CIT

NEWSLETTER

வைகாசி EDITION

MAY 2025

CENTRE FOR IMMERSIVE TECHNOLOGIES
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

CONTENTS

MESSAGE FROM HEAD, CIT

We are excited to present the வைகாசி (Vaikasi) edition 2025 of the Centre for Immersive Technologies (CIT) Newsletter — a milestone in our mission to explore and lead in the dynamic world of immersive tech, including VR, AR, MR, haptics, and more.

CIT was founded to harness the transformative potential of immersive technologies across education, research, and industry. Located on the ground floor of the Hi-Tech Block, the Centre serves as a hub for interdisciplinary innovation where ideas take shape through immersive experiences.

This newsletter aims to keep you informed and inspired. Each edition will feature student breakthroughs, expert insights, and opportunities to engage with emerging tech. Here's a glimpse of what to expect:

- **Spotlight on CIT Infrastructure**: Information about equipment in CIT
- **Dreams in Development**: Student-led projects in immersive tech.
- **Gadget Glimpse**: Highlights of new XR hardware and software.
- **3D Times**: Updates on advancements in 3D content.
- **Mesh Matters**: Case studies on 3D asset development at CIT.
- **XR Lab Logs**: Non-student XR initiatives.
- **xReality Check**: Key news and global XR events.
- **Scholarly Streams**: Abstracts from recent research in immersive tech.
- **Immersion Index**: In-house work featured in conferences or journals.
- **Reality Check-Ins**: Visits from collaborators exploring joint ventures.
- **Immersion Exchange**: Expert talks with industry professionals.

In this edition I would like to keep the readers informed about the CIT's initiative to facilitate **ANNOTATED 360 IMAGES** for highlighting the various infrastructure of the departments of CET. As of now we have completed for the laboratories of various departments such as Mechanical, Mechatronics, Aerospace, etc. Department heads may utilize this service from CIT by expressing your interest and nominating a SPOC for the same. The contents are created using the **Thinglink Service** that CIT ahs subscribed for. Some sample contents shall be found in the following links under section **360 Degree Lab View**

https://www.srmist.edu.in/lab/mechatronics-laboratory/
https://www.srmist.edu.in/lab/thermal-lab/
https://www.srmist.edu.in/department/centre-for-immersive-technologies/

PROF. R. SENTHILNATHAN
CENTRE FOR IMMERSIVE TECHNOLOGIES

HTC VIVE PRO EYE – ENTERPRISE-GRADE VR WITH INTEGRATED EYE TRACKING

BY G. KARTHIKEYAN
RESEARCH SCHOLAR
DEPT. OF MECHATRONICS ENGG.

OVERVIEW:

The HTC Vive Pro Eye elevates professional VR by adding precision eye tracking to the highly regarded Vive Pro platform. Built for enterprise and research applications, it enables gaze-based interaction, attention analysis, and foveated rendering, while maintaining best-in-class resolution and spatial tracking. Engineered for high-fidelity immersion, the Vive Pro Eye is ideal for simulation training, usability research, virtual prototyping, and accessibility solutions in advanced XR ecosystems.

KEY SPECIFICATIONS:

FEATURE	DESCRIPTION
DISPLAY	Dual 3.5" AMOLED screens (2880 × 1600 combined resolution)
FIELD OF VIEW (FOV)	~110° diagonal
REFRESH RATE	90 Hz
EYE TRACKING	Integrated **Tobii Eye Tracking**, 120 Hz sampling rate, <1° gaze accuracy
FOVEATED RENDERING	Dynamic rendering that prioritizes resolution where the user is looking
TRACKING SYSTEM	SteamVR 2.0 with **room-scale tracking** (up to 10m x 10m with 4 base stations)
AUDIO	Hi-Res certified 3D spatial sound with built-in amplifier
CONNECTIVITY	USB 3.0, DisplayPort 1.2, Bluetooth
WEIGHT	Approx. 555g (excluding cable)
SDK SUPPORT	Unity, Unreal Engine, and OpenXR via **Vive SRanipal SDK**

APPLICATIONS IN RESEARCH & INDUSTRY:

- **Cognitive Research & UX Testing** – Analyze gaze patterns, attention shifts, and visual engagement in virtual environments.
- **Foveated Rendering Studies** – Optimize GPU load and render budgets by tracking focus areas.
- **Training & Simulation** – Track trainee attention, response times, and focus in industrial VR training.
- **Accessibility Design** – Enable gaze-controlled interfaces for users with mobility impairments.
- **Human Behavior Analysis** – Study consumer interaction, decision-making, and behavior modeling using real-time gaze data.

CONCLUSION:

With its **seamless eye tracking**, **pro-grade visuals**, and **robust tracking environment**, the HTC Vive Pro Eye is the benchmark for VR-based research, simulation, and enterprise training. It brings precision to immersion, helping your center stay at the forefront of spatial computing innovation.

Figure 1. HTC Vive Pro Eye device in CIT

REFERENCE:

https://www.vive.com/sea/product/vive-pro-eye/overview/

https://developer.vive.com/resources/hardware-guides/vive-pro-eye-specs-user-guide/

AUTOMOTIVE ASSEMBLY IN VR: SEQUENCE-BASED TRAINING USING VIZARD

BY P.MADHAN

II YEAR STUDENT OF B.TECH

MECHATRONICS ENGINEERING
(IMMERSIVE TECHNOLOGIES)

In the automotive industry, ensuring that assembly processes are followed in the correct order is vital for safety, efficiency, and quality control. This project introduces a VR-based automotive assembly simulation developed using Vizard, designed to train users in assembling gear components by following a specific sequence with real-time feedback and interaction.

Figure 1. Automotive Assembly Interface

The need for such a system arises from the limitations of conventional training methods, which often fail to provide hands-on, intuitive learning. Complex assemblies require a clear understanding of the correct order in which parts must be handled. Using virtual reality, this simulation recreates the assembly process in an immersive environment, allowing users to practice and perfect procedures without the risk of damaging real components.

In the simulation, various gear parts are modeled and placed in a virtual workspace. Each part is assigned a correct position in the assembly sequence. Users interact with the components using VR controllers, and the system validates each action:

- When a user grabs a part in the correct sequence, a "Correct Object" message is displayed.
- If a part is grabbed out of sequence, a "Wrong Object" message appears, helping users identify mistakes and learn the correct order.

