

Curriculum Vitae of Hwang-Cheng (Watson) Wang

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Education

Ph.D., Electrical Engineering

University of Southern California, Los Angeles, USA

M.S., Computer Science

University of Southern California, Los Angeles, USA

Major recent publications

Journal papers

- Abhishek Sharma, Pankhuri Vanjani, Nikhil Paliwal, Chathuranga M. Wijerathna Basnayaka, Dushantha Nalin K. Jayakody, Hwang-Cheng Wang, Kim Galindo, “Communication and Networking Technologies for UAVs: A Survey,” Journal of Network and Computer Applications, under revision, 2020.
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- Chih-Cheng Tseng, Hwang-Cheng Wang, Kuo-Chang Ting, Yi-Fan Tsai, and Fang-Chang Kuo*, “Mitigating Uplink Interference in Femto-Macro Coexisted Heterogeneous Network by Using Power Control,” *Wireless Personal Communications Journal*, vol. 95, pp. 83-100, May 2017. DOI 10.1007/s11277-017-4428-4.
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- Hwang-Cheng Wang, Isaac Woungang*, Kuo-Chang Ting, Chih-Cheng Tseng, Fang-Chang Kuo, Hung-Te Huang, “Co-Tier Downlink Interference Management in Densely Deployed Femtocell Networks,” *International Journal of Communication Systems*, pp. 1-8, DOI: 10.1002/dac.3196, August 2016.
- Chih-Cheng Tseng, Hwang-Cheng Wang, Fang-Chang Kuo, Kuo-Chang Ting, Hsiao-Hwa Chen*, and Guan-Yun Chen, “Delay and Power Consumption in LTE/LTE-A DRX Mechanism with Mixed Short and Long Cycles,” *IEEE Transactions on Vehicular Technology*, vol. 65 no. 3, pp. 1721-1734, March 2016.

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- Zhiwei Yan*, Hwang-Cheng Wang, Yong-Jin Park, and Xiaodong Lee, "Performance Study of the Dual-stack MIP Protocols in the Evolving Mobile Internet," *IET Networks*, vol. 4, no. 1, pp. 74-81, Jan. 2015.
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- Hwang-Cheng Wang, Isaac Woungang*, Cheng-Wen Yao, Alagan Anpalagan, and Mohammad S. Obaidat, “Energy-Efficient Tasks Scheduling Algorithm for Real-Time Multi-Processor Embedded Systems,” *Springer Journal of Supercomputing*, vol. 62, issue 2, pp. 967-988, Nov. 2012. doi: 10.1007/s11227-012-0771-0.
- Hwang-Cheng Wang, Isaac Woungang*, Jia-Bao Lin, Fang-Chang Kuo, and Kuo-Chang Ting, “Revisiting Relative Neighborhood Graph-Based Broadcasting Algorithms for Multimedia Ad Hoc Wireless Networks,” *Springer Journal of Supercomputing*, special issue on Advances in Digital and Multimedia Convergence, doi: 10.1007/s11227-011-0662-9, vol. 62, issue 1, pp. 24-41, Oct. 2012.
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Conference papers

- Santhosh Krishnarao, Hwang-Cheng Wang, Abhishek sharma, and Mazher Iqbal, “Enhancement of Advanced Driver Assistance System (Adas) Using Machine Learning,” accepted to International Congress on Information and Communication Technology, London, UK, Feb. 20-21, 2020.
- Fang-Chang Kuo, Christian Schindelhauer, Hwang-Cheng Wang, and Chih-Cheng Tseng, “Grouping Scheme to Improve Resource Block Utilization in D2D Communications,” *IEEE GLOBECOM*, pp. 1-5, Waikoloa, Hawaii, Dec. 9-13, 2019.
- Arushi Maheshwari and Hwang-Cheng Wang, “Building Multi-UAV Relay Communication System using Robot Operating System,” in *Proc. The Ninth Intl. Conf. on Advances in Computing, Electronics and Communication - ACEC 2019*, pp. 20-24, Bangkok, Thailand, Sep. 14-15, 2019. (Best paper award)
- Hwang-Cheng Wang, Christian Schindelhauer, Chih-Cheng Tseng, Fang-Chang Kuo, and Wen-Jun Lin, “Power Control for D2D Resource Allocation Based on Reinforcement Learning,” in *Proc. 2nd International Conference on Contemporary*

Research Practices in Engineering, IT and Applied Sciences, pp. 1-4, Osaka, Japan, July 27-28, 2019.

- Poorna Pravallika Sriram, Jami Hema Ganesh, and Hwang-Cheng Wang, “Measurement and Simulation of Narrowband Internet of Things (NB-IoT),” TANET 2018, pp. 1-6, National Central University, Chungli, Taiwan, Oct. 24-26, 2018.
- Punjal Agarwal, Hwang-Cheng Wang, and Kathiravan Srinivasan, “Epileptic Seizure Prediction over EEG data using Hybrid CNN-SVM Model with Edge Computing Services,” 22nd International Conference on Circuits, Systems, Communications and Computers (CSCC 2018), pp. 1-7, Majorca, Spain, July 14-17, 2018.
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- Chih-Cheng Tseng, Fang-Chang Kuo, Hwang-Cheng Wang, Kuo-Chang Ting, and Chih-Chieh Wang, “Load-Based Fast Handoff Mechanism for Macro-Femto Heterogeneous Networks,” Proc. QSHINE 2016, July 7–8, 2016, Seoul, South Korea.
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Channel Groups,” Proc. QSHINE 2016, July 7 – 8, 2016, Seoul, South Korea.

- Hwang-Cheng Wang and Jia-Hong Lin, “Priority Escalation for Emergency M2M Communications in LTE/LTE-A Networks,” Proc. Asia-Pacific Conference on Engineering and Applied Science, pp. 460-469, Osaka, Japan, August 25-27, 2015.
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Book chapters

- Kuo-Chang Ting, Hwang-Cheng Wang, Fang-Chang Kuo, Chih-Cheng Tseng, and Ping Ho Ting, The Energy Efficient Techniques in the DCF of 802.11 and DRX Mechanism of LTE-A Networks, in *Energy Efficiency in Communications and Networks*, pp. 85-116, Sameh Gobriel (Ed.), ISBN 978-953-51-0482-7, InTech, Rijeka, Croatia, April 2012.
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Research interests

- Embedded system design and applications

- 4G, 5G and beyond mobile communications
- Power saving mechanism and analysis
- Interference management
- Network/communication protocol design and performance evaluation
- Modeling and simulation
- UAV
- AI & machine learning