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Associate Professor of GIS
Water and Environmental Research Institute
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EDUCATION

1. Ph.D. in Environmental Sciences (Concentration on GIS, spatial analysis and modeling, and remote sensing), 2004, University of Rhode Island, Kingston, Rhode Island, USA
2. PhD Candidate in Geography (GIS and remote sensing), 6/1999 ~ 7/2000, University of Auckland, Auckland, New Zealand
3. M.Engr. Surveying (Concentration on GIS), 1996, Southwest Jiaotong University, Chengdu, Sichuan, China
4. B.Engr. Surveying, 1993, Shandong University of Science and Technology, Qingdao, Shandong, China

PROFESSIONAL EXPERIENCE

1. 8/2004 ~ present, Assistant Professor of GIS, and then promoted to Associate Professor of GIS, Water and Environmental Research Institute, University of Guam, USA
2. 9/2000 ~ 7/2004, Graduate Research/Teaching Assistant (Focusing on GIS, remote sensing, spatial analysis and modeling): University of Rhode Island, Kingston, RI, USA
3. 2/2000 ~ 7/2000, Teaching Tutor Assistant: Department of Geography, the University of Auckland, New Zealand
4. 8/1996 ~ 8/1998, GIS Research Assistant/Software Developer: State Key Lab of Resources and Environment Information System (LREIS), Institute of Geographical Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences, Beijing, China
5. 2/1995 ~ 10/1995, Surveying Engineer: Huaye Real-estate Development Company(Hong Kong), Chengdu, Sichuan, China
6. 3/1994 ~ 1/1995, GIS Tutor: College of Civil Engineering, Southwest Jiaotong University, China
7. 6/1992 ~ 10/1992, Computer Programmer: Land Management Bureau of Ningyang County, Shandong, China
8. 1991, Cadastral Surveyor: Land Management Bureau of Tai'an, Shandong, China

COURSES TAUGHT

University Classes:

Advanced Geospatial Methods, Applications of GIS, Fundamentals of GIS, Remote Sensing of Environment, Topographical Surveying Practicum, Environmental Impact Assessment (Co-Instructor), Environmental Science Seminar, Guest Lecturer for Environmental Soil Sciences, Introduction to Research (MPA course), Guest Lecturer for Engineering Graphics, and Engineering Orientation

ESRI Authorized ArcGIS Training Courses:

Introduction to ArcGIS I, Working with ArcGIS Spatial Analyst, and ArcGIS Desktop II: Tools & Functionality

Customized GIS Trainings (Recently)

Introduction to GIS for Government of Guam Employees (Three days customized GIS training, 4 classes, April 21 – May 19, 2010)

Introduction to GIS for Guam Telephone Authority (5 days customized GIS training, November 17 – 21, 2014)

GIS Boot Camp for faculty, staff and graduate students at the University of Guam (February 26 – April 8, 2016)

Introduction to GIS Using ArcGIS Pro for Granite-Obayashi Joint Venture Guam, August 10-11, 2020

GRADUATE SUPERVISION

Major Professor:

1. Ajalyn Amelau Galanto will work on GIS-based visualization, analysis and modeling of salinity problems in Guam.
2. Caley Chargualaf will work on establishing groundwater protection zones in Guam.
3. Huijuan Luo, an exchange graduate student from China Institute of Water Resources and Hydropower Research, Beijing, China, August 2010 – January 2011.
She worked with me to establish a GIS-based model for visualization and analysis of water quality data in Guam.
4. Maria Kottermair, graduated in December 2010.
Thesis: Spatio-temporal Dynamics of Badlands in Southern Guam: A Case Study of Selected Sites.

Committee Member:

Active students:

1. Eliana Walker, graduate student in Environmental Science.
She focuses on applications of UAV in locating groundwater discharge areas along coastal lines in Guam.

