

# Wonmin Sohn, Ph.D., ASLA

Assistant Professor  
Landscape Architecture Program  
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Michigan State University  
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## EDUCATION

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- Ph.D.            **Urban and Regional Sciences, Department of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX, 2019**  
Dissertation: The Impact of Climate and Land Use on Urban Stormwater Runoff and Implication for Low Impact Development and Green Infrastructure
- MLA            **Department of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX, 2015**  
Final professional paper: Low Impact Development for Impervious Surface Connectivity Mitigation – Assessment of Directly Connected Impervious Area (DCIA) in the Energy Corridor District, Houston, TX
- Certificate    **Sustainable Urbanism Certificate, Texas A&M University, College Station, TX, 2015**
- BS             **Department of Landscape Architecture and Rural Systems Engineering, Seoul National University, Seoul, South Korea, 2011**  
Honors: Summa Cum Laude

## ACADEMIC & PROFESSIONAL WORK EXPERIENCE

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- 2019-Present    **Assistant Professor**, Landscape Architecture Program, School of Planning, Design & Construction, Michigan State University, East Lansing, MI
- 2016-2019      **Instructor**, Department of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
- 2014-2019      **Research Assistant**, Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
- 2017             **Research Assistant**, Landscape Ecology and Climate Change Adaptation Laboratory, Seoul National University, Seoul, South Korea
- 2015             **Teaching Assistant**, Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
- 2013-2014      **Graduate Assistant**, Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
- 2010-2012      **Research Assistant**, Landscape Ecology and Climate Change Adaptation Laboratory (previously Landscape Ecology and Geographic Information Systems Laboratory), Seoul National University, Seoul, South Korea

## HONORS & AWARDS

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### External Awards

- 2022 **CELA Academy of Fellows Outstanding Poster Award – Best Poster Award**  
Council of Educators in Landscape Architecture (CELA)
- “Landscape Performance Research to Enhance Resilience of a Vulnerable Community in Michigan,” Kim, J.-H., O’Keefe, P., **Sohn, W.**, and Kotval-Karamchandani, Z.
- 2021 **CELA Academy of Fellows Outstanding Poster Award – Best Poster Award**  
Council of Educators in Landscape Architecture (CELA)
- “Developing a Revitalization Planning and Design Guideline for Enhancing Land Use Performance of a Shrinking City,” Kim, J.-H., Yang, S., **Sohn, W.**, and Kotval-Karamchandani, Z.
- 2017 **CELA Academy of Fellows Outstanding Poster Award – Honorable Mention**  
Council of Educators in Landscape Architecture (CELA)
- “A system-oriented design approach for urban revitalization: Transit hub and mixed-use development in the Energy Corridor District, Houston, Texas, USA,” **Sohn, W.**, Kim, J.-H., Ning, S., and Kim, Y.
- 2016 **CELA Academy of Fellows Outstanding Poster Award – Best Poster Award**  
Council of Educators in Landscape Architecture (CELA)
- “Design Assessment for Sustainable Hydrologic System Development Using a Systematic Framework,” **Sohn, W.**, Kim, J.-H., and Newman, G.
- 2015 **ASLA Student Merit Award**  
American Society of Landscape Architects (ASLA)
- 2014 **University Olmsted Scholar**  
Landscape Architecture Foundation (LAF)
- Texas ASLA Student Design Competition Merit Awards (2 Awards)**  
Texas Chapter of the American Society of Landscape Architects (ASLA)
- “Eco-Radiation of Cross Creek Ranch: A System-Oriented Community,” **Sohn, W.**, Zhang, Y., Wang, Y., and Li, Z.
  - “Infiltr[Action]: Groundwater Infiltration as a SmartWater Use Strategy,” **Sohn, W.**, Guo, R., and Su, X.
- 2013 **Texas ASLA Student Design Competition Award – Honorable Mention**  
Texas Chapter of the American Society of Landscape Architects (ASLA)
- “Healing Veterans with Honor,” **Sohn, W.**, Danielson, D., LaCroix, R., and Garcia, V.
- 2010 **Design Award – Honorable Mention**  
7<sup>th</sup> National Exhibition of Korean Landscape Architecture, Seoul, South Korea
- “1.7% Interfacing,” **Sohn, W.**, Jang, Y., and Choi, S.
- National Science & Technology Scholarship**  
Korea Student Aid Foundation, Seoul, South Korea
- 2007; 2009 **External Scholarships for Academic Excellence and Achievement**  
Korea Student Aid Foundation, Seoul, South Korea

### Internal Awards

- 2017-2018 **Schob Nature Preserve Scholarship**  
Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
- 2017 **GIS Day Poster Award – Audience Favorite Prize**  
Texas A&M University Libraries, College Station, TX

- “Landscape Water Budget Tool,” Lewis, A., Higgins, K., Potts, G., Rose, R., Noble, J., and Sohn, W.

