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NEED ANALYSIS FOR THE DEVELOPMENT OF A UIS MOBILE VIRTUAL TOUR

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Abstract:

While physical accessibility, ease of access for potential students to explore the campus of University Islam Selangor (UIS) has been constrained, especially for those from other states. This research aims to identify user needs in developing a UIS Mobile Virtual Tour Application. Using a quantitative approach with a model of Unified Theory of Acceptance and Use of Technology (UTAUT), a needs analysis survey of 184 respondents, consisting of students, parents, and members of the community, was conducted. SPSS analysis of data showed that performance expectancy received the highest agreement with a percentage of 70.7-74.5% agreeing with a high degree of intensity on being able to access university information effectively, as well as improve their exploration experience. Effort expectancy also showed positive agreement with 47.3-54.3% of strong agreement, showing that users felt it was easy to use as well as intuitive. While the influence of social support showed moderate agreement with 40.8-57.6% of high agreement, and facilitating conditions also showed moderate agreement with 33.7-53.3% of high agreement, showing that users value individual perceptions of use as more important than support from their company in influencing their adoption of technology. These findings suggest that utility, interaction, and individual perceptions of use are basic necessities in determining users in accepting technology in mobile VR technology in campuses of higher institutions in Malaysia.

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Keywords:

UTAUT, Virtual Reality, User Acceptance, Mobile Application, Virtual Campus Tour

Introduction

Educational institutions have very rapidly changing attitudes toward the use of technology in the delivery of information and audience engagement. In educational technology, VR and mobile applications have begun to play a central role in enhancing user interaction in the academic setting. Digital innovation provides avenues for virtual engagement that institutions of higher learning can use to open the door to virtual resources for prospective students. These technological advances have transformed how universities communicate their value propositions, highlight campus facilities, and engage with diverse stakeholder groups, including prospective students, parents, and the broader community.

The marketing and communications strategies for higher education have become increasingly digital because of the COVID-19 pandemic. Universities all around the world, due to lockdowns, could not engage with prospective students for several weeks at a time. This unusual situation increased the adoption of virtual campus tours and augmented reality applications to offer immersive experiences and maintain engagement with potential prospective students (Andri et al., 2018; Garcia et al., 2023). Colleges had to shift to remote learning and digital marketing for prospective students, and the higher education institutions learned the importance of remote digital experiences. This paradigm shift accelerated the integration of virtual reality and mobile applications into student recruitment strategies, enabling institutions to provide immersive virtual expeditions into digital replicas of their facilities (Garcia et al., 2023). This shift to digital marketing communications became even more vital for institutions that had digitally immobile populations to engage. Universities have focused on digital experiences that utilize virtual reality and other emerging immersive technologies to engage students with education remotely.

Selangor Islamic University (UIS), located in Bandar Seri Putra, Kajang, Selangor, serves a student population of 6000 students across six faculties. As a growing Islamic higher education institution, UIS faces significant challenges in reaching prospective students from across Malaysia and neighboring countries. The campus location presents accessibility barriers for prospective students from distant states such as Sabah, Sarawak, Kelantan, and Terengganu, who must travel considerable distances for campus visits. Currently, prospective students, parents, and community members rely primarily on static websites with limited visual content, downloadable PDF brochures, and occasional promotional videos. These conventional materials, while informative, lack the immersive and interactive qualities necessary to fully convey UIS's distinctive Islamic academic culture, modern facilities, and vibrant campus community. For instance, prospective students cannot virtually explore key facilities such as the mosque, library, or specialized laboratories before making enrollment decisions. Therefore, UIS VR technology will help these prospective students and community members understand UIS’s distinctive culture, facilities, and community. According to Xue (2024), developing campus VR (including virtual tours) should align with users’ performance expectations and perceived usefulness, ensure ease of use, address usability and accessibility constraints, and support cross-platform compatibility.

