

Dr. Lucy Huang

Texas A&M University-Corpus Christi
Science & Engineering, Computing Sciences

Office: Conrad Blucher Institute 109, Office Phone: (361) 825-2646, Email: lucy.huang@tamucc.edu

Education

Summer Institute, NIH - National Institute on Aging, 2012.

PhD, State University of New York at Buffalo, 2009.

MS, South China Normal University, 1996.

BS, Jiangxi Normal University, 1991.

Professional Employment

Associate Professor, Texas A&M University - Corpus Christi. (September 2014 - Present).

Assistant Professor, Texas A&M University - Corpus Christi. (September 2008 - August 2014).

Research assistant, State University of New York at Buffalo. (2002 - 2007).

Research associate, Central Michigan University. (2000 - 2002).

Assistant researcher, State Key Lab of Resource & Environmental Systems, Chinese Academy of Science. (1996 - 2000).

Lecturer, Jiangxi Architecture Engineering College. (1991 - 1993).

Professional Memberships

American Geophysical Union

International Association of Chinese Professionals in Geographic Information Sciences

Association of American Geographers

TEACHING

Teaching Experience

GISC 2301, GEOSPATIAL SYSTEMS II

GISC 2438, GEOSPATIAL SOFTWARE SYSTEMS I

GISC 3301, GEOSPATIAL SYSTEMS II

GISC 4335, GEOSPATIAL SYSTEMS III

GISC 4350, GEOSPATIAL SYSTEMS PROJECT

GISC 4351, GEOSPATIAL SYSTEMS PROJECT

GISC 4596, Directed Independent Study: Spatial Temporal Analysis

GSCS 6321, Spatial Data Structure

GSEN 5365, SPATIAL DATABASE DESIGN

GSEN 5381, CADASTRAL INFOSYSTEMS DESIGN

GSEN 5383, ADV GEOSPATIAL ANALYSIS DESIGN

GSEN 5390, Geospatial Analytical Methods

GSEN 5396, DIS: Public Health & GIS

GSEN 5993, GRADUATE CREATIVE PROJECT
GSEN 5997, GRADUATE THESIS RESEARCH
GSEN 5998, GRADUATE THESIS

Non-Credit Instruction

ELITE Scholarship Faculty Mentor. (June 2013 - June 2014).

SCHOLARLY AND CREATIVE ACTIVITIES

Publications

Refereed

Conference Proceedings

Christopher, C., Huang, Y. (2014). *Spatial Access to Substance Abuse Treatment for Low-Income and Minority Households: A Case Study in Dallas-Fort Worth Metroplex, Texas*. Dallas: the Third ACM SIGSPATIAL International Workshop on the Use of GIS in Public Health.

Su, L., Huang, Y., Jeffress, G. A. *An Error Analysis for UAV Remote Sensing*. International Conference on Geoinformatics.

Lyle, S. D., Huang, Y., Smith, R. A. (2011). *Applying and Modular Approach to Building an Online Surveying Degree*. Mayagüez, PR: Surveying and Geomatic Educators Society.

Huang, Y. (2011). *A Latent Semantic Analysis-based Approach to Geographic Feature Categorization from Text*. Stanford University, Palo Alto, CA, USA , (Acceptance rate: 22%): Fifth IEEE International Conference on Semantic Computing.

Lupher, B., Rietz, L., Lyle, S. D., Huang, Y., Smith, R. A., Concannon, K. (2011). *Modeling Habitats of Mosquitoes Using Remote Sensing and GIS: Improving Public Health through Vector Prevention*. June 27-30, Atlanta: The 2011 URISA GIS in Public Health Conference.

Huang, Y. (2010). *Modeling the Severe Acute Respiratory Syndrome (SARS) outbreak in Beijing – An Agent-based Approach*. Proceedings of the First International Conference on Computing for Geospatial Research & Application.

Bian, L., Whalen, T., Huang, Y. (2009). *Explicit Spatial-Temporal Simulation of a Rare Disease*. Shenzhen: of 11th. Joint Conf on Information Sciences.

Huang, Y. (2009). *Progress in Automatic Ways for Ontology Construction*. DIW 2009 Workshop.

Huang, Y. (2009). *An Ontology Model for the National Map*. Position Paper, UCGIS Specialist Meeting on Developing an "Ontology for the National Map.

Huang, Y., Bian, L. (2008). *An Ontology Model for Personalized Tour Planning Recommendations on the Semantic Web*. Utah.: the Fifth International Conference on Geographic Information Science.

