



**PUNJAB ASSOCIATION'S  
ANNA ADARSH COLLEGE FOR WOMEN**

Affiliated to University of Madras

Re-accredited by NAAC at A++ Grade with CGPA of 3.59

2(f) Status Under UGC Act



**POSTGRADUATE DEPARTMENT OF COMPUTER SCIENCE**

# INTERLOOK

**BI-ANNUAL NEWSLETTER**

**VOLUME 2 | ISSUE 1 | SEPTEMBER 2022**

**There are no boundaries or borders  
in the DIGITAL AGE**

**VOL 2**

**SEPT 2022**

## KEY HIGHLIGHTS

**Synthiverse : Unleashing the  
Reality Spectrum**

**Investiture Ceremony**

**Cloud Nine Expo**

**Student Insights**

**Shimmering Moments**

**Pride of the Department**

# Synthiverse : Unleashing the Reality Spectrum

## REVOLUTIONIZING EDUCATION: THE VR FRONTIER

VR offers immersive and interactive learning environments that engage students in ways that traditional classroom settings cannot. VR can help students grasp complex and abstract concepts by providing visual and spatial representations.



## VR - IMMERSIVE LEARNING

VR's immersive nature can boost student motivation and engagement. When students are excited about learning, they are more likely to retain information and excel academically. VR can make education more accessible to students with various learning needs. It can offer alternative ways of presenting information.

## NEARPOD VR

Nearpod is an interactive lesson platform that provides VR experiences. Teachers can create or use pre-made VR lessons to engage students with immersive content.



## GOOGLE EXPEDITION

Google Expeditions offers a vast library of virtual field trips and educational VR experiences. Teachers can guide students through these experiences, making it a valuable tool for classroom learning.



# Navigating the Digital Frontier

In the realm of Computer Science, change is the only constant. As we navigate the ever-evolving landscape of this dynamic field, it's essential to embrace innovation, stay adaptable, and foster a sense of community. The rapid pace of technological advancement is both exciting and challenging. The field of Computer Science evolves faster than most, and what we know today may become obsolete tomorrow. Lifelong learning is not just a buzzword but a necessity.

Virtual Reality (VR) and Augmented Reality (AR) are cutting-edge technologies that have revolutionized the way we perceive and interact with the digital world. While they share similarities in their immersive nature, they serve distinct purposes and have unique characteristics. Their diverse applications range from entertainment and gaming to education, healthcare, and industry, and they continue to evolve and shape the way we experience and interact with technology.

In this issue of our newsletter, we embark on a captivating journey of the Department from its student centric programmes, extension activities to faculty publications and achievements. The editorial team has meticulously compiled student's insights and guest's perspectives. Pride of the Department is the highlight of the newsletter exhibiting the achievers who fetch laurels to the Department.

Join us as we navigate the ever-shifting currents of Computer Science "Unleashing the Reality Spectrum" that illuminate the possibilities of human-computer interaction. As our digital voyage continues, the editorial team will continue to excel and exceed expectations with unwavering dedication, creativity and commitment.

## Editorial Team

### Editors

**Dr. Hannah Vijaykumar M.C.A., M.Phil., Ph.D.**  
Head & Associate Professor  
Dean(Computational Studies)

**Dr. A. Parameswari M.Sc., M.Phil., Ph.D**  
Associate Professor

**Ms. M. Revathy Meenal M.C.A., M.Phil.**  
Associate Professor

**Ms. N. Menaka M.Sc., M.Phil., NET.**  
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**INDUSA S**



**ASWAATH SIDDHIKHA A**



**KAVIYA B**



**DANUSA R**

# Deep Learning: A Practical Perspective

Date : 12.08.2022

*Deep learning is not just about algorithms and theory; it's a journey into unveiling the hidden patterns of data, unlocking a world of insights through practical exploration*

The Post Graduate Department of Computer Science organized an informative Research Workshop on the Fundamentals of Deep Learning. The workshop aimed to provide participants with a comprehensive understanding of deep learning concepts and their practical applications. The workshop was led by the resource person, Dr. S. Ramasamy, faculty member in Computer Engineering at the College of Computer Sciences and Information Technology, King Faisal University, Saudi Arabia. The workshop covered a wide range of topics related to deep learning, with a particular focus on simplifying the concepts for better comprehension. Participants had the opportunity to gain hands-on experience in deep learning. The event attracted a total of 57 participants, including both faculty members and students.





