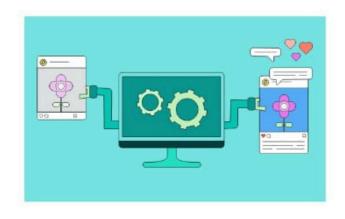
So, is Al just another tech gimmick, or does it have a real place in rock?



## THE HIDDEN POWER OF ALGORITHMS IN SOCIAL MEDIA FEEDS

Social media platforms like Instagram, TikTok Twitter, and use complex algorithms to determine what content appears on users' feeds. These algorithms analyze user behavior, such as likes, shares, comments, and watch time, to curate personalized content. Machine learning plays a crucial role in refining these recommendations, ensuring that users stay engaged for longer periods. While this enhances user experience by showing relevant content, it also raises concerns about echo chambers, where users are only exposed to viewpoints that align with their existing beliefs.





Beyond user engagement, social media algorithms significantly impact businesses. politics. and public Brands opinion. leverage these algorithms for targeted advertising, ensuring their products reach the right audience. Political campaigns also use algorithm-driven strategies influence voter behavior. However, the lack of transparency in how these algorithms function has led to debates about misinformation, privacy, and manipulation. As social continues to evolve, understanding and regulating these algorithms will be essential to maintaining a balanced and ethical digital landscape.

## SMART FARMING USING ARDUINO UNO AND PYCHARM FOR DISEASE DETECTION

Project by Aaryan Menon (CSE-A S2)

Smart farming is revolutionizing agriculture by integrating technology to enhance efficiency and productivity. This project focuses on disease detection in plants, soil moisture monitoring, and climate tracking using Arduino UNO and various sensors. A key aspect of this system is image-based leaf disease detection, which is achieved through color segregation using pixel values in PyCharm.

### System Components and Functionality

The project is built using a combination of hardware and software. The major components include:

Arduino UNO - The central microcontroller that collects and processes data.

Soil Moisture Sensor - Measures water content in the soil to optimize irrigation.

DHT22 Sensor - Monitors temperature and humidity for environmental tracking.

Nokia 5110 LCD Display - Displays real-time data for farmers.

ESP-01 WiFi Module - Enables remote monitoring through wireless communication.

PyCharm for Image Processing - Analyzes leaf color using pixel values to detect plant diseases.

### Using PyCharm for Image-Based Disease Detection

In this project, PyCharm is used for processing plant leaf images to determine their health status. The color of a leaf is a strong indicator of plant health, as changes in color can signal nutrient deficiencies, infections, or environmental stress. By using color pixel values for segregation, we can categorize leaves into different health conditions.

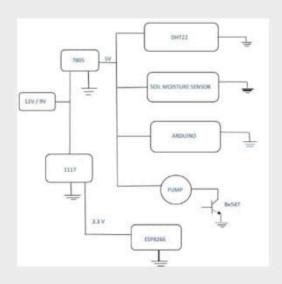
### Color Segregation Using Pixel Values

In PyCharm, image processing techniques were applied to detect specific color ranges in leaf images. The pixel values of the leaf color were analyzed, focusing on the RGB and HSV (Hue, Saturation, Value) color models. The primary approach involved: Identifying Healthy Leaves – Green leaves were classified using specific pixel values.

Detecting Yellowing Leaves – A shift towards yellow in the pixel values indicated possible nutrient deficiencies.

Spotting Brown Patches - Brown or dark spots in the pixel data suggested fungal or bacterial infections.





### Implementation in PyCharm

PyCharm was used to run image-processing algorithms that classified leaf health based on pixel color values. By segmenting the image using if-else conditions, the system could:

Determine the dominant color of the leaf.

Compare it with predefined healthy and unhealthy color ranges.

Provide an output indicating whether the plant was healthy or infected.

### Other Key Functionalities in Smart Farming

Soil Moisture and Irrigation Management:

The soil moisture sensor provides real-time water level readings. If the soil moisture is too low, the system alerts farmers to water the crops, while overwatering alerts prevent root damage.