2016-2017	<b>Urban and Regional Science Doctoral Departmental Scholarship</b> Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
2015-2016	<b>University Top-Off Scholarship</b> Texas A&M University, College Station, TX
2014-2015	<b>Landscape Architecture Development Scholarship</b> Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX <b>Department Head Award - Department Head Prize</b> Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
2013-2014	<b>Gene Schrickel Jr. '50 Endowed Scholarship</b> Dept. of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
2011	<b>Summa Cum Laude</b> College of Agriculture and Life Science, Seoul National University, Seoul, South Korea <b>The Best Honor Graduate &amp; Grand Prize</b> Dept. of Landscape Architecture and Rural System Engineering, Seoul National University, Seoul, South Korea <b>CALS Study Abroad Scholarship</b> College of Agriculture and Life Science (CALS), Seoul National University, Seoul, South Korea
2008; 2009	<b>University Scholarships for Academic Excellence and Achievement</b> Seoul National University, Seoul, South Korea

## PUBLICATIONS

*Peer-reviewed Journal Articles* (Denotes \*advisee, \*\* student collaborator)

- Sohn, W.**, and Kotval-Karamchandani, Z. (Under Review). Compound Emergencies: Flood Evacuation and Sheltering during the COVID-19 Pandemic. *Sustainable Cities and Society*.
- Bae, C.\*\*, **Sohn, W.**, and Lee, D. (Under Review). Quantifying the Effects of Green-Gray Infrastructure at the Urban Catchment Scale under Various Rainfall Patterns. *Urban Climate*.
- Park, S.\*\*, Lee, D., **Sohn, W.**, and Piao, Y.\*\* (Under Review). Adaptive Strategies to Future Coastal Flooding: Performance Evaluation of Green and Gray Infrastructure in South Korea. *Journal of Environmental Management*.
- Shevela, B.\*\*, Kim, J.-H., **Sohn, W.**, and Durst, N. (2022). The Reclamation of An Industrial Site and Design Impacts on Environmental, Social, and Economic Resilience. *Journal of People, Plants, and Environment*. 25(2), 123-132.
- Woodruff, S., Bae, J.\*\*, **Sohn, W.**, Newman, G., Tran, T.\*\*, Lee, J.\*\*, Wilkins, C.\*\*, Van Zandt, S., and Ndubisi, F. (2022). Planning, Development Pressure, and Change in Green Infrastructure Quantity and Configuration in Coastal Texas. *Land Use Policy*. 114(105893), 1-11. Impact Factor (IF): 6.2
- Park, J., Kim, J.-H., **Sohn, W.**, and Li, M.-H. (2022). Cooling Ranges for Urban Heat Mitigation: Continuous Cooling Effects along the Edges of Small Greenspaces. *Landscape and Ecological Engineering*. 18(1), 31-43. IF: 2.1
- Sohn, W.**, Bae, J.\*\*, and Newman, G. (2021). Green Infrastructure for Coastal Flood Protection: The Longitudinal Impacts of Green Infrastructure Patterns on Flood Damage. *Applied Geography*. 135(102565), 1-11. IF: 4.7
- Bae, J.\*\*, **Sohn, W.**, Newman, G., Gu, D., Woodruff, S., Van Zandt, S., Ndubisi, F., Wilkins, C.\*\*, Lee, J.\*\*, and Tran, T.\*\* (2021). A Longitudinal Assessment of Green Infrastructure Quantity and Quality in Coastal Texan Cities. *Urban Forestry and Urban Greening*. 65(127315), 1-12. IF: 5.8
- Park, J., Kim, J.-H., **Sohn, W.**, and Lee, D.-K. (2021). Cooling Factors: Do Small Greenspaces Outperform Building Shade in Mitigating Urban Heat Island Effects? *Urban Forestry and Urban Greening*. 64(127256), 1-11. IF: 5.8
- Sohn, W.**, Brody, S., Kim, J.-H., Li, and M.-H. (2020). How Effective Are Drainage Systems in Mitigating Flood Losses? *Cities*. 107(102917), 1-9. IF: 6.1
- Sohn, W.**, Kim, J.-H., Li, M.-H., Brown, R., and Jaber, F. (2020). How Does Increasing Impervious Surfaces Affect Urban Flooding in Response to Climate Variability? *Ecological Indicators*. 118(106774), 1-12. IF: 6.3
- Sohn, W.**, Kim, H., Kim, J.-H., and Li, M.-H. (2020). The Capitalized Amenity of Green Infrastructure in Single-Family Housing Values: An Application of the Spatial Hedonic Pricing Method. *Urban Forestry and Urban Greening*. 49(126643), 1-10. IF: 5.8
- Yang, S.\*\*, Kim, J.-H., **Sohn, W.**, Kotval-Karamchandani, Z. (2020). Developing a Revitalization Planning and Design Guideline for Enhancing Land Use Performance of a Shrinking City. *Journal of People, Plants, and Environment*. 23(4), 387-398.
- Sohn, W.**, Kim, J.-H., Li, M.-H., and Brown, R. (2019). The Influence of Climate on the Effectiveness of Low Impact Development: A Systematic Review. *Journal of Environmental Management*. 236, 365-379. IF: 8.9
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2017). Low Impact Development for Impervious Surface Connectivity Mitigation: Assessment of Directly Connected Impervious Area (DCIA). *Journal of Environmental Planning and Management*. 60(10), 1-19. IF: 2.7
- Kim, J.-H., Gu, D., **Sohn, W.**, Kil, S.-H., Kim, H., and Lee, D.-K. (2016). Neighborhood Landscape Spatial Patterns and Land Surface Temperature: An Empirical Study on Single-Family Residential Areas in Austin, Texas. *International Journal of Environmental Research and Public Health*. 13, 880. IF: 4.6