To simulate real-world functionality, the system establishes parent-child relationships among the gear components. Once the full assembly is completed correctly, the parts become linked. This means grabbing any single component will cause the entire assembled unit to move together—demonstrating how the components are interconnected in actual automotive systems.

Figure 2. Correct Object Sequence Message

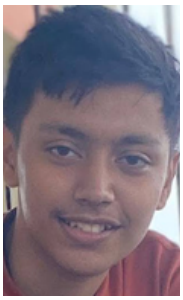
Benefits of the Automotive Assembly VR Simulation:

- Enforce correct part assembly sequence
- Provide immediate feedback to enhance learning
- Simulate real-world mechanical integration through parenting
- Reduce hands-on training time and error rates
- Offer a safe, repeatable, and scalable training solution

This project serves as an effective training module for automotive assembly workers, students, and engineers. By combining the realism of 3D modeling with the interactivity of VR, **Automotive Assembly in VR** provides a cutting-edge solution for mastering mechanical assembly, improving training outcomes and production readiness.

Figure 3. Wrong Object Sequence Message

Project Ideation: Dr. R. Senthilnathan, Professor and Head, CIT
Project Development: Mr. Madhan, Student of B.Tech Immersive Technologies
Project Video Link: https://youtu.be/i8YyfCm9ZcE



BY K.P.HARJIT
II YEAR STUDENT OF B.TECH
MECHATRONICS ENGINEERING
(IMMERSIVE TECHNOLOGIES)

HARDWARE PRODUCTS

XREAL AIR 2 ULTRA

The XREAL Air 2 Ultra is a pair of advanced augmented reality (AR) glasses featuring dual 1920×1080 Micro-OLED displays. It offers a 52° field of view and supports a 120Hz refresh rate in 2D mode and 90Hz in 3D mode. The glasses are designed for comfort, with an ultra-light 83g titanium frame, adjustable nose pads, and electrochromic lenses with three dimming options (0%, 35%, 100%) for customizable visual experiences.

For immersive audio, the Air 2 Ultra includes built-in stereo speakers using directional sound technology, minimizing leakage. Dual microphones capture clear voice input, and the glasses feature 6DoF inside-out tracking for precise spatial awareness. Additionally, hand tracking enhances user interaction with virtual content.

The device connects seamlessly to smartphones, PCs, and gaming consoles via USB-C or HDMI, making it versatile for various applications, from gaming to productivity. Whether for work or entertainment, users can experience high-quality AR visuals and interactions.

Developers can also leverage XREAL's NRSDK 2.2 to create and optimize AR apps. This SDK supports features like spatial anchors and depth mesh, allowing developers to craft dynamic and engaging AR experiences for users.

Figure 1. XReal Air 2 Ultra

SOFTWARE PRODUCTS

SAGE

SAGE (Semantic-Driven Adaptive Gaussian Splatting) is an advanced XR software framework introduced in 2025 that enhances the efficiency of 3D scene representation in virtual and augmented reality environments. Building on the concept of Gaussian splatting—where 3D scenes are rendered using overlapping fuzzy blobs instead of traditional meshes—SAGE introduces semantic awareness to the process.

It intelligently segments the scene into meaningful categories (such as floors, furniture, or walls) using AI, then adapts the rendering detail based on the importance of each segment. Important elements receive higher detail for visual clarity, while less relevant parts are simplified, resulting in significant reductions in GPU memory usage and faster rendering times without compromising quality. This makes SAGE especially useful in interactive XR applications such as virtual classrooms, training simulators, and AR design tools, where both realism and performance are crucial.

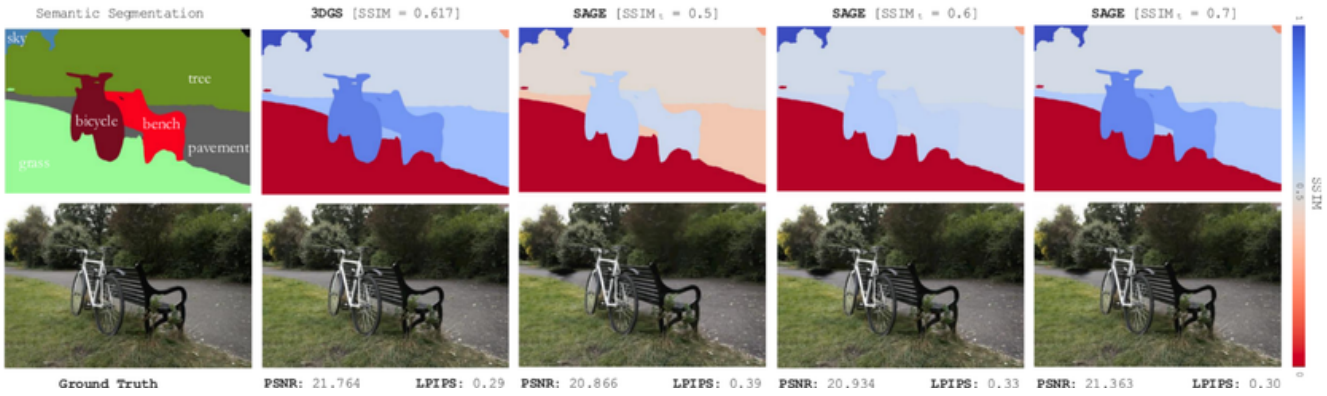


Figure 2. Depiction of SAGE

REFERENCE

https://www.youtube.com/watch?v=zbkSFw7VkPc

3D AI STUDIO – RAPID DIGITAL ASSET GENERATION

BY G. RANJITH
3D MODELLING ENGINEER, CIT
SRMIST-KATTANKULATHUR

A new advancement in digital design technology has been introduced: a software tool that enables the automatic conversion of 2D images into 3D models, similar to tools like SplineDream, Kaedim, Luma AI, and others. This breakthrough is anticipated to greatly streamline asset creation for artists, designers, and developers across a variety of industries.

HOW IT WORKS

Through advanced algorithms and machine learning, 2D references are analyzed, and their depth, perspective, and form are interpreted to generate accurate 3D geometry.

- Flat images are processed and reconstructed into mesh-based models.
- Texture data is often extracted directly from the 2D input.
- The resulting 3D output can be exported to major platforms such as Blender, Unity, and Unreal Engine.

