



# KNOWLEDGE

## INSTITUTE OF TECHNOLOGY, SALEM

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

An Autonomous Institution

COUNSELLING  
CODE  
**2653**



Department of  
Computer  
Science

# TECH NINJA

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## 2023-24



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# DEPARTMENT VISION, MISSION

## VISION

- To create globally competent software professionals with social values to cater the ever-changing industry requirements

## MISSION

- To provide appropriate infrastructure to impart need-based technical education through effective teaching learning process
- To train the students with emerging technologies to fulfill the industrial requirements
- To render value based education to students to take better engineering decision with social consciousness
- To inculcate leadership skills in students and encourage them to involve in lifelong learning

## EDITORIAL TEAM

- DILIP S
- SANJAY S
- CHANDRU M



# HOD ADDRESS



Dear Students, Faculty, and Esteemed Readers,

It is with great pride and pleasure that I address you through our department's technical magazine. The Computer Science and Engineering (CSE) Department has always been a hub of innovation, creativity, and excellence. Our students and faculty consistently push the boundaries of technology and research, contributing to the ever-evolving field of computer science.

In this era of rapid technological advancements, the need for engineers who not only possess technical skills but also have a holistic understanding of ethical, societal, and environmental responsibilities is more critical than ever. Through this magazine, we aim to provide a platform for sharing knowledge, fostering creativity, and celebrating the achievements of our department.

I commend the efforts of the editorial team and the contributors for putting together this magazine. It showcases the talent, hard work, and enthusiasm of our students and faculty. I encourage all of you to actively participate in such initiatives, as they offer valuable opportunities to learn, collaborate, and grow both academically and personally.

Let us continue to strive for excellence in every endeavor and keep the spirit of curiosity and innovation alive.

BEST REGARDS,  
**DR.V.KUMAR, PROFESSOR**  
HEAD OF THE DEPARTMENT/CSE

**“Persistence is  
the path to  
success.”**

# Faculty Corner

“In learning you will teach, and in teaching you will learn.”

- Phil Collins



Dear fellow friends ,

It is a privilege to address you. We are part of a discipline that is shaping the future, and together, we have the power to push the boundaries of what’s possible. As we step into this new academic year, let’s embrace the challenges ahead with determination and curiosity.

Our department offers a wealth of opportunities—from hands-on projects and coding competitions to workshops and research initiatives. I encourage each of you to take full advantage of these resources and immerse yourselves in the world of innovation. Collaborate with your peers, seek guidance from your professors, and never hesitate to ask questions.

This year, let’s focus not only on academic success but also on building a community that thrives on shared knowledge and mutual support. We are all on this journey together, and by working as a team, we can achieve great things. Let’s make this year one where we grow not only as students but as leaders and problem solvers.

I look forward to seeing the incredible progress we will make together and the positive impact we will create within and beyond our department.



# Student Corner



## EXTENDED REALITY (XR)

Extended Reality (XR) includes immersive technologies like Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR), blending physical and digital worlds to enhance user experiences in interaction, education, and entertainment. As XR evolves, it is increasingly applied across diverse industries, including gaming, healthcare, education, and architecture.

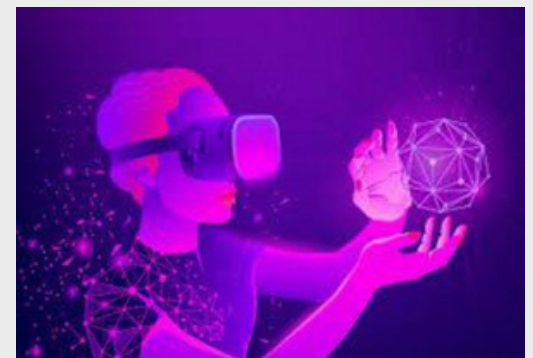
### Types of Extended Reality

- **Virtual Reality (VR):** Immerses users in fully digital environments using headsets.
- **Augmented Reality (AR):** Overlays digital information onto the real world through smartphones or smart glasses.
- **Mixed Reality (MR):** Combines VR and AR, allowing digital and physical objects to interact in real-time.



### Benefits of Extended Reality:

- Enhanced Learning and Training
- Improved Collaboration Engaging
- Entertainment Innovative Design
- and Prototyping



Extended Reality is reshaping interactions with digital and physical environments, offering significant applications across industries. As technology advances, addressing challenges related to costs, user experience, and privacy will be crucial for its successful integration and to unlock its full potential.

# Innovation



“Innovation is the unrelenting drive to break the status quo and develop anew where few have dared to go.”

-Steve Jobs

## REAL TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY-ABLED

**Students :** PRIYASHA S – IV CSE,  
SIVA VIMEL RAJHEN – IV CSE, SUBIKSHA S – IV CSE,  
SURYA S – IV CSE

**Guide:** Dr.P.Rajendran,Prof/CSE



This project aims to develop a real-time communication system powered by artificial intelligence (AI) to assist people with disabilities in their daily communication. The system will use advanced speech recognition and natural language processing (NLP) techniques to understand the user's input and provide relevant responses in real-time.

The system will also incorporate text to-speech (TTS) technology to allow users to communicate via speech, even if they have difficulty speaking.