Graduated students:

1. Lyuqin Liu, graduated in December 2019.
Her thesis focused on effects of seawater on nitrification in a biofilm treatment process
2. Justin Martinez, graduated in May 2015.
His research project focused on the problem of grease being discharged by food establishments (as well as private residences) into Guam's sewer system.

3. Ryan Thomas Bailey, graduated in May 2008.

Thesis: Groundwater resources of Micronesian atoll islands: observations, modeling, and management.

4. Michael Park, graduated in May 2007, is working as a contractor with US Navy. Thesis: Developing a GIS-based Soil Erosion Potential Model for Ugum Watershed.

RESEARCH PROJECT

1. 9/2020 – 1/2021. (Co-Investigator). Planning and Development for a Sustainable STEM-Outreach Program: Hawai'i's Aspiring Engineers Academy, funded by NASA MUREP (Minority University Research and Education Project) and NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science)
2. 3/2020 ~ 12/2021. (PI). Establishing Groundwater Protection Zones in Guam, funded by USGS and Guam Hydrological Survey (GHS).
3. 3/2020 ~ 12/2021. (PI). Geospatial-temporal Analysis of Patterns and Trends of Salinity in Finegayan, funded by USGS and GHS.
4. 3/2020 ~ 2/2021. (Co-PI). Workshop Series on Guam Groundwater Resources, funding sources: USGS and GHS.
Responsibility: Conduct a workshop on salinity problems in Guam.
5. 3/2019 ~ 12/2020. (PI). Hydrological Features and Analysis of Finegayan Area, Guam, USA, funding source: United States Geological Survey (USGS).
6. 3/2019 ~ 12/2020. (PI). Development of A GIS-based Model for Visualization and Analysis of Salinity in Northern Guam Len Aquifers, funding source: Guam Hydrological Survey.
7. 3/2019 ~ 2/2020. (Co-PI). Workshop Series on Guam Groundwater Resources, funding sources: USGS and GHS.
Responsibility: Conduct a workshop on how to apply geospatial technology in processing, visualization and analysis of salinity data from wells in Guam.
8. 3/2018 ~ 2/2019, (PI). Visualization of Salinity Patterns and Trends in Northern Guam Len Aquifers, funding sources: Guam Hydrological Survey (GHS).
9. 3/2018 ~ 2/2019, (PI). Workshop Series on Salinity, funding sources: USGS and GHS.
Responsibility: I will conduct two tiered workshops on application of GIS in processing and visualization of salinity data in Guam. The lower level workshop will focus on how to use GIS in salinity data processing and representing the data in charts and/or maps. The upper level workshop will focus on advanced geospatial visualization and analysis of salinity data in space and over time.
10. 3/2017 ~ 2/2018, (PI). GIS-based Analysis of Groundwater Salinity in Guam, funding source: GHS.
11. 3/2016 ~ 2/2017, (co-PI). Workshop Series on Guam Groundwater Resources, funding sources: USGS and GHS.
Responsibility: I conducted an introductory workshop in basic GIS, presented in six 2-hour sessions each year, for student researchers, faculty, and professionals working on groundwater and related problems.
12. 3/2016 ~ 2/2017, (co-PI). Annual trend reporting, and maintenance and development of the GHS/WERI database, funded by Guam Hydrological Survey.
13. 3/2015 ~ 2/2016, (PI). Impacts of Land Cover Change on Groundwater Quality in Saipan, funded by US Geological Survey (USGS).