USE CASES

This technology is being positioned as a game-changer for:

- Game development workflows
- Rapid prototyping
- Concept-to-model pipelines
- VR/AR asset creation
- Stylized animation and VFX

CURRENT CAPABILITIES

Depending on the software used, both stylized illustrations and photo references can be converted. Features such as pose estimation, automatic topology generation, and AI-based shading are being included in the latest releases.

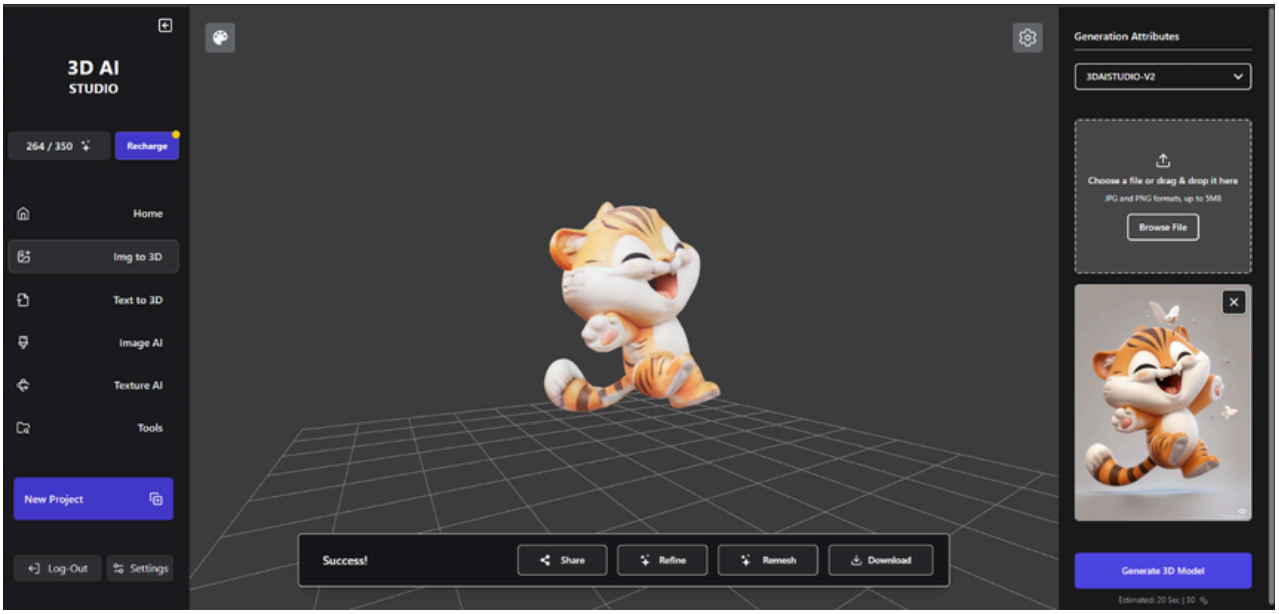


Figure 1. A Cheerful Cartoon Tiger is Shown Automatically Converted from a 2D Reference into a Detailed 3D Model using AI-powered Software

INDUSTRY IMPACT

Depending on the software used, both stylized illustrations and photo references can be converted. Features such as pose estimation, automatic topology generation, and AI-based shading are being included in the latest releases.

REFERENCE

https://www.3daistudio.com/blog/convert-2d-to-3d-using-ai-step-by-step-guide

https://youtu.be/gfct0aH2COw?si=jQ4NNJMk2i_kjXRk

DRONE MODELLING FOR REAL TIME TRACKING

BY G. RANJITH

3D MODELLING ENGINEER, CIT

SRMIST-KATTANKULATHUR

A detailed 3D model of a real-world drone has been completed. The original drone was carefully observed and digitally recreated using Blender, with attention paid to its proportions, structure, and components.

PROJECT OVERVIEW

The drone was modeled from scratch, closely replicating its physical counterpart. Every component from the body shell to the propellers—was meticulously reconstructed with a focus on accuracy.

- The four-propeller layout was modeled to match the original.
- The body frame, motor housing, and propeller guards were all shaped to reflect the real design.
- Red propellers were added as per the reference drone's aesthetic.

The geometry was optimized for potential use in real-time applications such as VR or AR environments.

Figure 1. A Photo of the Real-Life Drone used as the Visual Basis for 3D Modeling.

TOOLS & WORKFLOW

Blender was used for modeling, UV mapping, and basic material setup.

POTENTIAL APPLICATIONS

This model was created with the following use cases in mind:

- VR/AR-based drone simulations
- Animation or product visualization
- Technical training tools or concept presentations
- Game development or prototyping

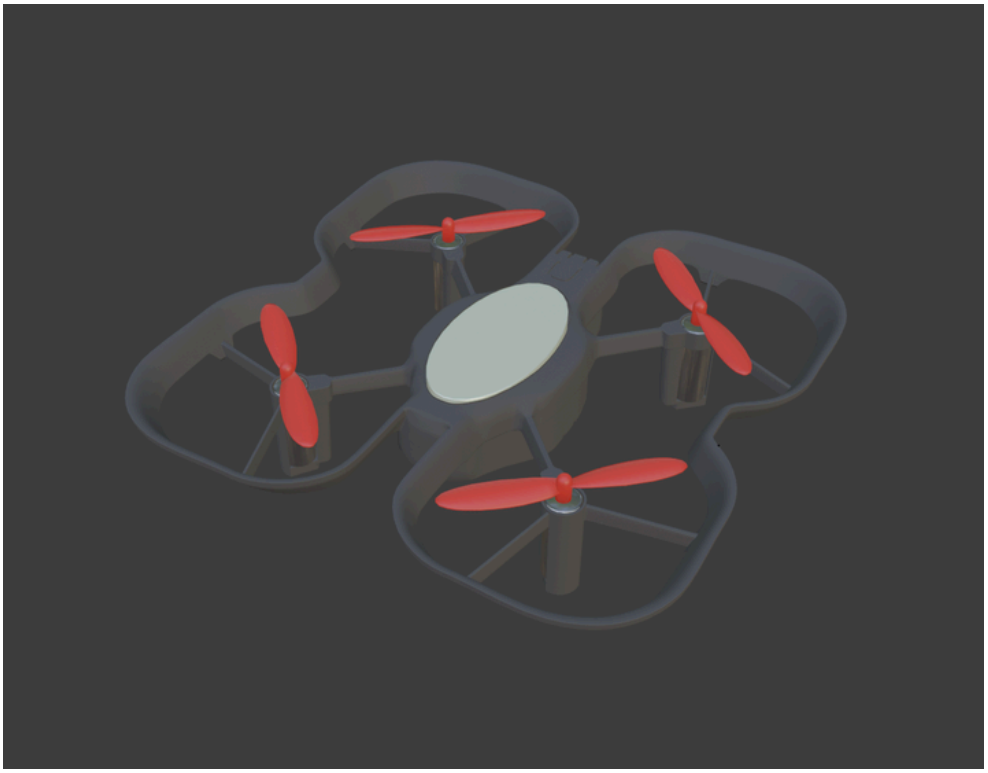


Figure 2. A Digital Recreation of the Same Drone, Modeled from Scratch in Blender

