

Curriculum Vitae

Biography of Kuang-Hui Chi

November 2021



Kuang-Hui Chi was Assistant Professor (2003–2009), Associate Professor (2009–2018), and is Professor at the Department of Electrical Engineering, National Yunlin University of Science and Technology, Taiwan. He received his B.S. degree in Computer Science and Engineering from Tatung Institute of Technology in 1991. He earned the M.S. and Ph.D. degrees in Computer Science and Information Engineering in 1993 and 2001, respectively, from National Chiao Tung University. (He was posted as a second lieutenant in mandatory military service during 1993–95.) He is an IT professional certificated by the Examination Yuan of R.O.C. government, 1997. From May to September 2001, Chi visited the Department of Computer Science (Lehrstuhl Informatik VII), University of Erlangen, for a study on Stochastic Process Algebra—a formal description technique for system modeling and verification. From October 2001 to July 2003, he was an engineer with Industrial Technology Research Institute, Taiwan. From June to September 2009, he visited the Department of Electrical and Computer Engineering, Iowa State University, for intercollegiate project collaboration. His current research interest lies in Wireless Internet, particularly ICT-based ecosystem-friendly applications.

Contact

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Recent Research Foci

Machine learning
Home automation

Professional Societies

Senior Member, IEEE

Courses Taught

1. *Windows Programming: Python Approach* (Falls 2019, 2020, 2021)
2. *Digital Logic* (Springs 2020, 2021)
3. *Small Cell and Next-Generation Wireless Networks* (Spring 2017, Fall 2017)
4. *Numerical Methods* (Springs 2015, 2016, 2018, 2019, 2020, 2021)
5. *Calculus I & II* (Falls 2015, 2016, Springs 2016, 2017)

6. *Information Literacy and Learning Efficacy* (Fall 2011, Spring 2012, Falls 2012, 2013, 2014, 2015)
7. *Heterogeneous Network Roaming and Handover Techniques* (Springs 2009, 2010, 2011)
8. *C Programming & Its Applications* (Fall 2006, Summer 2008, Spring 2011)
9. *Programming Labs* (Springs 2011, 2019, 2020)
10. *Windows Programming: Visual C++* (Falls 2010, 2011)
11. *Vehicular Networks* (Spring 2008, 2010, Falls 2011, 2014)
12. *Wireless Networks* (Fall 2007, Spring 2010, Fall 2012, Fall 2016)
13. *Operating Systems* (Springs 2004, 2006, 2008, 2010, 2012, 2018, 2021)
14. *Wireless Local Area Networks* (Springs 2004, 2005, 2006, Falls 2008, 2010)
15. *Communication Protocol Verification* (Fall 2005, Spring 2007)
16. *Windows Programming: Visual Basic* (Falls 2007, 2008, 2012, 2017)
17. *Java Programming & Its Applications* (Springs 2006, 2007, 2008, 2009, 2010, 2012, 2014, 2017)
18. *C++ Programming & Its Applications* (Falls 2003, 2004, 2005, 2006, 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021)
19. *Computer Organization* (Springs 2005, 2007)
20. *Discrete Mathematics* (Falls 2004, 2005)
21. *Engineering Mathematics* (Fall 2003, Spring 2004, Fall 2004, Spring 2005)
22. *Seminars on Electrical and Computer Engineering* (Fall 2003, Spring 2004, Fall 2004, Spring 2005, Fall 2007, Spring 2008, Fall 2008, Spring 2009)
23. *Introductory Electric Circuit Analysis* (Fall 2003)

Grants (past five years)

1. A Design and Implementation of a CNN-Based Technique for Detecting Facade Tile Degradation, Ministry of Science and Technology, August 2019–July 2020. Grant MOST 107-2221-E-224-051.
2. A Design and Implementation of a BLE-based Intelligent Indoor Illuminating System, Ministry of Science and Technology, August 2016–July 2017. Grant MOST 105-2221-E-224-046.
3. A Design and Implementation of Cognitive Radio Technology, Ministry of Science and Technology, August 2015–July 2016. Grant MOST 104-2221-E-224-011.