14. 3/2014 ~ 2/2015, (PI). Develop a GIS Model for Analysis of Groundwater Quality Data in Saipan, funded by USGS.
15. 3/2013~2/2014, (PI). Land Cover Change Detection in Saipan, Commonwealth of the Northern Mariana Islands (CNMI), funding sources: US Geological Survey (USGS) and US EPA.
16. 12/2012 ~ 11/2013, (PI). Development of a GIS-based model for Groundwater Quality Data Analysis on Guam, funding source: Guam Hydrological Survey (GHS).
17. 10/2012 ~ 9/2013, (Co-PI), Digital Atlas of Northern Guam, funded by the National Oceanic and Atmospheric Administration (NOAA).
18. 3/2011 ~ 9/2012, (Co-PI). Develop the Erosion Potential GIS-based Tool for the Piti/Asan Watershed, funded by NOAA.
19. 10/2007 ~ 12/2012, (PI). Spatio-temporal Analysis of Groundwater Quality in Guam, funded by Guam Hydrological Survey.
20. 10/2010 ~ 9/2011 (Co-PI), A GIS-based Watershed Management Plan for the Piti-Asan Watershed, funded by NOAA.
21. 3/2010 ~ 2/2011, (PI). Applications of LiDAR Data for Inarajan Watershed Management, funded by USGS.
22. 3/2010 ~ 2/2011, (Co-PI). Development of a GIS Database for the Saipan's Drinking Water System, funded by USGS.
23. 3/2009 ~ 2/2010 (PI), Impacts of Land Cover Change on Groundwater Quality in Guam, funded by US Geological Survey.
24. 4/2006 ~ 12/2010 (PI), Environmental Science MS Scholarship funded by NOAA. Purpose of the scholarship: The scholarship is used to support my graduate student Ms Maria Kottermair to conduct a research on Impacts of Multiple Factors on Badland Change in Southern Guam. GIS and remote sensing are the main technologies which will be applied to complete the research.
25. 5/2008 ~ 8/2009 (Co-PI), ESRI GIS Grant for 4-H, funded by ESRI, Inc., USA.
26. 3/2008 ~ 2/2009, (Co-PI). Using Remote Sensing to Determine the Change in Soil Erosion and Sediment Loads from Guam Badlands, funded by USGS.
27. 6/2007 ~ 8/2008, (Co-PI). Precision Mapping of Isohyets in Target Storms over the Northern Guam Lens Aquifer, funded by United States Environmental Protection Agency and Government of Guam.
28. 3/2007 ~ 2/2008, (PI). Land Cover Accuracy Assessment for Southern Guam, funded by USGS
29. 3/2006~2/2007, (PI). Watershed Land Cover Change Detection in Guam, funded by USGS
30. 10/2007 ~ 9/2008, (Co-PI). Estimating Erosion Potential for Southern Guam Watersheds Using a Newly Developed GIS Based Erosion Potential Model, funded by NOAA
31. 3/2007 ~ 2/2008, (Co-PI). Identifying the Optimum Land Coverage Practices for Reducing Soil in Ugum Watersheds Using a Newly Developed GIS Based Erosion Potential Model, funded by USGS
32. 3/2006 ~ 2/2008, (Co-PI). Hydrological Modeling of Atoll Islands in the Federated States of Micronesia, funded by USGS.
33. 3/2005 ~ 9/2008, (Co-PI). Developing a Digital Watershed Atlas for Guam, funded by USGS, and National Oceanic and Atmospheric Administration (NOAA) Office of Ocean and Coastal Resource Management.
34. 3/2005 ~ 2/2006, (Co-PI). FSM Atoll Groundwater Resource Inventory, funded by USGS.

35. 9/2001 ~ 8/2004, Project "Spatial Diffusion Modeling for Simulation of Urban Land Cover Change", part of the project "Multiple Innovative Models in Regional Land Cover Change Study", funded by NASA(NAG5-8829)
36. 9/2000 ~ 8/2001, Project "Land Cover Change in Rhode Island from 1972 – 2002 and the Impact on Forest Ecosystems", funded by Rhode Island Agricultural Experiment Station.
37. 7/1997 ~ 8/1998, Project " Research into 3W(What, when and where) Base in Temporal GIS" co-sponsored by the National Natural Science Foundation of China(NSFC) and Institute of Remote Sensing and Applications, Chinese Academy of Sciences, China
38. . 8/1996 ~ 6/1997, Project " Design and Development of GIS Software System **APGIS**, All-purpose Spatial Information System", one of the National **Ninth Five-year Plan** key projects of China
39. 6/1992 ~ 10/1992, Project "Establishment of Cadastral Management Information System in Ningyang County, Shandong", a testing project for establishing a general cadastral management information system in Shandong Province,China.

