

SU JIN LEE

Spatial Sciences Institute
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CURRENT POSITION

Academic Senate (2016-Present) The Dornsife Faculty Caucus, University of Southern California

Mentor (2016-Present) Undergraduate Research Associates Program, University of Southern California

Faculty Affiliate (2014-present) Population Research Center, University of Southern California

Mentor (2013-Present) NSF-funded Research Experiences for Undergraduates Program, University of Southern California

Lecturer (2012-present) Spatial Sciences Institute, University of Southern California

EDUCATION

Doctor of Philosophy (2012) Geography, University of Southern California
Dissertation Title: Effects of Home Modifications and Municipal Policies on Green Space in Los Angeles County

Master of Science (2005) Earth and Marine Sciences, Hanyang University, Korea
Thesis Title: A Study on the Precise Lineament Recovery of Alluvial Deposits Using Satellite Imagery and GIS

Bachelor of Science (2000) Earth and Marine Sciences, Hanyang University, Korea

PROFESSIONAL CERTIFICATION

Geographic Information Systems Professional (2015) GIS Certification Institute, USA

Geographic Information Systems Certificate (2007) Geography, University of Southern California

PROFESSIONAL EXPERIENCE

Student Paper Judge (2016) Student Paper Awards, Association of Pacific Coast Geographers

Technical Advisory Committee (2015-2016) Department of Parks and Recreation, Los Angeles County

Graduate Teaching Assistant (2011-2012) Spatial Sciences Institute, University of Southern California

Graduate Teaching Assistant Fellow (2009-2010) Center for Excellence in Teaching, University of Southern California

TA Mentor (2008-2010) Center for Excellence in Teaching, University of Southern California

Graduate Teaching Assistant (2007-2010) Department of Geography, University of Southern California

Visiting Scholar (2004-2006) National Center for Geographic Information and Analysis, Department of Geography, University of California Santa Barbara

Associate Researcher (2001-2004) Research Institute of Geoinformatics and Geophysics, Sejong University, Korea

Assistant Researcher (2000-2001) Research Institute of Geoinformatics and Geophysics, Sejong University, Korea

Graduate Research Assistant (2000-2001) Department of Earth and Marine Sciences, Hanyang University, Korea

HONORS AND AWARDS

Dornsife NTT Faculty Development Award (2016), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California (\$500)

Dornsife NTT Faculty Development Award (2014), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California (\$500)

AAG Student Travel Award (2011), Korean American Association for Geospatial and Environmental Sciences (\$500)

Doctoral Merit Fellowship (2010-2011), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California

Conference Travel Grant (2010-2011), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California (\$500)

Best Graduate Teaching Assistant Award - Top Six at USC (2009), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California (\$1,000)

Graduate Teaching Assistant Award (2008), Center for Excellence in Teaching (Department of Geography), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California

Doctorial Merit Fellowship (2006-2007), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California

International Research Internship Program Award (2004), Korea Science and Engineering Foundation (\$20,000)

Graduate Science Scholarship (2000-2002), Department of Earth and Marine Sciences, Hanyang University, Korea

Vice Departmental Students Representative (1994), Department of Earth and Marine Sciences, Hanyang University, Korea

Freshman Departmental Students Representative (1993), Department of Earth and Marine Sciences, Hanyang University, Korea

PUBLICATIONS

Refereed Journal Articles

Lee, S.J., Longcore, T., and Wilson, J. P. (2017) Effects of Increasing Home Size on Green Cover in Los Angeles County's Single Family Neighborhoods, *Urban Forest and Urban Greening*, <http://doi.org/10.1016/j.ufug.2017.03.004>

Sheng, J., Wilson, J., and **Lee, S.J.** (2009) Comparison of Land Surface Temperature (LST) modeled with a spatially-distributed solar radiation model (SRAD) and remotely sensing data. *Environmental Modelling & Software*, 24: 436-443

Clarke, K., and **Lee, S.J.** (2007) Spatial resolution and algorithm choice as modifiers of down-slope flow computed from Digital Elevation Models. *Cartography and Geographic Information Science*, 34: 215-230

Laboratory Manual Chapters

Lee, S.J. (2013) Hurricane Katrina: Understanding Social and Physical Vulnerability. In *Spatial LABS 2nd edition*, edited by Jim Baumann. Redlands, CA, Esri Press, DVD

Lee, S.J. (2012) Hurricane Katrina: Understanding Social and Physical Vulnerability. In *Spatial LABS 1st edition*, edited by Jim Baumann. Redlands, CA, Esri Press, DVD

