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Center for Advanced Communications research personnel.**

Conferences - 2007

- [1] J. McVay, A. Hoorfar, and N. Engheta, "Bandwidth Enhancement and Polarization Dependence Elimination of Space-filling Curve Artificial Magnetic Conductors," Proceedings of the Asia-Pacific Microwave Conference, Thailand, December 2007. Invited Paper
- [2] X. Li, Y. Zhang, and M. G. Amin, "Priority-based scheduling in ad hoc networks using multi-beam antennas," Proceedings of the Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, November 2007.
- [3] Y. Zhang, M. Amin, and F. Ahmad, "A novel approach for moving multi-target localization using dual frequency radars and time-frequency distributions," Proceedings of the Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, November 2007.
- [4] M. Sahnoudi and M. Amin, "Blind separation of in-building acoustic signals for urban sensing using distributed sensors," Proceedings of the Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, November 2007.
- [5] L. Sydänheimo, L. Ukkonen, J. McVay and A. Hoorfar, "Characterization Of Passive UHF RFID Tag Performance", Proceedings of the 2007 AMTA Symposium, St. Louis, MO, November 2007.
- [6] B. Comber, A. S. Fleischer, "Thermal proximity effects of packaged rf high power amplifier discrettes," Proceedings of the 2007 ASME International Mechanical Engineering Congress and Exposition (IMECE2007), Seattle, WA, November 2007.
- [7] P. Kirby and A. S. Fleischer, "Thermal interaction in free convection from two unequally powered discrete heat sources with various orientations and separation distances on a vertical plate," Proceedings of the 2007 ASME International Mechanical Engineering Congress and Exposition (IMECE2007), Seattle, WA, November 2007.
- [8] J. McVay, N. Engheta and A. Hoorfar, "Three-dimensional Hilbert structures as compact resonant plasmonic elements in laterally-confined transmission lines at microwave frequencies," Proceedings of the International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (Metamaterials, 2007), Rome, Italy, October 2007. Invited Paper
- [9] A. Hoorfar, S. Lakhani and V. Jamnejad, "Application of Lévy Mutation Operator in Evolutionary Programming Optimization of Antennas," Proceedings of the International Conference on Electromagnetics in Advanced Applications, Turin, Italy, September 2007. Invited Paper
- [10] M. Amin, "Sequential Interference nulling and localization in two-dimensional GPS receiver array," Proceedings of the ION-GNSS, Fort Worth, TX, September, 2007.
- [11] Y. Zhang, F. Ahmad, M. Amin, "Application of beamforming for wall detection and localization," Proceedings of the 2007 North American Radio Science Meeting URSI - CNC/USNC, Ottawa, Canada, July 2007.
- [12] K. M. Yemelyanov, J. A. McVay, A. Hoorfar and N. Engheta, "Characterization of the walls using polarization-contrast techniques," Proceedings of the 2007 URSI Meeting, Ottawa, Canada, July 2007.