Kim, J.-H., Lee, C., and **Sohn, W.** (2016). Urban Natural Environments, Obesity, and Health-related Quality of Life among Hispanic Children Living in Inner-city Neighborhoods. *International Journal of Environmental Research and Public Health*. 13(1), 121. IF: 4.6

Kim, J.-H., Ning, S., **Sohn, W.**, Newman, G., and Thomas, M. (2015). The Energy Corridor District Comprehensive Master Plan, Houston, Texas, USA. *Landscape Architecture Frontiers*. 3(5), 82-97.

Newman, G., **Sohn, W.**, and Li, M.-H. (2014). Performance Evaluation of Low Impact Development: Groundwater Infiltration in a Drought Prone Landscape. *Landscape Architecture Frontiers*. 2(4), 122-133.

### **Manuscripts in Preparation**

**Sohn, W.**, Kim, J.-H., Li, M.-H. (In preparation). The Effect of Land Use Configuration on Surface Runoff under Varying Climate Conditions.

Xu, Z.\*, and **Sohn, W.** (In preparation). A Longitudinal Assessment of Development and Green Infrastructure Quantity and Quality in Growing and Shrinking US Metropolitan Areas.

Kim, J.-H., Li, W., and **Sohn, W.** (In preparation). Neighborhood Landscape Spatial Patterns and Housing Market Values in Urban and Suburban Regions.

Song, Y., Lee, C., Tao, Z., Lee, R., Newman, G., Ding, Y., Jessica, F., and **Sohn, W.** (In preparation). COVID-19 Impact on Campus Uses: A Place-Based Study of Mobility Data from Three Universities in Texas.

### **Book Chapter in Preparation**

**Sohn, W.** (In preparation). Chapter 11. Green Infrastructure for Climate Change and Risk Adaptation. In: Climate Risk and Insurance (In Korean).

### **Peer-reviewed Conference Proceedings**

**Sohn, W.**, Kim, J.-H., and Li, M.-H. (2015). Low Impact Development Applications in Urban Watersheds: Efficacy Evaluation by Imperviousness Connectivity Estimations. *True Smart and Green City?* Proceedings of the 8th International Conference of the International Forum on Urbanism (IFoU).

**Sohn, W.**, Kim, J.-H., and Newman, G. (2014). A BLUEprint for Stormwater Infrastructure Design: Implementation and Efficacy of LID. *Landscape Research Record*. 2, 50-61.