Publication

A. International Journals

1. Chien-Yung Li, Li-Hsing Yen, Kuang-Hui Chi, and Chien-Chao Tseng, “One-Pass In-Band Automatic Bootstrapping for OpenFlow Switches”, *IEEE Access*, Vol. 9, November 2021.
2. Shun-Jen Hsiao, Kuang-Hui Chi, and Chian C. Ho, “Hand Gesture-Recognition-Based Home Automation”, *Journal of Innovative Technology*, 3(2):51–56, September 2021.
3. Ulin Nuha and Kuang-Hui Chi, “Forecasting Annual Electricity Consumption in Indonesia: A GRNN-based Approach”, *Journal of Innovative Technology*, 3(1):57–63, March 2021.
4. Chao-Feng Lin, Kuang-Hui Chi, Yu-Yuan Hsu, and Chun-Yi Liu, “Mobile Anchor-Assisted Localization over Android”, *Wireless Networks*, 23(8):2379–2394, November 2017.
5. Iwan Kustiawan and Kuang-Hui Chi, “An Intelligent Handoff Strategy in Heterogeneous Wireless Networks”, *Journal of Intelligent & Fuzzy Systems*, 32(5):3313–3324, April 2017.
6. Iwan Kustiawan and Kuang-Hui Chi, “Handoff Decision Using a Kalman Filter and Fuzzy Logic in Heterogeneous Wireless Networks”, *IEEE Communications Letters*, 19(12):2258–2261, December 2015.
7. Chia-Wei Hsieh, Kuang-Hui Chi, Ji-Han Jiang, and Chien C. Ho, “Adaptive Binding of Wireless Devices for Home Automation”, *IEEE Wireless Communications*, 21(5):62–69, October 2014.
8. Kuang-Hui Chi and Li-Hsing Yen, “Load Distribution in Non-homogeneous Wireless Local Area Networks”, *Wireless Personal Communications*, 75(4):2569–2587, April 2014.
9. Kuei-Li Huang, Kuang-Hui Chi, Jui-Tang Wang, and Chien-Chao Tseng, “A Fast Authentication Scheme for WiMAX-WLAN Vertical Handover”, *Wireless Personal Communications*, 71(1):555–575, July 2013.
10. Kuang-Hui Chi, J. Morris Chang, and Ting-Chung Wang, “Enhanced Fast Base Station Switching”, *IEEE Transactions on Mobile Computing*, 11(11):1640–1651, November 2012.
11. Yu-Wen Chen, Jui-Tang Wang, Kuang-Hui Chi, and Chien-Chao Tseng, “Group-Based Authentication and Key Agreement”, *Wireless Personal Communications*, 62(4):965–979, February 2012.
12. Kuang-Hui Chi, Yung-Chien Shih, Ho-Han Liu, Jui-Tang Wang, Shiao-Li Tsao, and Chien-Chao Tseng, “Fast Handoff in Secure IEEE 802.11s Mesh Networks”, *IEEE Transactions on Vehicular Technology*, 60(1):219–232, January 2011.

13. Kuang-Hui Chi, Chien-Chao Tseng, and Ya-Hsuan Tsai, "Fast Handoff among IEEE 802.11r Mobility Domains", *Journal of Information Science and Engineering*, 26(4):1345–1362, July 2010.
14. Li-Hsing Yen, Tse-Tsung Yeh, and Kuang-Hui Chi, "Load Balancing in IEEE 802.11 Networks", *IEEE Internet Computing*, 13(1):56–64, January 2009.
15. Chun-Chie Wang, Kuang-Hui Chi, and Chien-Chao Tseng, "An IP-Decoupling Approach to Host Mobility", *Journal of Information Science and Engineering*, 23(1):91–112, January 2007. (Grant NSC 95-2221-E-224-016-MY2)
16. Kuang-Hui Chi, Ji-Han Jiang, and Li-Hsing Yen, "Cost-Effective Caching for Mobility Support in IEEE 802.1X Frameworks", *IEEE Transactions on Mobile Computing*, 5(11):1547–1560, November 2006. (Grant NSC 93-2213-E-224-008)
17. Chien-Chao Tseng, Kuang-Hui Chi, Ming-Deng Hsieh, and Hung-Hsin Chang, "Location-based Fast Handoff for 802.11 Networks", *IEEE Communications Letters*, 9(4):304–306, April 2005. (Grant NSC 93-2213-E-224-008)
18. Li-Hsing Yen and Kuang-Hui Chi, "Maintaining a Ring Structure for Mobile *Ad Hoc* Computing", *Journal of Parallel and Distributed Computing*, 64(2004):1371–1379, December 2004. (Grant NSC 89-2213-E-216-051)
19. Kuang-Hwei Chi, Chien-Chao Tseng, and Chen-Hung Tsai, "An Approach to Smooth Foreign Agent Handoff", *IEICE Transactions on Information and Systems*, E85-D(5):847–853, May 2002. (Grant NSC 90-2213-E-009-197)
20. Chien-Chao Tseng, Kuang-Hwei Chi, and Ting-Lu Huang, "A New Locality-based IP Multicasting Scheme for Mobile Hosts", *Computer Communications*, 24(5-6):486–495, March 2001. (Grants NSC 87-2213-E-009-016 and NSC 88-2213-E009-001)
21. Kuang-Hwei Chi, Li-Hsing Yen, Chien-Chao Tseng, and Ting-Lu Huang, "A Causal Multicast Protocol for Mobile Distributed Systems", *IEICE Transactions on Information and Systems*, E83-D(12):2065–2074, December 2000. (Grants NSC 88-2213-E009-081 and NSC 89-2213-E-009-028)
22. Kuang-Hwei Chi, Chien-Chao Tseng, and Chih-Zhong Lin, "Performance Analysis of Data-Driven Pipelined Computer Architectures", *International Journal of Modelling and Simulation*, 20(3):236–247, April 2000. (Grant NSC 81-0408-E-009-09)
23. Kuang-Hwei Chi, Chien-Chao Tseng, and Ting-Lu Huang, "A Framework for Mobile Multicast Using Dynamic Route Reconstructions", *Computer Journal*, 42(6):522–533, 1999. (Grants NSC 87-2213-E-009-016 and NSC 88-2213-E009-001)
24. Chih-Zhong Lin, Chien-Chao Tseng, and Kuang-Hwei Chi. "Design of an Efficient Data-Driven Pipelined Computer Architecture", *Computer Systems Science and Engineering*, 10(3):179–186, July 1995. (Grants NSC 80-0408-E-009-23 and NSC 81-0408-E-009-09)