Project Ideation: Dr. R. Senthilnathan, Professor and Head, CIT
3D Model Development: Mr. Ranjith, 3D Modelling Engineer, CIT

TECHNICAL DOCUMENTATION: VR-BASED UPPER LIMB STROKE REHABILITATION SYSTEM

BY VIGNESH
SENIOR XR DEVELOPER, CIT
SRMIST-KATTANKULATHUR

This document outlines the technical design and implementation of a Virtual Reality (VR)-based rehabilitation system developed for upper limb motor recovery in stroke patients. The system leverages immersive VR experiences, precise motion tracking, and biosignal monitoring to support targeted therapy through structured, game-based exercises focused on the shoulder, elbow, and forearm.

EXERCISE-CENTRIC SYSTEM OVERVIEW

The VR rehabilitation platform is structured around four core exercises, each designed to target specific upper limb movements through engaging, interactive gameplay. The hardware and software components include:

- Oculus VR headset for immersive interaction
- Vive trackers for precise limb tracking
- Hand tracking module for fine motor control
- Surface Electromyography (sEMG) sensors to measure muscle activity
- Custom-developed VR serious games mapped to rehabilitation goals
- Data logging and analysis backend to evaluate therapeutic outcomes

EXERCISE DESCRIPTIONS AND IMPLEMENTATION

SUN RISING (SHOULDER ELEVATION)

The user simulates lifting the sun by raising their arm overhead. This movement targets shoulder flexion and is tracked using Vive trackers on the upper arm. The system provides visual feedback and counts repetitions.

Figure 1. Stroke Patient Performing Sun Rising Exercise in VR

KITE PULLING (ELBOW FLEXION/EXTENSION)

Users mimic pulling a kite string to activate elbow flexion and extension. Arm movements are tracked via Vive sensors, while EMG sensors monitor triceps and biceps engagement. This exercise emphasizes rhythm and range of motion.

Figure 2. Stroke Patient Performing Kite Pulling Exercise in VR

CHERRY PICKING (HAND PRONATION)

In this exercise, users pick cherries from a virtual tree using a palm-down (pronated) motion. Oculus hand tracking captures the hand orientation and movement, while repetition and accuracy are recorded.

Figure 3. Stroke Patient Performing Cherry Picking Exercise in VR

BALLOON CRUSHING (HAND SUPINATION)

Users pop balloons by flipping their hand palm-up in a supination movement. This activity uses Oculus hand tracking for natural gesture recognition and logs successful balloon pops as repetitions.

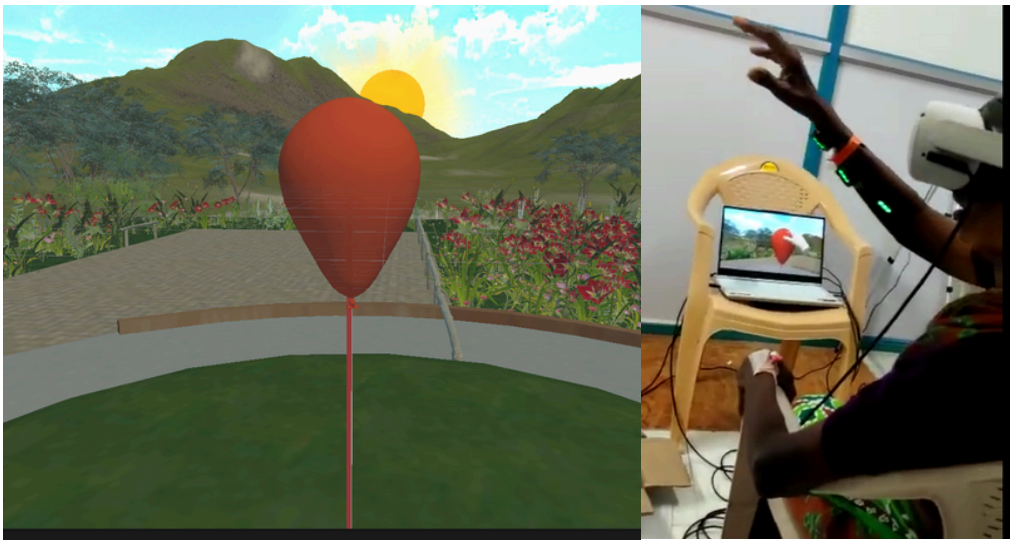


Figure 4. Stroke Patient Performing Balloon Crushing Exercise in VR

TRACKING AND INTERACTION MODALITIES

SUN RISING & KITE PULLING

Users pop balloons by flipping their hand palm-up in a supination movement. This activity uses Oculus hand tracking for natural gesture recognition and logs successful balloon pops as repetitions.

CHERRY PICKING & BALLOON CRUSHING

Uses Oculus' built-in hand tracking for markerless gesture recognition, enabling intuitive interaction without controllers.

MUSCLE ACTIVITY MONITORING

- Surface EMG Sensors : Placed on relevant muscle groups (e.g., deltoid, biceps, triceps), the sensors collect real-time muscle activation data
- The data helps therapists verify correct muscle engagement and monitor changes over time

DATA LOGGING AND FEEDBACK MECHANISM

Each exercise is instrumented with:

- Timers to measure task duration
- Counters to track successful repetitions
- Kinematic data (e.g., range of motion, speed) from trackers
- EMG signal logs to correlate physical effort with virtual performance
- Progress reports that aggregate metrics across sessions

CONCLUSION

This VR-based rehabilitation system places structured, exercise-driven therapy at the center of stroke recovery. By combining engaging tasks with real-time tracking and biofeedback, it enables personalized, data-informed rehabilitation that encourages consistent participation and supports meaningful motor recovery.