# CAREER ORIENTATION PROGRAMME

Date : 14.09.2022

*Career orientation is the compass that guides us towards a destination where our skills, passions, and purpose converge.*

A Career Orientation Programme was organised by the Department on 14 September 2022, targeting final and prefinal year undergraduate and postgraduate students. The guest speaker for the event was Mr. Iniyan Robert, an esteemed Academic Head with expertise in Legal & Logical Reasoning and an accomplished Advocate. The students gained valuable insights into various career avenues within the realm of Computer Science. He motivated students to explore their unique abilities, encouraging them to consider unconventional career paths that align with their strengths. It was a very informative and useful programme for the students.



## CAREER ENHANCEMENT PROGRAMME

Date : 15.09.2022

*Searching and learning is where the miracle process all begin...*

To throw some light on career options in the field of Computer Science, the Department conducted a career enhancement program for final and prefinal year undergraduate and postgraduate students. The guest of the event Mr. Vignesh Srinivasan, founder and director of MOCKACT pointed out the various career paths offered after our graduation. Furthermore, he gave a brief awareness on competitive exams we could take up and shared effective tips to crack the challenging entrance exams. It was an eye-opening session for the budding tech professionals.



# Learning for Life - Investiture Ceremony

*Leadership is the Capacity to Translate vision into reality*

Date : 22.09.2022

Ms. Vidhya Srinivasan, Chief Marketing Officer of Tristha Global Pvt. Ltd, took the stage during the Investiture Ceremony of Techbyte Students' Consortium to deliver a compelling talk on "Learning for Life". With a career spanning remarkable achievements, Ms. Srinivasan shared insights that underscored the lasting importance of continuous learning, both personally and professionally. Drawing from her own experiences, she vividly illustrated how adaptive learning can reshape careers and broaden horizons. Her discourse emphasized the significance of curiosity, adaptability, and open-mindedness, showcasing how embracing lifelong learning can enhance one's ability to navigate a rapidly evolving world. Students leaders left the event motivated to integrate perpetual learning into their lives, recognizing its potential to foster personal growth and professional success. Ms. Srinivasan's impactful insights continue to guide individuals towards harnessing the benefits of continuous learning in their unique journeys.



## Student Initiative - Techbyte

*The future of the world is in my classroom today*



Date : 17.09.2022



Techbyte student's forum, set forth the Students' Day festivities with its gripping Intradepartmental Competition. The event united undergraduate and postgraduate students in a spirited display of talents, featuring captivating essay writing, dynamic poster designing, and creative collage making. Under the judging of the Department's faculty members, the occasion became a memorable event for the students to showcase their innovations and artistry.



# Cloud Nine Expo

Date : 31.10.2022

*Cloud computing is not just a technology, but a mindset shift that empowers businesses to transcend limitations and embrace limitless possibilities*

The II M.Sc Computer Science students organized a technical showcase "CloudNine Expo". This event was designed with the aim of diving into the intricate realm of cloud computing. The Expo provided a platform for eight teams from the class to present their in-depth understanding of cloud computing through an array of engaging models, informative charts, and well-prepared presentations. The event was graced by the presence of two distinguished judges, namely Dr. K. Maheswari and Ms. S. Ranjana, Assistant Professors, Department of Computer Science. As the event concluded, it was evident that the CloudNine Expo had succeeded in achieving its theme. The guidance and evaluation by the judges further inspired the participants to explore the realm of cloud computing even further.



## Extension Activity Programme

Date : 9.11.2022

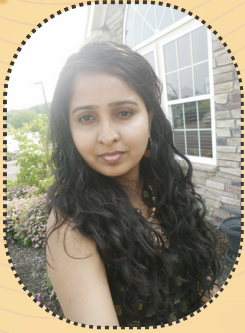
*Creativity is a natural extension of our enthusiasm*

As part of an Extension Activity Programme, few students and faculty members visited Union Christian Matriculation School, Chetpet. Dr. Hannah Vijaykumar and Ms.S.Ranjana, faculty members of the Department gave motivational talks on the topic Avenues in the IT Industries to the higher secondary students to help them decide their future career. Students of the Department conducted fascinating games namely cryptography and techbyte for the school students which made the session more interesting.