### **Peer-reviewed Published Abstracts**

Lee, C., Newman, G., Li, D., Song, Y., Lee, R.J., **Sohn, W.**, Lee, S., Ding, Y.\*\* (Under Review). Panel: Landscape Architecture for Health: Student Health and Campus Environment in Higher Education. Council of Educators in Landscape Architecture (CELA).

**Sohn, W.**, and Kotval-Karamchandani, Z. (Under Review). Survey on Flood Evacuation and Sheltering Choices during the COVID-19 Pandemic. Council of Educators in Landscape Architecture (CELA).

Kreiner, M.\*, **Sohn, W.**, Kim, J.-H., and Tongbin, T. (Under Review). Community Green Network Development by Restoring Natural Habitats: Applying Pollinator Garden Design. Council of Educators in Landscape Architecture (CELA).

Xu, Z.\*, Karimi, S.\*\*, **Sohn, W.**, and Kim, J.-H. (Under Review). A Systematic Assessment Framework of Assessing Climate Vulnerability and Resilience for Shrinking Cities. Council of Educators in Landscape Architecture (CELA).

Kim, J.-H., Shevela, B.\*\*, **Sohn, W.**, and Durst, N. (Under Review). Landscape Performance Research for Assessing Design Impact. Council of Educators in Landscape Architecture (CELA).

Xu, Z.\*, and **Sohn, W.** (2022). Are Limiting Total Impervious Areas (TIA) and Improving Green Infrastructure Connectivity Effective for Flooding Control in Both Growing and Shrinking Cities? American Geophysical Union (AGU), December 12-16, Chicago, IL.

Park, S.\*\*, **Sohn, W.**, Piao, Y.\*\*, and Lee, D. (2022) Performance Evaluation of Adaptation Strategies for Coastal Flood

- Risk Management under Climate Change. Korea Insurance Joint Conference, August 19, Seoul, South Korea.
- Lee, R., Newman, G., Lee, C., Song, Y., Xu, Z.\*, **Sohn, W.**, Ding, Y.\*\*, and Li, D. (2022) Green Infrastructure and Campus Health: Examining the Characteristics of College Campus Users. Environmental Design Research Association (EDRA), June 1-4, Greenville, SC.
- Sohn, W.**, Bae, J.\*\*, and Newman, G. (2022). The Role of Green Infrastructure Configuration for Adapting to Coastal Flood Risk. Council of Educators in Landscape Architecture (CELA), March 16-19, Santa Ana Pueblo, NM.
- Xu, Z.\*, and **Sohn, W.** (2022). Land use drivers for flooding in Midwest: Longitudinal assessment of land use composition and configuration in growing and depopulating regions. Council of Educators in Landscape Architecture (CELA), March 16-19, Santa Ana Pueblo, NM.
- Kim, J.-H., O'Keefe, P.\*, **Sohn, W.**, and Kotval-Karamchandani, Z. (2022). Landscape Performance Research to Enhance Resilience of a Vulnerable Community in Michigan. Council of Educators in Landscape Architecture (CELA), March 16-19, Santa Ana Pueblo, NM.
- Bae, J.\*\*, Newman, G., and **Sohn, W.** (2021). A Longitudinal Assessment of Urban Green Infrastructure Conditions across Coastal Texan Cities. Association of Collegiate Schools of Planning (ACSP), Oct. 7-8 and 21-23, (virtual conference).
- Sohn, W.**, Brody, S., Kim, J.-H., and Li, M.-H. (2021). How Effective Are Drainage Systems in Mitigating Flood Losses? Council of Educators in Landscape Architecture (CELA), March 17-19 (virtual conference).
- Park, J., Kim, J.-H., **Sohn, W.**, and Lee, D. (2021). Do Small Green Spaces Cool Down Urban Air Temperature More Than Building-Shaded Spaces in Summer? Council of Educators in Landscape Architecture (CELA), March 17-19 (virtual conference).
- Kim, J.-H., Yang, S.\*\*, **Sohn, W.**, and Kotval-Karamchandani, Z. (2021). Developing a Revitalization Planning and Design Guideline for Enhancing Land Use Performance of a Shrinking City. Council of Educators in Landscape Architecture (CELA), March 17-19 (virtual conference).
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2020). Hydraulic Connectivity of Impervious Surfaces as a Key Indicator of Urban Flood Control. American Geophysical Union (AGU), Dec. 1-17, (virtual conference).
- Sohn, W.**, Kim, J.-H., Li, M.-H., Brown, R., and Jaber, F. (2020). The Effect of Imperviousness on Surface Runoff under Varying Climate Conditions. Council of Educators in Landscape Architecture (CELA), March 18-21, Louisville, KY (physical conference cancelled).
- Sohn, W.**, Kim, H.-W., Kim, J.-H., and Li, M.-H. (2019). Assessing the Capitalization Effects of Retention and Detention Ponds on Single-Family Housing Values. Council of Educators in Landscape Architecture (CELA), March 6-9, Sacramento, CA.
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2018). The Impact of Climatic Factors on the Efficiency of Low Impact Development: A Systematical Review of Empirical and Methodological Research. Council of Educators in Landscape Architecture (CELA), March 21-24, Blacksburg, VA.
- Tao, Z., **Sohn, W.**, Wang, R., Cao, L., Newman, G., Li, M.-H., Arnold, M.A., and Kim, J.-H. (2018). Aggie B.L.U.E.print Laboratories: A Multi-Disciplinary Teaching and Service Learning Opportunity. Council of Educators in Landscape Architecture (CELA), March 21-24, Blacksburg, VA.
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2017). What Factors Determine the Effectiveness of Low Impact Development Practices?: A Review of Current Literature. Council of Educators in Landscape Architecture (CELA), May 26-29, Beijing, China.
- Sohn, W.**, Kim, J.-H., Ning, S., and Kim, Y. (2017). A System-oriented Design Approach for Urban Revitalization: Transit Hub and Mixed-Use Development in the Energy Corridor District, Houston, Texas, USA. Council of Educators in Landscape Architecture (CELA), May 26-29, Beijing, China.
- Kim, J.-H., Gu, D., **Sohn, W.**, Kil, S.-H., Kim, H., and Lee, D.-K. (2017). Neighborhood Landscape Spatial Patterns and Land Surface Temperature: An Empirical Study on Single-Family Residential Areas in Austin, Texas. Council of Educators in Landscape Architecture (CELA), May 26-29, Beijing, China.