SERVICES

1. Member and Chair (AY2020-2021), Graduate Curricula Review Committee, University of Guam since 2005.
2. Member, Graduate Faculty of Environmental Science MS program since 2004.
3. Member of Faculty Union, University of Guam, 2020 - present
Member, Faculty Election Commission, University of Guam, 2013 – 2015.
4. Co-Chair, Land-use and Land-cover Changes, 19th International Conference on GeoInformatics, June 24-26, 2011, Shanghai, China.

PROFESSIONAL REGISTRATION/CERTIFICATION/AUTHORIZATION

1. Certified GIS Professional, GIS Certification Institute (#00051379), USA since 2005
2. Authorized Training Program (ATP) Instructor, ESRI, USA, 2005 - 2010

PROFESSIONAL TRAINING

1. ArcGIS Server: Web Administration Using Microsoft .NET Framework
2. Introduction to ArcGIS Server
3. A Do-It-Yourself Approach to Lidar and Imagery Processing and Analysis
4. GIS Program Management
5. Introduction to ArcGIS I, ESRI
6. Introduction to ArcGIS II, ESRI
7. Learning ArcGIS 9 Spatial Analyst, ESRI
8. Remote Sensing for Spatial Analysts, NOAA Coastal Services Center
9. Geospatial Statistical Analysis Workshop, University of Rhode Island
10. FranklinCovey Signature Program Featuring The 7 Habits of Highly Effective People, FranklinCovey

INVITED JOURNAL/PROPOSAL REVIEWERS

1. Invited reviewer for Journal of Integrative Agriculture since 2013
2. Invited reviewer for International Journal of Remote Sensing since 2011
3. Associate Editor and invited reviewer for International Journal of Environmental, Cultural, Economic and Social Sustainability, 2011

4. Invited reviewer for Remote Sensing of Environment since 2004
5. Invited reviewer for International Journal of Digital Earth, 2009
6. Invited reviewer for Environmental Monitoring and Assessment since 2009
7. Invited reviewer for Journal of Anhui University of Science and Technology, 2009
8. Invited review member for USGS National Institutes for Water Resources competitive grants program in 2005 and 2009
9. Invited reviewer for the National Spatial Data Infrastructure (NSDI) Cooperative Agreements Program in 2009

TECHNICAL SKILLS

1. ArcGIS Pro and ArcGIS 9.x/10.x suite including extensions such as Spatial Analyst, 3D Analyst, Network Analyst, Geostatistical Analyst and ArcScan, ArcView 3.x, ArcSDE 9.x; ArcGIS Server; ArcInfo Workstation including Grid, ArcEdit, ArcPlot, ArcScan, INFO and Tables, ArcHydro.
2. Erdas Imagine and ENVI
3. Unmanned Aerial Systems (UAS): DJI Phantom 4 Pro, and Pix4D.
4. GPS: Trimble and Garmin, and GPS compatible digital camera
5. MySQL, MS SQL and other database management systems such as dBase, and geospatial metadata management.
6. Open source GIS such as GRASS and QGIS.
7. Statistics software: FRAGSTATS, SPSS, and R.
8. Programming languages: MS Visual Studio including Visual C++ and Visual Basic, Python, Arc Macro Language (AML), ArcObjects.
9. MS Office Suite

