## <u>These publications are authored by the</u> <u>Center for Advanced Communications research personnel.</u>

## **Conferences - 2012**

- [1] B. Chalise, Y. D. Zhang, and M. G. Amin, "A novel partial relay selection method for amplify-and-forward relay systems," Proceeding of the <u>IEEE Global Communication Conference</u>, Anaheim, CA, December 2012.
- [2] R. Demirli, M. G. Amin, and Y. D. Zhang, "Ultrasound NDE imaging through reverberant layers via subspace analysis and projection," Proceeding of the <u>IEEE International Ultrasonic Symposium</u>, Dresden, Germany, October 2012.
- [3] B. K. Chalise, Y. D. Zhang and M. G. Amin, "Simultaneous Transfer of Energy and Information for MIMO-OFDM Relay System," Proceeding of the <u>IEEE International Conference on Communications</u>, China, August 2012.
- [4] E. L. Targarona, M. G. Amin, F. Ahmad and M. Nájar, "Sparsity-based Radar Imaging of Building Structures," Proceeding of the <u>2012 European Signal Processing Conference (EUSIPCO)</u>, Bucharest, Romania, August 2012.
- [5] F. Ahmad and M. G. Amin, "Wall clutter mitigation for MIMO radar configurations in urban sensing," Proceedings of the 11<sup>th</sup> International Conference on Information Science, Signal Processing, and their Applications, Montreal, Canada, July 2012 (Best Paper Award).
- [6] S. Stanković, I. Orović, M. G. Amin, "Compressed sensing based robust time-frequency representation for signals in heavy-tailed noise," Proceedings of the 11th International Conference on Information Science, Signal Processing, and their Applications, Montreal, Canada, July 2012.
- [7] E. L. Targarona, M. G. Amin, F. Ahmad, and M. Nájar, "Compressive sensing for through wall radar imaging of stationary scenes using arbitrary data measurements," Proceedings of the 11<sup>th</sup> International Conference on Information Science, Signal Processing, and their Applications, Montreal, Canada, July 2012.
- [8] Y. D. Zhang, M. G. Amin, and B. Himed, "Direction-of-arrival estimation of nonstationary signals exploiting signal characteristics," Proceedings of the 11<sup>th</sup> International Conference on Information Science, Signal Processing, and their Applications, Montreal, Canada, July 2012.
- [9] F. Ahmad and M. G. Amin, "Sparsity-based change detection of short human motion for urban sensing," Proceedings of the <u>Seventh IEEE Workshop on Sensor Array and Multi-Channel Signal Processing</u>, Hoboken, NJ, June 2012.
- [10] E. L. Targarona, M. G. Amin, F. Ahmad, and M. Nájar, "Wall mitigation techniques for indoor sensing within the CS framework," Proceedings of the <u>Seventh IEEE Workshop on Sensor Array and Multi-Channel Signal Processing</u>, Hoboken, NJ, June 2012.
- [11] Y. D. Zhang, M. G. Amin, and B. Himed, "Altitude estimation of maneuvering targets in MIMO over-the-horizon radar," Proceedings of the <u>Seventh IEEE Workshop on Sensor Array and Multi-Channel Signal Processing</u>, Hoboken, NJ, June 2012.