Published Map

Park, W., Chiang, Y., **Lee, S.J.**, and Yu, K. (2016) Hot Spots of Tweets Related to Food, Entertainment, Work, and Study in Gangnam Area of Seoul, Korea. *Esri Map Book*, 31: 104-105

Conference and Symposium Proceedings/Papers

Lee, S.J., Longcore, T., and Wilson, J. P. (2010) Identification of Municipal Polices that Influence the Distribution of Green Cover across Metropolitan Regions. In *Proceedings of the Joint International Conference on Theory, Data Handling and Modelling in Geospatial Information Science*, Hong Kong: 513-518

Lee, S.J., and Clarke, K. (2005) Assessment of Differences in Algorithms for Computing Fundamental Topographic Parameters. In *Proceedings of AutoCarto*, Las Vegas, Nevada

Lee, S.J., Hwang, J.S., Lee, D.C., Kim, J.W., and Suk, D.W. (2003) A Study on the Precise Lineament Recovery of Alluvial Deposits Using Satellite Imagery and GIS. In *Proceedings of Asian Conference on Remote Sensing and International Symposium on Remote Sensing*, Seoul, Korea: 363-368

Hwang, J.S., Kim, S., Lee, S.H., Min K.D., Kim, J.W., and **Lee, S.J.** (2003) Observation of the Earth's 2003 Magnetic Field from KOMPSAT-1. In *Proceedings of Asian Conference on Remote Sensing and International Symposium on Remote Sensing*, Seoul, Korea: 300-307

Technical Reports

Antos, M., Hogue, T., Longcore, T., **Lee, S.J.**, Kinoshita, A., Milanes, K., Morris, K., Pincetl, S., Shilling, F., Steele, N., Vos, R., and Washburn, B. (2011) *Assessing Ecosystem Values of Watersheds in Southern California*. Los Angeles, CA, Los Angeles and San Gabriel Rivers Watershed Council

PRESENTATIONS

Paper Presentations

Mercy, K., Luevano, N., **Lee, S.J.**, and Dodd, L. (2016) Analysis of Spatial Characteristics of Freshwater Springs using Geospatial Technologies. *Association of Pacific Coast Geographers Annual Meeting*, Portland, Oregon

Lee, S.J. (2015) Teaching Spatial Data Acquisition in Online: Maximizing the Field Component. *The Esri Education Conference*, San Diego, California

Lee, S.J., Longcore T, Rich C., and Wilson J. (2015) Effects of Increased Home Size on Green Cover in Los Angeles County's Single Family Neighborhoods. *The Vespucci Conference*, the College of Atlantic, Maine

Lee, S.J., and Kim, K.H. (2014) GIS-Based Model Choice for computing Solar Irradiation from DEMs. *AutoCarto 2014*, Pittsburgh, Pennsylvania

Lee, S.J., Longcore, T., and Wilson, J. P. (2013) Estimating Land Cover Changes using Object-Oriented Image Classification and GIS-Based Spatial Analysis Techniques in Metropolitan Areas of Los Angeles County. *Annual Meeting of the Association of American Geographers*, Los Angeles, California

Lee, S.J. (2012) Changing Character of Single Family Neighborhoods in Los Angeles County. *Second Annual Los Angeles Geospatial Summit*, Los Angeles, California

Lee, S.J., Longcore, T., Clarke, K., Rich, C., and Wilson, J. P. (2011) Monitoring Urban Land Cover Change Using Remote Sensing and GIS: A Case Study Los Angeles County. *Esri International User Conference*, San Diego, California

Lee, S.J., Longcore, T., and Wilson, J. P. (2011) A Study of the Ecological Consequences of Mansionization in Los Angeles County. *Annual Meeting of the Association of American Geographers*, Seattle, Washington

Lee, S.J., Longcore, T., and Wilson, J. P. (2010) Identification of Municipal Policies that Influence the Distribution of Green Cover across Metropolitan Regions. *Joint International Conference on Theory, Data Handling and Modelling in Geospatial Information Science*, Hong Kong

Lee, S.J., Longcore, T., and Wilson, J. P. (2010) Modeling the Ecological Impacts of Mansionization in Metropolitan Regions. *Annual Meeting of the Association of American Geographers*, Washington, DC

Lee, S.J., and Clarke, K. (2005). Assessment of Differences between Algorithms for Computing Fundamental Topographic Parameters. *AutoCarto*, Las Vegas, NV

Lee, S.J., Hwang, J.S., Lee, D.C., Kim, J.W., and Suk, D.W. (2003) A Study on the Precise Lineament Recovery of Alluvial Deposits Using Satellite Imagery and GIS. *Asian Conference on Remote Sensing and International Symposium on Remote Sensing*, Seoul, Korea