RECENT PUBLICATIONS

1. Wen, Y. (2020). *GIS Analysis of Groundwater Salinity*, in The Handbook of Natural Resources 2nd Edition Volume III: Wetlands and Habitats (Editor: Yeqiao Wang), pp79-86, published by CRC Press.
2. Wen, Y. and J. Jenson. (2020). Impacts of Sinkholes on Salinity Level of Groundwater in Finegayan Area, Guam, USA, EPJ Web of Conferences, Volume 237, id.08010: The 29th International Laser Radar Conference (ILRC 29), Hefei, Anhui Province, China, Edited by Liu, D.; Wang, Y.; Wu, Y.; Gross, B.; Moshary, F. DOI:[10.1051/epjconf/202023708010](https://doi.org/10.1051/epjconf/202023708010)
3. **Wen, Y.** and Chambers, D. (2016). Land Cover Change in Saipan, CNMI from 1978 to 2009, *International Journal of Environment and Resource*, 2016, 5(0), 7-14. doi: 10.14355/ijer.2016.05.002.
4. **Wen, Y.** and D. Chambers. (2014). Land cover change detection in Saipan, *Technical Report 149*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
5. Sidike, A., Zhao, S. and **Wen, Y.** (2014). Estimating soil salinity in Pingluo County of China using QuickBird data and soil reflectance spectra, to be published in *International Journal of Applied Earth Observation and Geoinformation* 26 (2014) 156–175.
6. Gong, J., Y. Yue, J. Zhu, **Y. Wen**, Y. Li, J. Zhou, D. Wang and C. Yu. (2012). Impacts of Wenchuan Earthquake on the Chaping River Channel Change, *International Journal of Remote Sensing*, 33:12, 3907-3929.
7. **Wen, Y.** (2011). Impacts of Human Activities on Groundwater Quality in

- Guam, Mariana Islands, *International Journal of Environmental, Cultural, Economic and Social Sustainability*, Vol. 7, Issue 5, pp 243 - 256.
8. **Wen, Y.**, Khosrowpanah S. and Heitz L. (2011). Land Cover Change of Watersheds in Southern Guam from 1973 to 2001, *Environmental Monitoring and Assessment*, Volume 179, Number 1 – 4, 521 – 529 (DOI 10.1007/s10661-010-1760-5).
 9. **Wen, Y.** (2011). Application of Multi-temporal and Multi-source Data for Land Cover Change Detection in Guam, USA, *Proceedings of the 19th International Conference on GeoInformatics*, June 24-26, 2011, Shanghai, China.
DOI: 10.1109/GeoInformatics.2011.5981058.
 10. **Wen Y.** and Khosrowpanah, S. (2011). Application of LIDAR Data For Delineation of Inarajan Watershed In Guam, USA, *Proceedings of 1st International Workshop on Surveying and Geospatial Information Systems (SGIS2011)*, May 21 – 22, 2011, Fuxin, Liaoning, China.
 11. **Wen, Y.** (2010). GIS-based Analysis of Groundwater Quality in Guam, USA, *Proceedings of 18th International Conference on Environmental Indicators & 2010 Annual Meeting of International Society of Environmental Indicators*, September 13 – 16, 2010, Hefei, China.
 12. Khosrowpanah, S., **Wen Y.** and Taborosi D. (2010). Developing Digital Watershed Atlas of Natural Resources of Southern Guam, *Proceedings of HIC 2010*, Tianjin, China, September 7 – 11, 2010.
 13. **Wen, Y.**, Kottermair M., Golabi M. and Khosrowpanah S. (2010). Spatio-temporal Analysis of Badland Extent in Southern Guam, Mariana Islands Using Tonal Analysis, *ASPRS 2010 Annual Conference Proceedings*, San Diego, California, USA, April 26 – 30, 2010.
 14. Khosrowpanah, S., **Wen Y.** and Kottermair M. (2010). Spatial Distribution of Badlands in the Ugum Watershed: Characterization and Temporal Analysis. Technical Report No. 126, Water and Environmental Research Institute of the Western Pacific (WERI), University of Guam, Mangilao, Guam, 29 pp.
 15. **Wen, Y.** (2009). Change Detection of Land Cover in Northern Guam, in the *Proceedings of the 6th International Symposium on Digital Earth*, Beijing, China, September 9 – 12, 2009.
 16. **Wen, Y.**, Khosrowpanah S., and Heitz L. (2009). Land Cover Accuracy Assessment for Southern Guam, *Technical Report 125*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
 17. **Wen, Y.**, Khosrowpanah S., and Heitz L. (2009). Watershed Land Cover Change Detection in Guam, *Technical Report 124*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
 17. **Wen, Y.** (2008). Spatio-temporal analysis of land cover change in the coastal zone of Southern Guam, in *Proceedings of The Ninth Biennial Pan Ocean Remote Sensing Conference-PORSEC 2008 “Oceanic Manifestation of Global Changes”*, December 2 – 6, 2008, Guangzhou, China.
 18. Khosrowpanah, S., **Wen Y.**, Jocson J. and Taborosi D. (2008). Natural Resources Atlas of Southern Guam, *Technical Report 116*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
 19. Denton, G. R. W., Golabi, M., Wood, H., Iyekar, C., Concepcion, L. P. and **Wen, Y.** (2008). Impact of Ordot Dump on Water Quality of Lonfit River Basin in Central Guam II: Aqueous Chemical and Biological Contaminants, *Micronesia 40 (1/2): 149 - 167*.