# STUDENT INSIGHTS



**Ms. Sirisha Manoharan**

**Senior Salesforce Analyst  
USA**

**2002-2005**

The Big blue Gates, Widespread Playground and the huge auditorium was no new to me. What was new was just the direction I took to reach my class that was about to bound my next 3 wholesome years. Yes, I have been an Anna Adarshian since schooling. However, that time in 2002 I entered the gates for my Under graduation with fresher thoughts in mind. I told myself that I want to set aside my naive and quiet personality for once. I was a bit late to take my admission but was not late to make great friends and getting to know my awesome lecturers. I did struggle to cope up for the lost initial days but with caring lectures besides, I was not left out. Like every student's dream "To enjoy college days" was finally a reality to me. I must say that I developed a happy personality and smiles were felt all around. I did get opportunities to explore my talents that I never knew I had while in Anna Adarsh. All those inter collegiate and interdepartmental culturals gave me a way to establish myself. I must say the exposure that I was given laid a strong foundation in me which helped me rise in career. Every time I am in town, I have the strong urge to visit the college and feel the vibe yet again. Happy to see a strong foundation laid for Alumni association. Looking forward to attending more of those. College days has been my best memories till date after years. It feels so funny to realize that some of you current students were not even born at the time that am writing about. Time has been flying too quick, yet the memories are so vivid and fresh to definitely bring a cheeky smile every time. All I would tell you all young rising stars is to make your best choices. Study smart, have fun, tease, cry, laugh, make memories and importantly "Stay in Touch" with your Friends & College. My name is Sirisha Manoharan and I love being called Siri 😊. I live and work in USA as a Salesforce Analyst. A Professional photographer to feed my passion. An ex RJ for a US based Tamil Radio Channel to strike off my bucket list. Proud Anna Adarshian forever. I am really Heart Whelmed and Thankful for this opportunity that my lecturers have provided to pen down a few words for the current gen students of my department to read. I really appreciate the opportunity to let me interact with my juniors this way. Thank you!

Giving a pause and looking back to your cheerful highlighted moments, pushes you to the way forward to create more highlights in your life. Thank you for giving me an opportunity to present my current college highlights at Anna Adarsh College for Women. The first thing which I would like to say is that the way I compete with myself has been improved a lot. The way I think, the way I implement each and every task and a lot more has given me a stability to relaunch it in a finer way. This would have not been achieved without the guidance of the faculty members. They incorporated their mode of strength to reach us effectively and to get back individual outcomes from the students. This is how I started to explore my outcomes which raised me till here. Everything will have its own toughness. It is how we smash and flash matters. I would like to make a separate highlight in compering which I see as an emotion. A major part which satisfied me, which gave me a confidence, motive, pleasure, recognition and a lot more. The way I started compering through online and now as a person where I can do an on spot compering on the stage. This self seeking growth made me realize that a person should move on with their own enthusiastic flow. Coming to my academic part, Faculty members used all the ways to give us better understanding like ppt, pdf, online board, youtube videos etc. We also had some special classes like Aptitude and personality development class to improve a person's level of competency and interpersonal skills of an individual. A special course with E-commerce gave me an upgrade in my resume. Nevertheless we also had many workshops conducted by the department. Every year we also celebrate the college cultural fest like manjari, neherika ,meghmalhar and also the department will be conducting the main event called INTERFACE and INTRAFACE. The main thing is being a Secretary of Techbyte, it infused a lot of self confidence and to handle things appropriately. I developed abundant Leadership qualities like communication, innovation, team development decision making and transparency. Faculty members gave me a chance to tackle this entire role and to bring out the beyond in me. This Techbyte holds a special place in my heart. As I am currently studying here at Anna Adarsh College, Department of Computer Science, the knowledge and experience which I gained here will obviously be helpful to my bright future set up. Thank You!!

