

Assoc. Prof. Dr. Yap Kian Meng

Position: Associate Professor
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Education:

PhD (EE Engineering), Queen's University Belfast, UK
MSc in Telecommunication, Queen's University Belfast, UK
Engineering Council Part 1 & 2
Engineering Council, UK
Diploma in Technology (Electronic Engineering), TAR University College, Malaysia

Teaching:

Introduction to Networking (CCB1204)
Principles of Telecommunication (CCB1205)
Telecommunication Principles (CCD2204)
Mobile Communications (GCM5202)
Network Security (CCB2203)
Mobile Networking (CCB2204)
Network Administration (CCB3301)
Network System and Administration (NET2103)
Computer Security (CSC3044)
Network Management (NET3207)
Capstone Project (SEG 3104)

Brief Employment History:

Sunway University, Malaysia, Associate Professor
Sunway University, Malaysia, Senior Lecturer
Citigroup Inc, UK, Network Engineer (Analyst)
Queens University Belfast, Northern Ireland, UK, Researcher
Allied Telesis Int. (Asia) Pte Ltd, Singapore, Product Engineer

Professional Affiliations:

- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, The Institution of Engineering and Technology (IET)

Awards:

- UK-SE ASIA Knowledge Partnership – Collaborative Development Award 2013 (£2000)
- Silver medal, ITEX 2013 in Malaysia, “3D Smart User Interactive System with Real Time Feedback of Proprioceptive Orientation” (2013)
- Bronze medal, Tech Expo 2012 in Malaysia, “A Mockup Browser for Visually Impaired Children”, 16-18 Feb 2012, Kuala Lumpur (2012)
- 4-year PhD Scholarship (Full Fee Waiving) from Queen’s University Belfast, UK.

Administrative Role:

Coordinator – MSc in Computer Science (by research)

Research:**Research Interests:**

Distributed Haptics

Network architectures and protocols

High-speed computer and Telecommunications networks

Mobile and Wireless networks

Quality of service (QoS) architectures

Data Networking

Network modelling and simulation

Virtual reality

Embedded software (Micro-controller)

Tele-robotics

Reviewer For Journal:

1. Malaysian Journal of Computer Science (2013)
2. Journal of Applied Mathematics (2013)

Reviewer For Conference:

1. Reviewer of the FIRST Symposium on Information and Computer Sciences (ICS 2011), Sunway University (2011)
2. 2010 IEEE Haptics Symposium, Waltham, Massachusetts, USA (2010)

Publication List:**Book Chapter**

- [1] Jonny Milliken, **Kian Meng Yap**, Alan Marshall, “Design and Analysis of Independent, Open-Access WiFi Monitoring Infrastructures in Live Environments,” accepted and to be published for the Taylor &

Francis edited book - "Case Studies in Secure Computing – Achievements and Trends", ISBN# 978-1-4822-0706-4 (print) and ISBN# 978-1-4822-0707-1(e-book). 2014.

- [2] **Kian Meng Yap**, Marshall A., Yu W., Dodds G., Gu Q., Souyard R., "Characterising Distributed Haptic Virtual Environment Network Traffic Flows" book chapter, "Network Control and Engineering for QoS, Security and Mobility, IV", IFIP book series, Publisher: Springer Boston, ISSN: 1571-5736 (Print) Volume 229/2007, ISBN: 978-0-387-49689-4, pp. 297-310, May 2007.

Journal Papers

- [1] Jonny Milliken, Valerio Selis, **Kian Meng Yap** and Alan Marshall, "Impact of Metric Selection on Wireless DeAuthentication DoS Attack Performance," IEEE Wireless Communications Letters, WCL2013-0428, Volume 2 , Issue 5, pg. 571 – 574, JCR impact factor 1.16.
- [2] Chit Su Mon, **Kian Meng Yap**, "An Investigation into Virtual Objects Learning By using Haptic Interface for Visually Impaired Children," Sunway Academic Journal, 2012, Vouolume 9, p.g. 29-42, ISSN 1823-500X.
- [3] **Kian Meng Yap**, Tsung-Han Lee, "Performance Evaluation of Wireless Networks for Supporting Real Time Collaborative Interactions in Distributed Haptic Virtual Environments," Advanced Science and Technology Letters, SERSC, 2012, pp. 194-201, ISSN 2287-1233.
- [4] Alan Marshall, **Kian Meng Yap**, Wai Yu, "Providing QoS for Networked Peers in Distributed Haptic Virtual Environments," Advances in Multimedia Journal, special issue on Multimedia Immersive Technologies and Networking, Volume 2008 (2008), Article ID 841590, 14 pages, 2008.

