

## ECE Graduate Publication List (July 1, 2007 – June 30, 2008)

1. **I. Atakli, H. Hu, Y. Chen, W. S. Ku and Z. Su**, “Malicious Node Detection in Wireless Sensor Networks using Weighted Trust Evaluation,” *The ACM/SIGSIM Symposium on Simulation of System Security (SSSS’08)*, Ottawa, Canada, April 14-17, 2008.
2. S. Craver, **I. Atakli**, and **J. Yu**, “Reverse-Engineering a Watermark Detector Using an Oracle,” *EURASIP Journal on Information Security*, Vol. 2007, Article ID 43034, 7 pages, doi:10.1155/2007/43034, 2007.
3. **R. Bhowmik, C. Gupta**, and **M. Govindaraju**, A. Aggarwal, “Optimizing XML Processing for Grid Applications Using an Emulation Framework,” *IEEE International Parallel & Distributed Processing Symposium (IPDPS ’08)*, April, 2008.
4. Q. Qiu, **D. Burns, P. Mukre**, and Q. Wu, “Hardware Acceleration of Multi-deme Genetic Algorithm for DNA Codeword Searching,” *International Journal of Information Technology and Intelligent*, May 2008.
5. **H. Chen** and Y. Chen, “A Novel Embedded Accelerator for Online Detection of Shrew DDoS Attacks,” *the 2008 IEEE International Conference on Networking, Architecture, and Storage (NAS’08)*, Chongqing, China, June 12 – 14, 2008.
6. J. Fridrich, **M. Chen**, M. Goljan, and **J. Lukáš**, “Determining Image Origin and Integrity Using Sensor Noise,” *IEEE Transactions. on Information Forensics and Security*, Vol. 3(1), pp. 74–90, March 2008.
7. J. Fridrich, **M. Chen, J. Lukáš**, and M. Goljan, “Imaging Sensor Noise as Digital X-Ray for Revealing Forgeries,” *9th Information Hiding Workshop*, Saint Malo, France, June 9–11, LNCS, 4567, Springer-Verlag, pp. 342–358, 2007.
8. J. Fridrich, M. Goljan, and **M. Chen**, “Identifying Common Source Digital Camera from Image Pairs,” *Proc. ICIP’ 07*, San Antonio, Texas, September 14–19, 2007.
9. **T. Filler** and J. Fridrich, “Binary Quantization using Belief Propagation with Decimation over Factor Graphs of LDGM Codes,” *Proc. 45th Allerton Conference on Coding, Communication, and Control*, September 26–28, 2007.
10. **V. Gorodetsky, I. Kotenko**, and V. Skormin (Eds.), “Computer Network Security,” *Fourth International Conference on Mathematical Methods, Models, and Architectures for Computer Network Security, Proceedings*, Springer, 2007.
11. N.E. Wu, **Y. Guo, K. Huang** and **M. C. Ruschmann**, M. L. Fowler, “Fault-Tolerant Tasking and Guidance of an Airborne Location Sensor Network,” *International Journal. of Control, Automation. and Systems, Special Section on Diagnosis and Fault-Tolerant Systems*, Marcel Staroswiecki and Bin Jiang, Guest Editors, Vol.6, No. 3, pp.351-363, June 2008.
12. **U. C. Hasar**, “Two Novel Amplitude-Only Methods for Complex Permittivity Determination of Medium- and Low-Loss Materials,” *Meas. Sci. Technol.*, Vol. 19, number 5, pp. 55706-55715, May 2008.
13. **U. C. Hasar**, “Calibration-Independent Method for Complex Permittivity Determination of Liquid and Granular Materials,” *Electron. Lett.*, Vol. 44, number. 9, pp.585-587, Apr. 2008.
14. **U. C. Hasar**, “Free-Space Nondestructive Characterization of Young Mortar Samples”, *J. Mater. Civ. Engn.*, Vol. 19, number 8, pp. 674-682, Aug. 2007.