- [12] Y. D. Zhang and M. G. Amin, "Compressive sensing in nonstationary array processing using bilinear transforms," Proceedings of the <u>Seventh IEEE Workshop on Sensor Array and Multi-Channel Signal Processing</u>, Hoboken, NJ, June 2012.
- [13] C. H. Seng, M. G. Amin, F. Ahmad, A. Bouzerdoum, "Segmentations of through-the-wall radar images," Proceedings of the <u>IEEE Radar Conference</u>, Atlanta, GA, May 2012.
- [14] C. Ioana, Y. D. Zhang, M. G. Amin, F. Ahmad, G. J. Frazer, B. Himed, "Time-frequency characterization of micro-multipath signals in over-the-horizon radar," Proceedings of the <u>IEEE</u> Radar Conference, Atlanta, GA, May 2012.
- [15] G. E. Smith, B. G. Mobasseri, "Multipath exploitation for radar target classification," Proceedings of the <u>IEEE Radar Conference</u>, Atlanta, May 2012.
- [16] B. G. Mobasseri, N. Chakilam, R. S. Lynch, "Sonar watermark embedding and detection: a sea trial report", Proceedings of the <u>SPIE Defense</u>, Security and Sensing, Baltimore, MD, April 2012.
- [17] F. Ahmad, and M. G. Amin, "Partially sparse reconstruction of behind-the-wall scenes," Proceedings of the <u>SPIE Symposium on Defense, Security, and Sensing, Compressive Sensing Conference</u>, Baltimore, MD, April 2012.
- [18] I. Djurović, S. Djukanović, M. G. Amin, and Y. D. Zhang, "High-resolution time-frequency representations based on the local polynomial Fourier transform for over-the-horizon radars," Proceedings of the <u>SPIE Radar Sensor Technology Conference</u>, Baltimore, MD, April 2012.
- [19] B. K. Chalise, Y. D. Zhang, and M. G. Amin, "Joint optimization of source beamformer and relay coefficients using MSE criterion," Proceedings of the <u>SPIE Wireless Sensing</u>, <u>Localization</u>, and <u>Processing Conference</u>, Baltimore, MD, April 2012.
- [20] M. G. Amin and F. Ahmad, "Through-the-wall moving target detection and localization using sparse regularization," Proceedings of the <u>SPIE Symposium on Defense, Security, and Sensing, Compressive Sensing Conference, Baltimore, MD, April 2012.</u>
- [21] M. G. Amin, P. Setlur, F. Ahmad, P. Sevigny, and D. DiFilippo, "Histogram based segmentation for stationary indoor target detection," Proceedings of the <u>SPIE Symposium on Defense, Security, and Sensing, Radar Sensor Technology XVI Conference</u>, Baltimore, MD, April 2012.
- [22] G. E. Smith, F. Ahmad, and M. G. Amin, "Micro-doppler processing for high-resolution radar," Proceedings of the SPIE Symposium on Defense, Security, and Sensing, Radar Sensor Technology XVI Conference, Baltimore, MD, April 2012.
- [23] C. Thajudeen, A. Hoorfar, W. Zhang, "Efficient forward modeling of large scale buildings and through-the-wall radar imaging," Proceedings of the 2012 Applied Computational Electromagnetic Society Conference (ACES), Columbus, OH, April 2012.
- [24] Y. Jin, Y. D. Zhang, and B. K. Chalise, "Joint optimization of relay position and power allocation in cooperative broadcast wireless networks," Proceedings of the <u>IEEE International Conference on Acoustics</u>, <u>Speech</u>, and <u>Signal Processing</u>, Kyoto, Japan, March 2012.
- [25] C. Ioana, Y. D. Zhang, M. G. Amin, F. Ahmad, and B. Himed, "Time-frequency analysis of multipath Doppler signatures of maneuvering targets," Proceedings of the <u>IEEE International Conference on Acoustics</u>, <u>Speech, and Signal Processing</u>, Kyoto, Japan, March 2012.

- [26] B. Chalise, Y. Zhang, M. G. Amin, "Energy harvesting in an OSTBC based amplify-and-forward MIMO relay system," Proceedings of the <u>IEEE International Conference on Acoustics, Speech, and Signal Processing</u>, Kyoto, Japan, March 2012.
- [27] C. H. Seng, A. Bouzerdoum, M. G. Amin, and F. Ahmad, "A Gaussian-Rayleigh mixture modeling approach for through-the-wall radar image segmentation," Proceedings of the <u>IEEE International Conference on Acoustics, Speech, and Signal Processing</u>, Kyoto, Japan, March 2012.
- [28] X. Shen, Y. D. Zhang, M. G. Amin, and R. Demirli, "Ultrasound multipath background clutter mitigation based on subspace analysis and projection," Proceedings of the <u>IEEE International Conference on Acoustics</u>, <u>Speech, and Signal Processing</u>, Kyoto, Japan, March 2012.
- [29] E. Battinelli, M. Reimlinger, and R. M. Wynne, "Photonic crystal fiber monitors for intracellular ice formation," proceedings of the <u>SPIE Smart Structures and Nondestructive Evaluation Conference</u>, San Diego, CA, March 2012.
- [30] M. Reimlinger, E. Battinelli, and R. M. Wynne, "Photonic crystal fiber nanospectrometer," Proceeding of the SPIE Smart Structures and Nondestructive Evaluation Conference, San Diego, CA, March 2012.