Temperature and Humidity Monitoring:

The DHT22 sensor tracks climate conditions. If temperature or humidity levels exceed safe limits, alerts are generated, helping farmers take preventive measures against extreme weather.

### Conclusion

This smart farming system effectively integrates Arduino UNO and PyCharm to enhance agricultural efficiency. The use of color pixel segregation in PyCharm enables early detection of leaf diseases, ensuring timely intervention. Alongside soil and climate monitoring, this system helps farmers optimize resources, improve crop health, and increase yields. Future advancements could involve Albased disease prediction models and automated irrigation control for a more intelligent farming approach.

## **DIGITAL TOOLKIT**

A curated mix of productivity-boosting and procrastination-partnering websites.

Prajwal S2 CSE-B

## **VirusTotal**

Upload files or URLs to scan for malware across dozens of antivirus engines. Essential for staying safe with sketchy downloads or links.

virustotal.com

### **Notion**

An all-in-one workspace for notes, tasks, and schedules. Customize it for assignments, club meetings, or even a personal wiki.

notion.so

### **Todoist**

A clean, intuitive to-do list app that syncs across devices. Great for tracking deadlines or breaking down big projects.

todoist.com

### **Pomodoro Timer**

A free, online timer for the Pomodoro technique (25 minutes work, 5 minutes break). Minimalist and effective.

pomofocus.io

## Lumosity

Brain games to sharpen memory and focus. Limited free access, but it's both entertaining and useful.

lumosity.com

## **TypeRacer**

Race others to type quotes fastest. Fun way to improve typing speed.

play.typeracer.com

## Framed.wtf

A daily movie-guessing game where you identify films from single frames. Perfect for film buffs.

framed.wtf

## The Useless Web

Click a button, and it takes you to a random, absurd website. Pure chaos for procrastination.

theuselessweb.com

### GeoGuessr

Drops you into a random Google Street View location—guess where you are. Free mode is limited, but it's fun.

geoguessr.com

## **Pointer Pointer**

Move your cursor, and the site instantly shows a photo of someone pointing at it. Weirdly entertaining.

pointerpointer.com



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## TECHNOCRATZ ASSOCIATION DAY 2025

The Department of Computer Science and Engineering Association successfully hosted Technocratz Association Day 2025 on March 13, bringing together CSE students for a day of innovation, problem-solving, and competition. The event featured three major competitions: CODEATHON, a hackathon with 30 teams showcasing coding and problem-solving skills; the Digital Treasure Hunt, engaging 100+ students in a fast-paced analytical challenge; and the TEQBALL Tournament, where 14 teams competed in a blend of agility and coordination.

The event concluded with an award ceremony, where winners were recognized by Dr. P R Suresh (Principal), Dr. S Gunasekaran (HoD, CSE), and Dr. Reshmi B (Association Coordinator). The success of the event was driven by student coordinators, faculty, and association members. Technocratz extends its gratitude to all participants and organizers, reaffirming its commitment to innovation, collaboration, and excellence for the future.



## TINK-HER-HACK 3.0 HACKATHON

We are thrilled to announce the successful completion of "Tink-Her-Hack 3.0", a hackathon organized by IEEE Student Branch ASET and IEEE WIE. It's a premier women-only hackathon conducted in collaboration with the Tinker Hub Foundation. Held on February 1st and February 2nd, this groundbreaking event gathered over 2000 talented women from across Kerala to celebrate technology and innovation in multiple venues. From coding challenges to creative problem-solving, participants showcased their skills, collaborated with peers, and explored new ideas in a supportive and empowering environment.



## DEEP LEARNING WORKSHOP

The Two-Day Hands-On Workshop on "Deep Learning," organized by the Department of Computer Science and Engineering at Ahalia School of Engineering and Technology in association with InDeep Tech, took place on January 16-17, 2025. Conducted by Mr. Sudhesh K.M., Head Manager at InDeep Tech, it aimed to provide a foundational understanding of deep learning concepts and practical skills. Day 1 covered an introduction to deep learning, neural network fundamentals, and a hands-on session building a simple neural network with CSV data using Python, NumPy, Pandas, and TensorFlow/Keras. Day 2 explored Convolutional Neural Networks (CNNs), image classification techniques, and a practical session training and evaluating a CNN model. The workshop equipped participants with hands-on experience in classification tasks using tabular and image data, fostering confidence to experiment with deep learning tools for real-world applications. It concluded with a summary and resource recommendations.