- Kim, J.-H., Lee, C., and **Sohn, W.** (2016). Urban Natural Environments, Obesity, and Health-related Quality of Life among Hispanic Children Living in Inner-city Neighborhoods. Council of Educators in Landscape Architecture (CELA), March 23-26, Logan, UT.
- Sohn, W.**, Kim, J.-H., and Newman, G. (2016). Design Assessment for Sustainable Hydrologic System Development using a Systematic Framework. Council of Educators in Landscape Architecture (CELA), March 23-26, Logan, UT.
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2015). Low Impact Development Applications in Urban Watersheds: Efficacy Evaluation by Imperviousness Connectivity Estimations. International Forum on Urbanism (IFoU), June, 22-24, Incheon, South Korea.
- Sohn, W.**, Guo, R., and Kim, J.-H. (2015). Multi-functional Infiltration: WaterSmart Management for Campus Landscape. Environmental Design Research Association (EDRA), May 27-30, Los Angeles, CA.
- Sohn, W.**, Kim, J.-H., and Newman, G. (2015). Groundwater Infiltration as a WaterSmart Use Strategy: Performance Evaluation of Low Impact Development in Conroe, Texas. Council of Educators in Landscape Architecture (CELA), March 24-28, Manhattan, KS.
- Sohn, W.**, Kim, J.-H., and Li, M.-H. (2015). Low Impact Development for Impervious Surface Connectivity Mitigation: Assessment of Directly Connected Impervious Area (DCIA) in the Energy Corridor District, Houston, TX. Council of Educators in Landscape Architecture (CELA), March 24-28, Manhattan, KS.
- Sohn, W.**, Kim, J.-H., and Newman, G. (2015). An Efficacy Assessment Model for Integrated LID Designs: Application to Three LID Based Projects in Texas. International LID Conference of the American Society of Civil Engineers (ASCE), January 19-21, Houston, TX.
- Sohn, W.**, Kim, J.-H., and Newman, G. (2014). A BLUEprint for Stormwater Infrastructure Design: Implementation and Efficacy of LID. Council of Educators in Landscape Architecture (CELA), March 26-30, Baltimore, MD.
- Sohn, W.**, Kim, J.-H., Bardenhagen, E., Newman, G., Zhang, Y., Wang, Y., Li, Z., and Baumgarten, M. (2014). Systems-Oriented Design Approach for Creating a Walkable and Sustainable Community. Council of Educators in Landscape Architecture (CELA), March 26-30, Baltimore, MD.

