

ZHAOXIAN ZHOU
CURRICULUM VITAE

UPDATED: MAY 28, 2007

1 Experience

- ☞ **Assistant Professor**, School of Computing, University of Southern Mississippi 2005-2007
- ☞ **Postdoctoral Fellow**, Dept. Electrical and Computer Engineering, University of New Mexico 2005-2005
- ☞ **Research Assistant**, Dept. Electrical and Computer Engineering, University of New Mexico 1999-2005
- ☞ **Research Assistant**, Dept. Electrical and Computer Engineering, National University of Singapore 1997-1999
- ☞ **Research Engineer**, China Research Institute of Radiowave Propagation 1991-1997

2 Research Interests

- ☞ Computational and Ultra-Wide Band Electromagnetics
- ☞ Numerical Analysis, High Performance and Scientific Computing
- ☞ High Power Microwave, Pulsed Power and Plasma Science
- ☞ Radio Wave Propagation and Wireless Communications

3 Education

- ☞ **PhD** in Engineering, University of New Mexico 2005
- ☞ **Certificate** of Computing in Sci. and Eng., Center for High Performance Computing, UNM 2005
- ☞ **M. Eng** in Electrical Engineering, National University of Singapore 2000
- ☞ **B. Eng** in Electrical Engineering, University of Science and Technology of China 1991

4 Academic Awards and Honors

- ☞ **Outstanding New Teacher Award** (certificate and \$250), ASEE Southeastern Section 2007
- ☞ **Listee**, Marquis Who's Who of Emerging Leaders, First Edition 2007
- ☞ **Senior Member** (plaque), IEEE Antennas and Propagation Society 2006
- ☞ **Outstanding Graduate in EECE** (plaque), University of New Mexico 2005
- ☞ **SUMMA Graduate Fellowship in Adv. Electromagnetics** (\$15,000), SUMMA Foundation 2003
- ☞ **Raj Mittra Travel Grant Award** (\$750), IEEE Antenna and Propagation Symposium 2003
- ☞ **Research Scholarship**, National University of Singapore 1997—1999
- ☞ **Best Paper Award**, City of Qingdao, China 1995
- ☞ **Awards of Advancements in SciTech**, China Research Institute of Radiowave Propagation 1994, 1995
- ☞ **Outstanding Student Scholarship**, University of Science and Technology of China 1988, 1990

5 Teaching Activities

5.1 Courses Taught

☞ Spring 2007, USM

- **EET 492/592:** Antennas and Propagation 3 hours
- **EET 315:** Analog Communication Systems 4 hours
- **CET 316:** Digital Communications 3 hours

☞ Fall 2006, USM

- **EET 603:** Digital Signal Processing 3 hours
- **EET 392:** Electromagnetic Fields and Waves I 3 hours
- **EET 461/561:** Electric Power 3 hours

☞ Spring 2006, USM

- **EET 315:** Analog Communication Systems 4 hours
- **CET 316:** Digital Communications 3 hours
- **EET 492/592:** Electromagnetic Fields and Waves I 3 hours
- **EET 692:** Special Topics: Robotics 3 hours

☞ Fall 2005, USM

- **EET 461/561:** Electric Power 3 hours
- **EET 592:** Special Topics: Robotics 3 hours
- **EET 692:** Special Topics: Matlab Applications 3 hours

5.2 Students Supervised

☞ Member of Thesis Committee

6. William L. Hartung
5. Thomas Avery M.S., 2007
4. Jonathan Oliver M.S., 2007
3. Radhika Chimmula M.S., 2006
2. Giancarlo Milano 2005
1. Jerry Walker M.S., 2005

6 Professional Services

6.1 University Services

- ☞ **Coordinator**, EET Program, School of Computing, USM 2005—2007
- ☞ **Member**, Accreditation/Assessment Committee, School of Computing, USM 2005—2007
- ☞ **Member**, Curriculum Committee, School of Computing, USM 2005—2007

6.2 Academic Services

- ☞ **Chair**, Electrical Engineering Division, ASEE-SE 2007-2008
- ☞ **Secretary**, Electrical Engineering Division, ASEE-SE 2006-2007