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Thus, using VR technology in mobile applications best solves these accessibility and engagement challenges in UIS. A mobile virtual tour could allow potential students and community members to visit and experience the UIS campus and facilities, and then remotely appreciate the UIS culture. As Xue (2024) claims, campus VR (virtual tours included) should match the user expectations and attainments and be easy to use to resolve the user challenges, and be accessible and flexible. This approach leverages immersive virtual reality, which has gained significant attention in higher education for its potential to enhance learning and engagement (Natale et al., 2024). This kind of application could be of great value to UIS in helping international students and parents on the go, and giving prospective students opportunities to visit the campus virtually multiple times before arriving on campus in person. The current work performs an extensive needs analysis for the UIS Mobile Virtual Tour that identifies user needs on conceptual, functional, and interaction levels using the Unified Theory of Acceptance and Use of Technology as a guide. This framework aids in understanding the factors influencing the adoption and use of VR technology in educational settings, particularly for promoting immersive campus experiences (Fei & Othman, 2024).

The goal of this evaluation is to design a user-centric VR application that promotes virtual engagement, users' visibility, and interaction. This exploration is crucial for developing a solution that is both technologically robust and aligned with the expectations and behaviors of its intended users, especially considering how virtual tools can enhance the experience of exploring a place without physical movement (Patil, 2022). This project also promotes the way for the integration of VR into the university's marketing and communications resources. This integration is also parallel with the advancements in digital technology in the education sector.

Literature Review

Advances in mobile technologies and virtual reality are no longer limited to tourism and heritage. Universities are adopting them to present their campuses and interact with prospective users. Previous research work, the integration of virtual technologies with the hospitality and tourism sectors has been shown to transform the marketing and promotion of tourism destinations, engagement with museums, and the recreation of heritage and the preservation of history through the use of virtual reality (VR), augmented reality (AR), and mixed reality (MR) technologies. The use of 360-degree panoramic virtual tours has been highly effective in the promotion of a place and the provision of rich, contextual immersive learning. According to Verma et al. (2022), the integration of history with AR in immersive environments has the potential to preserve heritage sites and enrich the visitor experience or subsequent engagement, a sentiment that has continued to be the focus of research in exploring how MR technologies enhance the effects of various human cognitive styles and interaction.

Extending beyond tourism and heritage sites, the advancement of mobile technologies and virtual reality has introduced innovative ways for universities to showcase their campuses and engage with students, parents, and visitors. A mobile virtual tour can enable Selangor Islamic University (UIS) to provide accessible and interactive information about its facilities, services, and environment without requiring physical presence. This application is particularly relevant in educational marketing, where prospective students seek comprehensive campus experiences before making enrollment decisions. However, current university promotional efforts often rely on static images and one-way videos, which fail to provide the immersive and interactive experiences that prospective students now expect (Samala et al., 2024). This limitation underscores the need for more dynamic digital solutions, such as 3D multimedia and virtual

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exploration tools, to effectively communicate the distinct advantages and offerings of institutions (Amali et al., 2024; Wook et al., 2018). This application is particularly relevant in educational marketing, where prospective students seek comprehensive campus experiences before making enrollment decisions. These validated applications affirm UTAUT's suitability for university virtual tours, bridging tourism insights to educational marketing contexts like those at Selangor Islamic University.

Building on these global applications of VR in education and tourism, the Unified Theory of Acceptance and Use of Technology provide a robust theoretical framework for understanding user adoption of such technologies (Venkatesh et al., 2003). The comprehensiveness of the UTAUT makes it a suitable and effective model for building and assessing virtual tours because it offers a complete explanation of users' acceptance and behaviour toward novel technologies. This model is also validated for assessing the incorporation of virtual reality photography into web-based immersive applications like a virtual interactive campus tour (Samala et al., 2024). The four core constructs of UTAUT: performance expectancy, effort expectancy, social influence, and facilitating conditions, align well with the core determinants of adopting virtual tours, which are adopted in the development of virtual tours. UTAUT defines the users' expectations of virtual tours during the enhancement of travel ease, usability, peer motivation, and the presence of technical assistance.

