

31st May, 2018

Dear Spatial Sciences Institute Community:

As has become our pattern, we have an ever-increasing amount of good news to share from the Spatial Sciences Institute. We are delighted to congratulate:

- all students who have graduated as of the Fall 2017 and Spring 2018 and who are anticipated to graduate as of the Summer 2018 semester: 12 with a B.S. in GeoDesign; 17 with a Graduate Certificate in Geographic Information Science and Technology (GIST); 11 with a Graduate Certificate in Geospatial Intelligence; 38 with an M.S. GIST; and 8 with an M.S. in Spatial Data Science (formerly known as Spatial Informatics);
- **Lisa Cortright, Robin Franke, and Natalie Millstein** for graduating from the B.S. in GeoDesign Program with honors;
- Spatial Studies minor **Alejandro Schugurensky** as the recipient of the University's \$10,000 [Discovery Scholar](#) prize for exceptional original scholarship; designation as a [Renaissance Scholar](#) for academic excellence with a major and minor in widely separated fields of study; and recipient of the [Order of Troy](#) for academic excellence while devoting extensive time and energy to service out of the classroom;
- GeoDesign major **Alexander Chen** for designation as a [Renaissance Scholar](#) and recipient of the [Order of Troy](#);
- GeoDesign major/M.S. GIST student **Richard Windisch** as recipient of the [Order of Troy](#); induction in the Mortar Board National Senior Honor Society for superior scholarship, outstanding and continual leadership, and dedicated service to the university community; scholarship recipient from the [Pacific Southwest Region of the American Society for Photogrammetry and Remote Sensing \(ASPRS\)](#); and awardee of the [United States Geospatial Intelligence Foundation \(USGIF\) Golden Ticket](#), which supports young geospatial professionals in their professional development;
- Interdisciplinary major **Benjamin Banet (Dr. Travis Longcore, advisor)** for induction into [Phi Beta Kappa](#);
- the 50 graduates from all of our academic programs who were inaugural inductees into our



[Nu Theta Chapter of Gamma Theta Upsilon](#) (GTU), the international geographical honor society recognizing geography's next generation of leaders;

- M.S. GIST graduates **Keith C. Darby II, Alexander Fox, Sarah Godfrey, Tiffany Monique Lee, and Joseph C. Toland** for induction into [Phi Kappa Phi](#), the academic honor society which recognizes academic excellence in all branches of endeavors;
- M.S. GIST graduate **James E. Luttrull** as the recipient of the [David L. Boren Scholarship for International Study](#), funding post-baccalaureate overseas studies;
- this year's M.S. GIST Thesis Prize winners, their advisors, and committee members:
 - 1st Place to **Carrie Steves** for her thesis "Trends in the Alaskan Bottom-Trawl Fishery from 1993-2015: A GIS-Based Spatiotemporal Analysis" (**Dr. Karen K. Kemp**, advisor | **Dr. Steven D. Fleming** and **Dr. Travis Longcore**, committee members);
 - 2nd Place to **Neil Stone** for his thesis "Social Media Canvassing Using Twitter and Web GIS to Aid in Solving Crime" (**Dr. Karen K. Kemp**, advisor | **Dr. Yao-Yi Chiang** and **Dr. Jennifer Swift**, committee members); and
 - 3rd Place to **James E. Luttrull** for his thesis "Radar Horizon Estimation from Monoscopic Shadow Photogrammetry of Radar Structures: A Case Study in the South China Sea" (**Dr. Steven D. Fleming**, advisor | **Dr. John P. Wilson** and **Dr. Andrew Marx**, committee members);
- M.S. GIST student **Brian Everitt** as the [2018 USC Spatial Esri Development Center Student of the Year](#) award winner for his work "Earthquake Awareness, Response, and Recovery Web Mapping Application: A USC Wicked Problems Practicum Solution for the Older Adults of Los Angeles for Earthquake Emergency Events." Honorable mentions also were awarded to M.S. GIST student **Allen Branch** for his work "Developing Real Estate Blockchains Using GIS" and to M.S. GIST student **Phil Conner** for his work "Exploring Commercial Catch: Creating a Responsive Florida Fisheries Web GIS Using ASP.NET, the Esri JavaScript API 4.x, and Calcite Maps";
- M.S. GIST alumna **Katherine "Kelly" Wright** as the [2018 Jacques May Thesis Prize winner](#) from the American Association of Geographers (AAG) Health and Medical Geography Specialty Group for the contribution of her thesis "The Chigoe Flea Eradication Project (CFEP) and Tungiasis eLibrary Web Mapping Applications" to the health and medical geography field and the quality of her thesis methodological approach, organization, and written composition;
- M.S. Spatial Data Science student **Xin Yu** as the recipient of the travel award in the 2018 American Association of Geographers Cyberinfrastructure Specialty Group Robert Raskin