6.3 Conference Organizations

- ☞ **Session Chair**, IEEE APS/URSI symposium, Honolulu, HI, June 10-14 2007
- ☞ **Session Chair**, ASEE-SE conference, Louisville, KY, April 01-03 2007
- ☞ **Session Chair**, IEEE APS/URSI symposium, Albuquerque, NM, July 09-14 2006
- ☞ **Member of TPC**, IEEE APS/URSI symposium, Albuquerque, NM, July 09-14 2006

6.4 Award Committee

- ☞ **Member**, Award Committee for “New faculty research award” of ASEE-SE 2006

6.5 Judge

- ☞ **Judge**, Mississippi Science and Engineering Fair, Region I Elementary Division 2007
- ☞ **Judge**, Mississippi Science and Engineering Fair, Region I Elementary Division 2006
- ☞ **Judge**, IDCC Student Contest, School of Computing, USM 2006
- ☞ **Judge**, Northwestern New Mexico Regional Science and Engineering Fair 2004

6.6 Reviewer of Academic Books

- ☞ **Reviewer**, John Wiley & Sons 2006

6.7 Reviewer of Academic Journals

- ☞ **Reviewer**, IEEE Transactions on Antennas and Propagation 2007
- ☞ **Reviewer**, IEEE Antennas and Wireless Propagation Letters 2006
- ☞ **Reviewer**, IEEE Transactions on Electromagnetic Compatibility 2006
- ☞ **Reviewer**, IEEE Transactions on Advanced Packaging 2006
- ☞ **Reviewer**, IEEE Antennas and Wireless Propagation Letters 2005
- ☞ **Reviewer**, IEEE Transactions on Antennas and Propagation 2005

6.8 Reviewer of Academic Conferences

- ☞ **Reviewer**, ASEE-SE conference, Louisville, KY, April 01-03 2007
- ☞ **Reviewer**, Student paper contest, IEEE APS/URSI symposium, Albuquerque, NM, July 2006
- ☞ **Reviewer**, IEEE APS/URSI symposium, Albuquerque, NM, July 2006
- ☞ **Reviewer**, ASEE-SE conference, Tuscaloosa, AL, April 02-04 2006

6.9 Membership of Professional and Honor Societies

- ☞ **Member**, American Society for Engineering Education (ASEE) 2005—2007
- ☞ **Senior Member**, IEEE, Antennas and Propagation Society 99’s,05’m, 06’s
- ☞ **Member**, Applied Computational Electromagnetics Society (ACES) 2003
- ☞ **Member**, HKN Honor Society of Electrical and Computer Engineering 2003–2007

7 Publications

(Conference presenter underlined)