Implementations of the UTAUT model in the tourism and museum sectors indicate strong predictive validity with measurable impacts on visitor value, experience, and satisfaction with the smart tourism technologies during their adoption. According to Anita et al. (2021), UTAUT proved to have a significant influence on smart tourism, with an R-squared value of 63.5%. This is an illustration of UTAUT's grounded explanatory power in applied contexts of real-world scenarios, particularly with advanced technologies enabling virtual tourism. In addition, research on the adoption of VR tourism technologies by Yung et al. (2021) indicates that the UTAUT framework has obtained increased interest in its capacity to attract tourists amid rapidly evolving technology landscapes, signifying a strong interest toward the model and its constructs positioned toward determining behavioural intention with immersive and interactive digital interfaces.

Within the Malaysian context specifically, several studies highlight the growing adoption of virtual tours and virtual/augmented reality (VR/AR) technologies as innovative approaches in education. These local implementations provide valuable insights into how such technologies perform within Malaysia's educational landscape and cultural environment. Siaw (2023) introduced ViTour, a low-cost virtual tour developed at IPG Batu Lintang, which showed positive user perceptions regarding effectiveness, ease of use, and enjoyment. Similarly, Liang et al., 2021) developed a markerless AR campus tour application, emphasizing its interactivity compared to traditional static websites. Furthermore, Adnan (2020) investigated the acceptance of 360-degree VR among educators and learners in Malaysian public higher education institutions, finding generally positive perceptions despite challenges such as limited resources, tools, and technical expertise.

Beyond campus tours, other local initiatives also illustrate the impact of VR in enhancing conceptual understanding and student orientation. Abdullah et al. (2021) explored the use of GeoVR-Xplorer at Kolej Matrikulasi Kelantan and found that VR improved comprehension of abstract scientific concepts, such as molecular geometry, through exploratory and realistic visualization. Likewise, the UKM Explorer project provided an immersive virtual campus tour

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experience, helping prospective and new students to navigate Universiti Kebangsaan Malaysia's campus virtually, especially those unable to visit physically (Tan, 2020). In addition, virtual tour technology has proven to be a safe and practical solution for learning during critical situations such as the COVID-19 pandemic, when physical presence at specific locations was restricted. For instance, the Asia Pacific University of Technology & Innovation (APU) in Malaysia leveraged this technology to attract international students by providing an immersive virtual experience of its campus.

Collectively, the literature suggests that virtual tours in education have significant potential to enhance accessibility, conceptual understanding, and student learning experiences. In terms of offering remote exploration, increasing conceptual levels of understanding, and promoting institutional visibility, virtual campus tours can be one of the most valuable tools for higher education institutions in recent years. They are a cost-effective and accessible way for prospective students to experience institutions, especially when physical visits are limited, such as during a pandemic period (An & Ríos, 2024). The technologies, which include virtual reality and 360-degree videos, have received much welcome in Malaysia because they may change teaching and learning methodologies and also make complicated matters seem attractive and easy to understand in an engaging manner (Adnan et al., 2020). Therefore, this is one of the most relevant and essential ways virtual tour technologies could be integrated into university marketing and teaching strategies in response to the expectations of learners today.

Methodology

This study employed a quantitative research design to collect and analyze numerical data, enabling the identification of patterns, relationships, and trends among respondents. The research was conducted at Selangor Islamic University (UIS), Bandar Seri Putra, Kajang, Selangor, as the mobile VR application was specifically developed to showcase the campus environment, facilities, and atmosphere to various stakeholders, including students, parents, and visitors. The UIS campus also served as the main reference point for collecting panoramic images, videos, and institutional information to be integrated into the application, as well as for testing and evaluation purposes.

The population of this study consisted of potential users of the Virtual Tour UIS application, including current and prospective students, parents, and the general public. From this population, a sample of respondents was selected using a convenience sampling method, whereby participants were recruited based on accessibility and willingness to participate. This approach was deemed appropriate as the study is exploratory and developmental in nature, with the primary aim of obtaining timely and cost-effective feedback from diverse user groups.