Journal Articles

Su, L., Huang, Y., Gibeaut, J., Li, L. (2016). A GPU approach for processing hyper-spatial images of UAS remote sensing. *GeoInformatica*, 20(4), 859-878.

Huang, Y. (2016). Conceptual Categorizing Objects from Text based on Latent Semantic Analysis and Ontologies. *Annals of GIS*.

Huang, Y., Bian, L. (2015). Using Ontologies and Formal Concept Analysis to Integrate Heterogeneous Tourism Information. *IEEE Transactions on Emerging Topics in Computing*.

Su, L., Huang, Y., Chopping, M., Rango, A. (2012). Variations in reflectance with seasonality and viewing geometry: Implications for semi-arid vegetation mapping with MISR data. *International Journal of Remote Sensing*.

Huang, Y., Meyer, P. (2012). Mapping Spatial Variations of Health Insurance Coverage in the Coastal Bend, Texas. *Journal of Maps*. www.journalofmaps.com

Huang, Y., Bian, L. (2010). Ontology-driven Tour Planning Systems: A Conceptual Framework. *Environmental and Planning B*, 37(1), 481-499.

Su, L., Huang, Y. (2009). Support Vector Machine (SVM) Classification: Comparison of Linkage Techniques Using a Clustering-Based Method for Training Data Selection. *GIScience and Remote Sensing*, 46(4), 411-424.

Huang, Y., Bian, L. (2009). A Bayesian Network and Analytic Hierarchy Process Based. *Expert Systems with Applications*, 36, 933-943.

Su, L., Huang, Y., Chopping, M., Rango, A., Martonchik, J. (2009). An Empirical Study on the Utility of Topographic Parameters and BRDF Model Parameters for Mapping Vegetation in a Semi-arid Region with MISR imagery. *International Journal of Remote Sensing*, 30(13), 3463-3483.

Huang, Y. (2009). Toward Semantic Interoperability in Travel Planning on the Semantic Web: Learning a Reference Ontology from Online Heterogeneous Tourist Attractions Classification Systems. *Information Technology & Tourism*, 11(1), 51-66.

Huang, Y., Su, L. (2006). A Fast Algorithm for Constructing Multi-resolution Representations of Linear Features to Support the Progressive Transmission of Vector Map Data. *GIScience & Remote Sensing*, 41(3), 197-217.

Non-Refereed

Monographs

Meyer, P. S., Araiza, I., Jorgensen, D. J., Brown, A., Huang, Y. 2012-2013 *Coastal Bend Health Needs Assessment* (pp. 189).

Presentations

Meyer, P. S. (Author & Presenter), Araiza, I. (Author), Jorgensen, D. J. (Author & Presenter), Huang, Y. (Author), Brittany, S.-G. (Author), "2016 Coastal Bend Health Needs Assessment", Nueces County Safe Communities Coalition Meeting, Nueces County Safe Communities Coalition, Corpus Christi, Texas. (October 20, 2016).

Meyer, P. S. (Author & Presenter), Chavez, M. (Author & Presenter), Kazanjian, MA, MDiv, S. (Author & Presenter), Araiza, I. (Author), Jorgensen, D. J. (Author), Huang, Y. (Author), Brittany,

S.-G. (Author), "'2016 Coastal Bend Health Needs Assessment'," Presentation to the CHRISTUS-Spohn Health System Board, CHRISTUS-Spohn Health System Board, CHRISTUS-Spohn Hospital-Shoreline. (August 21, 2016).

Meyer, P. S. (Author & Presenter), Araiza, I. (Author & Presenter), Jorgensen, D. J. (Author & Presenter), Huang, Y. (Author), Brittany, S.-G. (Author), "'2016 Coastal Bend Health Needs Assessment: Formal Findings'," Presentation to the Coastal Bend Health Needs Assessment Task Force, Coastal Bend Health Needs Assessment Task Force, Corpus Christi Medical Center, Corpus Christi, Texas. (August 5, 2016).

Meyer, P. (Author & Presenter), Araiza, I. (Author & Presenter), Jorgensen, D. J. (Author & Presenter), Huang, Y. (Author), Brittany, S.-G. (Author), "'First Look: 2016 Coastal Bend Health Needs Assessment'," Coastal Bend Health Needs Assessment Task Force, Citizen's Hospital, Victoria, Texas. (June 3, 2016).

Meyer, P. S. (Author & Presenter), Araiza, I. (Author & Presenter), Jorgensen, D. J. (Author & Presenter), Huang, Y. (Author), "'First Look: 2016 Coastal Bend Health Needs Assessment'," Coastal Bend Health Needs Assessment Task Force, Corpus Christi Medical Center, Corpus Christi, Texas. (May 20, 2016).