- [13] J. McVay, V. Pierro, V. Galdi, A. Hoorfar, N. Engheta, "Dual-Polarized High-Impedance Ground Planes Based on Grid-Graph Hamiltonian Path," Proceedings of the 2007 URSI Meeting, Ottawa, Canada, July 2007.
- [14] J. McVay, A. Hoorfar, N. Engheta, "An overview of space-filling curves in novel antenna design: Theory, Simulations, and Experiments," Proceedings of the 2007 Electromagnetic Theory Symposium, Ottawa, Canada, July 2007. Invited Paper
- [15] H. Huang, A. Hoorfar and S. Lakhani "A Comparative Study of Evolutionary Programming, Genetic Algorithms and Particle Swarm Optimization in Antenna Design," Proceedings of the International Symposium on Antennas and Propagation, Honolulu, HI, June 2007.
- [16] J. McVay, A. Hoorfar and N. Engheta, "Extraction of Effective Permittivity and Permeability of Dispersive Double-Negative Slabs using Evolutionary Programming," Proceedings of the IEEE International Symposium on Antennas and Propagation, Honolulu, HI, June 2007.
- [17] K. M. Yemelyanov, J. A. McVay, A. Hoorfar and N. Engheta, "Polarization-Contrast Sensing in Complex Environment for Through-the-Wall Microwave Imaging Applications," Proceedings of the IEEE International Symposium on Antennas and Propagation, Honolulu, HI, June 2007.
- [18] X. Li, Y. Zhang, and M. G. Amin, "Performance of wireless networks exploiting multi-channel smart antennas in multipath environments", Proceedings of the International Waveform Diversity and Design Conference, Pisa, Italy, June 2007.
- [19] P. Setlur, M. G. Amin, F. Ahmad, and H. Estephan "A frequency diverse doppler radar for range-to-motion estimation in urban sensing applications," Proceedings of the 2007 International Waveform Diversity and Design Conference, Pisa, Italy, June 2007.
- [20] Y. Zhang and M. G. Amin, "Concurrent operation and cross-radar interference cancellation of two over-the-horizon radars," Proceedings of the International Waveform Diversity and Design Conference, Pisa, Italy, June 2007.
- [21] M. Sahmoudi and M. Amin, "Optimal robust beamforming for interference and multipath mitigation in GNSS arrays," Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, Honolulu, HI, April 2007.
- [22] J. McVay, K. M. Yemelyanov, N. Engheta and A. Hoorfar, "Through-the-Wall Imaging and Sensing: An Electromagnetic Perspective," Proceedings of the 2007 IEEE Signal Processing Society, SAFE 2007: Workshop on Signal Processing Applications for Public Security and Forensics, Washington D.C., April 2007. Invited Paper
- [23] L. Liu and M. G. Amin, "Comparison of Average Performance of GPS Discriminators in Multipath," Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, Honolulu, HI, April 2007.
- [24] F. Ahmad, M. G. Amin, "High-resolution imaging using capon beamformers for urban sensing applications," Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, Honolulu, HI, April 2007.
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- [27] L. Liu and M. G. Amin, "GPS noncoherent early-minus-late power discriminator tracking performance in multipath environment," Proceedings of the SPIE Symposium on Defense and Security, Wireless Sensing and Processing Conference, Orlando, FL, April 2007.
- [28] P. Setlur, F. Ahmad, M. G. Amin, P. D. Zemaný "Experiments on Through-the-Wall Motion Detection and Ranging," Proceedings of the SPIE Symposium on Defense and Security, Sensors, and Command, Control, Communications, and Intelligence (C3I) Technologies for Homeland Security and Homeland Defense VI Conference, Orlando, FL, April 2007.
- [29] F. Ahmad, M. G. Amin, "Performance of autofocusing schemes for single target and populated scenes behind unknown walls," Proceedings of the SPIE Symposium on Defense and Security, Radar Sensor Technology XI Conference, Orlando, FL, April 2007.
- [30] F. Ahmad, M. G. Amin, P. D. Zemaný, "Performance analysis of dual-frequency CW radars for motion detection and ranging in urban sensing applications," Proceedings of the SPIE Symposium on Defense and Security, Radar Sensor Technology XI Conference, Orlando, FL, April 2007.
- [31] S. Aviyente, F. Ahmad, M. Amin, "Information theoretic measures for change detection in urban sensing applications, Proceedings of the IEEE Workshop on Signal Processing Applications for Public Security and Forensics, Washington, D.C., April 2007.
- [32] F. Ahmad, M. Amin, "Through-the-Wall Radar Imaging Experiments," Proceedings of the IEEE Workshop on Signal Processing Applications for Public Security and Forensics, Washington, D.C., April 2007.
- [33] H. Boumaraf, M. Sahmoudi, and Y. Zhang, "A novel method to resolve the permutation ambiguity problem in convolutive blind separation of nonstationary acoustic sources," Proceedings of the International Symposium on Signal Processing and its Applications, Sharjah, United Arab Emirates, February 2007.
- [34] L. Liu and M. G. Amin, "Tracking Performance of the Coherent and Noncoherent Discriminators in Strong Multipath," Proceedings of the ISSPA 2007 International Symposium on Signal Processing and its Applications, Sharjah, UAE, February 2007.
- [35] P. Setlur, M. G. Amin, F. Ahmad, "Urban target classifications using time-frequency micro-Doppler signatures," Proceedings of the International Symposium on Signal Processing and its Applications, Sharjah, UAE, February 2007.
- [36] M. Shoeb, F. Ahmad, M. G. Amin, "Source localization in view of urban sensing applications," Proceedings of the International Symposium on Signal Processing and its Applications, Sharjah, UAE, February 2007.
- [37] M. Ghanevati, A. S. Daryoush and A. Hoorfar, "Performance Analysis of a Quadrifilar Helix Antenna Above the Ground Plane," Proceedings of the IEEE Radio and Wireless Symposium, Long Beach, CA, January 2007.
- [38] J. McVay and A. Hoorfar, "Miniaturization Of Top-Loaded Monopole Antennas Using Peano-Curves," Proceedings of the IEEE Radio and Wireless Symposium, Long Beach, CA, January 2007.