Associate Professor CHEANG, CHAK FONG

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Academic Qualification

Ph.D. in Computer Science and Technology, Tsinghua University, China, 2013
Master in Control Science and Engineering, Tsinghua University, China, 2002
Bachelor in Automation, Tsinghua University, China, 1999

Teaching Area

Computer Networks I/II
Computer Networks Laboratory I/II
Topics in Computer Science

Research Area

Computer Network Architectures, Wireless and Cooperative Communications, Security in Cloud Computing, Software Defined Networks, Computer-aided Medical Diagnosis.

Working Experience

Laboratory Coordinator, School of Computer Science and Engineering, Macau University of Science and Technology, Sep 2018 ~ Present

Associate Professor, Macau University of Science and Technology, Jul 2022 ~ Present

Assistant Professor, Macau University of Science and Technology, Feb 2013 ~ Jun 2022

Lecturer, Macau University of Science and Technology, Sep 2002 ~ Jan 2013

System Engineer, Microsoft Research Asia, Jun 2000 ~ Jan 2001

Academic Publication（selected）

Suigu Tang, Xiaoyuan Yu, Chak Fong Cheang∗, Yanyan Liang, Penghui Zhao, Hon Ho Yu, I Cheong Choi," Transformer-based Multi-task Learning for Classification and Segmentation of Gastrointestinal Tract Endoscopic Images", Computers in Biology and Medicine, vol.157, pages 106723, March, 2023.

Suigu Tang, Xiaoyuan Yu, Chak Fong Cheang∗, Xiaoyu Ji, Hon Ho Yu, I Cheong Choi," CLELNet: A Continual Learning Network for Esophageal Lesion Analysis on Endoscopic Images", Computer Methods and Programs in Biomedicine, vol.231, pages 107399, April, 2023.

Xiaoyuan Yu, Suigu Tang, Chak Fong Cheang*, Hon Ho Yu and I Cheong Choi, "Multi-Task Model for Esophageal Lesion Analysis Using Endoscopic Images: Classification with Image Retrieval and Segmentation with Attention", Sensors 2022, 22, 283.

Bishenghui Tao, Hong-Ning Dai, Jiajing Wu, Ivan Wang-Hei Ho, Zibin Zheng, and Chak Fong Cheang*,"Complex Network Analysis of the Bitcoin Transaction Network", IEEE Transactions on Circuits and Systems II: Express Briefs, 2021.

Chak Fong CHEANG, Yiqin Wang, Zhiping Cai and Gen Xu, "Multi-VMs Intrusion Detection for Cloud Security Using Dempster-Shafer Theory", Computer, Materials & Continua, 2018.

Heng Zhang, Zhiping Cai, Qiang Liu, Qingjun Xiao, Yangyang Li, and Chak Fone Cheang, "A Survey on Security-Aware Measurement in SDN", Security and Communication Networks, Volume 2018, Article ID 2459154, 14 pages, 2018.

Ao ZHONG, Chak Fong CHEANG, "Mathematics of Random Linear Network Coding in Clustering Networks", Journal of Macau University of Science and Technology, vol.11, no. 1&2, pp. 103-110, 2017.

CHEANG Chak-fong, PAN Yi-ping, "WU Jian-ping, Routing Algorithm with Relay Load Balancing in Wireless Multi-hop Networks", Journal of Chinese Computer Systems, vol. 35, no. 4, pp. 689-693, 2014.

Chak Fong Cheang, Jianping Wu, "A Cooperative Bayesian-based Algorithm for Distributed Mobility Tracking", Journal of Convergence Information Technology, vol. 8, no. 1, pp. 26-34, 2013.

Chak Fong Cheang, Lianfeng Lin, Yiping Pan, "A Non-Uniform Sampling Approach for Grid-based Mobility Tracking", International Journal of Advancements in Computing Technology, vol. 4, no. 22, pp. 192-200, 2012.
Chak Fong Cheang, Lianfeng Lin, Zhiming Cai, Jianping Wu, "A Cooperative Framework for Realtime Mobility Tracking in WLANs", in Proceedings of the 12th IEEE International Conference on Communication Technology, pp. 1422-1425, 2010.

Patents（selected）

Cheang Chak Fong, "A Method of Providing Mobility Support to Internet Protocol Version 6 (IPv6) using Filtering Technology", Australia Innovation Patent, 2013-11-26.

Professional Certification and Awards

Teaching Excellence Award 2017/2018
Best Paper Award, the 4th International Conference on Cloud Computing and Security (ICCCS2018)
Best Student Paper Award, the 12th IEEE International Conference on Communication Technology (ICCC2010)
Cisco Certified Academy Instructor (CCAI)

Professional Society Membership

Member, Institute of Electrical and Electronics Engineers (IEEE)