20. Khosrowpanah, S., Heitz, L., **Wen, Y.** and Park M. (2007). Developing a GIS-based Soil Erosion Potential Model for the Ugum Watershed, *Technical Report 117*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
21. Denton, G.R.W., Olsen, M.C. and **Wen, Y.** (2007). Solid Waste Disposal in Guam: The Impact of an Unsanitary Landfill on the Metal Status of Adjacent Aquatic Community Representatives. *In:* Wang, Y. et al. (Eds.). *Progress in Environmental Science and Technology*, vol 1. Science Press, Beijing, pp1169-1176 .
22. Golabi, M., Denton, G., Wood, H., **Wen, Y.** and Iyekar, C. (2006). Soil Properties and Its Impact on the Mobility of Contaminants Leached Down Gradient of Ordot Landfill in Central Guam, Paper number 062151, ASAE Annual Meeting, July 9 – 12, 2006.
23. Golabi, M., Denton, G., Wood, H., **Wen, Y.** and Iyekar, C. (2006). Impact of Ordot Dump on Water Quality of Lonfit River Basin in Central Guam I, *Micronesia: 39(1):41 - 54*.
24. Denton, D., Kelly, W., Wood, H., and **Wen, Y.** (2006). Impact of Metal Enriched Leachate from Ordot Dump on the Heavy Metal Status of Biotic and Abiotic Components in Pago Bay, *Technical Report No. 113*, Water and Environmental Research Institute, University of Guam.
25. Denton, G. R.W., Golabi, M. H., Iyekar, C., Wood, H. R., and **Wen, Y.** (2005). Mobilization of Aqueous Contaminants Leached from Ordot Landfill in Surface and Subsurface Flows, *Technical Report No. 108*, Water and Environmental Research Institute of the Western Pacific, University of Guam.
26. **Wen, Y.** (2005). Spatial Diffusion Model for Simulation of Urban Land Cover Change, UMI
27. **Wen, Y.** and Wang, Y. (2004). Validation of Spatial Diffusion Model for Simulation of Suburban Sprawl, *ASPRS Annual Conference Proceedings (abstract)*, Denver, CO, May 23 –28, 2004
28. **Wen, Y.** and Wang, Y. (2004). Cell-based Dynamic Modeling of Urban Land Cover Change, the 100th Annual Meeting of the Association of American Geographers (AAG), Philadelphia, Pennsylvania, March 14-19, 2004
29. **Wen, Y.** and Wang, Y. (2003). Spatial Diffusion Modeling for Simulation of Suburban Sprawl, *ASPRS 2003 Annual Conference Proceedings*, Anchorage, AK, May 5-9, 2003
30. Wang, Y. and **Wen, Y.** (2002). Spatial Diffusion Modeling in Simulation of Suburban Sprawl: A Case Study in the Chicago Metropolitan Region, NASA's Land Cover Land Use Change (LCLUC) Program Science Team Presentation.
31. **Wen, Y.** and Wang, Y. (2002). Spatial Diffusion Modeling: A New Approach in Simulation of Urban Sprawl, *ACSM- ASPRS 2002 Annual Conference Proceedings*, Washington DC, April 19-22, 2002
32. Huang, S., Jin, J., Duan, J. and **Wen, Y.** (1999). A New Method for Estimating Variogram Parameters in Geostatistics, *Geology and Exploration*, 35(1): 41-43
33. **Wen, Y.** (1998). Geosystem Science and Its Applications in Global Environmental Changes, *Journal of Southwest Jiaotong University*, 33(5).
34. **Wen, Y.** (1998). Population Problem is very Important to the Sustainable Development in China, *Regional Sustainable Development*, a Supplement of *China Population Resources and Environment*, pp 25-27, July 1998.
35. **Wen, Y.** (1997). Dialectic View Point of Sustainable Development, *Surveying*

