

Dr. Hong Huang's Publications

Journal Publications

- H. Huang, Y. Jaradat, S. Misra, and R. Tourani, "Towards Achieving Linear Capacity Scaling in Wireless Networks through Directed Energy Links," IEEE Transactions on Wireless Communications, Vol. 13, No. 4, 2014.
- S. Misra, N. Majd, and H. Huang, "Approximation Algorithms for Constrained Relay Node Placement in Energy Harvesting Wireless Sensor Networks," IEEE Transactions on Computers, Vol 63, No. 12, 2014.
- Abu-Baker, H. Huang, E. Johnson, S. Misra, "Maximizing lifetime sequences of wireless sensor networks powered by renewable energy," Sensor Review, Vol. 34, No. 23, 2014.
- F. Gómez-Cuba, R. Asorey-Cacheda, F. J. González-Castaño, and H. Huang, "Analytical Characterization of Recyclable Resources in Cooperative Cognitive Radio," IEEE Transactions on Wireless Communications, Vol. 12, No. 1, 2013.
- J. Obert, H. Cao, and H. Huang, "Determination of Multipath Security Using Efficient Pattern Matching," International Journal of Computer Science and Information Security, Vol. 11, No. 11, 2013.
- M. Balakrishnan, H. Huang, R. Asorey-Cacheda, S. Misra, S. Pawar, and Y. Jaradat, "Null Frequency Jamming of Routing Protocols in Wireless Ad Hoc Networks," IEEE Transactions on Wireless Communications, Vol.11, No. 11, 2012.
- H. Huang, N. Ahmed and P. Karthik, "On a New Type of Denial of Service Attack in Wireless Networks: the Distributed Jammer Network," IEEE Transactions on Wireless Communications, Vol. 10, No.7, pp. 2316-2324, 2011.
- H. Huang, "The Connection between Information Theory and Object Search in Networks," IEEE Communications Letters, Vol. 12, No. 12, 2008.
- H. Huang and R. R. Manda, "Exploring Performance Landscape of Unstructured Search Schemes," in Ubiquitous Computing and Communication Journal, Vol. 3, No.4, 2008.
- H. Huang, "Distributed Computing in Wireless Sensor Networks," in Encyclopedia of Mobile Computing and Commerce, book chapter, edited by D. Taniar, Information Science Reference (an imprint of IGI), Hershey, PA, 2007.
- H. Huang, "Mechanisms to Mitigate Inefficiency in Greedy Geographical Routing in Wireless Ad-hoc Networks," in IEEE Communications Letters, Vol. 10, No. 3, 2006.
- H. Huang and J. A. Copeland, "Optical networks with hybrid routing," in IEEE Journal on Selected Areas in Communication, Vol. 21, No. 7, 2003.
- H. Huang and J. A. Copeland, "A series of Hamiltonian cycle based solutions to provide simple and scale mesh optical network resilience," in IEEE Communications, Vol. 40, No. 11, 2002. (revised version of the conference paper that received the Best Papers award in IEEE HPSR'2002)

Conference Publications

- H. Al-Azzawi, H. Huang, S. Misra, and W. Tang, "On Using Compressed Sensing for Efficient Transmission & Storage of Electric Organ Discharge," in Proc. of IEEE International Symposium on Circuits and Systems (ISCAS), accepted, 2014.

- S. Misra, N. E. Majd, and H. Huang, "Constrained Relay Node Placement in Energy Harvesting Wireless Sensor Networks," 8th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (IEEE MASS), pp. 23--34, 2011.
- H. Huang, N. Ahmed and S. Pullurul, "Jamming Dust: A Low-Power Distributed Jammer Network," in Proc. of 27th Army Science Conference, 2010.
- Abu-Baker, H. Huang, E. Johnson, S. Misra, R. Asorey-Cacheda, and M. Balakrishnan, "Maximizing a-Lifetime of Wireless Sensor Networks with Solar Energy Sources," in Proc. of IEEE Milcom, 2010.
- N. Ahmed and H. Huang, "Distributed Jammer Networks: Impact and Characterization," in Proc. of IEEE Milcom, 2009.
- R. Asorey-Cacheda, H. Huang, F. J. Gonz'alez-Casta~no, E. Johnson, C. L'opez-Bravo and F. Gil-Casti~neira, "A Joint Interchannel and Network Coding Schema for nVoD Services over Wireless Mesh Networks," in Proc. of IEEE Globecom, 2009.
- J. Jaquez, D. Valencia, M. Balakrishnan, E. E. Johnson and H. Huang, "Implementation of Teen-Sleep for Wireless Sensor Networks," in Proc. of IEEE Milcom, 2009.
- V. Kodali, H. Huang, Y. Katuru and A. Bhattacharya, "SDDA: Sparse and Dynamic In-Network Data Aggregation in Sensor Nets," in Proc. of IEEE Milcom, 2008
- M. Balakrishnan, E.E. Johnson, and H. Huang, "TEAN-Sleep for Distributed Sensor Networks: Introduction and a-Metrics Analysis," in Proc. of IEEE Milcom, 2007
- H. Huang, "An agent-based method for sampling distributed phenomena in a sensor net," in Proc. IEEE Vehicular Technology Conference (VTC), Sept. 2005.
- G. Mokashi, H. Huang, B. Kuppireddy, and S. Varghese, "A Robust Scheme to Track Moving Targets in Sensor Nets Using Amorphous Clustering and Kalman Filtering," in Proc. IEEE Milcom, Oct. 2005.
- J. Mullen and H. Huang, "Impact of Multipath Fading in Wireless Ad Hoc Networks," in Proc. ACM International Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN), Oct. 2005.
- H. Huang, "Adaptive Geographical Routing in Wireless Ad-hoc Networks," in Proc. IEEE Vehicular Technology Conference (VTC), 2004.
- S. Ramakrishnan, H. Huang, J. Mullen and M. Balakrishnan, "Impact of Sleep in Wireless Sensor MAC Protocol," in Proc. IEEE Vehicular Technology Conference (VTC), 2004.
- M. Balakrishnan, S. Ramakrishnan, and H. Huang, "Energy-aware sensor MAC protocols," in the Proc. International Telemetry Conference (ITC), 2004.
- J. Mullen, Hong Huang, and Smriti Rangan, "Efficient Models of Fine-Grain Variations in Signal Strength," in the Proc. OPNETWORK, 2004.
- H. Huang, "Composable Geographical Routing," in Proc. IEEE Vehicular Technology Conference (VTC), 2003.
- H. Huang, "Dynamic Hybrid Optical Network Routing Based on Transport Cost," in Proc. International Conference on Communication, Internet, and Information Technology (CIIT), 2003.
- H. Huang and J. A. Copeland, "Multi-domain mesh optical network protection using Hamiltonian cycles," in Proc IEEE HPSR, 2002, selected as Best Papers.
- H. Huang and J. A. Copeland, "Open optimization of mesh WDM optical networks with bandwidth from exchange market," in Proc. IEEE International Conferences on Telecommunications (ICT), 2001.

- H. Huang and J. A. Copeland, "Hamiltonian cycle protection: a novel approach to mesh WDM optical network protection," in Proc. IEEE High Performance Switching and Routing (HPSR), 2001.
- H. Huang and J. A. Copeland, "Hybrid wavelength and sub-wavelength routed optical networks," in Proc. IEEE Globecom, 2001.