YUKI HAMADA
Environmental Science Division
Argonne National Laboratory

Education:

Ph.D.	University of Santa Barbara, San Diego State University, Geography, 2010
M.S.	San Diego State University, Geography, 2005
B.S.	San Diego State University, Geography, 2003

Professional Experience:

2010-Present Postdoctoral Appointee – Geospatial Scientist / Remote Sensing Specialist
Environmental Science Division
Argonne National Laboratory

Principal activity is the application of geospatial technologies, with emphasis on remote sensing, for environmental and ecological assessments, specifically focusing on the impacts of energy development. Associated activities include: (1) assessment of the cumulative impact of wind energy development on critical habitats, (2) analysis of the effects of hydropower operations on endangered fish population, (3) designing remote sensing applications for long-term ecological and environmental monitoring associated with solar energy development, (4) developing an ecological/geospatial model for understanding microbial diversity and distribution in terrestrial ecosystems, and (5) writing grant proposals for environmental and ecological research and projects pertaining to energy development and global climate change.

Summary of Previous Experience:

2005-2010 Research Associate
Department of Geography, San Diego State University, San Diego, CA

Developed and tested remote sensing approaches for: (1) sustainable long-term habitat monitoring using very-high to moderate resolution imagery with per-pixel, object-based, and spectral mixture models; (2) quantifying live fuel moisture for wildfire risk assessment using space-borne multispectral imagery; and (3) detecting fine-scale land-cover changes for US-Mexico border security using very-high resolution multi-temporal airborne imagery.

2003-2005 Research Assistant
NASA Affiliated Research Center at San Diego State University, San Diego, CA

Developed and tested cost-effective methods using airborne hyperspectral remote sensing for detecting, identifying, and mapping invasive plant species in riparian habitats of southern California.

2002-2003 Research Assistant
Global Energy Network Institute, San Diego, CA

Conducted and published research on geothermal energy potential along western Pacific Rim for renewable resource development.

Research Interests:

Geospatial information sciences and technologies
- Remote sensing
- Spatial statistics and pattern analysis
- Geographic Information System

Ecosystem functions and processes
Biodiversity conservation
Biogeochemical cycles
Climate change
Renewal resource development

Professional Activities:

Member of:

Association of American Geographer
American Society of Photogrammetory and Remote Sensing
U.S. Regional Association of the International Association for Landscape Ecology
Association of Environmental Professional

Publications:

Author or co-author of 25 journal, book, report, and conference publications and presentations.