Student Competition for her work “MAPINS: An intra-city PM2.5 modeling web application using a scalable data management and analysis system integrating public multi-source data”;

- Human Security and Geospatial Intelligence minor/M.S. GIST student **Kevin Mercy** and M.S. GIST student **Jong Su Kim** for selection as USGIF Student Assistants at the [2018 GEOINT Symposium](#) in Tampa, Florida; and
- our student organization **SC Mappers** for receiving the YouthMappers [2018 Women’s Participation Award](#) for engaging a majority of female student mappers in its YouthMappers chapter leadership and membership.

Our warm congratulations also go to:

- Professor of the Practice **Karen Kemp** for her election as President-Elect for the [University Consortium for Geographic Information Science \(UCGIS\)](#), to serve as UCGIS president in 2019-2020;
- Associate Professor (Teaching) **Jennifer Swift** for being named an [Esri GIS Hero](#) for her pioneering work in ensuring student success in enterprise GIS education;
- Lecturer **An-Min Wu** for her re-election to the [USC Dornsife Faculty Council](#) for 2018-2020, serving on the only elected body that represents the interests of the USC Dornsife faculty; and
- Managing Director **Susan Kamei** as the recipient of the 2018 USC Undergraduate Student Government Community Achievement Award in recognition of her outstanding dedication to students and to the USC community and for her meaningful [contribution as a professor](#) to the educations of students of color and/or who identify as LGBTQ.

Our faculty-directed student research continues to receive notable recognition. We are very proud to acknowledge:

- all USC Spatial students and their advisors who presented their research in the USC Provost’s 2018 Undergraduate Symposium for Scholarly and Creative Work:
 - **Kevin Mercy**: “Revelations from LiDAR: Maya Ground Reconnaissance (Dr. Thomas Garrison, Dr. Kenneth Seligson, and **Dr. Steven Fleming**);
 - GeoDesign major **Harrison Knapp**: “Classification System for National Park Sites Based on Nightscape Lighting Profiles (**Dr. Travis Longcore**);