Hwang, J.S., Kim, S., Lee, S.H., Min K.D., Kim, J.W., and **Lee, S.J.** (2003) Observation of the Earth's 2003 Magnetic Field from KOMPSAT-1. In *Proceedings of Asian Conference on Remote Sensing and International Symposium on Remote Sensing*, Seoul, Korea

Poster Presentations

Buth, C., Finnstrom, M., and **Lee, S.J.** (2017) Spatial Patterns of Air Pollution (PM2.5) in Los Angeles County. *19th USC Undergraduate Symposium*, Los Angeles, CA

Mercy, K., Mullarkey-Williams, L., **Lee, S.J.**, and Dodd, L. (2017) Life-Sustaining Water on Pimu/Santa Island as a Foundation for Understanding Past and Future Settlement Decisions. *19th USC Undergraduate Symposium*, Los Angeles, CA

Mercy, K., Mullarkey-Williams, L., **Lee, S.J.**, and Dodd, L. (2017) A Comparison of Hydrological Features in Different DEM Resolutions. *American Association of Geographers Annual Meeting*, Boston, MA

Mercy, K., Dodd, L., **Lee, S.J.**, Mullarkey-Williams, L., and Luevano, N. (2017) Analysis of Spatial Characteristics and Traditional Knowledge of Spring Persistence in Support Predictive Modeling. *Society for American Archaeology 82nd Annual Meeting*, Vancouver, British Columbia, Canada

Mercy, K., Luevano, N., **Lee, S.J.**, and Dodd, L., (2017) A Study on Spring Water using DEM and Geospatial Technologies. *Seventh Annual Los Angeles Geospatial Summit*, Los Angeles, CA

Luevano, N., Mercy, K., Dodd, L., and **Lee, S.J.** (2016) A Study on Spatial Distribution of Freshwater Springs using Geospatial Technologies. *Summer Undergraduate Research Symposium*, the University of Southern California, Los Angeles, CA

Cooper, J., Gilsemanm N., Reger, C., and **Lee, S.J.** (2015) Measuring Geographic Change with Geospatial Technology and Landscape Photography in Two Harbors, CALIFORNIA. *Annual Meeting of the Association of American Geographers*, Chicago, Illinois

Mercy, K., Luevano, N., **Lee, S.J.**, and Dodd, L. (2016) Analysis of Spatial Characteristics of Freshwater

Park,W.J., Chiang,Y-Y., **Lee, S.J.**, and Yu, K. (2015) Hot Spots of Tweets related to food, entertainment, work and study in Gangnam area of Seoul, Korea. *The Esri User Conference*, San Diego, California

Invited Presentations, Lectures and Seminars

Effects of Increased Home Size on Green Cover in Los Angeles County's Single Family Neighborhoods. *TreePeople*, Beverly Hills, California (May 2016)

Geospatial Technologies at SSI, Coastal Impacts Visualization Environment meeting at University of Southern California (March 2015)

Spatial Thinking and Geographic Information System Training for the Communication, Organization, Planning and Administration (COPA) Program, USC School of Social Work (September 2014)

Developing Safety Contents seminar with Korea National Disaster Management Institute at University of Southern California (July 2014)

Introduction to GIS and GPS at USC Wrigley Institute, Catalina Island, CA (June 2014)

Development of Technology on Disaster Risk Assessment and Response in Korea seminar with Korea National Disaster Management Institute, University of Southern California (September 2013)

Using LAR-IAC data in the GIST Program at the University of Southern California, LAR-IAC4 Kick Off Meeting, Los Angeles County (September 2013)

Introduction to GIS and GPS, USC Wrigley Institute, Catalina Island, CA (June 2013)

Got Geospatial? Roles of Geospatial in Natural Hazard, Hanyang University, Korea (March 2013)

Got Geospatial? Sejong University, Korea (March 2013)

Introduction to GIS and its applications, Kongjoo National University, Korea (January 2013)

An Overview of GIS technology and its application across a range of disciplines, The Mork Family and Scholars, Wrigley Institute for Environmental Study, USC Wrigley Institute, Catalina Island, CA (October 2012)

Introduction of How to Use a Trimble GPS Unit and How to Do Post Processing, Spatial Sciences Institute, University of Southern California (February 2012)

Introduction of GIS and Remote Sensing, Hanyang University, Korea (October 2010)
Identification of Municipal Polices that Influence the Distribution of Green Cover across Metropolitan Regions, Korea Institute of Geoscience and Mineral Resources, Korea (December 2009)

Webinar and Videos Presentations

General Information Session: SSCI 587-GPS/GIS Field Techniques (Webinar). Geographic Information Sciences and Technology Graduate Programs, University of Southern California (January 2013, February 2014)