23. Zhaoxian Zhou, “Enhancing Interest in Electromagnetics Among EET Students,” accepted *2007 IEEE Antennas and Propagation Society International Symposium*, Honolulu, HI, June 10-15, 2007
22. Zhaoxian Zhou, “Integration of Math and Physics into Electronic Engineering Technology Courses”, *2007 ASEE Southeast Section Conference*, Louisville, KY, April 01-03, 2007
21. Zhaoxian Zhou and J. Scott Tyo, “A Multiresolution Algorithm for Transient Applications,” *2006 IEEE Antennas and Propagation Society International Symposium*, Albuquerque, NM, July 10-14, 2006
20. Zhaoxian Zhou and Randy Buchanan, “Electromagnetic Radiation and Scattering of Wire Structures,” *2006 ASEE Southeast Section Conference*, Tuscaloosa, AL, April 02-04, 2006
19. Zhaoxian Zhou and J. Scott Tyo, “Multiresolution Analysis of Transient Scattering of Wire Structures,” *2005 General Assembly of International Union of Radio Science*, New Delhi, India, October 23-27, 2005
18. Zhaoxian Zhou, “An adaptive multiresolution time-domain integral equation electromagnetic solver”, PhD dissertation, ProQuest Information and Learning, ISBN 0-542-18033-2, December 1, 2005
17. Zhaoxian Zhou and J. Scott Tyo, “Transient Analysis of Arbitrary Wire Scatterer by Multiresolution Time-Domain Integral Equation Method,” *2005 IEEE Antennas and Propagation Society International Symposium*, Washington, DC, July 03-07, 2005
16. Zhaoxian Zhou and J. Scott Tyo, “An adaptive Time-Domain Integral Equation Method For Transient Analysis of Wire Scatterer,” *IEEE Antenna and Wireless Propagation Letters*, Vol. 4, pp. 147-150, 2005
15. Zhaoxian Zhou and J. Scott Tyo, “Multi-resolution analysis of thin wire scatterer by time-domain integral equation method,” *2004 IEEE Antennas and Propagation Society International Symposium*, Monterey, CA, Vol. 4, pp. 4531-4534, June 20-25, 2004
14. Zhaoxian Zhou and J. Scott Tyo, “Adaptive and implicit Haar-wavelet-based Time-domain Integral Equation Analysis of Straight Thin Wire Scatterer,” *2004 URSI International Symposium on Electromagnetic Theory*, Pisa, Italy, pp. 474-476, May 23-27, 2004
13. Zhaoxian Zhou and J. Scott Tyo, “Transient analysis of straight thin wire scatterer by multiresolution time-domain integral equation method,” *2003 IEEE Antennas and Propagation Society International Symposium*, Columbus, OH, Vol. 3, pp. 575-578, June 22-27, 2003
12. J. S. Tyo, C. J. Buchenauer, Z. Zhou, S. MacGregor, A. Dick, R. C. Pate, P. E. Patterson, D. Riley and M. Buttram, “Two- and three- dimensional time domain modeling of transient breakdown phenomena in gases and liquids,” *14th International Conference on High-Power Particle Beams and 5th International Conference on Dense Z-Pinches*, Albuquerque, NM, June 23-28, 2002
11. A. S. Shlapakovski, I. I. Grushin, Z. Zhou and E. Schamiloglu, “Drive signal frequency multiplication in a hybrid antenna-amplifier device,” *Pulsed Power Plasma Science, PPPS-2001, Digest of Technical Papers*, Vol. 1, pp. 553-556, 2001
10. Z. X. Zhou, L. W. Li, T. S. Yeo, and M. S. Leong, “Cumulative distributions of rainfall rate and microwave attenuation in Singapore’s tropical region”, *Radio Science*, Vol. 35, No. 3, pp. 751-756, May-June 2000
9. Z. X. Zhou, L. W. Li, T. S. Yeo and M. S. Leong, “Analysis of experimental results of microwave propagation in Singapore’s tropical rainfall environment,” *Microwave and Optical Technology Letters*, pp. 469-473, June 20, 1999
8. Z. X. Zhou, L. W. Li, T. S. Yeo and M. S. Leong, “Propagation characteristics of microwave due to rainfall in Singapore,” *the 3rd International Wireless and Telecommunications Symposium (IWTS’99)*, Malaysia, pp. 52-55, May 17-21, 1999

7. D. Z. Hu, Z. X. Zhou and J. Huang, "Experiment of Millimeter Wave Communication in the Tropical Trees," *Proceedings of 1997 International Symposium on radio propagation (ISRP'97)*, Qingdao, China, pp. 185-188, 1997
6. D. Z. Hu and Z. X. Zhou, "Electrical energy transmission by microwave," (in Chinese) *Electronic Science and Technology Review*, pp. 2-4, Dec. 1996
5. Z. X. Zhou and D. Z. Hu, "An experimental study of 3 mm communication in battlefield environment," (in Chinese) *Chinese Journal of Radio Science*, Vol. 9, No. 4, pp. 57-63, Dec. 1994
4. D. Z. Hu and Z. X. Zhou, "The atmospheric complex refractivity index at frequency up to 1000 GHz," *Journal of Infrared and Millimeter Waves*, Vol. 13, No. 4, pp. 307-314, Aug. 1994
3. D. Z. Hu and Z. X. Zhou, "The atmospheric complex refractivity index at frequency up to 1000 GHz," (in Chinese) *Journal of Infrared and Millimeter Waves*, Vol. 13, No. 4, pp. 278-284, Aug. 1994
2. Z. Zhao, J. Huang, Q. Dong, Z. Wu, Z. X. Zhou and D. Z. Hu, "The measurement of rain-induced propagation characteristics at 33.5 GHz and 93 GHz in Guangzhou," (in Chinese) *Chinese Journal of Radio Science*, Vol. 9, No. 2, pp. 52-69, Jun. 1994
1. D. Z. Hu and Z. X. Zhou, "The atmospheric refractivity at near millimeter wave in China region," *Proceedings of International Conference of Millimeter Wave and Far-infrared Science and Technology (ICMWFST'94)*, Guangzhou, China, pp. 11-14, August 22, 1994