Data were collected using an online questionnaire designed via Google Forms, which covered respondent demographics, prior experiences with technology, expectations for the virtual tour, and preferred design features. The questionnaire was constructed based on the Unified Theory of Acceptance and Use of Technology (UTAUT) and Nielsen’s usability heuristics, ensuring that both aspects of technology acceptance and interface design were addressed. The form was distributed through social media, institutional email, and direct communication, with the data collection period lasting three months. All responses were recorded automatically and exported for analysis, with confidentiality and anonymity maintained throughout the process.

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The data were analyzed using SPSS software. The procedure began with data cleaning to remove incomplete or invalid responses, followed by descriptive statistical analysis to examine demographic profiles, information channels, and exposure to virtual tour applications. Mean and standard deviation values were calculated for items measured on a five-point Likert scale, allowing the researcher to identify overall user perceptions and expectations. Finally, the results were interpreted to determine patterns in user needs, with emphasis placed on items that recorded higher mean scores and strong levels of agreement, which served as the basis for the proposed design framework of the Virtual Tour UIS application.

Analysis and Result

This study involved 184 respondents, comprising 53.8% females and 46.2% males. The majority were aged between 18–25 years (52.2%) and were students or prospective students (66.3%). In terms of ICT skills, most respondents identified themselves as moderately skilled (70.7%), while mobile phones were the most commonly owned device (58.7%). Regarding purpose, 79.9% of respondents stated their interest in using a *virtual tour* application to explore the UIS campus virtually, demonstrating alignment with the target audience of the application

Awareness of UIS was universal (100%), with social media identified as the dominant source of information (54.3%). Although more than half of the respondents had never used a *virtual tour* application (57.1%), nearly all (97.3%) expressed strong interest in the UIS Virtual Tour. This confirms the significant potential of the application as a promotional medium and a tool for virtual campus exploration

Table 1: Respondents' Demographic Profile (N=184)

Profile	Category	Frequency	Percentage (%)
Gender	Male	85	46.2
	Female	99	53.8
Age	18–25 years	96	52.2
	26–35 years	38	20.7
	41 years and above	50	27.2
Profession	Student/Prospective	122	66.3
	Parent	56	30.4
	Public	6	3.3
ICT Skills	Not skilled	28	15.2
	Moderately skilled	130	70.7
	Skilled	26	14.1
Device Ownership	Mobile phone	108	58.7
	Laptop	52	28.3
	Tablet	24	13.0
Application Purpose	Campus exploration	147	79.9
	Tourism/Interest	27	14.7
	Admission decision	10	5.4

Table 1 indicates that the majority of respondents were young students with moderate ICT skills. Mobile phones were the most dominant device, highlighting the need for the application to be developed in a mobile-friendly format.

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Table 2: Awareness and Interest in Using the Application

Item		Yes (%)	No (%)
Awareness of UIS		100.0	0.0
Prior experience with virtual tour apps		42.9	57.1
Interest in UIS Virtual Tour		97.3	2.7
Main sources of information	Social media	54.3	45.7
	Official UIS platforms	44.6	55.4
	Print media	1.1	98.9

All respondents were aware of UIS, yet the experience of using *virtual tour* applications was still relatively low. Nevertheless, almost all expressed high interest in the UIS Virtual Tour, highlighting its strong potential for acceptance among users.

Table 3: Factors Influencing User Needs

Domain	Key Statements	% Strongly Agree
Performance Expectancy	Useful for campus information	66.3
	Saves time	70.7
	Enhances exploration experience	70.7
	Speeds up campus visitation	74.5
Effort Expectancy	Easy to use	53.8
	User-friendly interface	53.3
	No advanced skills required	47.3
	Enables efficient exploration	54.3
Social Influence	Recommended by peers	57.6
	Encouraged by influential individuals	44.0
	Supported by environment	47.8
	Improves personal reputation	40.8
Facilitating condition	Sufficient equipment	53.3
	Basic knowledge/skills on Apps	33.7
	organisational support	43.5
	Technical support	39.7

