

WAI YING SHARON CHAN

EDUCATION

University of Hawai'i at Mānoa

- *M.S. Natural Resources and Environmental Management*
Concentration area: Geographic Information System & Remote sensing 2011
- *B.A. Geography*
Concentration area: Geographic Information System & Cartography 2009

EXPERIENCE

- Spring 2020- Present Junior Specialist at Department of Hawaii Natural Energy Institute, University of Hawaii at Manoa. Develop Geographic Information System (GIS) based renewable energy mapping tools for the State of Hawaii. Prepare project documentation including methods, maps, tables, results, and analysis. Prepare project summaries, reports, proposals, and technical manuscripts.
- Feb 2017-Aug 2019 Geospatial Energy Analyst at Department of Hawaii Natural Energy Institute, University of Hawaii at Manoa. Assist researcher by developing, analyzing and implementing GIS application to develop information on regional supply chains for use in creating scenarios of future alternative jet fuel production in tropical regions.
- Perform GIS analysis for 13 Eco-crops that are suitable to grow in Hawaii
 - Generate Maps and table for publishing journal articles and presentations
- 2014-Sept 2016 GIS Specialist at Department of Hawaii Natural Energy Institute, University of Hawaii at Manoa. Provide GIS application technology to generate electrical distribution spatial data and analytics for several key Grid**START** projects including the UH Manoa campus Microgrid, Smart Grid Inverters for High- Penetration PV projects, and Molokai Microgrid project.
- Digitize old drawings
 - Develop Geodatabase
 - Update Electrical Distribution system in Molokai to ensure the GIS data provided by MECO is accurate and current
 - Prepare hardcopy and online cartographic maps for teammates to verify different types of transformers in Molokai
 - Create GIS layers and maps in Maui project site to keep track the smart meter and PV installations
 - Configuring and assembling smart metering box to monitor energy usage and renewable energy generation minutely for the participated residential
- 2012-2014 Junior Researcher at Hawaii Natural Energy Institute, University of Hawaii at Manoa. Provide geographic information system-based data and create a

deliverable report necessary to assess algae/fiber/sugar production potential in Hawaii for the Hawaii Statewide GIS Program.

- Perform GIS analysis
- Maintain and update Metadata
- Prepare, generate and update GIS maps for presentations
- Create deliverable report and publish journal article

2010-2011 Graduate Research Assistant at Department of Natural Resources and Environmental Management, University of Hawaii at Manoa. Establish a GIS-based monitoring tool for detecting landscape-level changes in 11 national parks and their surrounding areas for the National Park Service. Develop a comprehensive list of GIS data sources and their layers suitable for inclusion into the GIS-based monitoring tool.

- Develop a comprehensive list of GIS data sources and their layers suitable for inclusion into the GIS-based monitoring tool
- Develop analysis procedures of the identified data sources for change detections, called standard operating procedures (SOPs)
- Generate map-based products depicting landscape-level changes using the developed analysis procedures

2008-2009 Student Intern to International Student Service (ISS) at University of Hawaii at Manoa. Assist with front desk reception, complete projects assigned by ISS advisors, creating new files for new students, and assist with student orientation.

PROFESSIONAL AFFILIATIONS

Individual member, Hawaii Geographic Information Coordinating Council (HIGICC)

EXTENDED BIBLIOGRAPHY

[1] Turn S, Chillingworth M, Chan S. 2014. A methodology to assess open pond, phototrophic algae production potential: A Hawaii case study. Journal article. Department of Hawaii Natural Energy Institute, University of Hawaii at Manoa.

[2] Turn S, Chan S. Geographic Information System Resources to Support Biomass/Bioenergy/Biofuel Decision Making. Washington, DC:U.S. Department of Energy, 2012. Contract No. DE-FC26-06NT42847