### **Other Publications and Technical Reports**

- Sohn, W.**, Kotval-Karamchandani, Z., Ruemenapp, M., Schertzing, P., et al. (2020). Climate Extremes and the COVID-19 Pandemic: Advancing the Resilience of Michigan Communities to Compound Hazards. Institute for Public Policy and Social Research, Michigan State University.
- Kim, J.-H., Ning, S., **Sohn, W.**, Thomas, M, et al. (2015). A Great Place to Live, Work, And Entertain: The Energy Corridor District Comprehensive Master Plan. The Energy Corridor District, Houston, TX.

## **GRANTS**

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### **Extramural Research Grants**

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| 2021-2024 | <b>Principal Investigator</b> , “Development of Comprehensive Climate Vulnerability and Resilience Capacity Indexes for Enhancing Urban Recovery in Midwestern Communities” funded by the US Department of Housing and Urban Development. Co-PI: Kim., J.-H. <u>\$326,146</u> (\$163,073 from matching). |
| 2022-2023 | <b>Co-Principal Investigator</b> , “Sustainable Park Design and Planning Project” funded by the Michigan Department of Natural Resources. PI: Kim, J.-H. <u>\$30,000</u> .   |
| 2021-2022 | <b>Principal Investigator</b> , “Longitudinal Assessment of Development Composition and Spatial Patterns of Green Infrastructure for Effective Flood Control in Growing and Shrinking US Metropolitan Areas” funded by the Council of Educators in Landscape Architecture, CLASS Fund. <u>\$25,000</u> . |

- Co-Principal Investigator**, “Sustainable Park Design Vision Plan” funded by the Michigan Department of Natural Resources. PI: Kim, J.-H. \$30,000.
- 2020 **Co-Principal Investigator**, “A Case Study of Community Resilience Planning and Design Guideline for Vulnerable Urban Areas” funded by the Architecture and Urban Research Institute, South Korea. PI: Kim, J.-H., Co-PIs: Sohn, W., Lee, E., & Park, J. \$25,000.
- 2018 **Principal Investigator**, “The Impact of Climate Conditions on the Urbanization-Runoff Process and Implications for Low Impact Development” funded by the Texas Water Resources Institute. \$5,000.
- 2018-2019 **Research Assistant**, “Green Infrastructure Plans for Flood and Storm Water Hazards Reduction in the Texas Coastal Region” funded by the Texas Sea Grant and National Oceanic and Atmospheric Administration. PI: Van Zandt, S., and Co-PIs: Newman, G. & Woodruff, S. \$222,516.
- 2017 Summer **Research Assistant**, “Ecological Impact Assessment of Land Development” funded by the Korea Forest Service. PI: Lee, D. \$402,600.

### ***Intramural Research Grants***

- 2021-2022 **Principal Investigator**, “Climate Extremes and the COVID-19 Pandemic: Advancing the Resilience of Michigan Communities to Compound Hazards” funded by the Institute for Public Policy and Social Research, Michigan State University. Co-PIs: Kotval-Karamchandani, Z., Ruemenapp, M., and Schertzing, P. \$30,000.
- 2016-2019 **Research Assistant**, “Aggie B.L.U.E.print Laboratories: Building Lasting University Environments” funded by the Tier One Program (TOP) Interdisciplinary Education Grant, Texas A&M University. PIs: Newman, G., Kim, J.-H., Li, M.-H., Arnold, M., & Chu, K.H. \$300,000.

### ***Teaching Grants***

- 2021-2022 **Co-Principal Investigator**, “SPDC Classroom Upgrades for Hybrid Instructions,” Teaching and Learning Environment (TLE) Grant, Michigan State University. PIs: Zhao, D. and Balluff, W., and Co-PIs: Sohn, W., Kotval-Karamchandani, Z., and Nubani, L. \$58,000.

