

Publication list

Scott C.-H. Huang

Department of Electrical Engineering and Institute of Communications Engineering
National Tsing Hua University
101 Sec. 2, Kuang-Fu Road Hsinchu, 30013, Taiwan
Tel: +886-3-5162187 Email: chhuang@ee.nthu.edu.tw

JOURNAL PUBLICATIONS

1. Scott C.-H. Huang, Hsiao-Chun Wu, Shih-Yu Chang, Fast Approximation Algorithms for Symmetric Constellation Subset Selection, in *IEEE Transactions on Wireless Communications*, 11(5): 16551665, May 2012.
2. Scott C.-H. Huang, Hsiao-Chun Wu, S. Sitharama Iyengar, Multi-Source Broadcast in Wireless Networks, in *IEEE Transactions on Parallel and Distributed Systems*, 23(10): 19081914, October 2012.
3. Kazuya Sakai, Scott C.-H. Huang, Wei-Shinn Ku, Min-Te Sun, Xiuzhen Cheng, Timer-Based CDS Construction in Wireless Ad Hoc Networks, in *IEEE Transactions on Mobile Computing*, 10(10): 13881402, October 2011.
4. Yi-Sheng Shiu, Shih Yu Chang, Hsiao-Chun Wu, and Scott C.-H. Huang, Hsiao-Hwa Chen, Physical Layer Security in Wireless Networks: A Tutorial, in *IEEE Wireless Communications*, 18(2): 6674, April 2011.
5. Scott C.-H. Huang, Min-Te Sun, Qilian Liang, Peng-Jun Wan, Xiaohua Jia, Interference-Aware, Fully-Distributed Virtual Backbone Construction and Its Applications in Multi-hop Wireless Networks, in *IEEE Transactions on Communications*, 58(12): 35503560, December 2010.
6. Scott C.-H. Huang, Shih-Yu Chang, Hsiao-Chun Wu, Analysis and Design of Novel Randomized Broadcast Algorithm for Scalable Wireless Networks in the Interference Channels, in *IEEE Transactions on Wireless Communications*, 9(7): 22062215, July 2010.
7. Scott C.-H. Huang, Peng-Jun Wan, Hongwei Du, E.-K. Park, Minimum-Latency Gossiping in Radio Networks, in *IEEE Transactions on Parallel and Distributed Systems*, 21(6): 790800, June 2010.
8. Scott C.-H. Huang, Hsiao-Chun Wu, Shih Yu Chang, Xian Liu, Novel Sequence Design for Low-PMEPR and High-Code-Rate OFDM Systems, in *IEEE Transactions on Communications*, 58(2): 405410, February 2010.
9. Scott C.-H. Huang, Peng-Jun Wan, Jing Deng, Yunghsiang S. Han, Broadcast Scheduling in Interference Environment, in *IEEE Transactions on Mobile Computing*, 7(11): 13381348, 2008.
10. Scott C.-H. Huang, Frances Yao, Minming Li, Weili Wu, Lower Bounds and New Constructions on Secure Group Communication Schemes, in *Theoretical Computer Science*, 407: 511523, 2008
11. Scott C.-H. Huang, Maggie X. Cheng, Ding-Zhu Du, GeoSENS: Geo-based Sensor Network Secure Communication Protocol, in *Computer Communications*, 29(4): 456461, 2006.
12. Scott C.-H. Huang, Shamila Makki, Niki Pissinou, On Optimizing Compatible Security Policies, in *EURASIP Journal on Wireless Communications and Networking*, 2006(2): 17, 2006.

13. Weili Wu, Hongwei Du, Xiaohua Jia, Yingshu Li, Scott C.-H. Huang, Minimum Connected Dominating Sets and Maximal Independent Sets in Unit Disk Graphs, in *Theoretical Computer Science*, 352(13): 17 , 2006.
14. Manki Min, Christina X. Huang, Scott C.-H. Huang, Weili Wu, Hongwei Du, Xiaohua Jia, Improving Construction for Connected Dominating Set with Steiner Tree in Wireless Sensor Networks, in *Journal of Global Optimization*, 35(1): 111119, May 2006.
15. Maggie X. Cheng, Scott C.-H. Huang, Xiao Huang, Weili Wu, New Graph Model for Channel Assignment in Ad Hoc Wireless Networks, in *IEE Proc.-Commun.*, 152(6): 10391046, December 2005.