B. Domestic Journals

25. Jun-Liang Ke, Kuang-Hui Chi, Ji-Han Jiang, and Yu-Ching Hsu, "Group Rekeying for IEEE 802.11i Networks", *Communications of Institute of Information and Computing Machinery*, 10(1):105–122, March 2007. (Grant NSC 95-2221-E-224-016-MY2) (invited paper)
26. Li-Hsing Yen, Kuang-Hwei Chi, and Ting-Lu Huang. "A Unified Scheme for Lightweight Causal Message Ordering", *Chung Hua Journal of Science and Engineering*, 1(2):71–78, September 2003.
27. Kuang-Hwei Chi, Chein-Chao Tseng, and Chen-Hung Tsai, "An Approach to Smooth Handoff in Heterogeneous Networks", *CCL Technical Journal*. No. 102, pp. 134–144, December 2002.
28. Kuang-Hwei Chi, Chien-Chao Tseng, and Ting-Lu Huang, "Survey of IP Multicast Support in Mobile Internetworks", *Journal of Computers*, 12(2):9–18, June 2000. (Grant NSC 88-2213-E009-001) (invited paper)

C. Book Chapters

1. C.-R. Dow *et al.*, Telematics Lab: Communication Protocols and Management (Chinese), CHWA Publishers, December 2009.

D. International Conferences

1. Ulin Nuha, Kuang-Hui Chi, and Chih-Hsueh Lin, "Traffic Load Prediction of Multi-Band Radio Frequency Modules: A Hybrid Deep Learning Approach", *Proceedings of the 3rd International Symposium on Engineering and Technology*, November 2021.
2. Chia-Wei Hsieh, Shun-Jen Hsiao, Wei-Han Wang, and Kuang-Hui Chi, "An Outlook for Home Automation", *International Symposium on Materials and Electrical Engineering*, Bandung, Indonesia, November 2017. (Keynote Speech) (Materials at <http://bit.ly/2hvu8IV>)
3. Meng-Hsuan Chiang and Kuang-Hui Chi, "Inhomogeneous Wireless Network Load Distribution", *Global Summit and Expo on Multimedia & Applications*, August 2015.
4. Chao-Feng Lin, Kuang-Hui Chi, Ji-Han Jiang, and Iwan Kustiawan, "Mobile Anchor-based Localization over Android", *Proceedings of the 12th International Conference on Advances in Mobile Computing and Multimedia*, pp. 389–395, December 2014.
5. Chia-Wei Hsieh, Kuang-Hui Chi, Ji-Han Jiang, and Chien C. Ho, "Adaptive Binding of Wireless Networking: Design and Implementation", *Proceedings of the 9th International Conference on Information, Communications and Signal Processing*, pp. 1–5, December 2013.
6. Li-Hsing Yen, Yuan-Kao Dai, and Kuang-Hui Chi, "Resource Allocation for Multi-channel Multi-radio Wireless Backhaul Networks: A Game-theoretic Approach", *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, Shanghai, April 2013.