## LOGIC BUILDING BOOTCAMP

The Logic Building Bootcamp, hosted by the Department of Computer Science and Engineering at Ahalia School of Engineering and Technology on December 17-18, 2024, aimed to enhance students' problem-solving and coding skills. Led by expert K.M. Anand and coordinated by Ms. Anisree P.G. and Ms. Amritha Devadasan, the two-day event saw 69 students participate in sessions on logical reasoning, algorithm design, competitive programming, and debugging. The hands-on approach, featuring live coding exercises, received positive feedback, with students reporting improved coding efficiency and placement readiness. Convened by Dr. S. Gunasekaran, the bootcamp successfully prepared participants for technical interviews and competitive programming, strengthening their technical foundation for future career success.













## FUTURE OF WEB DESIGN WORKSHOP

The hands-on workshop on website creation, held on February 14, 2025, guided participants through the process of building a custom website from idea to brand creation. Led by Mr. Gurudath Sadananthan, HOD of Artificial Intelligence Media Arts and Practice at ASOMSAFT, the session introduced 78 students to AI-powered tools such as Leonardo AI, Vzy Through Builder. Canva, and ChatGPT. Website demonstrations and practical exercises, attendees learned how to design, develop, and personalize their websites efficiently. The workshop emphasized the role of AI in streamlining website creation, from generating visuals to optimizing content and branding. By the end of the session, students had hands-on experience in crafting and hosting a functional website, empowering them to leverage AI tools for digital presence.



## THE ART OF ANALYTICS AND Al: SEMINAR

The Department of Computer Science and Engineering at Ahalia School of Engineering and Technology hosted an expert talk on "The Art of Analytics and AI," delivered by Mr. Hari Aiyappan, Director and Head of Analytics and AI at Deloitte. Coordinated by Assistant Professors Ms. Kavitha S and Ms. Akhila VA, the session was inaugurated by Principal Dr. P.R. Suresh and felicitated by HOD Dr. S. Gunasekaran. Mr. Aiyappan explored analytics and AI, covering their importance, the four V's of big data, types of analytics, AI subfields (Machine Learning, Deep Learning, NLP, Computer Vision), real-world applications, emerging trends (e.g., explainable AI), ethical considerations, and future skills. He emphasized continuous learning and concluded with a Q&A.



