

FOR AMI WEBSITE

1) **Name:** Dr James Mountstephens

2) Photo



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4) **Office Contact Number:** 6088-320000 x 3198

5) **Research Areas:** Psychological Computing, Vision, Language

6) **Scopus ID Link:** <https://www.scopus.com/authid/detail.uri?authorId=36915612500>

7) **Biography:**

James Mountstephens is a Senior Lecturer of Computer Science at the Faculty of Computing and Informatics, Universiti Malaysia Sabah in Malaysia. His main research interest is Psychological Computing, meaning the application of computing concepts and techniques to issues and theories from psychology. He has explored EEG methods for detecting emotions and aesthetic preferences which can drive the direct design of 3D objects; smart eye tracking for medical imaging; evolutionary-based mnemonic generation for improved memory and learning; computer modelling of directed attention fatigue and restorative visual scenes for improved health; and the combination of language and vision for object recognition. James holds a PhD in Computing and also a BSc (Hons) in Computer Modeling and Simulation (first class) from the University of Surrey (United Kingdom), where he was the recipient of the Springer-Verlag prize for academic achievement. He has authored and co-authored a number of journal articles, book chapters, and conference papers, and has secured RM237,000 worth of project grants. In terms of postgraduate student supervision, he has successfully supervised 3 Masters students. He is currently a member of IEEE and is a member of the Advanced Machine Intelligence (AMI) research group at UMS.

8) **Academic Qualification:**

- a) PhD Computing. University of Surrey, United Kingdom (2007)
- b) B.Sc (Hons) Computer Modeling and Simulation (First class). University of Surrey, United Kingdom (2003)

9) **Profesional Qualification:** IEEE

10) **Publications:**

**Mountstephens J.,** Teo J., Kler B.K. (2019) Towards Computer-Generated Cue-Target Mnemonics for E-Learning. In: Alfred R., Lim Y., Haviluddin H., On, C. (eds) Computational Science and Technology. Lecture Notes in Electrical Engineering, vol 603. Springer, Singapore.

Teo J., Chew L.H., **Mountstephens J.** (2019) Improving Subject-Independent EEG Preference Classification Using Deep Learning Architectures with Dropouts. In: Arai K., Kapoor S., Bhatia R. (eds) Advances in Information and Communication Networks. FICC 2018. Advances in Intelligent Systems and Computing, vol 886. Springer, Cham

Suhaimi, N., Teo, J., **Mountstephens, J.** (2018). Emotional State Classification in Virtual Reality Using Wearable Electroencephalography. IOP Conference Series: Materials Science and Engineering. 341. 012016. 10.1088/1757-899X/341/1/012016.

Teo, J., Chew, L.H., **Mountstephens, J.** (2017). Deep learning for EEG-Based preference classification. *AIP Conference Proceedings* 1891(1):020141

Chew, L.H., Teo, J., **Mountstephens, J.** (2016). Aesthetic preference recognition of 3D shapes using EEG. *Cognitive Neurodynamics* 10(2):165-73.

Toh, C.M., **Mountstephens, J.** (2015). Experiments in modelling attention fatigue. *International Journal of Advances in Image Processing Techniques*, Vol. 2(2): 50-54.

Toh, C.M., **Mountstephens, J.** (2015). Towards a computer model of attention fatigue. *International Journal of Recent Advances in Multidisciplinary Research*, Vol. 2(9): 774-784.

**Mountstephens, J.,** Kler, B.K. (2015). Towards a computer vision model of restorative scenes. *International Journal of Recent Advances in Multidisciplinary Research*, Vol. 2(8): 608-625.

**Mountstephens, J.** (2014). Using biologically-inspired visual features to model the restorative potential of scenes. *Lecture Notes in Computer Science 8836*. Neural Information Processing: 21st International Conference, ICONIP 2014, Kuching, Malaysia, November 3-6, 2014. Proceedings, Part III. Loo, C.K., Keem Siah, Y., Wong, K.W., Beng Jin, A.T., Huang, K. (eds). Springer-Verlag.

**Mountstephens, J. (2014).** Towards computer-generated mnemonic phrases: experiments with genetic algorithms and n-grams. *Journal of Engineering and Applied Sciences*, Vol. 9(9): 1386-1393.

**Mountstephens, J. (2013).** Quantifying the contextual separability of visual confusion. *Proceedings of First International Conference on Artificial Intelligence, Modelling and Simulation (AIMS2013)*. Kota Kinabalu, Malaysia: 243-248.

#### 11) Grants:

<b>2017-2019</b>	<b>Improving Learning with Computerised Multimodal Cue-Target Mnemonics</b> RM20,000 funded by Universiti Malaysia Sabah (SGPUMS)
<b>2014-2016</b>	<b>Improving Education with Genetically-Generated Mnemonics</b> RM25,000 funded by Universiti Malaysia Sabah (SGPUMS)
<b>2012-2015</b>	<b>AMOR: An Adaptive Multimodal Architecture for Visual Object Recognition</b>

RM192,000 funded by Malaysian Ministry of Science, Technology and Innovation (MOSTI)

12) Postgraduates Students:

- 2018 (ongoing)** Nazmi Sofian Bin Suhaimi, M.Sc.  
**Classifying Emotions in Virtual Reality Based on EEG**
- 2016** Chew Lin Hou, M.Sc.  
**EEG-Based Classification Of Aesthetic Preference For 3d Objects**
- 2015** Toh Chia Ming, M.Sc.  
**Computational Modelling of Directed Attention Fatigue**
- 2013** Choong Mei Yeen, M.Sc.  
**Image Segmentation Based on Normalised Cuts with Clustering Algorithm**

13) Awards:

2002 Springer-Verlag prize for academic achievement

14) Consultations/Engagement/Appointments: