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Education

- PhD, Department of Information Management, National Taiwan University of Science and Technology, 2004/7
- Master, Institute of Electro-Optical Engineering, National Chiao Tung University, 1988/7
- Bachelor, Department of Electric Engineering, National Cheng Kung University, 1986/7

Area of Specialty

- Computer Network, Mobile Computing, Cognitive Radio Network

Academic Experience

- Associate Professor, Department of Information Management, Southern Taiwan University of Science and Technology, 2005/8 to present
- Associate Professor, Department of Electronic Engineering, Northern Taiwan Institute of Science and Technology, 2004/8 to 2005/7
- Instructor, Department of Electronic Engineering, Kuang Wu Industry Junior College, 1990/8 to 2004/7

Publications

Journal Papers:

1. Sientang Tsai, Wei-Yeh Chen, and Hui-ling Huang, "Using Sticker Model to Solve the Clique Problem on DNA-Based Computing," *Computer Science and Information Technology*, Vol. 2, No. 6, pp. 281-286, July 2014.
2. Wei-Yeh Chen, Shu-Ling Huang, and Zhi-Cong Lin, "The Fifth Generation of Mobile Communication Systems," *Information and Management Science*, Vol. 7, No. 1, pp. 46~62, June 2014. (in Chinese)
3. Wei-Yeh Chen, Sien-Tang Tsai, Yu-Ting Tseng, "Performance Analysis of Spectrum Trading in Cognitive Radio Networks," *Journal of Southern Taiwan University of Science and Technology*, Vol. 39, No. 1, pp. 31~45, March 2014. (in Chinese)

4. Sientang Tsai and Wei-Yeh Chen, "Molecular Solutions For The Set-Partition Problem On DNA-Based Computing: the Subset Product Problem" *International Journal of Computer Science & Information Technology*, Vol. 6, No. 5, pp. 21-37, Dec. 2013.
5. Wei-Yeh Chen, Yu-Ting Tseng, and Sin-Syong Huang, "A Study on Trading Strategy for Spectrum Management in Cognitive Radio Networks," *Journal of Southern Taiwan University of Science and Technology*, Vol. 38, No. 2, pp. 23~38 , June 2013. (in Chinese)
6. Sientang Tsai and Wei-Yeh Chen, "Fast Parallel Molecular Solutions for DNA-based Computing: the Subset Product Problem," *Communications in Information Science and Management Engineering*, Vol. 2, pp.28-33, April 2011.
7. Wei-Yeh Chen, Hsi-Nung Wang, and Chih-Ta Chu, "The Study of Supporting Differentiated Services in Cognitive Radio Networks," *Journal of Southern Taiwan University*, Vol. 36, No. 1, pp. 13~24, April 2011. (in Chinese)
8. Wei-Yeh Chen, Shu-Ling Huang, Jung-Chung Hung, and Cheng-Wei Chang, "The Study of Reducing False Spectrum Sensing Probability in Cognitive Radio Using Reinforcement Learning," *Journal of Computer Science and Applications*, Vol. 6, No.2, Dec. 2010, pp. 17-32. (in Chinese)
9. Wei-Yeh Chen, Chih-Ta Chu, and Chih-Yuan Huang, "A Modified MAC Protocol for Throughput Improvement in Wireless Mesh Networks," *Journal of Southern Taiwan University*, Vol. 34, No. 4, pp. 63~72, Dec. 2009. (in Chinese)
10. Wei-Yeh Chen, Jean-Lien C. Wu, and Haw-Yun Shin, "Performance Analysis of Radio Resource Allocation for Multimedia Traffic in Cellular Networks," *Journal of Internet Technology*, Vol. 8, No. 4, pp. 505-514, Nov. 2007.
11. Li-Liann Lu, Jean-Lien C. Wu, and Wei-Yeh Chen, "The Study of Handoff Prediction Schemes for Resource Reservation in Mobile Multimedia Wireless Networks," *International Journal of Communication Systems*, Vol. 17, pp. 535-552, Aug. 2004. [SCI/EI]
12. Wei-Yeh Chen, Jean-Lien C. Wu, and Haw-Yun Shin, "Performance Analysis of Dynamic Resource Allocation with Finite Buffers in Cellular Networks," *IEICE Trans on Fundamentals*, Vol. E87-A, No. 7, pp. 1692-1699, July 2004. [SCI/EI]
13. Haw-Yun Shin, Jean-Lien C. Wu, Wei-Yeh Chen, "Performance Analysis of an Integrated Voice/Data Wireless Network with Voice Buffer," *IEICE Trans. on Communications*, Vol. E87-B, No.1 pp. 36-45, Jan 2004. [SCI/EI]
14. Ruay-Shiung Chang, Wei-Yeh Chen, and Yean-Fu Wen, "Hybrid Wireless Network Protocols," *IEEE Trans. on Vehicular Technology*, Vol. 52, No. 4, pp.1099~1109, July 2003. [SCI/EI]
15. Wei-Yeh Chen and Li-Liann Lu, "Integrating power Control, Scheduling and Multi-code Method to Support Multimedia Traffic for CDMA Networks," *Kuang*

Wu Journal, Vol. 26, pp. 379-392, March 2003.

16. Wei-Yeh Chen, Jean-Lien C. Wu, and Li-Liann Lu, "Performance Comparisons of Dynamic Resource Allocation with/without Channel De-allocation in GSM/GPRS Networks," IEEE Communications Letters, Vol. 7. No. 1, pp. 10-12, Jan. 2003. [SCI/EI]
17. Hung-Huan Liu, Jean-Lien C. Wu, and Wei-Yeh Chen, "New Frame-based Network Allocation Vector for 802.11b Multirate Wireless LANs," IEE Proceedings on Communications, Vol. 149, No. 3, pp. 147-151, June 2002. [SCI/EI]

Conference Papers:

1. Wei-Yeh Chen, Zhi-Cong Lin, and Yu-Ting Tseng, "The Impact of Pricing Strategies of Spectrum on Spectrum Trading in Cognitive Radio Networks," The E-Learning and Information Technology Symposium 2015, Tainan, Taiwan, March 2015. (in Chinese)
2. Wei-Yeh Chen, Yu-Ting Tseng, and Ding-Lun Lee, "The spectrum trading based on QoS selection mechanism in cognitive radio networks," TANET2014, Kaohsiung, Taiwan, Oct. 2014. (in Chinese)
3. Wei-Yeh Chen, Zhi-Cong Lin, and Shu-Ling Huang, "The Fifth Generation of Mobile Communication Systems," The E-Learning and Information Technology Symposium 2014, Tainan, Taiwan, March 2014. (in Chinese)
4. Wei-Yeh Chen, Ding-Lun Lee, and Shu-Ling Huang, "The Impact of Pricing Strategies on the Revenues of Spectrum Trading," The E-Learning and Information Technology Symposium 2014, Tainan, Taiwan, March 2014. (in Chinese)
5. Wei-Yeh Chen, Chih-Wei Huang, Wan-Jou Li, and Chia-Hung Pan, "A Comparative Study of Energy Efficient Medium Access Control Protocols in Wireless Sensor Networks," The 10th Conference on Communication Applications, Taipei, Taiwan, March 2012, pp. (in Chinese)
6. Wei-Yeh Chen, Chih-Wei Huang, Shu-Ling Huang, and Jung-Chung Hung, "The Study of Differentiated Service Provision based on Q-Learning Mechanism in Cognitive Radio Networks," The E-Learning and Information Technology Symposium 2012, Tainan, Taiwan, March 2012. (in Chinese)
7. Wei-Yeh Chen, Shu-Ling Huang, Yu-Ting Tseng, and Hsin-Hsiung Huang, "The Study of Trading Strategy for Spectrum Management in Cognitive Radio Networks," 2011 National Symposium on Telecommunications, Hualien, Taiwan, Nov. 2011. (in Chinese) NSC 100-2221-E-218-044.
8. Wei-Yeh Chen, Jung-Chung Hung, Shu-Ling Huang, and Cheng-Wei Chang, "The Study of Reducing False Spectrum Sensing Probability in Cognitive Radio Using Reinforcement Learning," 2010 Workshop on Consumer Electronics, Tainan, Taiwan, Nov. 2010, pp. 217~223. (in Chinese)

9. Wei-Yeh Chen, Hsin-Hsiung Huang, Shu-Ling Huang, and Yu-Shih Yang, "The Study of Spectrum Auction in Cognitive Radio Networks," Ubiquitous-Home Conference 2010 (UHC2010), Tainan, Taiwan, Nov. 2010, pp. 240~246. (in Chinese)
10. Wei-Yeh Chen, Hsi-Nung Wang, and Shu-Ling Huang, "The Study of Supporting Integrated Services in Cognitive Radio Networks," TANet 2010, Tainan, Taiwan, Oct. 2010. (in Chinese)
11. Wei-Yeh Chen, Yu-Shih Yang, Shu-Ling Huang, and Kai-Hsing Chang, "Performance Analysis for Integrated Service in Mobile Communications Systems," The 8th Conference on Communication Applications, Taipei, Taiwan, March 2010, pp. 385~393. (in Chinese)
12. Wei-Yeh Chen, Cheng-Wei Chang, Shu-Ling Huang, and Chao-Hung Chen, "The Design of Cross-Layer Routing Protocol in Wireless Mesh Networks," The 2009 Conference on Computer Science and Information Engineering Applications, Hsinchu, Taiwan, pp. 55~64, Dec. 2009. (in Chinese)
13. Wei-Yeh Chen and Chih-Ta Chu, "The Study of Supporting Differentiated Services in Cognitive Radio Networks," The E-Learning and Information Technology Symposium 2009, Tainan, Taiwan, April 2009. (in Chinese)
14. Wei-Yeh Chen, Shu-Ling Huang, Chih-Ta Chu, and Chih-Yuan Huang, "A Modified MAC Protocol for Throughput Improvement in Wireless Mesh Networks," The 7th Conference on Communication Applications, Taipei, Taiwan, March 2009, pp. 324~329. (in Chinese)
15. Sientang Tsai, Wei-Yeh Chen, and Rumin Yang, "Molecular solutions for the set-partition problem on DNA-based computing," 2008 IEEE World Congress on Computational Intelligence, Hong Kong, China, June 2008, pp.2524~2531.
16. Wei-Yeh Chen and Kai-Hsing Chang, "Performance Analysis of Radio Resource Allocation for the Next-Generation Mobile Communications Networks," The 2008 Symposium on Applications of Information, Management and Communication Technology, Kaohsiung, Taiwan, June 2008. (in Chinese)
17. Chao-Hung Chen and Wei-Yeh Chen, "The Study of Cross-Layer Design," The E-Learning and Information Technology Symposium 2008, Tainan, Taiwan, March 2008. (in Chinese)
18. Chih-Yuan Huang, Wei-Yeh Chen, and Shu-Ling Huang, "Wireless Mesh Networks," The 6th Conference on Communication Applications, Taipei, Taiwan, March 2008, pp. 268~274. (in Chinese)
19. Chao-Hung Chen, Wei-Yeh Chen, and Shu-Ling Huang, "The Design of Multi-Channel Cross-Layer Routing Protocol for Wireless Mesh Networks," The 6th Conference on Communication Applications, Taipei, Taiwan, March 2008, pp. 285~291. (in Chinese)

20. Wei-Yeh Chen and Jean-Lien C. Wu, "Performance Analysis of Radio Resource Allocation for Multimedia Traffic in Cellular Networks," IEEE AINA 2005, Taipei, Taiwan, pp. 432-437, March 2005
21. Li-Liann Lu, Jean-Lien C. Wu, and Wei-Yeh Chen, "The Study of Handoff Prediction Schemes for Resource Reservation in Mobile Multimedia Wireless Networks," International Conference of Advanced Information and Networking Applications (AINA2004), Fukuoka, Japan, pp. 379-384, March 2004.
22. Wei-Yeh Chen Jean-Lien C. Wu, and Haw-Yun Shin, "Performance Analysis of Dynamic Resource Allocation with Finite Buffers in Cellular Networks," IEEE ICON 2003, Sydney, Australia, pp. 641-646, Sept. 2003.
23. Wei-Yeh Chen Jean-Lien C. Wu, and Haw-Yun Shin, "Performance Analysis of Multi-Slot Allocation in Cellular Networks," 2003 Conference on Information Technology and Applications in Outlying Islands, Penghu, Taiwan, May 2003.
24. Wei-Yeh Chen and Li-Liann Lu, "Performance Analysis of Dynamic Resource Allocation with Channel De-allocation in GSM/GPRS Networks," First Conference on Communications and Applications, Peitou, Taipei, March 2003.
25. Wei-Yeh Chen, Jean-Lien C. Wu, and Hung-Huan Liu, "Performance Analysis of Radio Resource Allocation in GSM/GPRS Networks," IEEE VTC2002-Fall, Vancouver, Canada, pp. 1461-1465, September, 2002.
26. Jean-Lien C. Wu, Wei-Yeh Chen, and Hung-Huan Liu, "Radio Resource Allocation in GSM/GPRS Networks," ICOIN-16, Cheju, Korea, pp. 2D-1.1~2D-1.12, Jan. 2002

Books:

NA

Dissertation

1. Chen, Wei-Yeh (2004) "The Study of Radio Resource Management in Cellular Networks," Ph.D. Dissertation, National Taiwan University of Science and Technology.
2. Chen, Wei-Yeh (1998) "Study of TaSi Schottky contact to AlGaAs," Master Thesis, National Chiao Tung University.

Grants

1. The Study of Supporting Differentiated Service and Reducing False Spectrum Sensing in Cognitive Radio Networks, Grant No. NSC 100-2221-E-218-044 (2011)
2. An Efficient Multi-channel MAC and Quality-aware Routing Protocol in Wireless Mesh Network, Grant No. NSC 96-2221-E-218-003 (2007)
3. A study of throughput improvement and resource management in wireless mesh

networks, Grant No. NSC 95-2221-E-218-014 (2006)

Entrusted Practical Projects

1. Smart Medicine Bag Design and Development Project (2014), No. 331030217
2. Japanese-Language Proficiency Test - N5 Personnel Training Program (2014), No. 351030514
3. Southern Taiwan Precision Machinery Industry Settlement Automation and IT Guidance Induction Project (2012), No. 331010444
4. Product Database and Marketing Website Setup Project (2011), No. 331000065
5. Watch Industry Interactive Social Media Marketing Database Server Setup Project (2011), No. 331000076
6. Product Database Setup and Picture File Access Control Project (2011), No. 330990156

Honors and Awards

NA

Professional Certifications

1. Cloud Technology and Internet Services-Professional, TQC, 2016/8
2. Big Data Process and Analysis, TQC, 2015/8
3. Mobile Device Application-Professional, TQC, 2014/8
4. Linux Administration-IT Expert, ITE, 2012/11
5. MTA-Windows Server Administration Fundamentals, Microsoft, 2011/3
6. MTA-Security Fundamentals, Microsoft, 2011/03
7. MTA-Networking Fundamentals, Microsoft, 2011/1
8. EC-COUNCIL Wireless 5, EC-COUNCIL, 2010/9
9. Certified Cabling Test Technician (CCTT), Fluke Networks, 2010/8
10. CCNA, No: #389284724020IKXN, Cisco Inc., 2006/7

Academic and Professional Service

1. Reviewer, Journal of Information Science and Engineering, 2013
2. Reviewer, International Journal of Communication Systems, 2012
3. Reviewer, International Journal of Communication Systems, 2011
4. Reviewer, International Journal of Sensor Networks (IJSNET), 2010
5. Reviewer, International Journal of Communication Systems, 2010
6. Reviewer, Journal of Internet Technology, 2009
7. Reviewer, International Journal of Communication Systems, 2008

Patents

1. The Key Performance Index Evaluation System and Methodology of Enterprise

- Resource Planning, Patent No. I550531 (2016)
2. Smart Hand-held Device for the Hearing Impaired Assisted Doorbell Identification with Warning Method, System and Program Product, Patent No. I546738 (2016)
 3. Billboard Device with Electricity-Generating Function, Patent No. I525589 (2016)
 4. Action Log Analysis and Navigation System for the Blind, Patent No. I501759 (2015)
 5. Group Decision Support System for Software R&D and Modified Evaluation, Patent No. I498823 (2016)
 6. Cloud Credentials System and its Operating Method, Patent No. I477982 (2015)
 7. Storage Device for Bluetooth Headset, Patent No. M493212 (2015)
 8. Using Relative Potential Energy Method to Predict Protein Thermal Stability, Patent No. I448919 (2014)