General Information Session: SSCI 587-GPS/GIS Field Techniques (Webinar). Geographic Information Sciences and Technology Graduate Programs, University of Southern California (January)

GPS Short Course (Video). Geographic Information Sciences and Technology Graduate Programs, University of Southern California (October 2012)

GIS/GPS Field Techniques on Catalina Island (Video). Geographic Information Sciences and Technology Graduate Programs, University of Southern California (October 2012)

General Information Session: GIST Programs (Webinar). Geographic Information Sciences and Technology Graduate Programs, University of Southern California (September 2012)

GRANTS

Undergraduate Research Associates Program Funding (2017-2018), Dana and David Dornsife College of Letters, Arts and Sciences, University of Southern California (\$4,500)

Undergraduate Research Associates Program Funding (2016-2017), Dana and David Dornsife
College of Letters, Arts and Sciences, University of Southern California (\$6,400)

Undergraduate Research Associates Program Funding (2015-2016), Dana and David Dornsife
College of Letters, Arts and Sciences, University of Southern California (\$3,200)

TEACHING

Graduate Courses Taught as Instructor

Spatial Sciences Institute, University of Southern California

SSCI 581: Concepts for Spatial Thinking

SSCI 583: Spatial Analysis

SSCI 584: Spatial Modeling (formerly called SSCI 599: Special Topics: Spatial Modeling in
Summer 2014)

SSCI 585: Geospatial Technology Project Management

SSCI 587: Spatial Data Acquisition (formerly called 587 GPS/GIS Field Techniques until Summer
2014)

Undergraduate Course Taught as Co-Instructor

Spatial Sciences Institute, University of Southern California

SSCI 165: Sustainability Science in the City

SSCI 382: Principles of Geographic Information Science

Graduate Courses Taught as Teaching Assistant

Spatial Sciences Institute / Geography, University of Southern California

SSCI/GEOG 585: Geospatial Technology Project Management

SSCI/GEOG 587: GPS/GIS Field Techniques

SSCI/GEOG 588: Remote Sensing for GIS

Undergraduate Courses Taught as Teaching Assistant

Spatial Sciences Institute / Geography, University of Southern California

GEOG 101: Sustainability Science and Society

GEOG 260: Natural Hazards

GEOG 265: The Water Planet

Thesis Directed

2015 Mark Dustin, M.S., Geographic Information Science and Technology, University of
Southern California

Thesis Title: *Monitoring Parks with Inexpensive UAVs: Cost Benefit Analysis for
Monitoring and Maintaining Parks Facilities*

2015 Dustin Reed, M.S., Geographic Information Science and Technology, University of
Southern California

Thesis Title: *Historical Temperature Trends in Los Angeles County, California*

2015 Rachel Rodriguez, M.S., Geographic Information Science and Technology, University of Southern California

Thesis Title: *Integration of Topographic and Bathymetric Digital Elevation Model using ArcGIS Interpolation Methods: A Case Study of the Klamath River Estuary*

2014 Caroline Carl, M.S., Geographic Information Science and Technology, University of Southern California

Thesis Title: *Calculating Solar Photovoltaic Potential on Residential Rooftops in Kailua Kona, Hawaii*

Short Course as Instructor

GPS Short Course. One-day short course offered as part of Spatial Sciences Institute, University Southern California (2012-2013)

PROFESSIONAL MEMBERSHIPS

Association of American Geographers

Geographic Information Systems and Science Specialty Group

Landscape Specialty Group

Remote Sensing Specialty Group

Spatial Analysis and Modeling Specialty Group

Association of Pacific Coast Geographers

Korea-America Association for Geospatial and Environmental Sciences

Korean-American Scientists and Engineers Association

South California Geographic Information System Groups

Los Angeles Regional Geographic Information System Group

PROFESSIONAL SERVICE

Professional Journal Review

Computers and Geosciences

Environmental Earth Sciences

International Journal of Applied Geospatial Research

Transactions in GIS

Professional Service

Student Paper Judge. Association of Pacific Coast Geographers (2016)

Technical Advisory. Department of Parks and Recreation. Los Angeles County (2015-2016)

Students Search Committee. NSF-funded Research Experiences for Undergraduates (REU) Program (2013-present)

Thesis Jury. Geographic Information Science & Technology Master's SSCI 594a Thesis Research (2014-2015)

Thesis Prize Committee. Geographic Information Science & Technology Master's Thesis Prize (2012-2013)

Interviewer. USC Geographic Information System Library Fellow Search (2012-2013)

TA Fellow. USC Center for Excellent Teaching (2009-2010)