

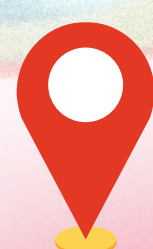
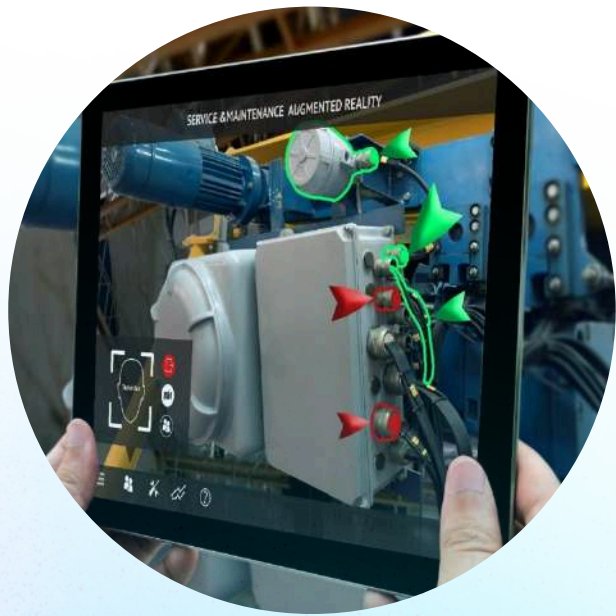


VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering



Center for Augmented Reality & Virtual Reality (AR-VR)



LOCATION: PG BLOCK, P 304



With AR, we are going to change the way we see the world forever.



AR and VR offer innovative training in complex or dangerous environments across various fields, from military to medical.

PROMOTING AR-VR RESEARCH

The Center for Augmented and Virtual Reality (AR-VR) is a multidisciplinary hub committed to advancing AR and VR technologies across various sectors. By fostering collaboration among researchers, developers, and industry professionals, the center seeks to push the boundaries of immersive technology advancements. It aims to focus on enhancing user interactions and experiences, transforming educational practices, developing assistive aids to achieve a broader societal impact. Through its initiatives, the Center is set to revolutionize the way people engage with digital content in healthcare, education, and entertainment, while contributing significant research that influences both academic and industry practices.

OBJECTIVES

- Pioneer innovative solutions that enhance user interaction and experience within augmented and virtual reality.
- Develop educational tools that revolutionize learning and training methodologies using AR and VR.
- Improve accessibility to AR and VR technologies, ensuring a broader societal impact and inclusion.

OUTCOMES

- Produce scalable and user-friendly AR and VR content and tools that cater to various industries.
- Develop practical applications in critical sectors such as healthcare, education, and entertainment, thereby transforming interaction with digital content.
- Generate robust research that not only contributes to the academic community but also influences industry standards and practices in AR and VR technologies.

COMPUTING FACILITIES

- The AR/VR Lab is equipped with computing facilities valued at 25 Lakhs, featuring Meta Quest, 32GB RAM, and NVIDIA GeForce RTX 4080 with 12GB memory

			
Software	Device	System	Graphic Card

"The power of VR is that it gives the viewer a unique sense of empathetic connection to people and events"

Milestones...



1. Research Interest Groups (RIG)

- Develop prototypes and conduct experiments to validate theories and practical applications and reach out industries for product development.
- Publish findings in peer-reviewed journals, conference proceedings, and other academic platforms.
- Establish and maintain a professional network with other research institutions, industry leaders, and technology developers in the AR and VR fields.
- Encourage interdisciplinary research initiatives that integrate insights from fields such as psychology, design, engineering, and computer science.

2. Student Projects

1. STYLE SWAP: Virtual try on costumes
2. Visualization of Learning Concepts for Enhanced Learning Using AR and OCR
3. AR LEARN QUEST