- and Mapping of Sichuan*, 20(4): 182-184.
36. **Wen, Y.** (1997). Applications of Fractals to Topographical Data Processing, *Proceedings of Geoinformatics Conference of the International Eurasian Academy of Sciences & the Fourth International Workshop on Geographical Information System (IEAS & WGIS)*, Beijing, August 18-22, 1997.

RECENT RESEARCH PRESENTATIONS:

1. Wen, Y. Salinity Problems in Guam, 41st CLASS Annual Research Conference: Building Strength & Sovereignty in the Pacific, University of Guam, March 6, 2020
2. Wen, Y. and J. Jenson. (2019). Impacts of Sinkholes on Salinity Level of Groundwater in Finegayan Area, Guam, USA, the 29th International Laser Radar Conference, Hefei, China, June 24-28, 2019.
3. Wen, Y. (2018). GIS-based Analysis of Salinity in Yigo-Tumon Basin, Guam, USA, 2018 International Workshop on Environment and Geoscience (IWEG 2018), Hangzhou, China, June 15-17, 2018.
4. Wen, Y. and D. Chambers. (2017a). Impacts of Land Cover Change on Groundwater Quality in Saipan, CNMI, USA, 3rd International Conference on Water Resource and Environment, Qingdao, China, June 26-29, 2017.
5. Wen, Y. and D. Chambers. (2017b). GIS-based Analysis of Groundwater Quality in Saipan, CNMI, USA, the 9th International Conference on Environmental Pollution and Public Health (EPPH 2017), Hangzhou, China, June 16-18, 2017.
6. Wen, Y. and D. Chambers. (2017). Analysis of Water Quality Data, Geospatial Pre-Conference Workshop & Training, 8th Regional Conference on Island Sustainability, Sustainability, Mangilao, Guam, April 17-21, 2017.
7. Wen, Y. and D. Chambers. (2016). Change Detection of Land Cover Change in Saipan, 37th Annual Research Conference, University of Guam, March 8, 2016.
8. Wen, Y. (2015). Land Cover Change from 1978 to 2009 in Saipan, CNMI, USA, ISPRS/GEO/ICA workshop on Trust in Spatial Data and Validation of Global Land Cover Products, Tongji University, Shanghai, China, June 5-7, 2015.
9. Wen, Y. (2015). GIS-based Analysis of Groundwater Quality Data on Guam, Plenary Panel 1: Climate Change Science and the Challenges Facing the Pacific Islands, 2015 Conference on Island Sustainability, Guam, April 15 – 16, 2015.
10. Wen, Y. (2015). *Land Cover Change in Guam*, 36th Annual Research Conference, University of Guam, March 10, 2015.
11. Wen, Y. (2011). Application of Multi-temporal and Multi-source Data for Land Cover Change Detection in Guam, USA, 19th International Conference on GeoInformatics, June 24-26, 2011, Shanghai, China.
12. Wen Y. and Khosrowpanah, S. (2011). Application of LIDAR Data For Delineation of Inarajan Watershed In Guam, USA, Proceedings of 1st International Workshop on Surveying and Geospatial Information Systems (SGIS2011), May 21 – 22, 2011, Fuxin, Liaoning, China.
13. Wen, Y. (2011). Impacts of Human Activities on Groundwater Quality in Guam, Mariana Islands, 7th International Conference on Environmental, Cultural, Economic and Social Sustainability, Hamilton, New Zealand, January 5 – 7, 2011.
14. Wen, Y., Kottermair M., Golabi M. and Khosrowpanah S. (2010). Spatio-temporal Analysis of Badland Extent in Southern Guam, Mariana Islands Using Tonal Analysis, ASPRS 2010 Annual Conference, San Diego, California, USA, April 26 – 30, 2010.
15. Wen, Y. and W. Law. (2009). Geographic Information Systems, the SBPA Research Symposium, December 4, 2009, University of Guam, Mangilao, GU
16. Wen, Y. (2009). Change Detection of Land Cover in Northern Guam, 6th International Symposium on Digital Earth, September 9 – 12, 2009, Beijing, China
17. Wen, Y., M. Kottermair (2009). *Water Quality Data Preparation for GIS Analysis*, 30th Annual College of Liberal Arts and Social Sciences (CLASS) Research Conference, University of Guam, March 10, 2009
18. Khosrowpanah, S., Y. Wen, M. Kottermair. (2009). *Spatial Distribution of Badlands in Ugum Watersheds: Characterization and Temporal Analysis*, 30th