**Ms. Suwaalakshmi.JG**

**3-B**

**2020-2023**





# Guest Glimpse



## Jagannathan.S

General Manager-BD & Programs  
Beeja Academy  
Chennai

Information Technology and Computer science have greatly impacted human life in end of 20th century and is impacting continuously in the 21st century.

The Computer Science Department of Anna Adarsh is earnestly attempting to equip its students both at UG and PG level to gain adequate technical knowledge and in sensitizing them on their greater responsibility in driving technology that can serve the development of humanity at large. It was a pleasure to be a guest at the Intercollegiate Technical Symposium of the Department - INTERFACE 2023.

My humble request to all the students and staff of the CS Department is always remember and reflect on the following Quote of Alvin Toffler and keep the spirit of continuous learning alive : “ The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn ”.

Wishing you all the very best !



## Janet Rajan

Founder and CEO Growth Collective,  
Executive Coach



I want to extend my gratitude to the faculty and students of the Computer Science Department for having me as a guest speaker. It was a privilege to engage with such talented and motivated young women. Personal branding is not just about standing out; it's about recognizing and amplifying your unique strengths, skills, and passions.

In today's competitive world, building a strong personal brand empowers you to seize opportunities, make a positive impact, and confidently navigate your career journey. I was truly inspired by the enthusiasm and potential I witnessed among the students, and I believe that each of them has the power to shape a remarkable future through their personal brand. Thank you for the opportunity to contribute to their growth and success.

# Achievements of Faculty

FACULTY NAME	CATEGORY	TITLE/TOPIC	NAME OF THE ORGANIZER
Dr. Hannah Vijaykumar	Award Received	Olympiad Energy of the Future - Precise Energy 2022	Russian Centre for Science & Culture along with ROSATOM, Moscow
	Award Received	Best Head of the Department	Chennai Softech
	Resource person	Avenues in the IT Industry	Union Christian Mat Hr. Sec. School, Chennai
	Paper Publication	Energy Efficiency in Cloud Computing using Hybrid Algorithm	International Conference on Inventive Computational Technologies ICICT 2022 - IEEE
	Book Chapter Publication	Chapter 9: The Data Consensus Algorithm for Smart City Applications Using Blockchain Technology in Industrial IoT	World Scientific Publishing Co Pte Ltd, Singapore
Ms. A. Lakshmi	Paper Presented	Comparative Analysis of Multiclass Heart Disease Prediction Classification Models using Preprocessing and Feature Selection	2022 Sixth International Conference on I-SMAC - IEEE
Ms. M Revathy Meenal	Award Received	Best Faculty	Chennai Softech
Dr Maheswari K	Book Chapter Publication	Chapter 16: Block Edge Computing: Blockchain-Edge Platform for Industrial IoT Networking	World Scientific Publishing Co Pte Ltd, Singapore
	Paper Publication	Energy Efficiency in Cloud Computing using Hybrid Algorithm	International Conference on Inventive Computational Technologies ICICT 2022 - IEEE
Dr. P.Pakutharivu	NPTEL Online Certification	Big Data Computing	IIT Kanpur
	Award Received	Best Faculty	Chennai Softech
	NPTEL - AICTE Faculty Development Programme	Big Data Computing	IIT Kanpur
Ms. S. Ranjana	Evaluator	Smart India Hackathon 2022	Ministry of of Education Innovation cell, Govt . Of India &AICTE
	Resource person	Applications of AI Technology in Hotel Management	Institute Of Hotel Management Catering Technology & Applied Nutrition, Chennai
	Resource person	Avenues in the IT Industry	Union Christian Mat Hr. Sec. School, Chennai
	NPTEL Online Course	Python for Data Science under Elite+Silver category	IIT Madras
Ms. M. Anita Rajkumar	Award Received	Best Faculty	Chennai Softech
Dr. D. Sasirekha	Award Received	Best Faculty	Chennai Softech



Dr. Hannah Vijaykumar  
Best Head of the Department



Ms. M Revathy Meenal  
Best Faculty



Dr. P. Pakutharivu  
Best Faculty



Ms. M. Anita Rajkumar  
Best Faculty



Dr. D. Sasirekha  
Best Faculty



Dr. Hannah Vijaykumar  
& Dr Maheswari K  
Chapter Published



# Unraveling the Magic: Demystifying XR Technology and Data Flows

"XR" stands for Extended Reality, which is an umbrella term that encompasses all immersive technologies, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). These technologies alter our perception of the physical world by either creating entirely virtual environments (VR), overlaying digital information onto the real world (AR), or blending digital and physical elements seamlessly (MR). Understanding XR and its data flows involves grasping how these technologies capture, process, and deliver information to create immersive experiences.