- **Lisa Cortright** with co-authors: “Characterization of Spatial and Spectral Distribution of Outdoor Lighting at the Wrigley Marine Science Center” (**Dr. Travis Longcore**);
 - GeoDesign majors **Austin Chow, Haoshi Joanna Wang,** and **Richard Windisch**: “Geospatial Applications for Residential Stormwater Capture for the City of Los Angeles” (**Dr. John P. Wilson** and **Beau MacDonald**);
 - **Benjamin Banet**: “A Photographic Light Pollution Assessment across Western Public Lands” (**Dr. Travis Longcore**);
 - GeoDesign major **Amanda Gilmore**: “Spatial Modeling of Soil Organic Carbon in Depressional Landscapes of Minnesota” (**Dr. An-Min Wu**);
 - GeoDesign major **Eliza Gutierrez-Dewar**: “Spatiotemporal Analysis of Illuminated Boats at Night” (Dr. Travis Longcore);
 - GeoDesign major **Samantha Levi**: “Targeting the historical hydrology of Pimu (Catalina) Island and questions of scale” (**Dr. Su Jin Lee** and Dr. Lynn Swartz Dodd);
 - **Kevin Mercy** and Spatial Studies minors **Monica Finnstrom, Young-Kyung Kim,** and **Lauren Mullarkey-Williams**: “Impact of municipal policies on trees in Los Angeles County” (**Dr. Su Jin Lee**);
 - GeoDesign majors **Grace Corsi** and **Julian Herren** and Human Security and Geospatial Intelligence minor **Christian Lance Rellve**: “Shade Structures of the Future: Innovative Skin Cancer Solutions” (**Dr. Darren Ruddell** and **Dr. Jennifer Swift**); and
 - **Haoshi Joanna Wang**: “Suburbanization and Spatial Inequality in Indian Housing Market” (Dr. Jefferey Sellers).
- the 2018 Undergraduate Symposium winners:
 - **Austin Chow, Haoshi Joanna Wang,** and **Richard Windisch**, first prize winners of the USC Schwarzenegger Institute Award;
 - **Grace Corsi, Julian Herren,** and **Christian Lance Rellve**, winners of the Interdisciplinary Award in the Social Sciences I category;
 - **Eliza Gutierrez-Dewar**, second prize winner in the Physical Sciences, Math, and Engineering category;

- **Benjamin Banet**, honorable mention in the Physical Sciences, Math, and Engineering category; and
- **Kevin Mercy**, honorable mention in the Humanities category.
- **Kevin Mercy's** third place prize in the [2018 USGIF GEOINT Symposium student poster competition](#) and for winning the student mapathon contest at the 2018 GEOINT Symposium sponsored by Hexagon; and
- the USC Spatial students who presented at the [2018 Los Angeles Geospatial Summit](#):
 - Population, Health and Place Ph.D. student **Johanna Avelar**: "Homelessness and Water Access Landscape";
 - **Benjamin Banet** and **Harrison Knapp**: "Parklight";
 - **Lisa Cortright**: "GeoDesign Trails Analysis for Otay Ranch";
 - Population, Health and Place Ph.D. student **Douglas Fleming**: "Space-Time Clustering of Out-of-Hospital Cardiac Arrests (OHCA) for Spatially Targeted Community Health Education in LA";
 - **Amanda Gilmore**: "Soil Carbon Quality in the Depressional Landscape of South Central Minnesota";
 - **Eliza Gutierrez-Dewar**: "Spatio-Temporal Analysis of Squid Boat Locations off the Coast of California"; and
 - **Julian Herren** and **Christian Relleve**: "SunSmart: Collaborative Civic Engagement and Service Learning Project."

In the past six months, our faculty have published numerous articles and works in a wide range of interdisciplinary areas:

- **Dr. Jennifer M. Bernstein** with co-authors: the article "[Environmental engagement in troubled times: a manifesto](#)" in *Journal of Environmental Studies and Sciences* and "[Assessing the Diversity of Contemporary Environmentalism: Time for a New Paradigm](#)" in *International Journal of Environmental Research*;
- **Dr. Yao-Yi Chiang** with co-authors: the articles "[Emerging Trends in Geospatial Artificial Intelligence \(geoAI\): Potential Applications for Environmental Epidemiology](#)" in *Environmental Health*; "[Map Archive Mining: Visual-Analytical Approaches to Explore Large Historical Map Collections](#)" in *ISPRS International Journal of Geo-Information*; "[A Matching Algorithm Based on Voronoi Diagram for Multi-Scale Polygonal Residential Areas](#)" in *IEEE*

Access; [“Next Generation Framework for Imagery Recognition and Analysis”](#) in the 1st workshop of the NSF project: S:12-S212 Conceptualization: Geospatial Software Institute (GSI), Los Angeles, California, 2017; [“SRC: A Fully Automated Geographic Feature Recognition System”](#) in *SIGSPATIAL Special*; [“Extracting Human Settlement Footprint from Historical Topographic Map Series Using Context-Based Machine Learning”](#) in *Proceedings of the International Land Use Symposium 2017*; [“Unlocking Textual Content from Historical Maps – Potentials & Applications, Trends, and Outlooks”](#) in K.C. Santosh, M. Hangarge, V. Bevilacqua, & A. Negi (Eds.), *Recent Trends in Image Processing and Pattern Recognition. Communications in Computer and information Science*;

