

Human Esmaeili CV

Qualifications

2023 – 2023	UK Advance HE FHEA
2012 – 2019	Multimedia University, Malaysia P.hD. - Creative Multimedia
2010 - 2012	Multimedia University, Malaysia Master's - Multimedia Knowledge Management
2001 - 2006	Tehran Azad University, Iran B.Eng. - Chemical Engineering

Experience

Lecturer in Games Development at Staffordshire University

April 2022 – Present

The role includes lecturing, leading modules, creating learning materials, PhD supervision, research-creation, conducting workshops, exhibition and showcasing including relevant activities that support the University's strategic plans.

Senior Research Fellow / Senior Lecturer and CG Artist at Sunway University

May 2016 – March 2022

The main research role included leading and initiating research in 3D Visualization and Virtual Reality in various areas such as Digital Heritage, games, and relevant user studies. Lecturing and conducting workshops were other aspects of the responsibilities. These covered both undergraduate and postgraduate. Publishing relevant academic papers, conducting international workshops and exhibitions, as well as speaking engagement were also part of this role.

Committee Member at International Society on Virtual Systems and MultiMedia (VSMM Society)

October 2016 – December 2018

This included a range of academic activities such as help in organizing conferences, reviewing submissions, session chair, conducting workshops, exhibition, etc.

Committee Member at Jeffery Sachs Sustainable Development Centre at Sunway University

January 2018 – March 2022

Providing support to improve the University's sustainable ranking. One of the major contributions include developing a VR recycling game for one of the largest United Nations events in Malaysia in 2019.

Consultant at National University of Malaysia

November 2018 – October 2020

Providing support for development of VR applications for a project funded by a TOYOTA Foundation Grant of JPY7,200,000.

Researcher at University of Malaya in collaboration with Multimedia University

July 2013 – September 2014

Researcher and CGI Artist for a government-funded project (MYR2,00,000) called Post-Independence Architecture Atlas of Malaysia

Teaching Specialisation/Areas of Academic Interest

- 3D Modelling
- Photogrammetry
- Architectural Visualization
- Real-Time Technologies
- Virtual Reality
- Game Assets and Environment
- Sustainable Design
- Cultural Heritage

Publications

- Esmaeili, H., & Thwaites, H. (2021). Addressing environmental awareness through immersive VR experiences, gamification and hypothetical scenario development. *Virtual Creativity*, 11(2), 223-236. DOI: 10.1386/vcr_00049_1
- Santano, D., Esmaeili, H., Thwaites, H., & Amar, S. (2021). Unmasking the Mah Meri mask: A digitization journey for AR and VR. *Virtual Creativity*, 11(1), 33-51. DOI: 10.1386/vcr_00041_1
- Thwaites, H., Santano, D., Esmaeili, H., & See, Z. S. (2019). A Malaysian cultural heritage digital compendium. *Digital Applications in Archaeology and Cultural Heritage*, 15, e00116. DOI: 10.1016/j.daach.2019.e00116
- Esmaeili, H., & Thwaites, H. (2018). What Happened Here? An Immersive Virtual Story Narrated by Users. *IEEE Games, Entertainment & Media*, 2018. DOI: 10.1109/GEM.2018.8516506
- Esmaeili, H., Thwaites, H., & Woods, P. C. (2018). A Conceptual Human-Centered Approach to Immersive Digital Heritage Site/Museum Experiences: The Hidden Waterfall City. In *2018 3rd Digital Heritage International Congress held jointly with 2018 24th International Conference on Virtual Systems & Multimedia* (pp. 1-4). IEEE. DOI: 10.1109/DigitalHeritage.2018.8810110
- Esmaeili, H., Thwaites, H., & Woods, P. C. (2017). Workflows and Challenges Involved in Creation of Realistic Immersive Virtual Museum, Heritage, and Tourism Experiences: A Comprehensive Reference for 3D Asset Capturing. In *Signal-Image Technology & Internet-Based Systems (SITIS), 2017 13th International Conference on* (pp. 465-472). IEEE. DOI: 10.1109/SITIS.2017.82
- Esmaeili, H., Thwaites, H., & Woods, P. C., (2017). Immersive Virtual Environments for Tacit Knowledge Transfer Focusing on Gestures: A Workflow. *2017 International Conference on Virtual Systems & Multimedia (VSMM 2017)*, IEEE. DOI: 10.1109/VSMM.2017.8346255
- See, Z. S., Sunar, M. S., Billinghamurst, M., Dey, A., Santano, D., Esmaeili, H., & Thwaites, H. (2017). Exhibition approach using an AR and VR pillar. *SIGGRAPH Asia 2017: Mobile Graphics & Interactive Applications*. ACM. DOI: 10.1145/3132787.3132810
- See, Z.S., Sunar, M.S., Billinghamurst, M., Dey, A., Santano D., Esmaeili H., & Thwaites H. (2017) An Augmented Reality and Virtual Reality Pillar for Exhibitions: A Subjective Exploration. In *Proceedings of the 27th International Conference on Artificial Reality and Telexistence and 22nd Eurographics Symposium on Virtual Environments* (pp. 79-82). Eurographics Association. DOI: 10.2312/egve.20171342

