

ECE Graduate Publication List (July 1, 2008 – June 30, 2009)

Journal Articles:

1. **H. Hu**, Y. Chen, W.-S. Ku, Z. Su, and **C.-H. Chen**, “Weighted Trust Evaluation Based Malicious Node Detection for Wireless Sensor Networks”, *the International Journal of Information and Computer Security, special issue on Simulation of System Security*, Vol. 3, No. 2, 2009.
2. Y. Chen and **H. Chen**, “NeuroNet: An Adaptive Infrastructure for Network Security,” *International Journal of Information, Intelligence and Knowledge*, Vol.1, No.2, 2009.
3. J. Fridrich, **M. Chen**, M. Goljan, and J. Lukáš, “Determining Image Origin and Integrity Using Sensor Noise,” *IEEE Trans. on Info. Forensics and Security*, Vol. 3(1), pp. 74–90, March 2008.
4. **M. Chen** and M. L. Fowler, “Data Compression for Multiple Parameter Estimation with Application to Emitter Location Systems,” Revision under review, *IEEE Transactions on Aerospace and Electronic Systems*.
5. M. L. Fowler, **M. Chen**, **J. A. Johnson**, and **Z. Zhou**, “Data Compression using SVD and Fisher Information for Radar Emitter Location,” under review.
6. **T. Filler** and J. Fridrich, “Fisher Information Determines Capacity of epsilon-secure Steganography,” 11th Information Hiding Workshop, Darmstadt, June 7–10, 2009, to appear in LNCS, Springer-Verlag. (Filler – graduate student co-author).
7. N. E. Wu, **Y. Guo**, **K. Huang**, **M. C. Ruschmann**, M. L. Fowler, “Fault-Tolerant Tasking and Guidance of an Airborne Location Sensor Network,” *J. of Control, Autom. and Systems*, Vol. 6, No. 3, June 2008.
8. **U. C. Hasar**, C. R. Westgate, and M. Ertugrul, “Noniterative Permittivity Extraction of Lossy Liquid Materials from Reflection Asymmetric Amplitude-Only Microwave Measurements,” *IEEE Microwave and Wireless Components Letters*, Vol. 19, No. 6, pp. 419-421 June 2009.
9. **U. C. Hasar** and C. R. Westgate, “A Broadband and Stable Method for Unique Complex Permittivity Determination of Low-Loss Materials,” *IEEE Trans. Microw. Theory Tech.*, Vol. 57, No. 2, pp. 471-477, February 2009.
10. **U. C. Hasar**, C. R. Westgate, and M. Ertugrul, “Permittivity Determination of Lliquid Materials Using Waveguide Measurements for Industrial Applications,” *IET Microw. Antennas Propagation*, in press 2009.
11. M. L. Fowler and **X. Hu**, “Signal Models for TDOA/FDOA Estimation,” *IEEE Transactions on Aerospace and Electronic Systems*, October 2008.
12. **T. Pevný** and J. Fridrich, “Benchmarking for Steganography,” 10th Information Hiding Workshop, Santa Barbara, California, May 19–21, LNCS, Vol. 5284, Springer-Verlag, pp. 251-267, 2008 (Pevny – graduate student co-author).
13. **T. Pevný** and J. Fridrich, “Multi-Class Detector of Current Steganographic Methods for JPEG Format,” *IEEE Trans. on Info. Forensics and Security*, Vol. 3(4), pp. 635–650, December 2008 (Pevny – graduate student co-author).
14. **T. Pevný** and J. Fridrich, “Detection of Double-Compression in JPEG Images for Applications in Steganography,” *IEEE Trans. on Info. Forensics and Security*, Vol. 3(2), pp. 247–258, 2008 (Pevny – graduate student co-author).