CONFERENCE PUBLICATIONS

1. Scott C.-H. Huang, Hsiao-Chun Wu, Software-Defined Multiplexing Codes, to appear in *Global Communications Conference (GLOBECOM)*, 2015.
2. Tian Xia, Hsiao-Chun Wu, Scott CH Huang, A Novel Fast LDPC Decoder Using APP-based Dynamic Scheduling Scheme, to appear in *Global Communications Conference (GLOBECOM)*, 2015.
3. Scott C.-H. Huang, Hsiao-Chun Wu, "Efficient addressing algorithm for categorizing Kasami sequences," in *Wireless Communications and Networking Conference (WCNC)*, 2015 IEEE , vol., no., pp.440-445, 9-12 March 2015.
4. Hongting Zhang; Hsiao-Chun Wu; Hong Jiang; Huang, S.C.-H., "Robust pilot detection techniques for channel estimation and symbol detection in OFDM systems," in *Global Communications Conference (GLOBECOM)*, 2014 IEEE , vol., no., pp.3025-3031, 8-12 Dec. 2014
5. Tian Xia; Hsiao-Chun Wu; Shin Yu Chang; Xian Liu; Huang, Scott CH Huang, "Blind identification of binary LDPC codes for M-QAM signals," in *Global Communications Conference (GLOBECOM)*, 2014 IEEE , vol., no., pp.3532-3536, 8-12 Dec. 2014
6. Scott C.-H. Huang, Hsiao-Chun Wu, Youde Wu, "New statistical studies on OFDM-QAM peak-to-mean-envelope-power ratio," in *Global Communications Conference (GLOBECOM)*, 2013 IEEE , vol., no., pp.3596-3601, 9-13 Dec. 2013
7. Tian Xia, Hsiao-Chun Wu, Scott C.-H. Huang, "A new stopping criterion for fast low-density parity-check decoders," in *Global Communications Conference (GLOBECOM)*, 2013 IEEE , vol., no., pp.3661-3666, 9-13 Dec. 2013
8. Scott C.-H. Huang, Chih-Kai Chang, Qiao-Wei Lin, Broadcast Flow Rate in Multihop Wireless Networks, to appear in *IEEE Intl Symp on Broadband Multimedia Systems and Broadcasting*, London, UK, June 2013.
9. Scott C.-H. Huang, Hsiao-Chun Wu, New PMEPR Bounding Analysis for Coded OFDM Transmitters, in *IEEE Globecom12*, Anaheim, California, December 2012.
10. Scott C.-H. Huang, Hsiao-Chun Wu, New General Approach to the Design of Arbitrary Radix-4 QAM Sequences for Low PMEPR and High Code-Rate, in *IEEE Globecom11*, Houston, Texas, December 2011.
11. Scott C.-H. Huang, Hsiao-Chun Wu, John M. Cioffi, Novel PMEPR Control Approach for 64- and 256-QAM Coded OFDM Systems, in *IEEE Globecom'10*, Miami, Florida, December 2010.
12. Shih Yu Chang, Hsiao-Chun Wu, Scott C.-H. Huang, Statistical Analysis for Ad Hoc Hierarchical Networks Built on Network Coding, in *IEEE Globecom'10*, Miami, Florida, December 2010.