7. Kuang-Hui Chi, Yu-Yuan Hsu, Ji-Han Jiang, and Li-Hsing Yen, "On Complexity in Wireless Network Localization", *Proceedings of the 2012 IEEE Workshop on Complexity in Engineering*, Aachen, Germany, June 2012.
8. Kuang-Hui Chi, Ji-Han Jiang, and Yu-Ching Hsu, "Multigroup Rekeying for a Wireless Network", *Lecture Notes in Computer Science (LNCS)*, Vol. 4658, pp. 147–156, August 2007. (*Proceedings of the First International Conference on Network-Based Information Systems*, Regensburg, Germany, September 2007.)
9. Li-Hsing Yen and Kuang-Hui Chi, "Online Ring Structure Adaptation for Mobile Wireless Computing", *IEEE Workshop on Adaptive Wireless Networks (GLOBE-COM)*, Texas, USA, December 2004.
10. Chun-Chie Wang, Chien-Chao Tseng, Jen-Chi Liu, and Kuang-Hui Chi, "An IP-Decoupling Approach to Host Mobility", *Proceedings of International Computer Symposium*, Hualien, Taiwan, December 2002.
11. Wen-Kuang Chou, Chen-Hung Tsai, Kuang-Hwei Chi, and Chien-Chao Tseng, "Integration of Network and Data-link Layer Protocols for Mobile Internetworking", *Proceedings of International Symposium on Information Theory and Its Applications*, Honolulu, Hawaii, November 2000. (Grant NSC 88-2213-E009-001)
12. Kuang-Hwei Chi, Chien-Chao Tseng, and Wen-Kuang Chou, "Performance and Cost Analysis of Mobile Internet Multicast Protocols", *Proceedings of International Conference on Parallel and Distributed Systems*, Seoul, Korea, pp. 281–286, December 1997. (Grant NSC-86-2213-E-009-076)
13. Chien-Chao Tseng and Kuang-Hwei Chi, "Performance Analysis of Data-driven Pipelined Computer Architectures", *Proceedings of International Computer Symposium*, Hsinchu, Taiwan, Vol. I, pp. 187–193, December 1994. (Grant NSC 81-0408-E-009-09)

E. Domestic Conferences

14. Shun-Jen Hsiao and Kuang-Hui Chi, "An Integrated System of Wearable Devices Paired with Gesture Recognition and Home Internet of Things", *Proceedings of the 21st Workshop on Mobile Computing*, Taiwan, August 2016.
15. Wei-Han Wang and Kuang-Hui Chi, "A Design and Implementation of A BLE-based Indoor Illuminating System", *Proceedings of the 21st Workshop on Mobile Computing*, Taiwan, August 2016.
16. Song-Hung Wu and Kuang-Hui Chi, "A Design and Implementation of Cognitive Radio Networks over Linux", *National Symposium on Telecommunications*, Taiwan, November 2015.
17. Yi-Hsiang Lee, Xue-Liang Shih, Cheng-Hung Wu, and Kuang-Hui Chi, "A Rime-based English Learning System over Android", *Proceedings of National Computer Symposium*, Taiwan, October 2015.
18. Chi-Wei Hsiao and Kuang-Hui Chi, "A Fire Detection System Using Data Fusion", *Proceedings of the 11th Workshop on Wireless Ad Hoc and Sensor Networks*, Taiwan, August 2015.

19. Chao-Feng Lin, Kuang-Hui Chi, and Ji-Han Jiang, "A Base Station Localization Scheme over Android", *Proceedings of National Computer Symposium*, Chiayi, Taiwan, December 2011.
20. Kuang-Hui Chi, Chao-Feng Lin, Meng-Hsuen Chiang, Kwang-Lin Hwang, and Ji-Han Jiang, "Using TTCN-3 to Test Femtocells", *Proceedings of National Computer Symposium*, Chiayi, Taiwan, December 2011.
21. Chun-Hung Lin, Kuang-Hui Chi, and Ji-Han Jiang, "An Implementation of an IEEE 802.21 Handover Mechanism over the Android Platform", *Proceedings of the 6th Workshop on Wireless Ad Hoc and Sensor Networks*, Taipei, Taiwan, September 2010.
22. Yu-Hsuen Chang, Kuang-Hui Chi, and Ji-Han Jiang, "Design and Implementation of an IEEE 802.21 Information Server over the Android Platform", *Proceedings of the 6th Workshop on Wireless Ad Hoc and Sensor Networks*, Taipei, Taiwan, September 2010.
23. Yu-Yuan Hsu, Kuang-Hui Chi, and Ji-Han Jiang, "A Convex Hull-Based Localization Scheme for Irregular Wireless Sensor Networking Characteristics", *Proceedings of National Computer Symposium*, Taipei, Taiwan, November 2009.
24. Ting-Chung Wang, Kuang-Hui Chi, and Ji-Han Jiang, "A Study on IEEE 802.16e Fast Handover Mechanisms", *Proceedings of the 14th Workshop on Mobile Computing*, I-Lan, Taiwan, June 2009.
25. Hsueh-Chang Liao, Kuang-Hui Chi, and Ji-Han Jiang, "Performance Evaluation of IEEE 802.11e Direct Link Setup", *Proceedings of the 14th Workshop on Mobile Computing*, I-Lan, Taiwan, June 2009.
26. Yong-Ming Shih, Kuang-Hui Chi, and Ji-Han Jiang, "Using TTCN-3 to Test Multimedia Messaging Service", *Proceedings of the 14th Workshop on Mobile Computing*, I-Lan, Taiwan, June 2009.
27. Shi-Kan Chen, Kuang-Hui Chi, and Ji-Han Jiang, "Load Sharing in IEEE 802.16 Mesh Networks", *Proceedings of the 4th Workshop on Wireless Ad Hoc and Sensor Networks*, Tainan, Taiwan, September 2008.
28. Kuang-Hui Chi, "A Load Sharing Scheme in IEEE 802.11 Networks", *Proceedings of the First Workshop on Information Education and Technological Applications*, Taichung, Taiwan, November 2007.
29. Hung-Yi Hsieh and Kuang-Hui Chi, "Load Balancing in IEEE 802.11s Networks", *Proceedings of the 3rd Workshop on Wireless Ad Hoc and Sensor Networks*, Taipei, Taiwan, September 2007.
30. Chen-Pin Wang and Kuang-Hui Chi, "A Two-Level Load Balancing Scheme for IEEE 802.11 Networks", *Proceedings of the 13th Workshop on Mobile Computing*, Changhua, Taiwan, April 2007.
31. Kuang-Hui Chi, "Caching Effectiveness for Fast Handoff Schemes in IEEE 802.1X Frameworks", *Proceedings of the 12th Workshop on Mobile Computing*, Taichung, Taiwan, March 2006.

32. Yin-Chiang Lin and Kuang-Hui Chi, “An Approach to Dynamically Allocating Transmission Opportunities in IEEE 802.11e Networks”, *Proceedings of the 12th Workshop on Mobile Computing*, Taichung, Taiwan, March 2006.
33. Li-Hsing Yen, Kuang-Hwei Chi, and Ting-Lu Huang, “A Scalable Scheme for Causal Message Ordering”, *National Computer Symposium*, December 2003, pp. 2021–2028.
34. Chien-Chao Tseng, Li-Hsing Yen, Ting-Lu Huang, and Kuang-Hwei Chi, “A Causal Multicast Protocol for Mobile Distributed Systems”, *Proceedings of Workshop on Distributed Systems Technologies and Applications*, Tainan, Taiwan, May 2000. (Grant NSC 89-2213-E-009-028)
35. Jin-Yu Lin, Chien-Chao Tseng, Min-Feng Chang, and Kuang-Hwei Chi, “Mobility Management in Hierarchical Mobile IP Environments”, *Proceedings of the 5th Workshop on Mobile Computing*, Hsinchu, Taiwan, March 1999. (Grant NSC 88-2213-E009-001)
36. Sie-Jie Chang, Shu-Yuang Hwang, Chien-Chao Tseng, and Kuang-Hwei Chi, “Multicast Message Delivery in Mobile Computing Environment”, *Proceedings of the 3rd Workshop on Mobile Computing*, Hsinchu, Taiwan, March 1997. (Grant NSC-86-2213-E-009-072)

Patents

1. Kuang-Hui Chi, Pai-Feng Tsai, and Kwo-Hsine Liaw, “Data Caching Method and Computer Program Product Therefor”, US Patent 7,441,086, October 2008; ROC Patent #I265414, November 2006.
2. Kuang-Hui Chi and Yu-Ching Hsu. “Wireless Network, Access Point, and Load Balancing Method Thereof”, US Patent 8,363,628, January 2013; ROC Patent #I372531, September 2012; PROC Patent #ZL 2008 1 0131748.X, January 2012.

Honors

1. 2000 Outstanding Intellectuals of the 21st Century (5th Ed., 2009), International Biographical Centre, Cambridge, England.
2. Bronze Medal with Chia-Wei Hsieh, Nation-wide Innovative Projects Competition on Emerging Green Energies, Taiwan, May 2009.
3. Best Paper Award, The 12th Workshop on Mobile Computing, Taiwan, March 2006.
4. Bronze Medal of Yearly Best Papers, Computer & Communications Research Laboratories, Industrial Technology Research Institute, Taiwan, 2003.

Scholarships

1. Academic Exchange Program of Overseas Short-Term Studies, National Science Council, June–September 2009. (Iowa State University, USA)

2. NSC-DAAD (Taiwan National Science Council - Deutscher Akademischer Austauschdienst) Scholarship, March–September 2001. (Language class in Goethe Institut Bonn in March and April, and subsequently at the University of Erlangen.)

Ph.D. Dissertation Advised

1. Iwan Kustiawan, “A Study on Heterogeneous Wireless Network Handoff”, Graduate School of Engineering Science and Technology, National Yunlin University of Science and Technology, 2017.

Master Theses Advised

1. Shun-Jen Hsiao, “An Integrated System of Wearable Devices Paired with Gesture Recognition and Home Internet of Things”, 2016.
2. Wei-Han Wang, “A Design and Implementation of a BLE-based Intelligent Indoor Illuminating System”, 2016.
3. Jhe-Wei Chiou, “Using NFC to Speed Up Wireless Network Connection”, 2015.
4. Chi-Wei Hsiao, “Using Data Fusion in a Fire Detection System”, 2015.
5. Yu-Lun Ho, “Using Association Rules to Predict Access Points”, 2015.
6. Huan-Yi Chen, “A Music Search Mechanism For Smartphones Using Fourier Transform”, 2015.
7. Chia-Te Huang, “The Parameters Monitoring System of Rubber Vulcanization Equipment”, 2014 [On-the-job Master’s Program]
8. Sung-Hong Wu, “A Design and Implementation of Cognitive Radio over the Linux Platform”, 2014.
9. Yan-Shuo Huang, “A Design and Implementation of a Course Selection and Recommended Courses over the Website Platform”, 2014.
10. Yi-Hsiang Lee, “A Study on English Spelling Learning over Android”, 2013.
11. Teng-Wei Huang, “A Design and Implementation of A NFC Digital Wallet and Travel Information over the Android Platform”, 2013.
12. Min-Hung Hsueh, “A Study on Trip Planning Using the Ant Algorithm and Cloud Computing”, 2013.
13. Chi-Wen Hung, “A Design and Implementation of A WhatsApp-like Application over Android”, 2012.
14. Xue-Liang Shih, “English Spelling Learning over Android: A Multi-party Game Approach”, 2012.
15. Kwan-Hsuen Huang, “Weighted Shortest Path for MRT Navigation”, 2012.
16. Chao-Feng Lin, “A Base Station Localization Scheme over Android”, 2011 (with Professor Ji-Han Jiang.)

17. Meng-Hsuen Chiang, "A Load Sharing Scheme for Non-homogeneous Wireless Network over the Android Platform", 2011 (with Professor Ji-Han Jiang.)
18. Chun-Hung Lin, "An Implementation of IEEE 802.21 Handover Mechanisms over the Android Platform", 2010 (with Professor Ji-Han Jiang.)
19. Yu-Hsuen Chang, "Design and Implementation of an IEEE 802.21 Information Server over the Android Platform", 2010 (with Professor Ji-Han Jiang.)
20. Chun-Shen Wu, "Load-aware Geographic Routing in Wireless Sensor Networks", 2010 (with Professor Ji-Han Jiang.)
21. Chia-Wei Hsieh, "Design and Implementation of a Dynamic Data Binding Mechanisms in Wireless Sensor Networks", 2009 (with Professor Chien-Chen Ho.)
22. Yu-Yuan Hsu, "A Convex Hull-Based Localization Scheme for Irregular Wireless Sensor Networking Characteristics", 2009 (with Professor Ji-Han Jiang, National Formosa University.)
23. Yong-Ming Shih, "Using TTCN-3 to Test Multimedia Messaging Service", 2009 (with Professor Ji-Han Jiang, National Formosa University.)
24. Kun-Tsung Liu, "A Study on Vehicular Network Channel Coordination", 2009 (with Professor Ji-Han Jiang, National Formosa University.)
25. Heng-Shuo Liu, "Data Dissemination with Temporal-Centric Storage in Wireless Sensor Networks", 2008 (with Professor Ji-Han Jiang, National Formosa University.)
26. Ting-Chung Wang, "Enhancing Fast Handover Mechanisms in IEEE 802.16e Networks", 2008.
27. Si-Kan Chen, "Load Sharing in IEEE 802.16 Mesh Networks", 2008.
28. Der-Wan Shen, "A Survey of Multicast Applications in IEEE 802.16-based Networks", 2008 [On-the-job Master's Program]
29. Hsueh-Chang Liaw, "A Performance Study on the IEEE 802.11e Direct-Link-Setup Mechanism", 2008 [On-the-job Master's Program]
30. Hung-Yi Hsieh, "Load Balancing in IEEE 802.11s Mesh Networks", 2007.
31. Yen-Wen Lai, "IEEE 802.11 Channel Capacity Analysis", 2006 [On-the-job Master's Program]
32. Jun-Liang Ke, "Group Rekeying for Wireless Networks", 2006.
33. Chao-Wei Deng, "Roaming Support in IEEE 802.11 Networks", 2006.
34. Chen-Pin Wang, "A Two-Leveled Load Balancing Scheme for IEEE 802.11 Networks", 2006 [On-the-job Master's Program]
35. Wu-Yn Chen, "IEEE 802.11 Network Load Balancing", 2005 [On-the-job Master's Program]
36. Yin-Chiang Lin, "An Approach to Dynamically Allocating Transmission Opportunities in IEEE 802.11e Networks", 2005.

Professional Services

- Editorial Board of the *International Journal of Adaptive Infrastructures* (July 2007–March 2008)
- Program Committee of *IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing* 2008
- Program Committee of *IEEE 22nd International Conference on Advanced Information Networking and Applications* 2007
- Program Committee of *the 2nd International Conference on Computer Science and its Applications* 2009
- Program Committee of *International Workshops on Wireless Network Algorithms* 2008, 2009, 2010
- Program Committee of *the 1st International Workshop on Performance Evaluation of Wireless Networks* 2009
- Program Committee of *International Computer Symposium* 2008
- Program Committee of *Mosharaka International Conference on Communication and Computer Networks* 2007
- Program Committee of *National Computer Symposium* (Taiwan) 2009, 2011, 2011
- Program Committee of *Workshop on Consumer Electronics* (Taiwan) 2005
- Program Committee of *Workshops on Information Education and Technological Applications* (Taiwan) 2007, 2008, 2009
- Program Committee of *Workshops on Mobile Computing* (Taiwan) 2006, 2007, 2009, 2010
- Program Committee of *Workshops on Wireless Ad Hoc and Sensor Networks* (Taiwan) 2007, 2008, 2009, 2010
- Reviewer of *ACM/Baltzer Mobile Networks and Applications* (2000, 2009, 2013)
- Reviewer of *Ad Hoc & Sensor Wireless Networks* (2010, 2011, 2012, 2012, 2015, 2015, 2015)
- Reviewer of *Computer Communications* (2010, 2010)
- Reviewer of *Computer Standards & Interfaces* (2006)
- Reviewer of *Concurrency and Computation: Practice and Experience* (2013)
- Reviewer of *European Transactions on Telecommunications* (2010, 2010, 2011, 2015)
- Reviewer of *GPS Solutions* (2012, 2013)
- Reviewer of *IEEE Communications Letters* (2004, 2005, 2006, 2008)