Na, L. (Author), Garcia, O. (Author), Huang, Y., Pezold, F. L. (Author), "Interactive biodiversity conservation mapping using Google Fusion Tables and Google Maps API," Association of American Geographer Annual Meeting, San Francisco. (March 29, 2016).

Huang, Y., "GIS in Public Health: Agent-based Simulation for Spatial and Temporal Dispersion of Infectious Diseases," Spatial Modeling & Ecoinformatics Seminar Series, Texas A&M University - Kingsville, Texas A&M University - Kingsville. (December 4, 2015).

Huang, Y., Meyer, P., Jin, L., "The Association Between Preventable Hospitalizations and Spatial Accessibility to Health Care for Elderly in the Coastal Bend of Texas," American Association of Geography Annual Meeting, AAG, Chicago. (April 24, 2015).

Christopher, C. (Author & Presenter), Huang, Y. (Author), "Spatial Access to Substance Abuse Treatment for Low-Income and Minority Households: A Case Study in Dallas-Fort Worth Metroplex, Texas," The Third ACM SIGSPATIAL International Workshop on the Use of GIS in Public Health, ACM, Dallas. (November 4, 2014).

Huang, Y. (Author & Presenter), Meyer, P. (Author & Presenter), "Ethnic Disparities in Accessibility to Health Care Facilities among Older Populations in the Coastal Bend of Texas Disclosed by Spatial Analysis," Third Annual Aging and Society: An Interdisciplinary Conference, Chicago, Illinois. (November 8, 2013).

Huang, Y., Meyer, P., "Disparities in Neighborhood Food Environments in Nueces County," The 2013 International Medical Geography Symposium, Lansing, Lansing, MI. (July 7, 2013).

Huang, Y., "Individual-based Models: Tracking and Visualizing Infectious Diseases," The 2012 SACNAS National Conference, Seattle. (October 11, 2012).

Huang, Y., "An Error Analysis for UAV Remote Sensing. The 20th International Conference on Geoinformatics," The 20th International Conference on Geoinformatics, HongKong. (June 15, 2012).

Huang, Y., Fifth IEEE International Conference on Semantic Computing. (July 19, 2011).

Lupher, B. (Presenter), Rietz, L., Lyle, S. D., Huang, Y., Smith, R. A., Concannon, K., "Modeling Habitats of Mosquitoes Using Remote Sensing and GIS: Improving Public Health through Vector Prevention," the 2011 URISA GIS in Public Health Conference, Atlanta. (June 29, 2011).

Huang, Y., "GIS in Public Health: Spatial Temporal Simulation of Infectious Diseases Using Agent-based Models," Dept. of Environmental Engineering, Texas A&M University - Kingsville, seminar, Kingsville. (February 7, 2011).

Lyle, S. D. (Author & Presenter), Huang, Y. (Author), Smith, R. A. (Author), Concannon, K. (Author), "USEARCH: Innovative Education," USDA NIFA Grantsmanship Workshop, Washington, DC. (December 2010).

Huang, Y. (Author & Presenter), "Modeling the Severe Acute Respiratory Syndrome (SARS) outbreak in Beijing – An Agent-based Approach," The First International Conference on Computing for Geospatial Research & Application, Washington DC. (July 21, 2010).

Huang, Y. (Author & Presenter), "Agent-based simulation of spread and control of SARS in," Advanced Spatial Analysis Workshop UCSB 2010, Santa Barbara. (June 23, 2010).

Huang, Y. (Author & Presenter), "Progress in Automatic Ways for Ontology Construction," DIW workshop, Corpus Christi, TX. (May 15, 2009).

Huang, Y. (Author & Presenter), "An Ontology Model for the National Map," UCGIS Specialist Meeting on Developing an "Ontology for the National Map, UCGIS, Washington DC. (February 3, 2009).

Contracts, Grants and Sponsored Research

Contract

Jorgensen, Daniel J (Co-Principal), Meyer, Pamela (Principal), Araiza, Isabel (Co-Principal), Huang, Yuxia (Co-Principal), "2016 Coastal Bend Community Healthcare Needs Assessment," Sponsored by Community Healthcare Coalition, Local, \$69,500.00. (October 1, 2015 - August 31, 2016).

Grant

Huang, Yuxia, "Spatial Temporal Data Mining Approaches for Remote Sensing Big Data," Sponsored by Henan University, China, Other, \$30,000.00. (January 1, 2017 - December 31, 2018).