Project Ideation: Dr. Varshini Karthik, Professor, Dept. of Bio-Medical Engineering
Project Development: Mr. G. Vignesh, Senior XR Developer, CIT
3D Asset Creation: Mr. Kamlesh, Former 3D Modelling Engineer, CIT
Domain Expert and Narrative: Dr. Shanmuga Priya, Assistant Professor, Dept. of Physiotherapy
Project Video Links:
https://youtu.be/XJ3TJdQ4ybo
https://youtu.be/tlOtjAcUsso
https://youtu.be/IDpvuVHOwLc

BY G. JAYAKANTH
I YEAR STUDENT OF B.TECH
MECHATRONICS ENGINEERING
(IMMERSIVE TECHNOLOGIES)

GOOGLE & SAMSUNG LAUNCH ANDROID XR: A NEW ERA IN MIXED REALITY

At the TED 2025 conference, Google unveiled **Android XR**, a new operating system designed to power augmented reality (AR), virtual reality (VR), and mixed reality (XR) devices. Developed in collaboration with Samsung and Qualcomm, Android XR aims to provide a seamless and immersive experience across various devices, integrating Google's Gemini AI assistant for enhanced interaction.

KEY FEATURES OF ANDROID XR:

- **Gemini AI Integration:** Android XR leverages Google's Gemini AI assistant to facilitate natural language processing, enabling users to interact with devices through voice and gestures. Gemini can perform tasks like real-time translation, object recognition, and contextual assistance, enhancing the overall user experience.
- **Cross-Device Compatibility:** The operating system supports a wide range of devices, including headsets, smart glasses, and smartphones, ensuring a consistent experience across platforms.
- **Developer Support:** Android XR is compatible with existing development tools such as AR Core, Unity, and Open XR, allowing developers to create applications that can run across multiple devices within the Android XR ecosystem.

REFERENCE

Google Blog – Android XR

INNOVATING NURSING EDUCATION: INTEGRATING IMMERSIVE TECHNOLOGIES

BY S.P. VISHWAS

II YEAR STUDENT OF B.TECH

. MECHATRONICS ENGINEERING
(IMMERSIVE TECHNOLOGIES)

The landscape of nursing education is undergoing a transformative shift with the integration of immersive technologies. Virtual Reality (VR) has emerged as a pivotal tool, offering nursing students the opportunity to engage in realistic clinical simulations that enhance both theoretical knowledge and practical skills.

TECHNOLOGICAL INTEGRATION IN NURSING EDUCATION

Immersive VR platforms, such as UbiSim and SimX, provide nursing students with interactive 3D models and scenarios, enabling them to practice procedures and patient interactions in a controlled virtual environment. This approach bridges the gap between classroom learning and clinical practice, allowing for repeated practice without the constraints of traditional simulation labs.

Figure 1. Simulated Patient Interaction in VR

EDUCATIONAL IMPACT AND OUTCOMES

Studies have demonstrated that VR-based training in nursing education leads to improved student engagement, enhanced retention of clinical skills, and increased confidence in performing medical procedures. For instance, a systematic review highlighted that VR offers superior potential in advancing nursing students' theoretical knowledge and practice proficiencies compared to conventional teaching methods.

Moreover, VR simulations allow for differentiated learning, enabling students to repeat procedures and scenarios as many times as needed to achieve competence, which is often limited in real-life settings . UCSF School of Nursing

Figure 2. VR-Based CPR Training

CHALLENGES AND CONSIDERATIONS

Despite the promising benefits, the adoption of VR in nursing education presents challenges, including high implementation costs, the need for specialized equipment, and the requirement for faculty training. Addressing these barriers is crucial to fully realize the potential of immersive technologies in nursing curricula.

CONCLUSION

The integration of VR into nursing education represents a significant advancement in training methodologies, offering students immersive, hands-on experience in a safe and controlled environment. As technology continues to evolve, the potential for VR to revolutionize nursing education becomes increasingly evident. Nursing students practicing CPR using Virtual Reality headsets and mannequins. Simulated patient interaction using virtual reality (VR) enhances critical thinking and real-time response in nursing students.

REFERENCE

https://www.elsevier.com/en-in/resources/helpful-resources-for-virtual-reality-simulations-in-nursing-education

DIAGNOSING AMBLYOPIA USING VIRTUAL REALITY: A COMPARATIVE ANALYSIS WITH VISUAL ACUITY TESTS

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IV YEAR STUDENT, B.TECH BIOMEDICAL ENGG. PROGRAM
DEPT. OF BIOMEDICAL ENGG.

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DEPT. OF BIOMEDICAL ENGG.

K. VARAGUNARAJAN
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DEPT. OF BIOMEDICAL ENGG.

VISUAL ACUITY TESTING USING VIRTUAL REALITY

This content is an extract from the main article presented in a International Conference.

Visual acuity refers to the clarity or sharpness of vision and is commonly measured using charts like the Snellen or Tumbling E. It plays a central role in diagnosing conditions like amblyopia, refractive errors, and other visual impairments. Traditional testing methods, while standardized, are often affected by factors such as inconsistent lighting, memorization of charts, limited patient engagement, and accessibility constraints.

To address these challenges, our study introduces a Virtual Reality (VR)–based alternative that recreates the visual acuity testing environment in a controlled, immersive, and interactive space.