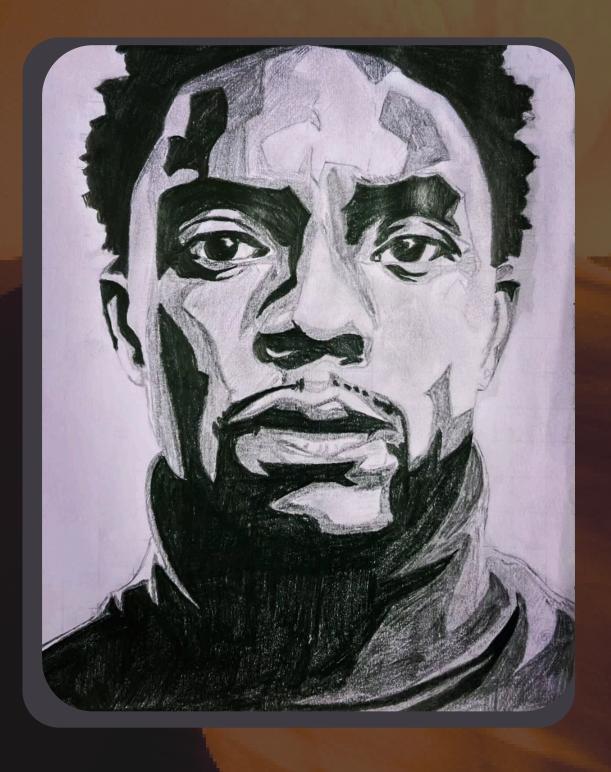


# CREATIVE PARK



Artist

ARYA P S4 CSE A



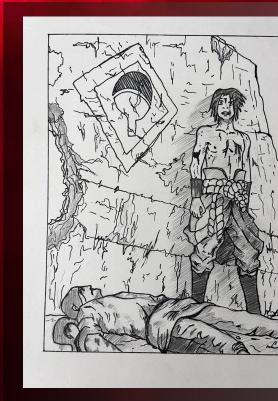
Artist

NAVANEETH KRISHNA MM S4 CSE A

## About the painting:

This exquisite monochrome portrait captures the regal essence of T'Challa with masterful contrast and depth. Striking shadows sculpt his noble features, evoking strength and legacy. His piercing gaze radiates resilience, while rich textures and bold strokes create an elegant, timeless tribute to a leader whose spirit endures beyond the canvas.









## Artist:

## NAVANEETH KRISHNA MM

S4 CSE A

## POETRY

## A JOURNEY BEYOND THE ORDINARY



what is it to live?

The heart pounding dozens of gallons of blood through my body,
To just "go with the flow,"
To just follow,
To just listen,
To take the paths that have already been taken,

Hoping our story will be different— That we will be different.

But, my love,
If you wish to see your story,
One that truly belongs to you,
The herd is not the place to look.

Observe the few—
The ones who dare to question,
Who dare to rise every time they fall,
Who pave their own road.

So, my dear child,
Tremble, let your heart race.
Do the things you wish to do.
Chase the dreams you long to live.

It's okay to fall.

For in the end, the pain of regret
Is far greater than any stumble along
the way.

-Iffah Hussainbi S

## The Art of Changing

What is it to grow?

To shed the skin of yesterday,

To step beyond the lines drawn for you,

To break, to mend, to break again

Yet rise each time, a little different,

A little more you.

The world hums its expectations,
A rhythm safe and well-rehearsed.
Follow the script, walk the road paved for you,
But tell me
Where in that path does your fire burn?

No, you are not meant
To fit into a mold already cast.
You are meant to shape yourself,
To stumble into your own becoming,
To chase the unknown with trembling hands
And eyes alight with wonder.

So, stand tall,
Let the echoes of doubt fade.
For the masterpiece of your life
Is not in the paths you take
But in the courage to create your own.

-Aaryan Menon

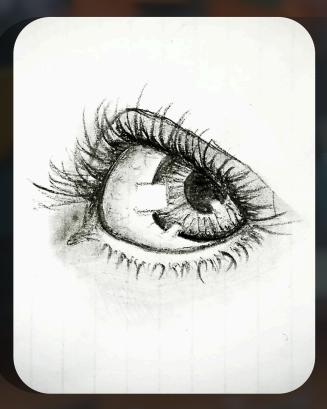
## Fabric painting





Artist:

Dilna Sunil
S2 CSE A



By:
Dharshin R
(S4 CSE-A)

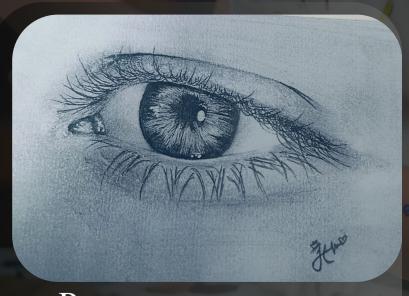


By: Mohammed Sherif I (S4 CSE-A)



By:

Navaneeth Krishna MM (S4 CSE-A)



By: D Haritha (S4 CSE-A)



## Artist: Nikitha Jayan Nair S2 CSE A

## STUDENT ACHIEVEMENTS

### Best Student of all Southern Railway Schools



## Gold Medal in Mr. Kerala Jr. [60kg] in the Mr/Miss Kerala Championship 2024-25

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ABHIRAM R (S4 CSE A)





### APJAKTU E-ZONE TABLE TENNIS CHAMPIONSHIP 2024-2025



Bagged Runner-Up trophy in the APJAKTU E-Zone Table Tennis Championship held at Vidya Academy of Science & Technology on 29 October 2024. The team qualified into APJAKTU Interzone Table Tennis Championship.