- Annual College of Liberal Arts and Social Sciences (CLASS) Research Conference, University of Guam, March 10, 2009
19. Wen, Y., K. Khosrowpanah and L. Heitz (2008). *Land Cover Classification Accuracy Assessment in Guam*, American Association of Geographers (AAG) Annual Meeting, April 15 - 19, 2008, Boston, MA
 20. Wen, Y. (2008). *GIS Program at University of Guam*, The 3rd Pacific Association of Land Professionals Conference, Guam Community College, Mangilao, GU, March 17 – 20, 2008
 21. Wen, Y., K. Khosrowpanah and L. Heitz (2008). *Watershed Land Cover Classification Accuracy Assessment*, 29th Annual College of Liberal Arts and Social Sciences (CLASS) Research Conference, University of Guam, March 11, 2008
 22. Wen, Y. (2007). *GIS-Remote Sensing Integrated Simulation of Land Cover Change*, Workshop of Oversea Chinese Professionals in Earth Observation and Digital Earth, November 19 – 21, 2007, Beijing, China
 23. Denton, G.R.W., Olsen, M.C. and Y. Wen (2007). *Solid Waste Disposal in Guam: The Impact of an Unsanitary Landfill on the Metal Status of Adjacent Aquatic Community Representatives*, 2007 International Symposium on Environment Science and Technology, Beijing, China, November 13-16, 2007.
 24. Wen, Y., K. Khosrowpanah and L. Heitz (2007). *Watershed Land Cover Change Detection in Guam*, American Association of Geographers (AAG) Annual Meeting, April 17 – 21, 2007, San Francisco, CA
 25. Wen, Y., K. Khosrowpanah and L. Heitz (2007). *Land Cover Mapping for Southern Guam Using Satellite Imagery*, 28th Annual College of Liberal Arts and Social Sciences (CLASS) Research Conference, University of Guam, March 13, 2007
 26. Khosrowpanah, K, Y. Wen and L. Heitz (2006). *Digital Watershed Atlas for Guam*, to be presented at the 27th Annual CLASS Research Conference, University of Guam, March 14, 2006
 27. Wen, Y. (2005). *GIScience: A Powerful Tool for Geographical Data Processing and Analysis*, 26th Annual CLASS Research Conference, University of Guam, March 7-8, 2005

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