Performance expectancy emerged as the strongest domain, with high agreement that the application saves time, speeds up visitation, and enhances the exploration experience. Effort expectancy also showed positive responses, although some reservations remained regarding technical skills. Social influence and facilitating conditions scored moderately, suggesting the need for stronger organizational and technical support. Overall, the findings indicate that acceptance of the UIS Virtual Tour application is high, particularly regarding its functionality and user experience. However, technical and organizational support should be strengthened to ensure optimal usability and sustained user confidence

Discussion

The findings of this study indicate a strong level of acceptance for the UIS Virtual Tour application, particularly among younger respondents who form the majority of the sample. This result aligns with previous research showing that young adults tend to be more receptive to mobile applications and immersive technologies for learning and exploration (Radianti et al.,

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2020; Sharma et al., 2021). Their moderate ICT competency further supports the feasibility of designing a mobile-based platform that is intuitive and accessible for this demographic.

Performance expectancy emerged as the strongest predictor of behavioural intention. This reflects a practical orientation among Malaysian students, who tend to value technologies that can save time, simplify decision-making, and support academic or administrative needs. Many Malaysian learners rely on digital tools when making educational choices, and virtual tours provide an efficient way to explore a university without incurring travel costs. For UIS specifically, where geographic distance is a barrier for prospective students from Sabah, Sarawak, and East Coast states, the perceived usefulness of a VR tour becomes even more pronounced. This finding also concurs with studies demonstrating that VR-based applications can significantly enhance engagement and satisfaction in educational environments (Bower & Jong, 2020).

Although effort expectancy also showed a positive influence, the underlying reason may relate to Malaysian students' familiarity with mobile apps rather than VR specifically. Young Malaysian users often engage with gamified interfaces, 360° media on social platforms, and intuitive navigation patterns. Nevertheless, some respondents expressed concerns related to technical skills, highlighting the importance of designing a clean, intuitive interface that requires minimal learning effort, an insight consistent with Alalwan et al. (2017), who emphasized the centrality of low perceived effort in supporting adoption of mobile services.

Social influence, however, showed a comparatively weaker effect. Several contextual factors may explain this trend. First, Malaysian students increasingly rely on independent online research such as videos, websites, and social media when exploring higher education options. This reduces dependence on teachers, parents, or peers as primary decision influencers. Second, in the context of campus exploration, virtual tours are still relatively new in Malaysia; thus, social norms for using such tools are not yet well-established. Unlike choosing learning platforms, where peer endorsement is common, selecting a university tends to be a more personal decision influenced by perceived usefulness rather than social pressure. Past studies similarly stress that social and organizational support are critical factors in sustaining the long-term use of educational technologies (Nikou & Economides, 2018; Hew & Lo, 2018).

Facilitating conditions were moderate, which may be linked to infrastructural realities within Malaysian higher education. While mobile internet usage is extremely high, VR applications may raise concerns about data consumption, device compatibility, and technical support availability. Some users may assume that VR applications require high-end features or large storage capacity, affecting perceptions of institutional readiness. UIS may also have limited digital support systems compared to larger universities, which can shape user confidence in the long-term sustainability of the application. Research highlights that Malaysian institutions vary widely in their digital infrastructure maturity, with smaller or developing universities often lacking robust technical support systems compared to larger research universities (Nikou & Economides, 2018).

Overall, the results suggest that the UIS Virtual Tour application has strong potential for adoption, driven primarily by its perceived usefulness and ease of use. However, its successful long-term implementation will require reinforcing institutional support mechanisms, improving user training, and strategically promoting the application through channels that

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resonate with younger audiences. Addressing these aspects will ensure that the virtual tour becomes not only a technological innovation but also a sustainable tool for enhancing UIS's visibility and user engagement.