## Tink-Her-Hack 3.0 Hackathon



SECURED FIRST POSITION NAZNA N RIYA MARJUM M R ARCHANA J (S6 CSE)



SECURED SECOND POSITION
PAVITHRA M
M NISTHULA
AFREEN YUSAF
(S4 CSE)



SECURED THIRD POSITION
GOPIKA PUSHPAN
THOIBA
KRUTIKA SURESH
(S6 CSE)

## Secured FIRST Position in "CODEATHON"

Organized by ETECHNOGRATZ



MIDHUN M CP VISHNU ABHIRAM (S4 CSE B)

# Secured FIRST Position in "TEQBALL Tournament" Organized by TECHNOCRATZ



SUNIL S (S8 CIVIL)
ATHUL M (S4 CIVIL)

### Secured FIRST Position in "DIGITAL TREASURE HUNT"

Organized by **TECHNOGRATZ** 



M NISTHULA
PAVITHRA M
ASITHA R - PRAJITH
SNEHA G
(S4 CSE A)



## ASET SOCCER LEAGUE RUNNER UP



SAHIL \_S4 CSE

KARTHIGEYAN\_S4 CSE

AKSHAY\_S4 CSE

AJAY \_S4 CSE

SUJITH \_S4 CSE

ADHIL \_S4 CSE

SANJAY S \_S6 CSE

MOHAMMAD SHIBIL \_S6 CSE

SUHAIL \_S6 CSE

NAVNEETH M \_S6 CSE

NAVNEETH R \_S6 CSE

REYZON JOSEPH \_S6 CSE

ABHINAV A R \_S6 CSE

SILVAS KUMAR \_S6 CSE

AADHITH KRISHNA \_S6 CSE

VAISHAK V NAIR \_S6 CSE

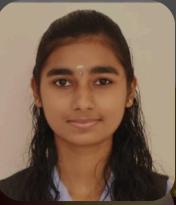
## SPORTS DAY 2025



Abhiram S4 CSE-A 1500 3rd 800 2nd Relay 3rd



Nisthula M S4 CSE-A Javelin throw - 1st Discuss throw - 3rd Shot put - 3rd 4x100 m relay - 1st



Aryananda P S4 CSE B 100 - 1st , 200 - 1st , 400 -1st Relay- 1st Individual Overall trophy



Navaneeth S6 CSE Relay 2 nd



D Haritha S4 CSE-A 800m - 3rd



Pavithra M S4 CSE-A Relay -2nd



Sriparvathy S4 CSE B 400m - 2nd Relay 2nd



Sibin Babu - S8 CSE

5th ktu athletics meet shotput 3rd
6th ktu athletic meet shotput 1st
Ahalia athletics:
shotput - 1st
javelin throw - 1st
discus throw - 1st



Akash R - S8 CSE Javelin throw - 3rd

## TECH ZONE

## "LYNX: BYTEDANCE'S NEXT-GEN CROSS-PLATFORM FRAMEWORK"

#### Main Thread (UI & High Priority Tasks)

App Launch
-UI Rendering
-High Priority Gestures
Uses PrimJS Engine for optimized UI tasks

**Data Flow** 

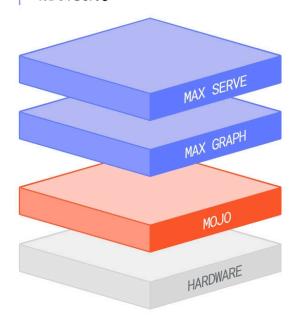
#### Background Thread (User Code and Logic)

-Business Logic
-Network Requests
-User Code

ByteDance, the company behind **TikTok**, has introduced Lynx, a cutting-edge, Rust-powered JavaScript framework designed to revolutionize cross-platform app development.Lynx empowers developers to create native user interfaces for Android, iOS, and web platforms using a single codebase, streamlining the development process and ensuring consistent performance across devices.

Lynx takes a modern, web-native approach to design thinking and component architecture. Unlike React Native, which forces developers to adapt to its JSX-based styling and component structure, Lynx embraces true CSS support, declarative UI building, and a flexible component model that is closer to web development.