## **OTHER RESEARCH**

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### ***Selected Media Coverage***

- 2021 A newsletter published by the College of Agriculture and Natural Resources, Michigan State University  
<https://www.canr.msu.edu/news/building-resilience-to-compound-hazard-risks>
- Interview published in *Conservation Matters* by the Texas Water Resources Institute  
<https://twri.tamu.edu/news/2021/february/soaking-up-rising-floodwaters-in-growing-cities/>
- 2013 TX ASLA award-winning design introduced in *The Architecture Newspaper*  
<https://archpaper.com/2013/07/water-aggies/>

### ***Invited Presentations***

- 2022 ***Tropical Cyclone Risk and Loss Prediction under Climate Change (Panelist)***  
Korean Risk Management Society, Seoul, South Korea
- Natural Disasters and Climate Change (Panelist)***  
Korean Risk Management Society, Seoul, South Korea
- 2021 ***The Role of Green Infrastructure for Climate Change Protection***  
University of Seoul, Seoul, South Korea

***Climate Impacts on the Effectiveness of Green Infrastructure***

Seoul National University, Seoul, South Korea

***Green Infrastructure for Flood Mitigation***

The Korean Institute of Landscape Architecture, Seoul, South Korea

***Invited Guest Lectures***

- 2020-2021      ***Systematic Literature Review for Scientific Research***  
CMP 893 Research Methods in Built Environment, Michigan State University, East Lansing, MI
- 2017            ***Graphical Communication for Urban Design***  
URPN 483 Studio in Urban & Regional Science, Texas A&M University, College Station, TX
- Quantitative Design Assessment of Low Impact Development Projects***  
LAND 312 Landscape Design IV, Texas A&M University, College Station, TX
- Site Analysis and Inventory for Urban Design***  
URPN 483 Studio in Urban & Regional Science, Texas A&M University, College Station, TX
- 2015            ***Introduction to Landscape Design***  
LAND 101 Introduction to Landscape Architecture Practices, Texas A&M University, College Station, TX
- 2014            ***Methods to Measure Benefits of Low Impact Development Projects***  
LAND 312 Landscape Design IV, Texas A&M University, College Station, TX
- Practices in Landscape Architecture***  
Youth Adventure Program: Summer Design Camp for High School Students, Texas A&M University, College Station, TX

## TEACHING EXPERIENCE

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### Michigan State University (Assistant Professor, 2019-Present)

- LA 230 Site Construction Materials and Methods: Introductory Site Engineering (4 credits, 2<sup>nd</sup> year LA undergraduate students)  
Introductory landscape construction course focusing on basic landform drainage principles, construction sequencing, structural composition, and the principal uses of landscape materials.
- LA 231 Landscape Site Engineering: Intermediate Site Engineering (4 credits, 2<sup>nd</sup> year LA undergraduate students)  
Intermediate landscape construction course focusing on earth-bound elements and sustainable water management techniques in landscape development: landform, cut and fill computations, road alignment, basic hydraulics and hydrology, stormwater management, applications of low impact development.
- LA 447 Juried Design Studio (5 credits, 4<sup>th</sup> year LA undergraduate students)  
Advanced landscape design studio stressing the process of defining, developing, and carrying out an extensive and detailed project based on a real site, program needs, and input from multiple stakeholders.
- LA/HRT 883 Environmental Design Seminar (3 credits, graduate students)  
Graduate seminar focusing on theoretical concepts and assessment methodologies of environmental planning, design, and management from ecological, social, and economic perspectives.

### Texas A&M University (Instructor, 2016-2019)

- LAND 231 Landscape Construction I: Introductory Site Engineering (4 credits, 2<sup>nd</sup> year LAND undergraduate students)  
Landscape construction and site engineering course focusing on aspects of site engineering and consideration of earth-bound elements in land development; contours, landform, grading design, drainage principles, cut and fill computations, basic hydraulics and hydrology, stormwater management.
- LAND 331 Landscape Construction III: Advanced Site Engineering (4 credits, 3<sup>rd</sup> year LAND undergraduate students)  
Advanced landscape construction course focusing on sustainable water management techniques in landscape development; theory, principles, and techniques of low impact development; construction document preparation, working drawings, project layout and design; theory and principles of irrigation design.
- URPN 483 Design Studio in Urban & Regional Science: Introductory Urban Design Studio for Sustainable Development (1-6 credits, 3<sup>rd</sup> and 4<sup>th</sup> year URPN undergraduate students)  
Urban design studio introducing concepts of urban form and the confluence of ecological, environmental, economic, social, and cultural forces impacting the planning, design, and development of complex urban environments; comprehensive site analysis, land planning, and design practices.
- URPN 220 Digital Communication I: Integrating Technology into Site Design (3 credits, 1<sup>st</sup> and 2<sup>nd</sup> year URPN undergraduate students)  
Digital graphic communication course introducing concepts and principles of graphic composition; applications of computer graphics and rendering in landscape architecture and urban design using diverse visualization software (e.g., AutoCAD, Photoshop, SketchUp, and InDesign).