15. **J. Sofka**, V. Nikulin, V. Skormin, D. Hughes, and D. Legare, "Laser Communication Between Mobile Platforms," *IEEE Trans. on Aerospace and Electronic Systems*, Vol. 45, No. 1, pp. 336-346, January 2009.
16. V. Nikulin, **J. Sofka**, V. Skormin, D. Hughes, D. Legare, "Towards Practical Pointing, Acquisition and Tracking System Enabling Laser Communication between Mobile Platforms", *IEEE Trans. on Aerospace and Electronic Systems*, Vol. 45, No. 2, 2009.
17. **R.K. Sharma**, A.C. Rastogi, "Properties and Mechanism of Solar Absorber CdTe Thin Film Synthesis by Unipolar Galvanic Pulsed Electrodeposition," *Journal of Applied Electrochemistry*, Vol. 39 No. 2, pp. 167-176, February 2009.
18. **R.K. Sharma**, A.C. Rastogi, S.B. Desu, "Manganese Oxide Embedded Polypyrrole Nanocomposites for Electrochemical Supercapacitor", *Electrochimica Acta*, Vol. 53, No. 26, pp. 7690-7695, November 2008.
19. **J. Zhang**, A. Brahmabhatt, Q. Wu, "Adaptive Bus Encoding Methods for Energy and Delay Optimization", *ACM Transactions on Design Automation of Electronic Systems*.

Conference Publications:

1. **I. Atakli**, Y. Chen, S. Craver, Q. Wu, "BLINK: Pixel-Domain Encryption for Secure Document Management," *11th ACM Multimedia and Security Workshop*, NJ September 2009.
2. S. Craver, Y. Chen, **H. Chen**, **J. Yu** and **I. M. Atakli**, "BLINK: Securing Information to the Last Connection", the 6th IEEE Consumer Communications and Networking Conference (CCNC'09 Short Paper), Las Vegas, Nevada, USA, January 10 - 13, 2009.
3. G. Tokhtabayev, V. A. Skormin and **A. M. Dolgikh**, "Detection of Worm Propagation Engines in the System Call Domain using Colored Petri Nets," *27th IEEE International Performance Computing and Communications Conference (IPCCC)*, Austin, TX, December 2008.
4. **T. Filler** and J. Fridrich, "Complete Characterization of Perfectly Secure Stegosystems with Mutually Independent Embedding Operation," *Proc. IEEE ICASSP*, April 19-24, 2009.
5. M. Goljan, **T. Filler** and J. Fridrich, "Camera Identification – Large Scale Test," *Proc. SPIE, Electronic Imaging, Security and Forensics of Multimedia Contents XI*, San Jose, CA, January 18–22, pp. 0I 1–0I 12, 2009.
6. **T. Filler**, J. Fridrich and A. D. Ker, "The Square Root Law of Steganographic Capacity for Markov Covers," *Proc. SPIE, Electronic Imaging, Security and Forensics of Multimedia Contents XI*, San Jose, CA, January 18–22, pp. 08 1–08 11, 2009.
7. **T. Filler** and J. Fridrich, "Using Sensor Pattern Noise for Camera Model Identification," *Proc. ICIP' 08*, San Diego, CA, October 12–15, 2008.
8. N. E. Wu, and **Y. Guo**, "Robust Tasking of Airborne Sensing Nodes for Network Availability," *World Congress, International Federation of Automatic Control*, July 2008.
9. M. L. Fowler and **X. Hu**, "Impact of Signal model on data compression for TDOA/FDOA emitter location," *Proceedings of SPIE - The International Society*