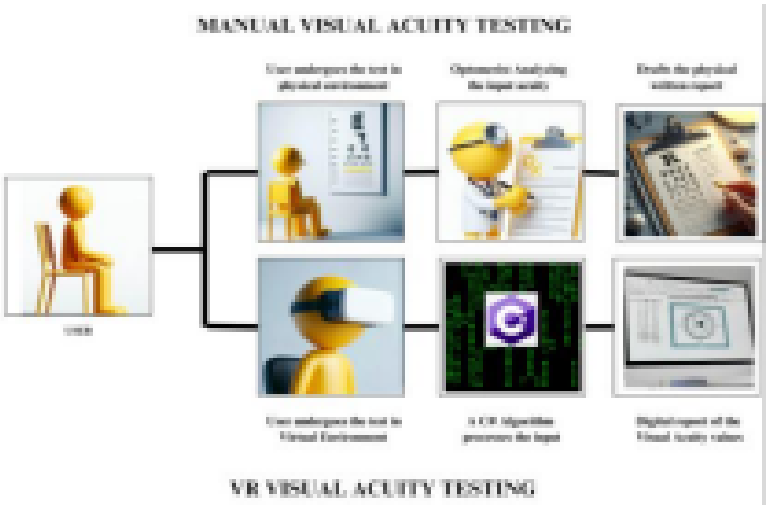


Figure 1. Comparison of Manual and VR-based Visual Acuity

VR-BASED VISUAL ACUITY TEST ENVIRONMENT

The VR visual acuity test was developed in Unity and deployed using the HTC Vive during development and tested on the HP Reverb G2 Omnicept Edition. This headset offers high-resolution displays essential for visual detail, making it suitable for acuity testing.The virtual room was designed with minimalist grey tones to eliminate distractions. A wooden canvas was placed on the northern wall, and a marker was fixed at a standardized 3-meter distance (3 Unity units). On this canvas, a single Sloan-style "E" optotype was displayed—mirroring the Tumbling E chart used clinically. The "E" randomly rotates in 90° increments (up, down, left, or right), and the user indicates its orientation using four interactive buttons (Up, Down, Left, Right) placed around the canvas.The participant interacts using a VR controller or, optionally, via voice commands or gesture inputs, increasing accessibility for individuals with different needs or impairments. The interface is intuitive, making it user-friendly across various age groups and literacy levels.Customization was a key focus. The size of the optotype scales down progressively as participants correctly identify its orientation. Through trial testing, we discovered that the Sloan "E" in VR needed an additional 0.0075 meters in size across all levels to match the perceptual clarity of printed A4 charts. This adjustment was necessary due to resolution and perception differences between real-world and VR environments.

VR-BASED VISUAL ACUITY TEST ENVIRONMENT

Figure 2. Virtual Reality Environment Developed in Unity, Showing the Tumbling E chart and the Interactive Controls used for the Visual Acuity Test.

DATA COLLECTION AND COMPARATIVE TESTING

Fifty participants (balanced for gender and vision status) aged 18–25 underwent both VR-based and traditional visual acuity tests. The real-world test used a physical Tumbling E chart placed at the same distance as in the VR test. All subjects first explored the VR space, were oriented to the controls, and then took the test. A C# script handled real-time analysis of input, adjusting optotype size and orientation dynamically.

STATISTICAL ANALYSIS AND RESULTS

The results from both tests were converted to LogMAR values for consistency and precision. Statistical methods included:

- **Paired t-test** to compare means of VR and traditional results.
- **Bland–Altman analysis** to assess agreement between both methods.
- **Pearson correlation** to evaluate the strength of their relationship.

The findings showed a **strong correlation (r = 0.984)** and **no statistically significant difference** between the two test modalities. The Bland–Altman plot confirmed close agreement, supporting the use of VR as a valid and accurate tool for visual acuity assessment.

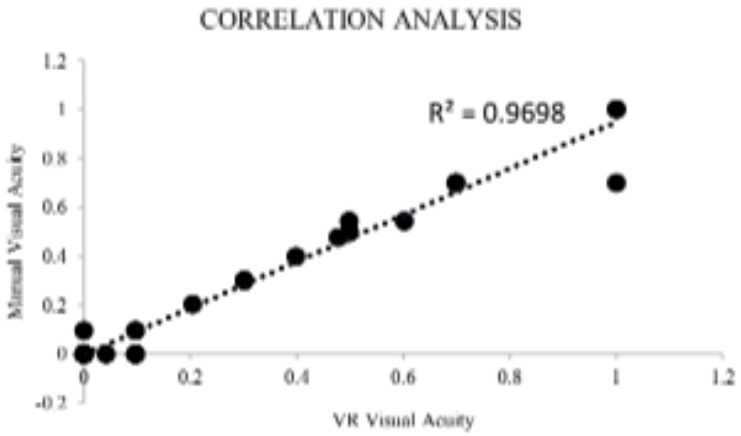


Figure 3. Scatter Plot Illustrating the Strong Positive Correlation (r = 0.9839) between the VR and Manual LogMAR Visual Acuity Measurements

CONCLUSION

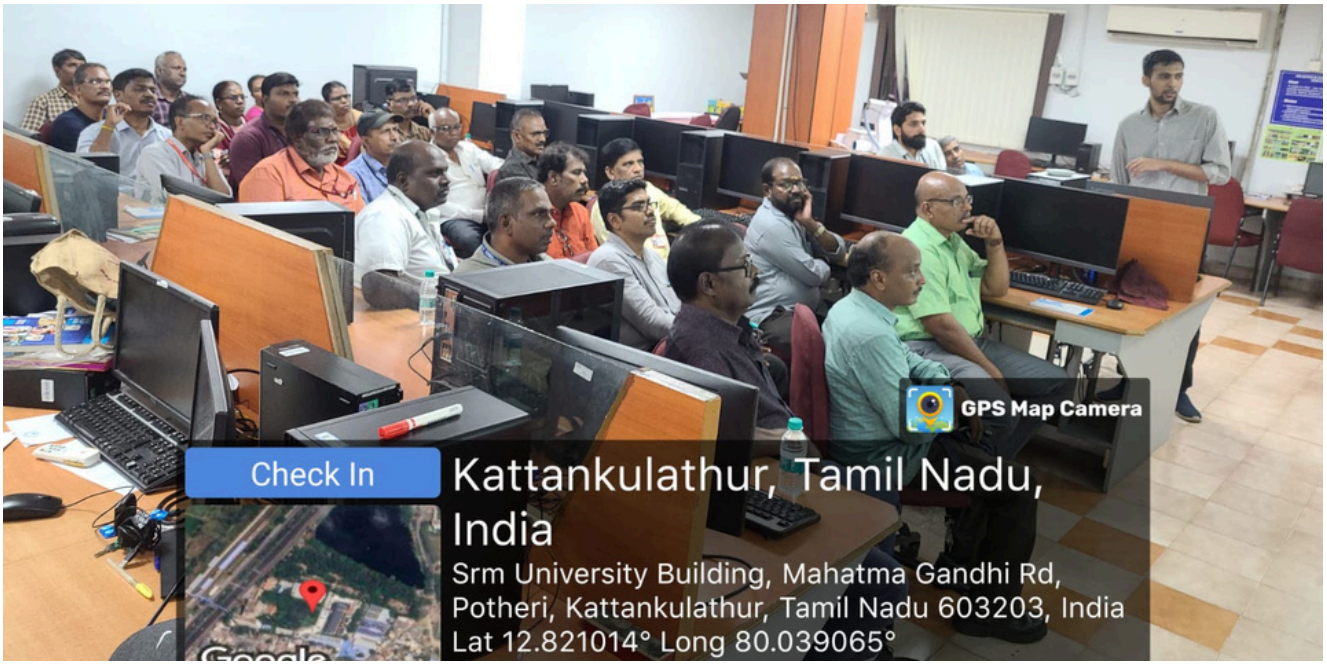
The study successfully demonstrates that VR can serve as a reliable alternative to traditional visual acuity testing. Its customizable, immersive, and interactive features enhance test precision, accessibility, and user engagement. This lays the groundwork for broader applications in ophthalmic diagnostics, especially for remote and automated eye care.

