

## ZHENGQING YUN

### EDUCATION

Ph. D.: 1994, Electrical Engineering, Chongqing University, Chongqing, China.

### EXPERIENCE

Aug. 2010-Present: *Associate Professor, University of Hawaii at Manoa, USA*  
Jan. 2006-July 2010: *Assistant Professor, University of Hawaii at Manoa, USA*  
June 2002-2005: *Assistant Researcher, University of Hawaii at Manoa, USA*  
March 2000-May 2002: *Research Assistant Professor, University of Utah, USA.*  
June 1997-March 2000: *Postdoctoral Research Fellow, University of Utah, USA.*  
Jan. 1995-May 1997: *Postdoctoral Research Fellow, Southeast University, China.*

### RESEARCH INTERESTS

- Propagation prediction and simulation for wireless communications systems including 3G, MIMO, Wireless LAN, and UWB systems.
- Research and development of new computational methods for simulation of electromagnetics (Ray-tracing, FDTD, FEM, and BEM).
- Detection of UXO and IED; Ground penetration radar.
- Analysis and design of antenna arrays (2D beam steering antennas, CTS technology)
- Simulation of interaction of radio waves with the human head.

### PROFESSIONAL SERVICES

- *Associate Editor*, IEEE Access, 2013~present
- *Associate Editor*, IEEE Transactions on Antennas and Propagation, 2010~present
- *Associate Editor*, IEEE Transactions on Vehicular Technology, 2007~2010
- *Chair*, Technical Program Committee, IEEE International Conference on Wireless Information Technology and Systems, 2012, Honolulu, Hawaii
- *Chair*, Technical Program Committee, IEEE International Conference on Wireless Information Technology and Systems, 2010, Honolulu, Hawaii

### SOCEITY

- Institute of Electrical and Electronics Engineers (IEEE), USA.

### SELECTED PUBLICATIONS (last five years)

#### *Journal Papers*

1. S. Y. Lim, Z. Yun, and M. F. Iskander, "Propagation Measurement and Modeling for Indoor Stairwells at 2.4 and 5.8 GHz," *IEEE Transactions on Antennas and Propagation*, vol. 60, no. 9, pp. 4754-4761, Sept. 2014.
2. F. K. Sharifabad, M. A. Jensen, Z. Yun, "Closed-form evaluation of the MIMO channel spatial covariance," *IEEE Transactions on Antennas and Propagation*, Feb., 2013, pp. 901-909.
3. N. Omaki, Z. Yun, N. Celik, H.-S. Youn, and M. F. Iskander, "Effective HF Radar Installation in Challenging Terrain Environments for Homeland Security Applications," *IEEE Antenna and Wireless Propagation Letters*, vol. 10, pp.1143-1146, 2011.
4. J. S. Kobashigawa, H.-S. Youn, M. F. Iskander, Z. Yun, "Classification of buried targets using ground penetrating radar: comparison between genetic programming and neural networks," *IEEE Antenna and Wireless Propagation Letters*, vol. 10, pp. 971-974, 2011.

5. M. F. Iskander, Z. Yun, N. Celik, H.-S. Youn, N. Omaki, and J. Baker, "HF and passive radar designs for homeland security applications," *Marine Technology Society (MTS) Journal*, vol. 45, no. 3, pp. 111-119, May/June 2011.
6. J.-H. Deng, N. Celik, Z. Yun, and M. F. Iskander, "Low complexity hybrid smart antenna with directional elements over frequency selective fading channel," *IEICE Trans. Commun.*, vol. E94-B, No. 12, pp. 3610-3613, Dec. 2011.
7. Z. Yun, S. Y. Lim, and M. F. Iskander, "Use of geospatial resources for radio propagation prediction in urban areas," *IEEE Antenna and Wireless Propagation Letters*, vol. 8, pp. 587-591, 2009.
8. S. Y. Lim, Z. Yun, J. M. Baker, N. Celik, H.-S. Youn, and M. F. Iskander, "Propagation modeling and measurement for a multi-floor stairwell," *IEEE Antenna and Wireless Propagation Letters*, vol. 8, pp. 583-586, 2009.

### **Conference Papers**

1. D. A. Bibb, Z. Yun, and M. F. Iskander, "Source Localization Using Time Reversal in Urban Environments: A Ray Tracing Approach", 2014 *IEEE International Symposium on Antennas and Propagation and the 2012 USNC/URSI National Radio Science Meeting*, 2014.
2. D. A. Bibb, Z. Yun, and M. F. Iskander, "Computational Accuracy and Speed of Some Knife-Edge Diffraction Models", 2014 *IEEE International Symposium on Antennas and Propagation and the 2012 USNC/URSI National Radio Science Meeting*, 2014.
3. Z. Yun, and M. F. Iskander, "Diffraction from multiple ridges: comparing three- and two-dimensional results," *The 8th European Conference on Antennas and Propagation*, The Hague, Netherlands, April 2014.
4. H. Xu, Z. Yun, and M. F. Iskander, "Determination of multiple diffraction ray paths for arbitrary oriented straight edges," 2013 *IEEE International Symposium on Antennas and Propagation and the 2013 USNC/URSI National Radio Science Meeting*, Orlando, July 7-13, 2013.
5. Z. Yun, M. F. Iskander, N. Omaki, and A. Barrios, "Propagation modeling for advanced wireless communication systems," 2013 *IEEE International Microwave Symposium Workshop, Satcom and Aerospace Beyond Ka-Band: Progress and Challenges*, Friday, June 7, 2013, Seattle.
6. Z. Yun, M. F. Iskander, N. Omaki, and A. Barrios, "Impact of realistic propagation modeling and mutual coupling effects on estimation of MIMO capacity," 2012 *IEEE International Conference on Wireless Information Technology and Systems*, Maui, Hawaii, Nov. 11-16, 2012.
7. N. Omaki, Z. Yun, M. F. Iskander, "Split-step parabolic equation method: a comparative study," 2012 *IEEE International Conference on Wireless Information Technology and Systems*, Maui, Hawaii, Nov. 11-16, 2012.
8. Z. Yun, N. Omaki, and M. F. Iskander, "Ridge Feature Extraction and Effect on Radio Propagation for Wireless Communications," 2012 *IEEE International Symposium on Antennas and Propagation and the 2012 USNC/URSI National Radio Science Meeting*, Chicago, July 8-14, 2012.
9. Soo Yong Lim, Zhengqing Yun, Magdy F. Iskander, "Radio Propagation Modeling in Indoor Stairwell: a K-Means Clustering Approach," 2012 *IEEE International Symposium on Antennas and Propagation and the 2012 USNC/URSI National Radio Science Meeting*, Chicago, July 8-14, 2012.
10. N. Omaki, Z. Yun, and M. F. Iskander, "Accuracy of parabolic wave equation method in short propagation range," 2012 *IEEE International Symposium on Antennas and Propagation and the 2012 USNC/URSI National Radio Science Meeting*, Chicago, July 8-14, 2012.