Conference Papers

- [1] Tiam Hee Tee, **Kian Meng Yap**, Alan Marshall, Kok Seng Eu," A Quantitative Evaluation of Haptic Data Prediction Techniques over Best-Effort Network," Proceedings of the 16th International Conference on Advanced Communications Technology (ICACT2014), Phoenix Park, Pyeongchang, South Korea, February 16-19, 2014.
- [2] Kok Seng Eu, Tiam Hee Tee, **Kian Meng Yap**, Soo Yong Lim, Beek Yoke Chin, "Olfactory Sensory System for Odour Plume Sensing Process by Using Quadrotor Based Flying Sniffer Robot," Proceedings of the 2013 IEEE International Conference on Robotics, Biomimetics, Intelligent Computational Systems, ROBIONETICS 2013, Yogyakarta, Indonesia, November 25 – 27, 2013.
- [3] Tiam Hee Tee, Kok Seng Eu, **Kian Meng Yap**, Alan Marshall and Tsung-Han Lee, "A Network-adaptive Compensation Technique for Tele-haptics using Position Prediction Algorithm," Proceedings of the IEEE International Symposium on Haptic, Audio and Visual Environments and Games (HAVE), Istanbul, Turkey, pg. 39-44, October 26-27, 2013.
- [4] Tsung-Han Lee, Hung-Shiou Chiang, Lin-Huang Chang, Ming-Chun Hsieh, Chih-Hao Wen, **Kian Meng Yap**, "Modeling and Performance Analysis of Route-over and Meshunder Routing Schemes in 6LoWPAN," Proceedings of the 2013 IEEE International Conference on Systems, Man, and Cybernetics, Manchester, United Kingdom, October 13 – 16, 2013.
- [5] Kok Seng Eu, Tiam Hee Tee, **Kian Meng Yap**, Yoon Ket Lee, "3D Smart User Interactive System with Proprioceptive Orientation Feedback by Using Disparity Compassing," Proceedings of the 2013

- IEEE Symposium on Wireless Technology and Applications ISWTA 2013, Kuching, Malaysia, September 22 – 25, 2013.
- [6] Jonny Milliken, Valerio Selis, **Kian Meng Yap** and Alan Marshall, "Development of Device Identity using WiFi Layer 2 Management Frames for Combating Rogue Aps," Proceedings of the 10th International Conference on Security and Cryptography, Reykjavik, Iceland, 29-31 July, 2013.
 - [7] Tiam Hee Tee, Kok Seng Eu, **Kian Meng Yap**, Alan Marshall and Tsung-Han Lee, "3D Smart User Interactive System with Real-Time Responding Tele-Robotic Proprioceptive Information," The Forth IEEE International Conference on Intelligent System, Modelling and Simulation (ISMS), pp. 404-408, Bangkok, Thailand, 29-31 January, 2013.
 - [8] J. Milliken, V. Selis, **Kian Meng Yap**, A. Marshall, "The Effect of Probe Interval Estimation on Attack Detection Performance of a WLAN Independent Intrusion Detection System," Proceedings of the IET International Conference on Wireless Communications and Applications, "Best Paper Award", ICWCA 2012, E-ISBN: 978-1-84919-550-8, Paper ID: TR10-01, p. 101-106, Kuala Lumpur, Malaysia, 8 - 10 October, 2012.
 - [9] **Kian Meng Yap**, Tsung-Han Lee, "An Experimental Study of Supporting Collaborative Haptic Interaction in Distributed Virtual Environments over Wireless Networks," Proceedings of the IET International Conference on Wireless Communications and Applications, ICWCA 2012, E-ISBN: 978-1-84919-550-8, Paper ID: TR5-03, Kuala Lumpur, Malaysia, 8 - 10 October, 2012.
 - [10] **Kian Meng Yap**, Tsung-Han Lee, "Performance Evaluation of Wireless Networks for Supporting Real Time Collaborative Interactions in Distributed Haptic Virtual Environments," Proceedings of the International Conference, UCMA 2012, Bali, Indonesia, pp. 194-201, June 28-30, 2012.
 - [11] **Kian Meng Yap**, Tsung-Han Lee, "A Study to Support Haptic Collaboration with Real Time Force Feedback over Wireless Networks," Proceedings of the First International Conference on Robot, Vision and Signal, Kaohsiung, Taiwan, November 21-23, 2011.
 - [12] **Kian Meng Yap**, "Design of a Collaborative System for Real time Haptic Feedback in Distributed Virtual Environments over IP Networks," Proceedings of the 1st symposium on Information & Computer Sciences, Sunway Resort Hotel & Spa, Malaysia, June 28, 2011.
 - [13] Chit Su Mon, **Kian Meng Yap**, "An Investigation into Virtual Objects Learning By using Haptic Interface for Visually Impaired Children," Proceedings of the 1st symposium on Information & Computer Sciences, Sunway Resort Hotel & Spa, Malaysia, June 28, 2011.
 - [14] **Kian Meng Yap**, "Supporting Collaborative Interaction with Real Time Force Feedback in Distributed Haptic Virtual Environments over IP Networks," Proceedings of the IEEE Fourth International Conference on Genetic and Evolutionary Computing (ICGEC-2010), Shenzhen, China, December 13-15, 2010.
 - [15] **Kian Meng Yap**, Alan Marshall, "Investigating into Quality of Service issues for Distributed Virtual Environments Multimodal System," IEEE Proceeding Intelligent Environment, Monash Sunway Campus, Malaysia, 19-21 July, 2010.
 - [16] Alan Marshall, **Kian Meng Yap**, Wai Yu, "Quality of Service issues for Distributed Virtual Environments with Haptic Interfaces," Proceedings of the IEEE International Workshop on Multimedia