Project Ideation: Dr. T. Jayanthi, Associate Professor, Dept. of Biomedical Engineering
XR Development Guidance and Assistance: Mr. G. Vignesh, Senior XR Developer, CIT
Project Video Link:
https://youtu.be/1Rs_FQ8Dfz4
https://youtu.be/cxb81i24_Kc
https://youtu.be/Zb26mfTaeRs
https://youtu.be/ULNKzhlpQQw

BY R. PRAKASH
ENGINEERING ASSOCIATE
CENTRE FOR IMMERSIVE TECHNOLOGIES

AVNL STAFF VISIT

25 members from Institute of Learning Avadi (IOL AV) which is a premier training Institute for Armoured Vehicles Nigam Ltd (AVNL), Defence Public Sector Unit under Ministry of Defence Center for Immersive Technologies on 15 May 2025 as part of their upskilling initiatives. The participants were part of various defence-sector industries. The participants were exposed to the nuances of VR-AR technologies with hands-on experience.



DISTINGUISHED DRDO SCIENTIST DR. SIVATHANU PILLAI VISITS CIT

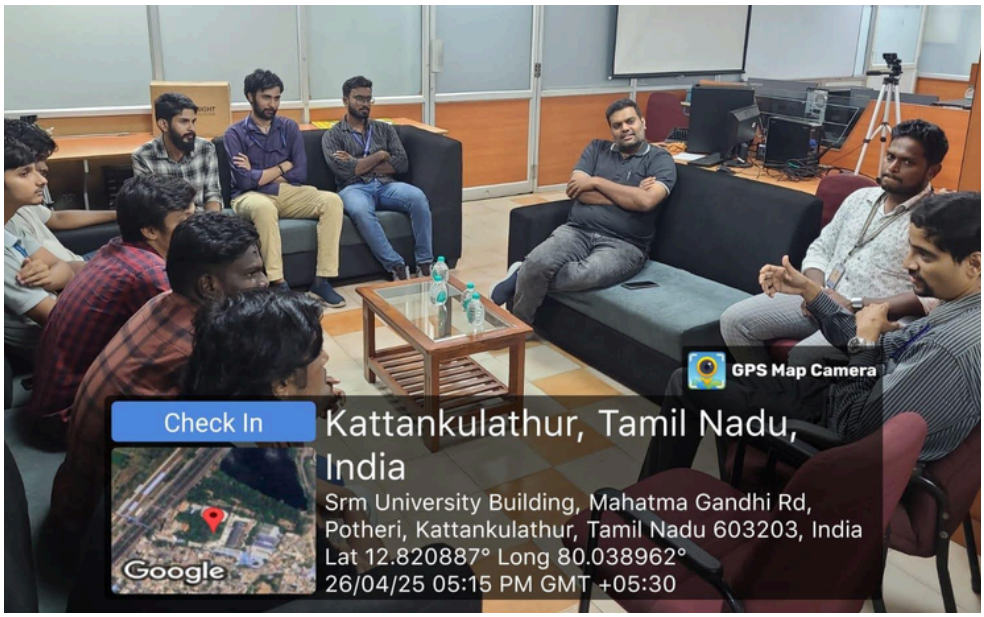
Dr. A Sivathanu Pillai, Distinguished Scientist at the Defence Research and Development Organisation at the Ministry of Defence, Government of India, Founder CEO and Managing Director of BrahMos Aerospace Private Limited visited the Center for Immersive Technologies to understand the contributions of the center to the growth of SRMIST on 21 May 2025.

TRENDS IN XR INDUSTRIES

Mr.Jainareesh, Director Immersive Technology, Cavin Infotech visited the Centre for Immersive Technologies on 19th March 2025 to interact with students and staff associated with Immersive Technologies. The interaction covered various topics such as:

- Life Experience and Journey in XR and Technology
- XR with Hardware, Workflow in XR Development
- AI Influence on XR,
- Mechatronics Influence on XR,
- Future Trends in XR Technology
- Impact of XR on Creative Industries,
- AI and Mechatronics Synergy in XR,
- Ethical Considerations in XR Development
- Project Management in Industries

The students of B.Tech Mechatronics Engineering with Spln. in Immersive Technologies demonstrated the various projects developed by them. Mr. Jainareesh was very impressed with the work and assured internship opportunities to students based on the request from the institute's side.

