

# UTM INDUSTRIAL INSIGHTS

## A CLOSER LOOK AT MAGICX'S INNOVATIONS

31st December 2024 Edition

[magicx.info](http://magicx.info)



### VISIT OVERVIEW: INSIGHTS FROM MAGICX

On 31st December 2024, students visited MaGICX at UTM's Universiti Industry Research Laboratory (UIRL) in Johor Bahru, guided by Dr. Suriati Binti Sadimon and Prof. Dr. Mohd. Yazid. During the visit, Prof. Dr. Yazid provided an insightful briefing on MaGICX's initiatives, including the Unity Professional Certifications, which offer two pathways: one for experienced Unity users to validate their skills and another for those seeking specialized training. Students also had the opportunity to explore advanced technologies, such as the VR Bicycle Simulator and Oculus Quest VR headset, showcasing MaGICX's innovation in immersive experiences. The discussion also highlighted challenges, particularly the high costs associated with implementing advanced technologies like VR.

### INTRODUCTION: DRIVING INNOVATION IN TECHNOLOGY

The Media and Game Innovation Centre of Excellence (MaGICX) at Universiti Teknologi Malaysia (UTM) was established in 2013 to support research, development, and industry collaboration. It focuses on immersive technologies such as virtual reality, augmented reality, 3D modeling, and gamification, alongside advanced areas such as AI, cybersecurity, IoT, and data analytics. MaGICX operates on five key pillars: conducting research in immersive technology, providing platforms for immersive applications, upskilling creators to produce innovative content, offering certifications for trainers and students, and working with industries and communities to implement 4IR digital solutions.



### UNITY PROFESSIONAL CERTIFICATIONS: ELEVATE YOUR EXPERTISE

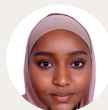
As a Unity Authorized Training Partner, MaGICX offers Unity Professional Certificate programs to help participants improve their skills in game design and development. Open to schools, individuals, and organizations, the program provides two options: a certification pathway for experienced Unity users to validate their expertise and a training pathway for those seeking to build technical skills in Unity game engine technologies. These certifications provide industry-recognized credentials that enhance employability and technical capabilities.



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## AUGMENTED REALITY: BRIDGING THE DIGITAL AND PHYSICAL WORLDS

Augmented Reality (AR) is a key innovation at MaGICX, enhancing education and creativity through interactive digital experiences. Notable AR applications include **Ameen Daily Prayer**, which helps children learn daily prayers by scanning book pages to activate engaging and interactive content, and **wARna**, an app designed to inspire creativity through colorful AR interactions. Another standout is **Rainbow Jawi**, which makes learning the Jawi script fun and immersive by blending gameplay with AR technology. These AR projects showcase how MaGICX uses technology to transform traditional learning into interactive and enjoyable experiences, fostering engagement and creativity in new and exciting ways. By merging the physical and digital worlds, MaGICX's AR initiatives are paving the way for a more dynamic approach to education and entertainment.



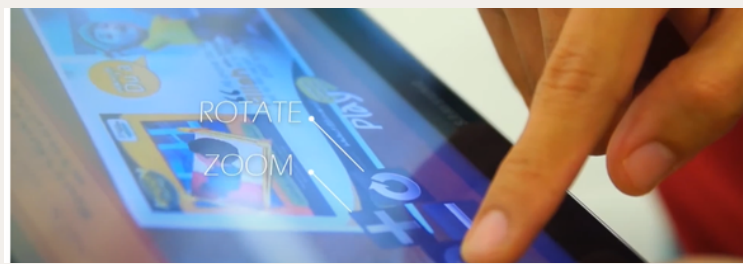
## REFLECTION:

The industrial visit to MaGICX provided valuable insights into how innovation in immersive technologies can transform human life. We learned about advanced technologies like AR and VR and how they are being applied in various fields. Trying out tools such as the Bicycle Simulator and Oculus VR glasses showed how virtual reality enhances training and entertainment by making them safer and more engaging. AR applications, such as Ameen Daily Prayer and wARna, demonstrated how technology can make learning more interactive and enjoyable. This visit motivated us to think creatively about applying these innovations to solve real-world challenges, improve quality of life, and pursue programs like the **Unity Professional Certifications** to develop hands-on skills in game development and immersive technologies.

## VIRTUAL REALITY: TRANSFORMING EXPERIENCES

Virtual reality is a key focus at MaGICX, where the **Oculus Quest VR headset** is used to create immersive environments for gaming and practical applications. This technology enables users to experience first-person shooter (FPS) games and interactive walkthroughs, offering engaging and dynamic interactions.

During our visit, we had the chance to try the **Bicycle Simulator**, which integrates physical movement with virtual environments to provide a realistic cycling experience for training and entertainment. Additionally, their VR games demonstrated MaGICX's expertise in creating immersive and interactive gaming experiences, highlighting their significant contributions to the gaming industry.



## ADVANCED TECHNOLOGIES: DRIVING INNOVATION

**KiHECT** is a motion-sensing tool powered by Kinect technology to enhance hand-eye coordination. It uses real-time motion tracking via Kinect's camera to deliver interactive exercises. Another innovative product is the **Interactive Wall** that uses advanced projection mapping and motion-sensing technology to enable real-time interactions with digital content, offering an engaging and dynamic experience.

## REFERENCES:

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MaGICX UTM. (n.d.). MOSTI Interactive Wall [Video]. YouTube. Retrieved from / youtu.be/MhpAEOFxtho



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