- **Dr. Steven D. Fleming** and **Dr. Elisabeth Sedano** with co-authors: the article [“The Ethics of Volunteered Geographic Information for GEOINT Use”](#). In *2018 State and Future of GEOINT Report*, United State Geospatial Intelligence Foundation;
- **Dr. Steven D. Fleming** with co-authors: the article [“Geospatial Thinking Is Critical Thinking”](#) in *2018 State and Future of GEOINT Report*, United State Geospatial Intelligence Foundation;
- **Dr. Karen K. Kemp** and **Dr. Jennifer Swift** with M.S. GIST alumnus **Christopher D. Weidemann**: the book chapter [Geosocial Footprint and Concerns in Geoprivacy](#) in J., Thatcher, J. Eckert, J. & A. Shears (Eds.), *Thinking Big Data in Geography: New Regimes, New Research*;
- **Dr. Andrew A. Marx**: the book chapter [Using Satellites to Detect Mass Human Rights Violations: A Call to Implement an Early-Warning Detection System](#) in S. Totten (Ed.), *Last Lectures on the Prevention and Intervention of Genocide*;
- **Dr. Darren Ruddell** with co-authors: the article [“Pesticide exposure and liver cancer: a review”](#) in *Cancer Causes and Control*; and
- **Dr. John P. Wilson**: the book *Environmental Applications of Digital Terrain Modeling* (John Wiley and Sons) and with co-author: the article [Scalable evacuation routing in a dynamic environment](#) in *Computers, Environment, and Urban Systems*.

This fall we also are excited to launch five new innovative academic programs:

- the online **M.S. in Human Security and Geospatial Intelligence**;
- the residential **M.S. in Spatial Economics and Data Analysis** (offered jointly with the Department of Economics);
- the GIS track in the **M.S. in Transportation Systems Management** (offered by the Viterbi School of Engineering Civil and Environmental Engineering Department);
- the **B.S. in Global Geodesign**; and
- the minor in **GIS and Sustainability Science**.

I look forward to sharing more information with you about these new academic programs this fall. In the meantime, if you would like to learn more about any of these programs, please contact Ken Watson at watsonke@usc.edu.

As for upcoming events, we hope to see you at our annual reception at the **Esri User Conference** in San Diego on **Tuesday, July 10, 2018, 6 – 9 p.m.**, at Roy's on the waterfront; please RSVP to Stephanie Tran at transtep@usc.edu. Please also look for us in the Exhibit Hall in Booth 2308 and say hello to three of our students whom Esri selected as 2018 User Conference Student Assistants: **Monica Finnstrom, Ashley Reade, and Richard Windisch.**

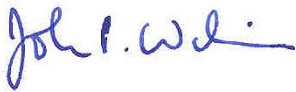
Please plan now on attending our annual **Geospatial Summit** on **Friday, February 22, 2019** at the USC Radisson and stay tuned for program and registration information this fall.

As the summer semester concludes, we extend our thanks to **Dr. Ran Tao** for his many contributions as a member of our faculty this academic year. We wish him well as he assumes a tenure-track assistant professor appointment in the School of Geosciences at the University of South Florida this August.

All that we accomplish is a function of committed and talented faculty, students, staff, and supporters, including sponsors, funders, and family members. On behalf of all of the USC Spatial faculty and staff, we thank you sincerely for your support in helping us make the world a better place with the power of spatial sciences.

We wish you and your families an enjoyable summer.

With kind regards,

A handwritten signature in blue ink that reads "John P. Wilson". The signature is written in a cursive, flowing style.

John P. Wilson
Professor and Founding Director
Spatial Sciences Institute