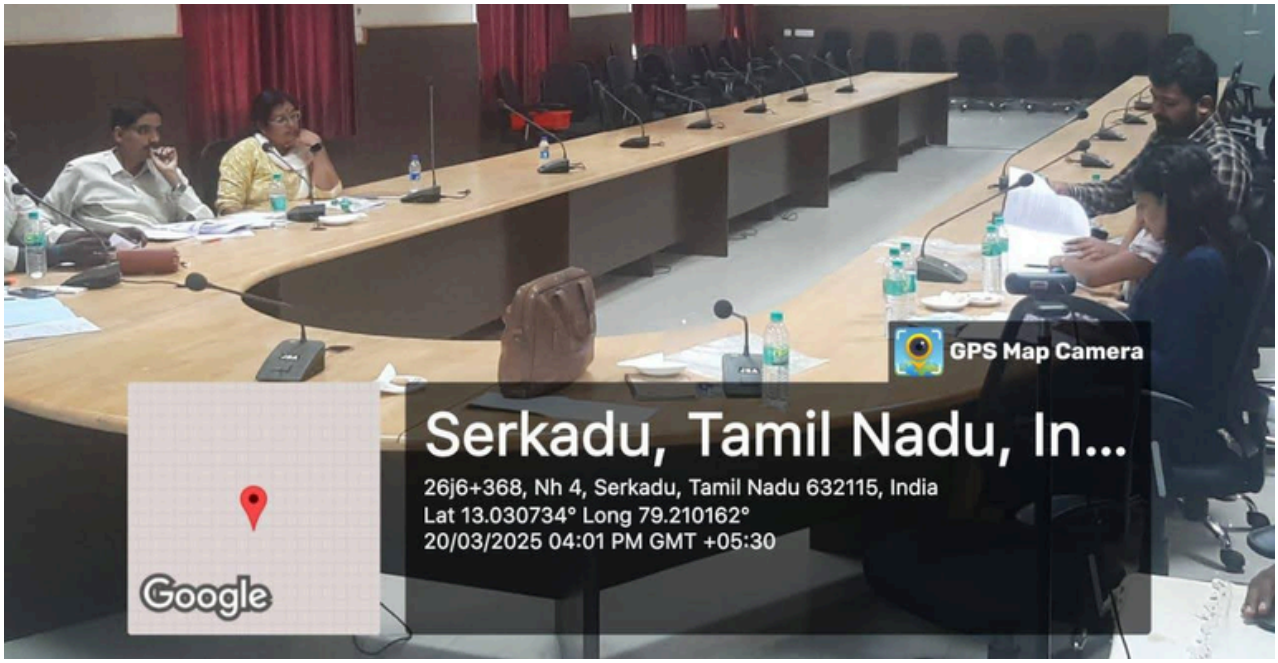


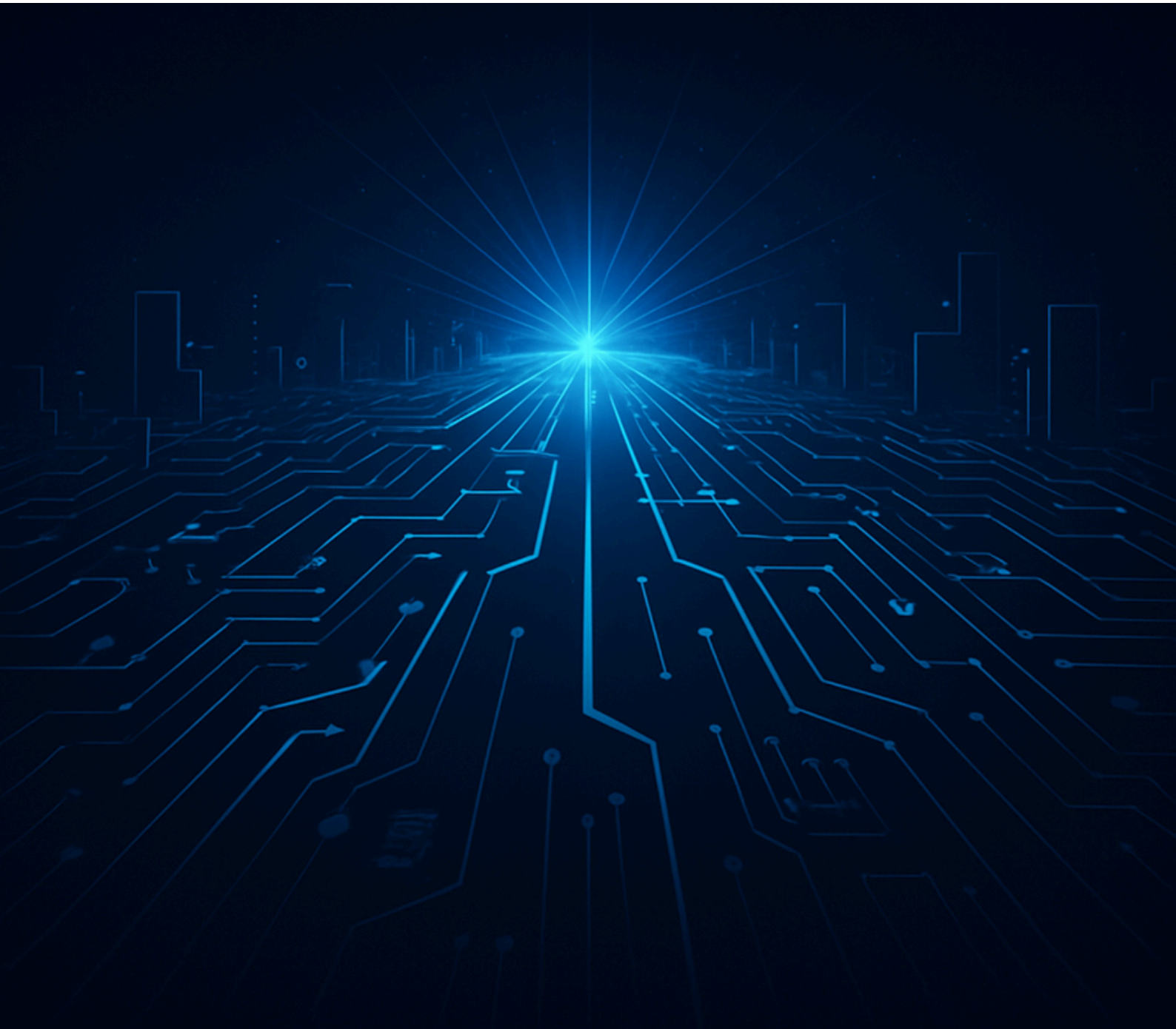
BOS CHAIRMAN FOR B.VOC. IMMERSIVE TECHNOLOGIES PROGRAM

Dr. R. Senthilnathan is appointed as the BoS Chairman of the B.VoC. Immersive Technologies program in the University Department of Thiruvalluvar University, Serkadu, Vellore. B.VoC Immersive Technologies is a skill dominated three-year program offered in various Universities such as Bharathidasan University, Periyar University, etc. Under NEP 2020, there is a huge patronage for such programs. Sample links to detailed curriculum of such B.VoC programs are as follows:

https://www.bdu.ac.in/centers/assets/docs/DDUK/syllabi/BVoc-Immersive-Technology-2022-2023.pdf

https://www.periyaruniversity.ac.in/obe/csc/arvr_obe.pdf





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Email: head.cit.ktr@srmist.edu.in

Website: https://www.srmist.edu.in/department/centre-for-immersive-technologies/