- Esmaeili, H., & Thwaites, H. (2016, October). Virtual photogrammetry. In Virtual System & Multimedia (VSMM), 2016 22nd International Conference, IEEE. DOI: 10.1109/VSMM.2016.7863153
- Esmaeili, H., Woods, P.C., & Thwaites, H. (2016, October). e-Reconstruction and e-Archiving of Iconic Architectural Heritage: A Complete Example. In Virtual System & Multimedia (VSMM), 2016 22nd International Conference, IEEE. DOI: 10.1109/VSMM.2016.7863195
- Esmaeili, H., Woods, P. C., & Omar, A. A. (2016, October). Automated network for knowledge transfer between resource management agencies: Real-time monitoring/database for household waste management in high-rise residential buildings in Malaysia. In Virtual System & Multimedia (VSMM), IEEE. DOI: 10.1109/VSMM.2016.7863173
- Esmaeili, H., & Woods, P. C. (2016, October). Calm down buddy! it's just a game: Behavioral patterns observed among teamwork MMO participants in WARGAMING's world of tanks. In Virtual System & Multimedia (VSMM), 2016 22nd International Conference, IEEE. DOI: 10.1109/VSMM.2016.7863147
- Esmaeili, H., Woods, P. C., & Houshangi, T. (2016, October). An overview of independent learning environments provided by self-access media: A lesson from CG industry. In Virtual System & Multimedia (VSMM), 2016 22nd International Conference, IEEE. DOI: 10.1109/VSMM.2016.7863177
- Fong, C. H., Billinghamurst, M., See, Z. S., & Esmaeili, H. (2016, October). PepperGram with Interactive Control. In Virtual System & Multimedia (VSMM), 2016 22nd International Conference, IEEE. DOI: 10.1109/VSMM.2016.7863172
- Esmaeili, H., Woods, P. C., & Thwaites, H. (2015). Virtual Preservation of Contemporary Architectural Heritage in Developing Countries in Absence of Protection: Digital Reconstruction, Recording, and Archiving before Complete Disappearance. The 11th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS), pp. 796-803. IEEE, ACM. DOI: 10.1109/SITIS.2015.115
- Esmaeili, H., Woods, P. C., & Thwaites, H. (2014, December). Realisation of virtualised architectural heritage. In 2014 International Conference on Virtual Systems & Multimedia (VSMM), pp. 94-101. IEEE. DOI: 10.1109/VSMM.2014.7136676
- Santano, D., & Esmaeili, H. (2014, December). Aerial videography in built heritage documentation: The case of Post-Independence Architecture of Malaysia. In 2014 International Conference on Virtual Systems & Multimedia (VSMM), pp. 323-328. IEEE. DOI: 10.1109/VSMM.2014.7136680
- Esmaeili, H., Woods, P.C., Thwaites, H., & Hashim, K. (2014). Digital Archiving of Architectural Heritage. In Reinventing Cities and Places (ICCPP2014), Colombo, Sri Lanka, 31 October–2 November 2014, pp. 97-107.

Speaking Engagement

How to Increase Engagement in Serious VR Games?

Staffordshire University · December 2022

Showcasing three examples of serious VR experiences developed in the following areas: Immersive Storytelling, Digital Heritage, and Sustainable Development. The findings that are relevant to engagement were discussed in this talk.

VR, Architecture and Heritage

Staffordshire University · September 2022

A mixed workshop and talk delivered during the Cedric Price day event in Staffordshire University.

Addressing Environmental Awareness through VR

University of Newcastle, Australia, December 2020

Delivering a talk on Increasing Environmental Awareness through VR in XR & Creativity Symposium: Transformative Technologies for Good

Peranakan Kitchen VR

Food & Society, Paris, March 2019

Invited guest speaker and exhibitionist, Food and Society Conference, March 2019 in Paris. In addition to the talk, a series of digitized kitchen assets relevant to Peranakan Culture were showcased in VR.

Unity and SteamVR

University College Dublin, Ireland, 2018

Invited guest for conducting a talk during a PhD seminar in University College Dublin. The presentation was in form of a real-time demonstration of creating a series of simple VR games using Unity and SteamVR.

3D Content Development and AR/VR Authoring

Virtual Systems and MultiMedia (VSMM 2017), Ireland

A talk and real-time demonstration of 3D content development for AR and VR. This included creating game-ready asset through photogrammetry.

KeyShot 3D Rendering

Sunway University, 2016

A talk and real-time demonstration for product visualization using KeyShot. The participants included students, staff, and external product visualization artists.

Research Grant

- MYR5,000: First-time VR users compared to early childhood behaviour (Principal Investigator, Sunway University, 2021)
- MYR10,000: VR Applications in Absence of Access (Principal Investigator, Sunway University, 2020)
- MYR25,000: Large scale VR for cultural heritage of Malaysia (Principal Investigator, Sunway University, 2019)
- MYR10,000: Automated Waste Management Network (Principal Investigator, Sunway University, 2017)
- MYR20,000: The Boatbuilder of Pangkor Island (CG Artist, Sunway University, 2016)
- JPY7,200,00: VR Consultant, TOYOTA Foundation Grant through National University of Malaysia, 2018-2020)
- MYR200,000: Post-Independence Architecture Atlas (CG Artist and Researcher, University of Malaya, 2013-2014)

Exhibition and Creative Work

- Science at Night: Developing a kid-friendly VR experience, The Potteries Museum, UK, November 2022
- Full Immersive Recycling VR Game: United Nations Rock the Goals Event, Malaysia, 2019
- The Pranakan VR: Food & Society Conference, Paris, France, 2019
- Hidden Waterfall City, A Conceptual VR Digital Heritage: Digital Heritage 2018, San Francisco, USA
- What Happened Here? VR Storytelling, IEEE GEM 2018, Ireland
- The Boatbuilder of Pangkor Island: 3D visualization, 3D printing, AR/VR, Sunway University, 2016