MAX Graph is a Python interface to compose kernels into state of the art models, which are delivered through industry-standard REST APIs by MAX Serve



One of Lynx's most notable architectural decisions is its statically-enforced division of user scripting into two distinct runtimes.Lynx keeps the main thread free for important UI tasks by separating user code into two parts:

- 1. Main Thread (PrimJS Engine):
  Handles critical UI actions like app launch and high-priority interactions to keep everything smooth.
- 2. **Background Thread:** Runs most of the user's code to prevent the main thread from slowing down.

## What's New?

presented by Aaryan Menon (CSE-A S2)



#### **IPHONE 16E**

Display: 6.1-inch OLED Processor: Apple A18 Camera: 48MP rear camera

Battery Life: Up to 52 hours of general usage

Price: ₹59,900

The iPhone 16E offers essential iPhone features at a more affordable price point. However, it lacks some premium features like MagSafe compatibility and an ultrawide

camera.

#### SAMSUNG GALAXY S25 ULTRA

**Display:** 6.9-inch Dynamic AMOLED, 120Hz refresh rate **Processor:** Exynos 2300 / Snapdragon 8 Gen 3 (region-dependent)

Camera: Quad rear cameras with 200MP main sensor

Battery: 5000mAh with 45W wired charging

Price: ₹1,15,000

The Galaxy S25 Ultra is a feature-rich flagship with a massive display, high-resolution camera, and S Pen

support.





#### **REALME GT 6T**

Display: 6.78-inch 1.5K LTPO AMOLED, 120Hz refresh rate

Processor: Qualcomm Snapdragon 7+ Gen 3

**Camera:** Dual rear cameras (50MP main, 8MP ultrawide) **Battery:** 5500mAh with 120W SuperVOOC fast charging

Price: ₹35,000

The Realme GT 6T offers strong performance and fast

charging at a competitive price point.

#### **DELL XPS 15**

**Display:** 15.6-inch Infinity Edge display with options for FHD+ (1920  $\times$  1200) or UHD+ (3840  $\times$  2400) resolutions.

Processor: Up to 13th Gen Intel Core i9-13900H.

Graphics: Options include NVIDIA GeForce RTX 4050,

4060, or 4070.

Memory: Up to 64GB DDR5 at 4800MHz.

Storage: Up to 2TB PCIe SSD.

Battery Life: Equipped with an 86Wh battery, offering

extended usage.

Operating System: Windows 11 Home or Pro.

Connectivity: Wi-Fi 6, Bluetooth 5.2, Thunderbolt 4 ports,

USB-C 3.2, and an SD card reader.

Build & Features: CNC machined aluminum chassis, carbon fiber palm rest, backlit keyboard, and a large precision

touchpad.

Price: Starting at ₹143,500 as of March 15, 2025.

The Dell XPS 15 is a high-performance laptop suitable for professionals and creators, offering a sleek design and robust features. However, it comes at a premium price

point and may lack some legacy ports.



### ASUS ROG ZEPHYRUS G14 (2024)

Display: 14-inch 3K OLED, 120Hz refresh rate

Processor: AMD Ryzen 9 8945HS Graphics: NVIDIA GeForce RTX 4060

Memory: 16GB DDR5 Storage: 1TB SSD

Battery Life: Up to 8 hours

Weight: 1.50 kg Price: ₹1,99,990

The ASUS ROG Zephyrus G14 (2024) is a powerful yet compact gaming laptop with a high-resolution OLED display and strong performance. However, it may run warm under heavy loads, and its premium price might not

suit all buyers.





#### **HP SPECTRE X360 14 (2024)**

**Display:** 14-inch 3K2K OLED touchscreen **Processor:** Intel Core i7-1355U (13th Gen)

Memory: 16GB LPDDR4x RAM Storage: 1TB PCIe NVMe SSD

Graphics: Intel Iris Xe Battery Life: Up to 17 hours

Weight: 1.36 kg Price: ₹1,19,999

The HP Spectre x360 14 (2024) is a premium 2-in-1 laptop with a stunning OLED display, powerful performance, and long battery life. However, its high price may not suit all

buyers.