

## F. Benjamin Zhan—Biographical Sketch

Texas Center for Geographic Information Science  
Department of Geography, Texas State University, San Marcos, TX 78666, USA  
Email: [zhan@txstate.edu](mailto:zhan@txstate.edu); Phone: 512-245-8846; Fax: 512-245-8353

### Professional Preparation

Institution	Major	Degree & Year
Wuhan Technical University of Surveying and Mapping, Wuhan, China	Geodesy & Surveying Engineering	B.Eng; 1983
International Institute for Geo-Information Science and Earth Observation (ITC), The Netherlands	Geo-Information Systems	M.Sc.; 1989
University at Buffalo, SUNY	Geography/GIS	Ph.D.; 1994
The University of Tennessee-Knoxville	Management Science	Post-Doc; 1994-95

### Appointments

2003-present	Director, Texas Center for Geographic Information Science, Texas State University
2003-present	Professor, Department of Geography, Texas State University
1999-2003	Associate Professor, Department of Geography, Texas State University
1995-1999	Assistant Professor, Department of Geography, Texas State University

### Publications

#### (1) Five publications most closely related to proposal project

- 1998 **Zhan, FB**; Noon, CE. Shortest Path Algorithms: An Evaluation Using Real Road Networks. *Transportation Science*, 32(1):65-73.
- 1998 **Zhan, FB**. Approximate Analysis of Topological Relations between Geographic Regions with Indeterminate Boundaries. *Soft Computing*, 2(2):28-34.
- 2006 Chen, X; Meaker, JW; **Zhan, FB**. Agent-Based Modeling and Analysis of Hurricane Evacuation Procedures for the Florida Keys. *Natural Hazards* 38(3):321-338.
- 2009 Silvan, JL; Wang, L; **Zhan, FB**. 2009. Representing Geographical Objects with Scale-Induced Indeterminate Boundaries: A Neural Network-Based Data Model. *International Journal of Geographical Information Science* 23(3):295-318.
- 2010 **Zhan, FB**; Tapia-Silva, FO; Santillana, M. 2009. Estimating Small Area Population Growth Using Geographic Knowledge Guided Cellular Automata. *International Journal of Remote Sensing* (in press).

#### (2) Five other significant publications

- 1996 Fotheringham, AS; **Zhan, FB**. A Comparison of Three Exploratory Methods for Cluster Detection in Spatial Point Patterns. *Geographical Analysis*, 28(3):200-218.
- 2005 **Zhan, FB**; Chen, X; Noon, CE; Wu, G. A GIS-enabled comparison of fixed and discriminatory pricing strategies for potential switchgrass-to-ethanol conversion facilities in Alabama. *Biomass & Bioenergy*, 28(3):295-306.
- 2006 **Zhan, FB**; Brender, JD; DeLima, I; Suarez, L; Langlois, PH. Match Rate and

- Positional Accuracy of Two Geocoding Methods for Epidemiological Research. *Annals of Epidemiology* 16(11):842-849.
- 2007 Huang, B; Wu, Q; **Zhan, FB**. A Shortest Path Algorithm with Novel Heuristics for Dynamic Transportation Networks. *International Journal of Geographical Information Science* 21(6):625-644.
- 2009 Zou, B; Wilson, JG; **Zhan, FB**; Zeng, Y. Spatially Differentiated and Source Specific Assessment of Population Exposure to Ambient Urban Air Pollution. *Atmospheric Environment* 43(26):3981–3988.

### Synergistic Activities

- Winner of the prestigious Chang Jiang Scholar Award from the Ministry of Education (Beijing, China) and Li Ka Shing Foundation (Hong Kong, China), and Guest Chair Professor endowed by the Chang Jiang Scholar Awards Program, Wuhan University, China
- Articles cited by researchers in more than 30 countries
- Editorial Boards: *Journal of the Urban and Regional Information Systems Association* (2002-present); *Journal of Transport Geography* (2005-present); *Environmental Health Insights* (2008-present)
- Chair, Transportation Geography Specialty Group, *Association of American Geographers* (2002-04)
- Review panelist for different programs of NSF and the National Cancer Institute (NIH-NCI); Manuscript reviewer for over 40 journals, conferences, and publishers

### Collaborators & Other Affiliations

#### **(1) Collaborators (past 48 months)**

Jean D. Brender (Texas A&M Health Science Center) / Yaowen Han (Texas State) / Bo Huang (The Chinese University of Hong Kong) / Peter H. Langlois (Texas Department of State Health Services) / Yongmei Lu (Texas State) / Lucina Suarez (Texas Department of State Health Services) / Jing Yang (UNCC) / Le Wang (University at Buffalo, SUNY) / Yiqing Zhu (Second Crust Monitoring and Application Center, CEA)

#### **(2) Graduate and Postdoctoral Advisors**

David M. Mark (University at Buffalo); Charles E. Noon (The Univ. Tennessee at Knoxville)

#### **(3) Visiting Scholars and Graduate Advisees Sponsored**

**(Total: 8 Scholars; 18 PhDs; 17 MSc/MAs)**

**Scholars** –Zhongliang Cai (WHU, China); Han Cao (Shanxi Normal Univ., China); Xuwei Chen (Northern Illinois University); Limin Jiao (WHU, China); Yanfang Liu (WHU, China); Yaolin Liu (WHU, China); Omar Tapia (CentroGeo, Mexico); Jianjun Zhu (CSU, China)

**PhD** – Xuwei Chen (Northern Illinois University), Bill Collins, Ionara De Lima (TxDSHS), Jose Silvan-Cardenas (CentroGeo, Mexico), Yan Lin, David A. Nicosia, Nancy Tian, Christi Townsend, Neng Wan, Guangyu Wu (CMAP), Yan Yang, Xueheng Yao; Zhijun Yao, Charles Yorke (Georgia Southern Univ.), Xiaomin Yu, Xinnong Zhou (ESRI), Bin Zou, Dingju Zhu (SIAT, China)

**MSc** – Kschitij Chaturvedi, Henna Chou, Jingxia Feng, Nicolas E. Gronquist, Delbert Humberson, William Korthals; Patricia Langas; Yan Lin, Xingjian Liu, Ian Martin, Muhammad T. Rahman, Joseph Rincon, Dean Rother, Zoran Stojakovic, Whitney Root, Arwen Vaughan, Jeff Wilson