- Signal Processing, IEEE Signal Processing Society, pp. 40-45, MMSP.2008.4665046, Cairns, Queensland, Australia, October 8-10, 2008.
- [17] **Kian Meng Yap**, Alan Marshall, Wai Yu, "Providing QoS for Distributed Haptic Virtual Environments in IP Networks," Proceedings of the ICST/ACM First International Conference on Immersive Telecommunications (Immerscom 2007), Bussolengo, Italy, 10-12 October, 2007.
- [18] **Kian Meng Yap**, Alan Marshall, Wai Yu, "Providing QoS for Multimodal System Traffic Flows in Distributed Haptic Virtual Environments," IEEE Global Information Infrastructure Symposium, ISBN: 978-1-4244-1376-8, pp. 153-158, Marrakech, Morocco, 2-5 July, 2007.
- [19] **Kian Meng Yap**, Alan Marshall, Wai Yu, "Supporting Haptic Collaboration across Networked Peers with Real Time Force Feedback in Distributed Virtual Environments," 14th IEEE International Conference On Telecommunications (ICT 2007), paper ID: 43, Penang, Malaysia, 14th-17th May, 2007.
- [20] Rosa Iglesias, Sara Casado, Teresa Gutiérrez, **Kian Meng Yap**, Wai Yu, Alan Marshall, "A Peer-to-peer Architecture for Collaborative Haptic Assembly," IEEE/ACM(*) International Symposium on Distributed Simulation and Real Time Applications, pp. 25 – 34, Torremolinos, Malaga, Spain, October 2 - 4, 2006.
- [21] **Kian Meng Yap**, Marshall A., Yu W., Dodds G., Gu Q., Souayard R., "Characterising Distributed Haptic Virtual Environment Network Traffic Flows, " (2005) IFIP Network Control and Engineering for QoS, Security and Mobility IV, France Telecom, 14-17 Nov, 2005.

RESEARCH GRANTS:

1. Sunway Internal Research Grant titled "Exploring A New Smart Adaptive Technology for Manipulation of Force Feedback Mobile Tele-robotic over Networked Cloud Architecture" (RM116,000) (2014-present)
2. Sunway Internal Research Grant titled "3D Smart User Interactive Sensory System with Real-Time Responding Tele-Robotic Information with haptic interfaces over MANETs" (RM21,600) (2013-present)
3. Sunway Internal Research Grant titled "Investigating Multi-Robot Cooperative Architecture with Cognitive Model over Wireless Network to Create Olfactory-Gustatory-Haptics Map to Perform Odour Tracking" (RM60,000) (2012-2013)
4. ERGS Award by Ministry of Higher Education (MoHE) titled "Exploring a New Smart User Interface Technology for Manipulation of Force Feedback Mobile Tele-robotic Architecture" (RM58,410) (2012-present)
5. Sunway Internal Research Grant titled "Investigation of Public WIFI Attack and Traffic Characteristics by Deploying a WLAN Monitoring System in Sunway Pyramid, Malaysia" (RM13,600) (2011-2012)
6. Sunway Internal Research Grant titled "A Smart User Interface System for Dexterous Manipulation of Haptic Guidance Robotic Applications" (RM43,000) (2011-2012)