## VR Sensors

In VR, sensors on the headset and controllers track the position and movement of the user's head and hands. This information is crucial for rendering the virtual environment accurately and in real-time.

## AR Sensors

AR devices use various sensors like cameras, depth sensors, and IMUs (Inertial Measurement Units) to capture the real-world environment. These sensors help understand the physical space and objects around the user.

## Computer Vision

AR devices use computer vision techniques to understand the surroundings. This involves identifying objects, surfaces, and their positions.

## Simultaneous Localization and Mapping (SLAM)

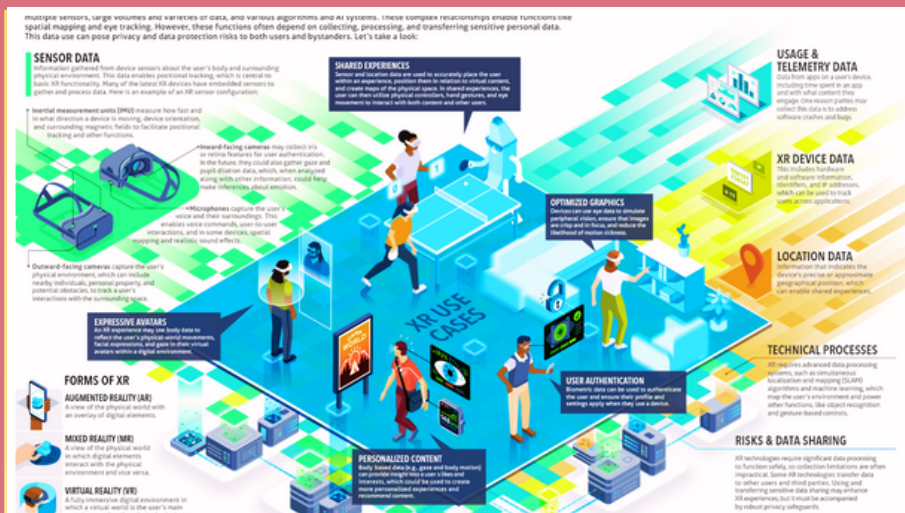
AR systems often employ SLAM algorithms to map the physical space and keep track of the device's position relative to it.

## AR Spatial Mapping

This involves creating a 3D map or mesh of the real-world environment. It helps in anchoring virtual content to physical surfaces.

## VR Environment Creation

In VR, the virtual environment is generated by the computer or console. This includes 3D models, textures, lighting, and audio.



# TYPES OF AUGMENTED REALITY

## Marker based AR

Identifies the Physical images, 'Markers', and 3D Models with the help of AR applications.

## Markerless AR

Based on the device's location, digital compass, camera, and accelerometer to collect the positional information.

## Projection based AR

It is a video projection technique that can extend or deliver digital data by projecting images on the surface of 3D objects or the user's physical space.

## Superimposition AR

It creates an alternate view of an object and can be used for partial or full replacement of the original view of the object.

## Location based AR

It primarily depends on GPS, Digital Compass, smartphone cameras, and other technologies to identify the location.

## Outlining AR

It identifies the lines and boundaries with an updated augmented view of an object that human eyes cannot recognize.



# Tech Snippets

Tata Consultancy Services (TCS) is India's largest IT business in revenue and market capitalisation. It is a “consulting-led, cognitive-powered, integrated portfolio of business, technology, and engineering services and solutions” owned by TATA Group.

MongoDB, Inc. announced the launch of the MongoDB for Academia program in India to train more than 500,000 students with the skills required to use MongoDB Atlas—the leading, multi-cloud developer data platform.

- 500+ Hours of video are uploaded to youtube every minute.
- 97% of people type words in Google for spell checking .