Conclusion

This study highlights the potential of the UIS Mobile Virtual Tour to enhance campus visibility and user engagement through an accessible and user-centred mobile VR experience. The findings suggest that developers should prioritise intuitive interface design, device compatibility, and lightweight performance to meet the needs of Malaysian users, while administrators must ensure adequate institutional support and promotion of the application. Practical steps include providing simple user guidance, refining UI elements through usability testing, and strengthening technical support systems to sustain long-term adoption. The study is limited by its convenience sampling and demographic imbalance; therefore, future research should involve more diverse user groups and examine long-term usage patterns as the application matures. Overall, the results offer a clear foundation for developing a functional, sustainable, and user-oriented virtual tour that supports UIS's digital engagement initiatives.

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References

Abdullah, Z., Ayub, S. F., Hamzah, N. Z. S., Saifullah, S. S., & Rahim, N. S. (2024). Persepsi Pelajar Terhadap Persekitaran Virtual Realiti (VR) Melalui GeoVR-Xplorer Di Kolej Matrikulasi Kelantan. Journal of Research, Innovation, and Strategies for Education (RISE), 1(3). https://doi.org/10.70148/rise.15

Adnan, A. H. M., Shak, M. S. Y., Karim, R. A., Tahir, M. H. M., & Shah, D. S. M. (2020). 360-Degree Videos, VR Experiences, and the Application of Education 4.0 Technologies in Malaysia for Exposure and Immersion. Advances in Science Technology and Engineering Systems Journal, 5(1), 373. https://doi.org/10.25046/aj050148

Adnan, A. H. (2020, September). From interactive teaching to immersive learning: Higher Education 4.0 via 360-degree videos and virtual reality in Malaysia. In IOP Conference Series: Materials Science and Engineering (Vol. 917, No. 1, p. 012023). IOP Publishing.https://doi.org/10.1088/1757-899X/917/1/012023

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. International Journal of Information Management, 37(3), 99–110.m https://doi.org/10.1016/j.ijinfomgt.2017.01.002

Amali, L. N., Katili, M. R., & Sugeha, A. P. (2024). Development of virtual tour reality using 360-degree panoramic images and Leaflet JavaScript. Indonesian Journal of Electrical Engineering and Computer Science, 35(1), 655-664. https://doi.org/10.11591/ijeecs.v35.i1.pp655-664

An, L. D., & Ríos, Y. Y. (2024). Navigating the Virtual Environment. ASCILITE Publications, 63. https://doi.org/10.14742/apubs.2024.1417

Journal of Information System and Technology Management
JISTM
EISSN: 0128-1666
Volume 10 Issue 41 (December 2025) PP. 250-260
DOI: 10.35631/JISTM.1041016
Andri, C., Alkawaz, M. H., & Sallow, A. B. (2018). Adoption of Mobile Augmented Reality as a Campus Tour Application. International Journal of Engineering & Technology, 7, 64. https://doi.org/10.14419/ijet.v7i4.11.20689

Anita, T. L., Wijaya, L., Sarastiani, A., Kusumo, E., & Santi, S. (2021, March). Smart tourism experiences: Virtual tour on museum. In The 11th Annual International Conference on Industrial Engineering and Operations Management (Vol. 13, pp. 4596-4605).https://doi.org/10.46254/AN11.20210813

Bower, M., & Jong, M. S. Y. (2020). Immersive virtual reality in education. British Journal of Educational Technology, 51(6), 1981–1990. https://doi.org/10.1111/bjet.13008

Fei, L. Y., & Othman, M. K. (2024). Beyond Exhibits: Exploring Museum VR Adoption through a Validated UTAUT2 Model for Visitor Usage Behaviour. Journal of Cognitive Sciences and Human Development, 10(2), 1. https://doi.org/10.33736/jcshd.7195.2024

Garcia, M. B., Mansul, D. M. C., Pempina, E. B., Perez, M. R. L., & Adao, R. T. (2023). A Playable 3D Virtual Tour for an Interactive Campus Visit Experience: Showcasing School Facilities to Attract Potential Enrollees. 36, 461. https://doi.org/10.1109/icvr57957.2023.10169768

