



## **DEPARTMENT OF INFORMATION SCIENCE and ENGINEERING**

### **SILVER JUBILEE YEAR CELEBRATIONS TechXcelerate: Igniting Minds for Transformative Innovation using New Age Technologies**

#### **Workshop**

#### **On “Reality Reimagined - Designing and Deploying immersive AR/VR/XR Systems.”**

**Participants: Students of NHCE**

**Date: 25-02-2026**

#### **Brief Description of the Event**

The Department of Information Science and Engineering (ISE) organised a one-day technical workshop titled “Reality Reimagined: Designing and Deploying Immersive AR/VR/XR Systems” as part of its Silver Jubilee Celebration. The workshop was aimed at engineering students, providing comprehensive exposure to emerging immersive technologies and their practical implementation. The event sought to bridge the gap between academic learning and industry requirements by combining theoretical knowledge with hands-on experience.

The workshop was conducted over a full day and divided into two sessions: morning and afternoon. The resource persons were Mr Sanjay K R and Ms Kavitha Chandran, XR Developer at VyVoxel India Private Limited. VyVoxel is a technology-driven company specialising in immersive solutions such as Augmented Reality (AR), Virtual Reality (VR), and Extended Reality (XR). The company delivers innovative digital transformation solutions across sectors including education, healthcare, manufacturing, industrial training, and simulation-based learning. With expertise in immersive application development, 3D visualisation, and interactive simulations, VyVoxel aims to enhance learning experiences and operational efficiency through advanced XR technologies.

The morning session focused on the fundamentals of immersive technologies. The speakers provided detailed insights into the evolution of AR, VR, and XR systems, explaining the differences between these technologies. Students were introduced to immersive system architecture, including hardware components such as sensors, tracking systems, head-mounted displays, controllers, and cameras, as well as software components such as rendering engines and interaction frameworks. Various real-world applications were

discussed, covering smart manufacturing, healthcare simulation, virtual laboratories, robotics, architecture, and engineering design visualisation.

The afternoon session was dedicated to hands-on training, where students actively engaged in immersive application development. Participants were introduced to industry-standard development platforms such as Unity for AR and VR and Blender for 3D modelling and asset creation. Under expert guidance, students created a simple AR application using image markers, imported and integrated 3D models into a virtual environment, designed a basic VR room simulation, and implemented interactive elements such as object movement and user interaction. The session also covered basic testing, build settings, and deployment techniques for immersive applications.

## **Key Points Covered**

- Introduction to Augmented Reality (AR), Virtual Reality (VR), and Extended Reality (XR)
- Differences between AR, VR, and XR Technologies
- Architecture and components of immersive systems
- Sensors, tracking systems, and head-mounted displays
- Basics of 3D modeling and asset integration
- Scene creation and environment design
- Interaction design in virtual environments
- Real-time rendering concepts
- Hands-on development of AR and VR applications
- Application testing and deployment strategies
- Industry applications of immersive technologies in engineering domains

The workshop significantly enhanced the technical knowledge and practical skills of the participants. Students gained a clear understanding of immersive system design and development workflows and were encouraged to explore AR/VR/XR technologies for mini-projects, final-year projects, research initiatives, and startup ideas. The interactive, experiential learning approach ensured active participation and strengthened conceptual understanding.

As part of the ISE Department's Silver Jubilee Celebration, the workshop reflected the department's commitment to innovation, industry collaboration, and advanced technological learning. The event was highly informative and valuable, receiving positive feedback from participants and contributing meaningfully to the department's milestone celebration.

Poster of the Workshop

**NEW HORIZON COLLEGE OF ENGINEERING**  
*Silver Jubilee Year Celebrations*  
**NEW AGE TECHNOLOGIES**  
TechXcelerate: Igniting Minds for Transformative Innovation using New Age Technologies  
**Reality Reimagined: Designing and Deploying Immersive AR/VR/XR Systems**  
25 February 2026, Wednesday  
09:30 AM | CSE-I LAB 109

**Mr. Sanjay K R**  
XR Developer  
VyVoxel India Private Limited

**Ms. Kavitha Chandran**  
XR Developer  
VyVoxel India Private Limited

**Faculty Coordinators**  
**Dr. Divya K V** (Convenor)  
**Dr. Vandana C P** (HoD-ISE)  
**Mrs. Shalini A**  
**Dr. R J Anandhi** (Dean-Academics)  
**Mrs. Bhakti Kamate**  
**Dr. Manjunatha** (Principal)

Organised by  
**Department of Information Science and Engineering**

Scan to Register

**Glimpses of the Event**







**Faculty Coordinators**

Dr. Divya K V

Mrs. Shalini A

Mrs. Bhakti Kamate

**HoD-ISE**

Dr. Vandana C P