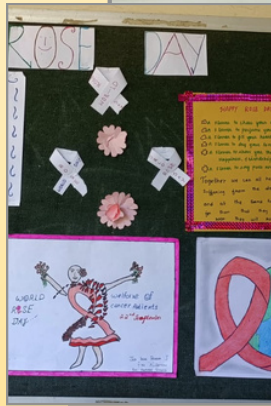
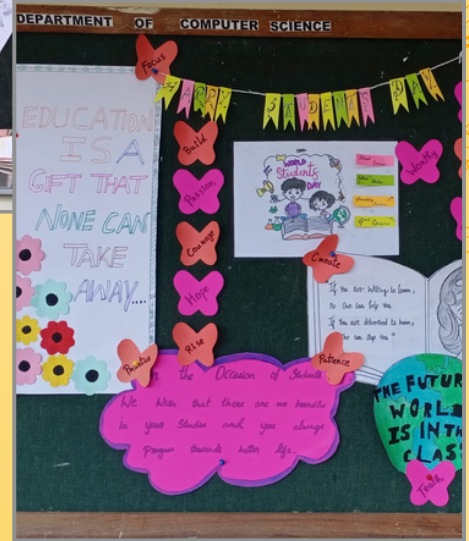
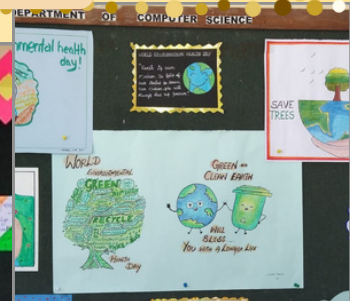
The Blue Screen of Death (BSoD) is a prominent error screen in Microsoft Windows, indicating critical system conflicts and a potential crash. Its name is derived from the distinctive blue background on which these critical messages are displayed.

- The global AI market is expected to reach \$126 billion by 2025.
- CAPTCHA in full is Completely Automated Public Turing Test to all Computers & Humans apart.

- There are 5 billion searches a day worldwide.
- The Google homepage is available in 80 different languages.
- Google Playstore has 3.553 million mobile apps accessible for android users to download.

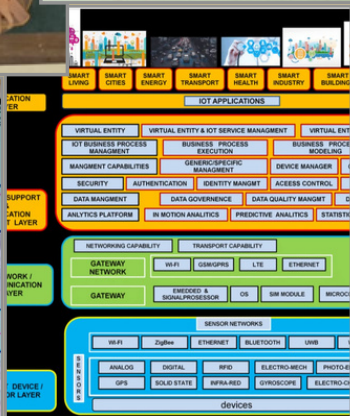
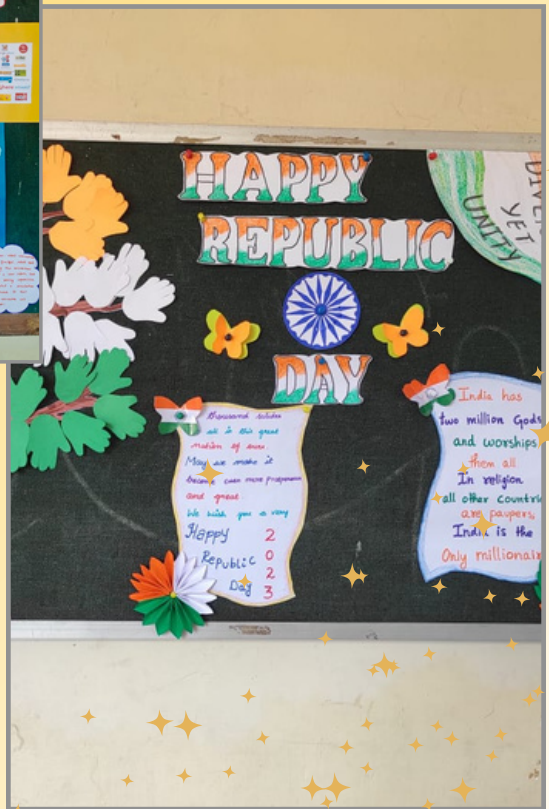
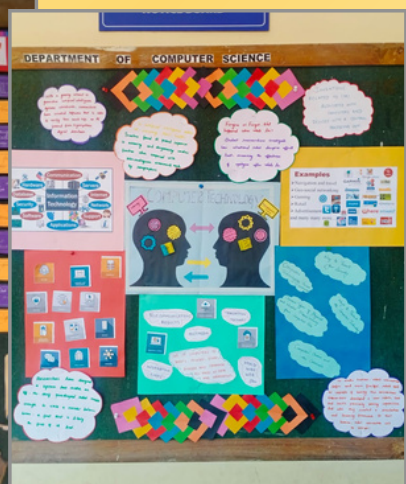
- November 30 is celebrated as Computer Security Day.
- Ecobots turns biological wastes into energy.
- The Global Artificial Intelligence market is expected to reach \$126 billion by 2025.