- for Optical Engineering, Mathematics of Data/Image Pattern Recognition, Compression, and Encryption with Applications XI, SPIE Annual Meeting , August 2008.*
10. **X. Hu** and M. L. Fowler, "Data compression in emitter location systems via sensor pairing and selection," *Proceedings of SPIE - The International Society for Optical Engineering, Mathematics of Data/Image Pattern Recognition, Compression, and Encryption with Applications XI, SPIE Annual Meeting, August 2008.*
 11. **H. Hu**, S. A. Zahorian, "A Neural Network Based Nonlinear Feature Transformation for Speech Recognition," *Proc. Interspeech*, pp.1533-1536, 2008.
 12. **K. Huang** and N. E. Wu, "Verification of a small signal probing concept on a nonlinear model for longitudinal motion of a Boeing 747," 2009 American Control Conference, June 2009.
 13. **K. Huang**, N. E. Wu, M. L. Fowler, "Optimal Guidance of Unmanned Aerial Vehicles for Emitter Location," *Proc. World Congress of International Federation of Automatic Control*, July 2008.
 14. N. E. Wu, J.Y. Shin, and **K. Huang**, "Sensor Maneuver Design for Microwave Source Localization," *2009 American Control Conference*, June 2009.
 15. J.H. Constable, **M. Stevenson**, **M. H. Hung** and Bill Infantolino, "Evaluation of Resistance Change as a Predictor of Thermal Actuator Displacement," *ASME InterPACK '09*, <http://www.asneconferences.org/InterPACK09/>, July 2009.
 16. X. Li and **J. Hwu**, "A Frequency Hopping Spread Spectrum Transmission Scheme for Uncoordinated Cognitive Radios," *ICASSP'09*, Taipei, Taiwan, April 2009.
 17. V. Nikulin, **R. Khandekar** and **Z. Liu**, "Holographic Interferometry for Misalignment Measurements in Photonic packaging Applications: Practical Enhancements of the Approach," Poster presentation given to *IEEC TAB*, March 2009.
 18. A. D. Ker, **T. Pevný**, **J. Kodovský** and J. Fridrich, "The Square Root Law of Steganographic Capacity," *Proc. ACM Multimedia and Security Workshop*, Oxford, UK, September 22–23, pp. 107–116, 2008.
 19. **J. Kodovský**, and J. Fridrich, "On Completeness of Feature Spaces in Steganalysis," *Proc. ACM Multimedia and Security Workshop*, Oxford, UK, September 22–23, pp. 123–132, 2008.
 20. **S. Liu**, Q. Qiu, Q. Wu, "A Probabilistic Technique for Full-chip Leakage Estimation," *International Symposium on Low Power Electronics and Design*, August 2008.
 21. **J. Metzler**, N. E. Wu, "A Simulation Study of a Reconfigurable Database," *World Congress, International Federation of Automatic Control*, July 2008.
 22. Q. Wu, **P. Mukre**, Richard Linderman, Tom Renz, Daniel Burns, Michael Moore, Q. Qiu, "Performance Optimization for Pattern Recognition using Associative Neural Memory," *IEEE International Conference on Multimedia & Expo*, June 2008.
 23. **N. Nwanze**, D. Summerville, "Detection of Anomalous Network Packets using Lightweight Stateless Payload Inspection," *Proc. of the Fourth IEEE LCN Workshop on Network Security (WNS 2008)*, October 2008.
 24. **T. Pevný**, J. Fridrich and A. D. Ker, "From Blind to Quantitative Steganalysis," *Proc. SPIE, Electronic Imaging, Security and Forensics of Multimedia Contents XI*, San

- Jose, CA, January 18–22, pp. 0C 1–0C 14, 2009 (Pevny – graduate student co-author)
25. **T. Pevný** and J. Fridrich, “Novelty Detection in Blind Steganalysis,” *Proc. ACM Multimedia and Security Workshop*, Oxford, UK, September 22–23, pp. 167–176, 2008.
 26. **H. V. Vargas**, N. E. Wu, R. Miles, and J. Qu, “Robust Control Design for Resonance Damping of a Directional Microphone,” *World Congress, International Federation of Automatic Control*, July 2008.
 27. **J. Qu**, R. Miles, N. E. Wu, “Robust Controller Design to Achieve Active Damping of a MEMS Microphone,” ASME Conference on Control of Dynamic Systems, October 2008.
 28. **R. Ren**, M. L. Fowler and N. E. Wu, “Finding Optimal Trajectory Points for TDOA/FDOA Geo-Location Sensors,” *Conference on Information Sciences and Systems, Johns Hopkins University*, March 2009.
 29. **T. Suri** and A. Aggarwal, Improving Performance of Simple Cores by Exploiting Loop-Level Parallelism through Value Prediction and Reconfiguration, *Proc. 6th Annual ACM International Conference on Computing Frontiers (CF'09)*, May, 2009.
 30. **T. Suri** and A. Aggarwal, Improving Scalability and Per-core Performance in Multi-Cores Through Resource Sharing and Reconfiguration, *Proc. 22nd Annual IEEE International Conference on VLSI Design (VLSID'09)*, January, 2009. (Best Student Paper Award)
 31. **T. Suri** and A. Aggarwal, Scalable Multi-cores with Improved Per-core Performance Using Off-the-Critical Path Reconfigurable Hardware. *Proc. 15th Annual IEEE/ACM International Conference on High Performance Computing (HiPC'08)*, December, 2008. (Best Paper Award)
 32. S. Craver, E. Li and **J. Yu**, “Protocols for Data Hiding in Pseudo-Random State,” *SPIE Multimedia Forensics and Security*, San Jose, CA, January 2009.
 33. **J. Zhang**, Q. Wu, Q. Qiu, “Bus Encoding for Simultaneous Delay and Energy Optimization,” *International Symposium on Low Power Electronics and Design*, August 2008.