3. Workshops/Seminars

1. ATAL FDP - Augmented Reality and Virtual Reality
2. Workshop on Augmented Reality and Cognitive Sciences

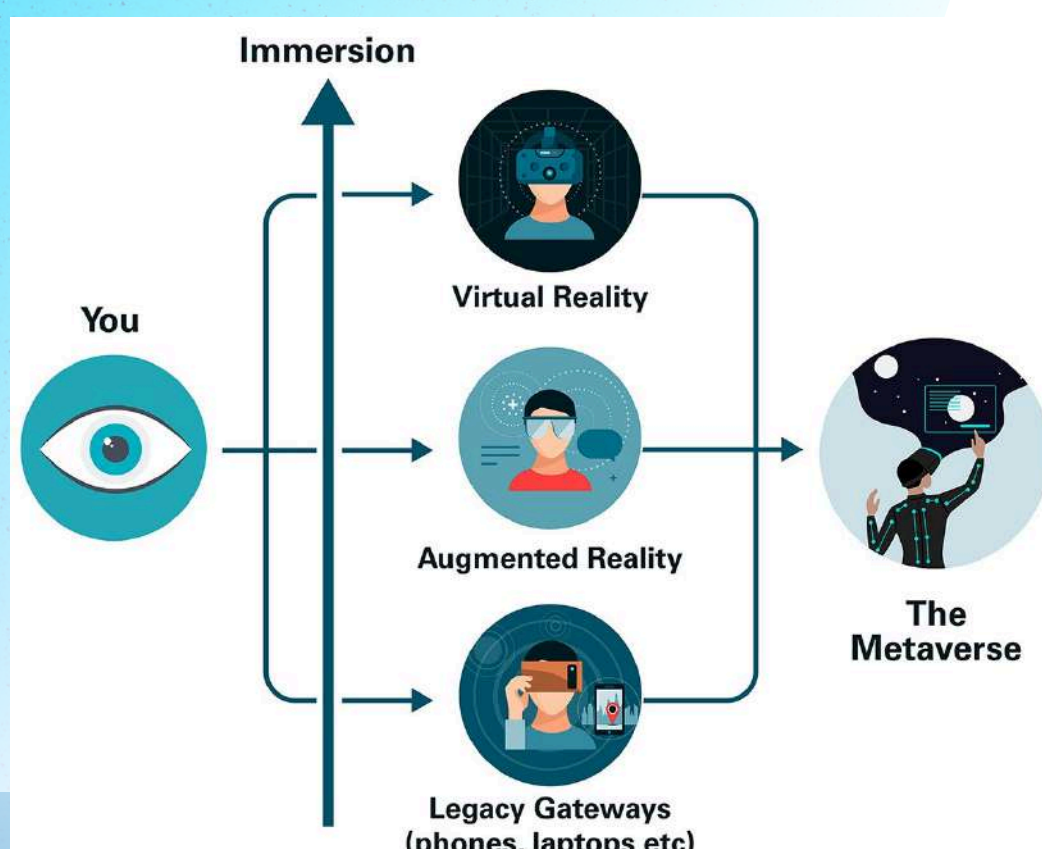
4. Industry Training

Industry Academic Alliance Program



5. Papers Published

"FLIP60-AR based Application for Elders", N. L. Kalyani, M. M. Srinivas, P. S. Harika, P. Rohit, M. L. Sri and S. Nagini, International Conference on Inventive Computation Technologies (ICICT), Nepal, 2022, pp. 668-673, doi: 10.1109/ICICT54344.2022.9850459.



"AR and VR are about transcending the physical limitations we assume are immovable and exploring beyond the boundaries of the physical world"



6. Consultancy

Title: Developing a VR Tour for Warangal Heritage Places

Objective:

- To identify Heritage sites which are most famous and make them available for smart tourism
- Development of virtual reality tours for Warangal Heritage sites

Funded by: HRIDAY

Grant: Rs. 10 Lakhs

Duration: 12 Months

Research Group:

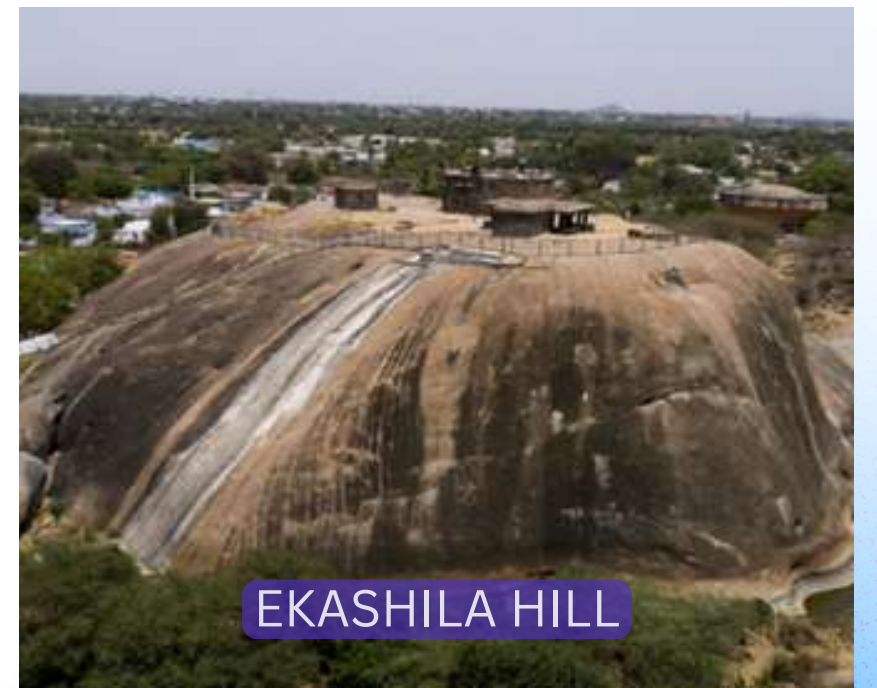
- Mrs. Lakshmi Kalyani, Asst. Prof – CSE
- Mr. D. Ramesh Reddy, Asst. Prof. – ECE
- Dr. P. Radhika, Asst. Prof- CSE

Outcomes:

Delivered a software Platform to highlight tourist attractions with vertically synergized engaging content, which includes VR Tour for Warangal heritage sites.



PANDAVULA GUTTA



EKASHILA HILL



RAMAPPA TEMPLE



DEVUNI GUTTA



1000 PILLAR TEMPLE



BADRAKALI TEMPLE

Appreciations



Presented a virtual tour of Warangal heritage sites to the Ms. Rama Devi Lanka, IT Secretary, TS Telangana



Presented a virtual tour of Warangal heritage sites to the Dpt. CM and Education Minister of Telangana, Sri Kadiyam Srihari



Presented a virtual tour of Warangal heritage sites to the Superintendent of Archeology Department.

Focus Domains

- HealthCare
- Education
- Tourism
- Agriculture....

Industry connect



“ The power of VR is that it gives the viewer a unique sense of empathetic connection to people and events”