- Reviewer of *IEEE Communications Magazine* (2010, 2015)
- Reviewer of *IEEE Security & Privacy* (2015, 2016)
- Reviewer of *IEEE IT Professional* (2010, 2012, 2012, 2013, 2014)
- Reviewer of *IEEE Transactions on Mobile Computing* (2014, 2015)
- Reviewer of *IEEE Transactions on Parallel and Distributed Systems* (2012, 2012)
- Reviewer of *IEEE Transactions on Wireless Communications* (2007, 2007, 2008, 2008, 2008, 2008, 2015, 2016)
- Reviewer of *IEEE Transactions on Vehicular Technology* (2006, 2008, 2008, 2010, 2010)
- Reviewer of *IEEE Wireless Networks* (2003)
- Reviewer of *IET Communications* (2009, 2012)
- Reviewer of *International Journal of Ad Hoc and Ubiquitous Computing* (2010, 2012, 2012)
- Reviewer of *International Journal of Communication Systems* (2007, 2008, 2008, 2011, 2013, 2013, 2015)
- Reviewer of *International Journal of Electrical Engineering* (2009, 2009, 2015)
- Reviewer of *International Journal of Information Technology and Decision Making* (2003)
- Reviewer of *International Journal of Intelligent Systems Technologies and Applications* (2007, 2007, 2007)
- Reviewer of *International Journal of Sensor Networks* (2013)
- Reviewer of *Journal of Information Science and Engineering* (2009, 2009, 2016)
- Reviewer of *Journal of Information Technology and Applications* (2007)
- Reviewer of *Journal of Systems and Software* (2003)
- Reviewer of *Physical Communication* (2010, 2011)
- Reviewer of *Telecommunication Systems Journal* (2006, 2009, 2010, 2015)
- Reviewer of *Transactions on Emerging Telecommunications Technologies* (2013, 2013, 2014, 2014, 2015, 2015)
- Reviewer of *Wireless Communications and Mobile Computing* (2008, 2008, 2008, 2008, 2009, 2009, 2009, 2010, 2010, 2010)
- Reviewer of *Wireless Networks* (2013, 2015, 2015, 2015, 2016, 2016)
- Reviewer of *Wireless Personal Communications* (2007, 2008, 2008, 2008, 2008)

- Reviewer of *Journal of Science and Engineering Technology* (Taiwan) (2009)
- Reviewer of ACM MobiCom (2006)
- Reviewer of GLOBECOM (2007)
- Reviewer of *ICC 2007 Wireless Communications Symposium* (2007)
- Reviewer of *International Computer Symposium* (2008, 2008, 2008, 2010, 2010, 2010)
- Reviewer of *IWCMC 2006 Wireless LANs and Wireless PANs* (2006)
- Reviewer of *the 1st IEEE International Conference on Mobile Ad-hoc and Sensor Systems* (2004)
- Reviewer of *the 6th Annual IEEE Consumer Communications & Networking Conference* (2008, 2008, 2008, 2008)
- Reviewer of *IEEE Wireless Communications & Networking Conference* (2005, 2007)
- Reviewer of *the IEEE 22nd International Conference on Advanced Information Networking and Applications* (2007, 2007, 2007, 2007)
- Reviewer of *the IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing* (2008)
- Reviewer of *the 15th International Conference on Information Networking* (2001)
- Reviewer of *the 1st International Workshop on Wireless Network Algorithms* (2008, 2008, 2008, 2008)
- Reviewer of *the 2nd International Workshop on Wireless Network Algorithms* (2009, 2009)
- Reviewer of *the 2nd International Conference on Computer Science and its Applications* (2009, 2009, 2009)
- Reviewer of *the Mosharaka International Conference on Signal, Image and Speech Processing* (2007)
- Reviewer of *the Mosharaka International Conference on Communication and Computer Networks* (2007, 2007, 2007)
- Reviewer of *the 1st International Workshop on Performance Evaluation of Wireless Networks* (2009, 2009, 2009)
- Reviewer of *National Telecommunications Symposium* (Taiwan) (2008, 2008, 2009, 2009, 2012, 2012)
- Reviewer of *National Computer Symposium* (Taiwan) (2009, 2009, 2009, 2009)
- Reviewer of *Taiwan Network Conference* (Taiwan) (2005, 2009, 2009, 2010, 2010, 2013, 2013, 2013)

- Reviewer of *Workshops on Mobile Computing* (Taiwan) (2006, 2007, 2010)
- Reviewer of *the 4th Workshop on Wireless Ad Hoc and Sensor Networks* (Taiwan) (2008, 2008, 2008, 2008)
- Reviewer of *the 5th Workshop on Wireless Ad Hoc and Sensor Networks* (Taiwan) (2009, 2009)

On-Campus Services

- Associate Chairperson, Department of Electrical Engineering, February 2013–July 2016
- Section Head, Center for Learning and Teaching Excellence, September 2010–February 2013
- Board of International Interchange Affairs, College of Engineering, August 2009–July 2016
- Undergraduate classes’ mentor, September 2003–present
- Study Consultant (university library), September 2006–July 2011
- Section Head, Office of International Affairs, March–June 2009
- Department Committee of Resources Planning, August 2004–July 2005
- Department Convener of the Communication and Computer Division, August 2004–July 2005
- Department Committee of Budget Planning, August 2004–July 2005
- Department Committee of Curriculums Planning, August 2003–July 2005
- Examiner on various admission and qualification committees