- People who create malware to commit cybercrimes are known as Black Hat Hackers .
- 109,183,489 unique malicious objects were identified by Kaspersky in 2022.



# Shimmering Moments

## Notice Board & Poster Gallery





# Synthiverse : Unleashing the Reality Spectrum

## UNLOCKING KNOWLEDGE - AR IN EDUCATION

**AR can simulate field trips and virtual tours to places that may be difficult or expensive to visit in person. AR enables hands-on learning experiences without the need for physical materials. AR can help students visualize abstract concepts. AR can adapt to individual learning styles and paces.**



### JIG SPACE

**JigSpace is an app that allows users to create and explore 3D interactive presentations. It's useful for explaining complex concepts visually and is widely used in science and engineering education.**

### AURASMA (NOW HP REVEAL)

**Aurasma, now known as HP Reveal, allows users to create "auras" that link physical objects or images to digital content. This can be used for interactive learning materials.**

## EDUCATION IN MIXED DIMENSION - MR

**Mixed reality blends the physical and virtual realms, enhancing student interactivity and comprehension of complex concepts. Integrated learning and virtual support in shared environments make collaborative group work more efficient through mixed reality.**



### MICROSOFT HOLOLENS

**Microsoft's HoloLens is one of the leading MR devices and offers a range of educational applications. It enables students to interact with holographic objects and simulations in a mixed reality environment.**



### TILT FIVE

**Tilt Five is an MR platform featuring a game board and MR glasses, offering diverse educational games and experiences.**



# PRIDE OF THE DEPARTMENT



**DHARSHINI.J  
IA**

**KINSU SHARMA  
IA**

**ANANTHA LAKSHMI.A  
IA**

DATE	EVENT NAME	WON/ PARTICIPATION
<b>KINSU SHARMA</b>		
29.09.2022	Manjari (Adzap)	3rd Place
13.02.2023	Hindi Drama (Fine arts club)	2nd Place
06.04.2023	Intraface (Poster making)	3rd Place
11.08.2023	Tech Expo '23 (postgraduate dept of computer science)	Runner up (consolation prize)
09.03.2023	SRM Com Sci (paper presentation)	Participation
09.09.2022	Bharathiyar Song	Participation
16.06.2023 to 24.06.2023	Eight days FDP on CHAT-GPT&AI TOOLS	SRM Workshop
31.08.2023	Novitech Cyber Security	Workshop
31.08.2023	Novitech Cyber Security	Workshop
<b>DHARSHINI.J</b>		
30.08.2022	Techbyte Leader	Leader
11.03.2023	National Unity Day Rally	Participated
06.04.2023	Intraface(IOT Model)	Participated
15.05.2023 to 24.05.2023	CATC Camp Held in Velammal School Panchetti	Got selected for second round in firing and also participated in cultural group dance
04.01.2023	Guard Of Honour	Minister for youth welfare and sports development of Tamil Nadu udayanidhi Stalin and Anbil Mahesh poyyamozhi (Minister for school Education of Tamilnadu)
<b>ANANTHA LAKSHMI.A</b>		
30.09.2023	Manjari	Host Performance
09.09.2022	Bharathiyar Song	Participation
06.04.2023	Interface(MIME)	Participation
04.01.2023	Guard Of Honour	Minister for youth welfare and sports development of Tamil Nadu udayanidhi Stalin and Anbil Mahesh poyyamozhi (Minister for school Education of Tamilnadu)
27/04/2023	Guard Of Honour	NAAC (with riffle) done riffle training