Huang, Yuxia, "Delineating Shoreline Indicators from Different Spatial Resolution Coastal Imagery: A Comparison of Unmanned Aircraft Systems (UAS) and Satellite Images," Sponsored by Texas Research Development Funds, Texas A&M University-Corpus Christi, \$5,000.00. (February 2015 - August 2016).

Meyer, Pamela (Co-Principal), Huang, Yuxia (Co-Principal), "Ethnic Disparities in Accessibility to Health Care Facilities among the Older Population in the Coastal Bend of Texas Disclosed by Spatial Analysis," Sponsored by 2012-2013 Texas Research Development Funds, State, \$25,000.00. (September 24, 2012 - August 31, 2013).

Lyle, Stacey D. (Principal), Huang, Yuxia (Co-Principal), Smith, Richard Allen (Co-Principal), Concannon, Kevin (Co-Principal), "Undergraduate-Scholarly Education and Research Contact for Hispanics," Sponsored by USDA, Federal, \$290,000.00. (August 2010 - August 2013).

Meyer, Pamela (Co-Principal), Huang, Yuxia (Co-Principal), "Neighborhood Food Environment and Disparities in People with Diabetes in Nueces County," Sponsored by Coastal Bend Diabetes Initiative, Coastal Bend Community Foundation, Local, \$25,000.00. (July 2012 - June 15, 2013).

Huang, Yuxia (Principal), "Explicit Spatial-Temporal Simulation of the Severe Acute Respiratory Syndrome," Sponsored by University Research Enhancement Grant, Texas A&M University-Corpus Christi, \$7,515.00. (September 1, 2009 - August 31, 2010).

Huang, Yuxia (Principal), "EXPLORE A NEW AUTOMATIC WAY FOR ONTOLOGY CONSTRUCTION FROM ONLINE TEXT," Sponsored by TRDF, State, \$11,982.00. (March 2009 - August 31, 2009).

Huang, Yuxia (Principal), "Validation of Bayesian Network Architecture for Personalized," Sponsored by FACULTY RESEARCH ENHANCEMENT GRANT, Texas A&M University-Corpus Christi, \$4,000.00. (February 2009 - August 31, 2009).

SERVICE

Department

Committee Member, Curriculum Committee. (September 2015 - Present).
Faculty Advisor, Lamda Sigma Faculty Advisor. (January 2013 - Present).
Committee Chair, GISC/GSEN program Scholarship committee. (2010 - Present).
Committee Member, Faculty Search Committee. (2013).
Committee Member, Online Education (GISC program). (June 2011 - 2012).
Committee Member, External funding committee. (2008 - 2011).
Grad Open House. (February 2011).
Point Person, GISC/GSEN ClassAct. (September 2010 - December 2010).

College

Committee Member, Department Curriculum Committee. (September 2015 - Present).
Committee Member, Academic Integrity Hearing Panel. (August 2015 - Present).
Liaison, GISC library. (2010 - Present).
Liaison, GSEN library. (2008 - Present).
Committee Member, S&E Curriculum Committee. (September 2014 - August 2016).
Committee Member, S&E Research Enhancement Committee. (November 2012 - August 2014).
Committee Member, College Awards Committee. (September 2011 - August 2013).
Committee Member, College Scholarship Committee. (September 2011 - August 2013).

University

Committee Member, Academic Integrity Hearing Panel. (September 2015 - Present).
Committee Member, Research Enhancement Committee. (June 2013 - August 2013).
Island Days. (November 2011 - 2011).
ADVANCE Center for Women Faculty - Chancellor's Diversity Council. (June 2011).
Judge, Tenth Annual Undergraduate Research Symposium. (September 2010).
Island Days. (March 2010).

Professional

Delegate, University Consortium for Geographic Information Science (UCGIS). (2009 - Present).
Committee Member, The 24th International Conference on Geoinformatics, Galway, Ireland. (August 2016).

Committee Member, Recommender Systems RecSys 2015. (September 2015).
Committee Member, The 21th International Conference on Geoinformatics, Kaohsiung, Taiwan. (July 2014).
Committee Member, The 21th International Conference on Geoinformatics, Kaifeng, China. (2013).
Committee Member, The 20th International Conference on Geoinformatics, Hong Kong. (2012).
Reviewer, Conference Paper, 1st International conference on computing for geospatial research & application. (2010).
Committee Member, International Association of Chinese Professionals in Geographic Information Sciences/Go-Home Committee. (2010).
Reviewer, Journal Article, International Journal of Geographic Information Science (IJGIS). (2010).
Reviewer, Journal Article, Tourism Management. (November 2010).

Public

Judge, 22nd Annual Cosatal Bend Science Fair. (May 2010).