15. S. A. Zahorian, **H. Hu**, "A Spectral/Temporal Method for Robust Fundamental Frequency Tracking," *Journal of the Acoustical Society of America*, June 2008.
16. S. A. Zahorian, T. Singh, and **H. Hu**, "Dimensionality Reduction of Speech Features Using Nonlinear Principal Components Analysis," *Interspeech 2007*, August, 2007, 1134-1137.
17. **X. Hu** and M. L. Fowler, "Sensor Selection for Multiple Sensor Emitter Location Systems," *IEEE Aerospace Conference*, Big Sky, Montana, March 1-8, 2008.
18. Y. Chen, **K. Hwang**, and **W. S. Ku**, "Collaborative Detection of DDoS Attacks over Multiple Network Domains," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 18, No. 12, December 2007.
19. **J. A. Johnson** and M. L. Fowler, "Cramer-Rao Lower Bound on Doppler Frequency of Coherent Pulse Trains," *2008 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Las Vegas, NV, March 2008.
20. **R. Khandekar** and V. Nikulin, "Diffraction-Based Optical Sensor Detection System for Capture-Restricted Environments," *Proc. SPIE, Optics and Photonics in Global Homeland Security IV(Defense + Security)*, Orlando, FL, March 16 – 20, 2008.
21. **R. Khandekar** and V. Nikulin, "Estimation-Based Mitigation of Dynamic Optical Turbulence: an Experimental Study," *Proc. SPIE, Free-Space Laser Communication Technologies XX*, San Jose, CA, January 19-24, 2008.
22. V. Nikulin, **R. Khandekar**, and V. Skormin, "High-Bandwidth Predictive Tracking System for Free-Space Laser Communications," *Proc. 15th St. Petersburg International Conference on Integrated Navigation Systems*, St. Petersburg, Russia, May 26-28, 2008.
23. J. Fridrich and **J. Kodovský**, "Influence of Embedding Strategies on Security of Steganographic Methods in the JPEG Domain," *Proc. SPIE, Electronic Imaging, Security, Steganography, and Watermarking of Multimedia Contents X*, pp. 02-1–02-13, San Jose, CA, January 26–31, 2008.
24. **S. Kumar** and A. Aggarwal, "Speculative Instruction Validation for Performance-Reliability Trade-off," *IEEE International Symposium on High Performance Computer Architecture (HPCA '08)*, February, 2008.
25. J. Fridrich, M. Goljan, and **J. Lukáš**, "Camera Identification from Printed Images," *Proc. SPIE, Electronic Imaging, Security, Steganography, and Watermarking of Multimedia Contents X*, San Jose, CA, January 26–31, pp. OI-1–OI-12, 2008.
26. Q. Qiu, **P. Mukre**, **M. Bishop**, **D. Burns**, and Q. Wu, "Hardware Acceleration for Thermodynamic Constrained DNA Code Generation," *Lecture Notes in Computer Science*, Vol. 4848, 2007.
27. X. Li, **F. Ng**, and **T. Han**, "Carrier Frequency Offset Mitigation in Asynchronous Cooperative OFDM Transmissions," *IEEE Trans. Signal Processing*, Vol. 56, No. 2, pp. 675-685, Feb. 2008.
28. J. Fridrich and **T. Pevný**, "Detection of Double-Compression for Applications in Steganography," *IEEE Transactions on Information Forensics and Security*, Vol. 3(2), pp. 247-258, 2007.
29. J. Fridrich and **T. Pevný**, "Estimation of Primary Quantization Matrix for Steganalysis of Double-Compressed JPEG Images," *Proc. SPIE, Electronic Imaging, Security, Steganography, and Watermarking of Multimedia Contents X*, San Jose, CA, January 26–31, pp. 11-1–11-13, 2008.

30. J. Fridrich, **T. Pevný**, and **J. Kodovský**, “Statistically Undetectable JPEG Steganography: Dead Ends, Challenges, and opportunities,” *Proc. ACM Multimedia and Security Workshop*, Dallas, TX, pp. 3–14, September 20–21, 2007.
31. **J. Qu**, N.E. Wu and R.N. Miles, “Active Damping of a Silicon Microphone Using a Linear Controller,” *Proceedings American Control Conference 2008*, Seattle, WA., June 2008.
32. N.E. Wu and **L. Ruschmann**, “Fault-Tolerant Control of a Distributed Database System,” *Special Issue on Robustness Issues in Fault Diagnosis and Fault-Tolerant Control, Journal of Control Science and Engineering*, Jakob Stoustrup and Kemin Zhou, Guest Editors, Paper ID-310652, 13 pages, January 2008.
33. N.E. Wu, **M.C. Ruschmann**, “Loop Closure for Enhanced Win Percentage in Air Operations,” *Proceedings American Control Conference 2007*, New York, N.Y., July 2007.
34. **M.C. Ruschmann**, N.E. Wu, “Optimal Control of a Database with Reduced and Full State Model,” *Proceedings IEEE Conference on Decision and Control*, 2007. New Orleans, LA., December 2007.
35. **M.C. Ruschmann**, N.E. Wu, “Perturbation Analysis for Optimal Renewal Intervals of Data Sets,” *Proceedings American Control Conference 2008*. Seattle, WA., June 2008.
36. V. Skormin, **O. Shirayeva**, **A. Tokhtabayev**, and J. Moronski, "Towards a Fully Automatic Defense Mechanism for a Computer Network Emulating Active Immune Response," *Proc. MMM-ACNS*, St. Petersburg, Russia, September 20, 2007.
37. V. Nikulin, **J. Sofka**, and **R. Khandekar**, “Effect of the Sampling Rate of the Tracking System on Free-Space Laser Communications,” *Optical Engineering*; Vol. 47, No. 3, 036003, March 2008.
38. V. Nikulin, **J. Sofka**, V. Skormin, **D. Hughes**, and **D. Legare**, “Demonstration of Optical Connectivity Between Two Mobile Platforms," *Journal of Gyroscopy and Navigation*, St. Petersburg, Russia (in Russian).
39. **A. Tokhtabayev**, **A. Altaibek**, V. Skormin, and **U. Tukeyev**, “A Novel Intrusion Detection System for a Local Computer Network,” *Proc. of MMM-ACNS*, St. Petersburg, Russia, Sept. 20, 2007.
40. **H.V. Vargas**, N.E. Wu, R.N. Miles, and **J. Qu**, “Robust Control Design for Resonance Damping of a Directional Microphone,” *Proceedings World Congress, International Federation of Automatic Control*, 2008. Seoul, Korea.