13. Jing Deng, Scott C.-H. Huang, Yungxiang S. Han, Julia H. Deng, Fault-Tolerant and Reliable Computation in Cloud Computing, in *IEEE Globecom Workshop on Web and Pervasive Security (WPS'10)*, Miami, Florida, December 2010.
14. Scott C.-H. Huang, Hsiao-Chun Wu, Shih Yu Chang, Novel Efficient Algorithms for Symmetric Constellation Subset Selection, in *IEEE ICC'10 Wireless Communications Symposium*, Cape Town, South Africa, May 2010.
15. Peng-Jun Wan, Zhu Wang, Hongwei Du, Scott C.-H. Huang, Zhiyuan Wan, First-Fit Scheduling for Beaconing in Multihop Wireless Networks, in *IEEE INFOCOM'10*, San Diego, California, March 2010.
16. Scott C.-H. Huang, Shih Yu Chang, Hsiao-Chun Wu, Novel Reconfigurable Randomized Broadcast Algorithm for Channel-Aware Wireless Networks, in *IEEE SMC'09*, San Antonio, Texas, October 2009.
17. Peng-Jun Wan, Scott C.-H. Huang, Minimum-Latency Aggregation Scheduling in Multi-hop Wireless Networks, in *ACM MobiHoc'09*, New Orleans, Louisiana, May 2009 (acceptance rate 18 %).
18. Maggie Cheng, Xuan Gong, and Scott C.-H. Huang, Improving Sensor Network Lifetime Through Hierarchical Multi-hop Clustering, in *IEEE ICC'09 Ad Hoc and Sensor Networking Symposium*, Dresden, Germany, June 2009.
19. Scott C.-H. Huang, Hongwei Du, E.-K. Park, Minimum-Latency Gossiping in Multi-hop Wireless Networks, in *ACM MobiHoc'08*, Hong Kong, May 2008 (acceptance rate 14 %).
20. Scott C.-H. Huang, Peng-Jun Wan, Xiaohua Jia, Hongwei Du, Weiping Shang, Minimum-Latency Broadcast Scheduling in Wireless Ad Hoc Networks, in *IEEE INFOCOM'07*, Alaska, May 2007 (acceptance rate 18 %).
21. Scott C.-H. Huang, Peng-Jun Wan, Chinh T. Vu, Yingshu Li, Frances Yao, Nearly Constant Approximation for Data Aggregation Scheduling in Wireless Sensor Networks, in *IEEE INFOCOM'07*, Alaska, May 2007 (acceptance rate 18 %).
22. Chih-Wei Yi, Peng-Jun Wan, Kuo-Wei Lin, Scott C.-H. Huang, Asymptotic Distribution of The Number of Isolated Nodes in Wireless Ad Hoc Networks with Unreliable Nodes and Links, in *IEEE Globecom'06*, San Francisco, November 2006.
23. Scott C.-H. Huang, Shamila Makki, Niki Pissinou, Accusation Resolution Using Security Metrology, 1st Int'l Conference on Wireless Algorithms, Systems, and Applications (WASA), Xian, China, August 2006.
24. Scott C.-H. Huang, Hao Zhu, Wensheng Zhang, SAP: Seamless Authentication Protocol for Vertical Handoffs in Wireless Heterogeneous Networks, The 3rd International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), Ontario, Canada, August 2006.
25. Scott C.-H. Huang, Peng-Jun Wan, Xiaohua Jia, Hongwei Du, Low-Latency Broadcast Scheduling Schemes in Ad Hoc Networks, 1st Int'l Conference on Wireless Algorithms, Systems, and Applications (WASA), Xian, China, August 2006.
26. Scott C.-H. Huang, Ding-Zhu Du, New Constructions on Broadcast Encryption and Key Pre-distribution Scheme, in *Proceedings of the IEEE INFOCOM'05*, Miami, Florida, March 2005 (acceptance rate 17 %).
27. Xiaochun Cheng, Xiaoqi Ma, Maggie Cheng, Scott C.-H. Huang, Proving Secure Properties of Cryptographic Protocols with Knowledge Based Approach, in *Proceedings of the IEEE IPCCC'05*, Phoenix, Arizona, April 2005.
28. Weili Wu, Yingshu Li, Scott C.-H. Huang, Ding-Zhu Du, DNA Library Screening and Pooling Designs, in *Proceedings of Conference on Data Mining and Biomedicine*, Gainesville, Florida, February 2004.

BOOK CHAPTERS

1. Scott C.-H. Huang, Ding-Zhu Du, A Survey On Broadcast Encryption, in *Security and Routing in Wireless Networks, Wireless Networks and Mobile Computing, Vol 3*, Y. Xiao, J. Li, Y. Pan (Eds), ISBN: 1-59454-316-X, Nova Science Publishers, NY, 2005.

MANUSCRIPTS IN SUBMISSION

1. Scott C.-H. Huang, Hsiao-Chun Wu, Shih-Yu Chang, Efficient Approximation Algorithms for Symmetric Constellation Subset Selection.
2. Kazuya Sakai, Scott C.-H. Huang, Wei-Shinn Ku, Min-Te Sun, Xiuzhen Cheng, Timer-Based CDS Construction in Wireless Ad Hoc Networks.
3. Scott C.-H. Huang, Min-Te Sun, Qilian Liang, Peng-Jun Wan, Xiaohua Jia, Interference-Aware, Fully-Distributed Virtual Backbone Construction and Its Applications in Multi-hop Wireless Networks.
4. Jing Deng, Scott C.-H. Huang, Yunghsiang S. Han, Am I Richer than My Relay? Data Forwarding in Wireless Sensor Networks.
5. Qilian Liang, Scott C.-H. Huang, Xiuzhen Cheng, Cognitive Radar Sensor Networks: A Human-Inspired Information Integration and Fuzzy Logic System-Based Approach
6. Scott C.-H. Huang, Peng-Jun Wan, Xiaohua Jia, Hongwei Du, Weiping Shang, Minimum-Latency Broadcast Scheduling in Wireless Ad Hoc Networks