Hew, K. F., & Lo, C. K. (2018). Flipped classroom improves student learning in health professions education: A meta-analysis. BMC Medical Education, 18, 38. https://doi.org/10.1186/s12909-018-1144-z

Liang, A. W., Wahid, N., & Gusman, T. (2021). Virtual campus tour application through markerless augmented reality approach. JOIV: International Journal on Informatics Visualization, 5(4), 354-359.https://doi.org/10.30630/joiv.5.4.743

Natale, A. F. D., Bartolotta, S., Gaggioli, A., Riva, G., & Villani, D. (2024). Exploring students' acceptance and continuance intention in using immersive virtual reality and metaverse integrated learning environments: The case of an Italian university course. Education and Information Technologies. https://doi.org/10.1007/s10639-023-12436-7

Nikou, S. A., & Economides, A. A. (2018). Mobile-based assessment: Investigating the factors that influence behavioral intention to use. Computers & Education, 109, 56–73. https://doi.org/10.1016/j.compedu.2017.12.005

Patil, A., Patil, A., Jain, A., & Rai, A. in Rted–Interactive Navigation by Virtual Reality Tour of Electronics Department. https://doi.org/10.22214/ijraset.2022.43633

Radianti, J., Majchrzak, T. A., Fromm, J., & Wohlgenannt, I. (2020). A systematic review of immersive virtual reality applications for higher education: Design elements, lessons learned, and research agenda. Computers & Education, 147, 103778. https://doi.org/10.1016/j.compedu.2019.103778

Samala, A. D., Ricci, M., Rueda, C. J. Á., Bojić, L., Ranuharja, F., & Agustiarmi, W. (2024). Exploring Campus through Web-Based Immersive Adventures Using Virtual Reality Photography: A Low-Cost Virtual Tour Experience. International Journal of Online and Biomedical Engineering (iJOE), 20(1), 104. https://doi.org/10.3991/ijoe.v20i01.44339

Sharma, A., Agrawal, A., & Sharma, R. (2021). Virtual reality in higher education: A systematic review. Education and Information Technologies, 26(5), 4015–4037. https://doi.org/10.1007/s10639-021-10528-1

Siaw, N. H. (2025). Low Cost Virtual Reality Tour: ViTour. ASEAN Artificial Intelligence Journal, 1(1), 1-10.https://doi.org/10.37934/aaij.1.1.110

Tan, S. Y., Arshad, H., Lam, M. C., & Suwadi, A. (2020). Ukm explorer: Ukm campus virtual tour. J Mech Contin Math Sci spl9 https://doi. org/10.26782/jmcms. spl, 9(2020.05), 00012..https://doi.org/10.26782/jmcms.spl.9/2020.05.00012

Journal of Information System and Technology Management
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Volume 10 Issue 41 (December 2025) PP. 250-260
DOI: 10.35631/JISTM.1041016
Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478.https://doi.org/10.2307/30036540

Verma, S., Warrier, L., Bolia, B., & Mehta, S. (2022). Past, present, and future of virtual tourism: A literature review. International Journal of Information Management Data Insights, 2(2), 100085. https://doi.org/10.1016/j.jjimei.2022.100085

Wook, T. S. M. T., Zairon, I. Y., Ashaari, N. S., Idris, M., Zin, N. A. M., Judi, H. M., & Jailani, N. (2018). Campus Virtual Tour Design to Enhance Visitor Experience and Interaction in a Natural Environment. The International Journal of Multimedia & Its Applications, 10, 77. https://doi.org/10.5121/ijma.2018.10307

Xue, L., Rashid, A. M., & Ouyang, S. (2024). The Unified Theory of Acceptance and Use of Technology (UTAUT) in higher education: A systematic review. Sage Open, 14(1). https://doi.org/10.1177/21582440241229570

Yung, R., Khoo-Lattimore, C., & Potter, L. E. (2021). Integrated concepts of the UTAUT and TPB in virtual reality tourism. Journal of Economic Psychology, 87, 102464. https://doi.org/10.1016/j.jretconser.2022.103127