### Texas A&M University (Teaching Assistant, 2015)

- LAND 311 Landscape Design III: Advanced Landscape Design Studio for Urban Resiliency (Instructors: Drs. Newman and Hurst; 5 credits, 3<sup>rd</sup> year LAND undergraduate students)  
Advanced landscape design studio focusing on the design process, sustainable landscape design, synthesis,

and design refinement.

## DESIGN PROJECTS & ACTIVITIES

### *Selected Service-Learning Projects*

2022 Fall	Sustainable Park Design and Planning Project for Belle Isle in Detroit, MI in LA 447 Juried Design Studio (supported by the Michigan Department of Natural Resources).
2021 Fall	Sustainable Park Design Vision Plan for Belle Isle in Detroit, MI in LA 447 Juried Design Studio (supported by the Michigan Department of Natural Resources).

## GRADUATE COMMITTEES

Student	Faculty Role	Degree Sought	Topic/Title	(Expected) Year of Graduation
Mohsen Shahmohammadi	Chair	PhD	Green roof agrivoltaic for energy saving and food production	(2026)
Zhicheng Xu	Chair	PhD	Urban stormwater management and green infrastructure	(2024)
Quenton Bortmas	Chair	MED	Contemporary trends and issues in landscape architecture practices: A case study of a national survey	(2024)
Rachael Rye	Chair	MED	Green stormwater infrastructure for water quality improvement	(2024)
Dustin Krise	Chair	MED	Scenario-based green infrastructure design for enhancing community resilience to climate change	(2023)
Mitch Kreiner	Co-chair	MED	Design guideline development for pollinator habitats	2022
Bridget Guminik	Member	MED	Sustainable public place development with community participant process: A case study of Belle Isle State Park, MI	2022
Brooke Shevela	Member	MED	Design decline: The reclamation of an industrial site and the design impacts on environmental, social, and economic resilience	2022
Elijah Lentz	Member	MED	Outdoor sports and public space	2022
Ted Cook	Member	MED	Rightsizing Urban Greenspace for Maximum Value	2022
Paige O'Keefe	Co-chair	MED	Landscape performance research to enhance resilience of a vulnerable community in Michigan	2021
Amanda Wakefield	Member	MED	Implementing green infrastructure for restoring the Red Cedar River	2020
Shu Yang	Member	MED	Developing a revitalization planning and design guideline for enhancing land use performance of a shrinking city	2020

## EXTERNAL EXAMINER

Student	University	Degree Sought	Topic/Title	(Expected) Year of Graduation
Chaeyoung Bae	Seoul National University, South Korea	PhD	Flood mitigation effect of green-gray infrastructure in an urban area	2022

## STUDENT AWARDS

2022	<b>Honorable Mention (3<sup>rd</sup> Place) in the Master Plan Category</b> , Environmental Protection Agency (EPA)'s 10 <sup>th</sup> annual Campus RainWorks Challenge for the Student Research & Design Project "[Re] - Forms: A Master Plan for Michigan State University," Students: Kyle Trautmann, Avery Smothermon, and Joseph Jennings, Faculty Advisor: Jun-Hyun Kim and Wonmin Sohn
2020	<b>Honorable Mention (3<sup>rd</sup> Place) in the Master Plan Category</b> , Environmental Protection Agency (EPA) 's 8 <sup>th</sup> annual Campus RainWorks Challenge for the Student Research & Design Project "Blue Lines: Rethinking Water Sustainability on Campus," Students: Amanda Wakefield, Mitchell Kreiner, Angela Yuan, and Sam Linebaugh, Faculty Advisor: Jun-Hyun Kim, Wonmin Sohn, Ruth Kline-Robach, and Ming-Han Li.

## PROFESSIONAL CONTRIBUTIONS

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### *Society Membership*

2020-present	Member, American Geophysical Union (AGU)
2019-Present	Member, Council of Educators in Landscape Architecture (CELA) Member, American Society of Landscape Architects (ASLA) Member, Michigan Chapter of the American Society of Landscape Architects (MiASLA)

### *Grant Proposals Review*

2021	Review panel member, National Science Foundation
2019	Proposal reviewer, Annual Small Grants Program by Illinois Water Resources Center

### *Journal Papers/Conference Abstracts Review*

2022	Manuscript review, Water
2021	Manuscript review, Landscape and Urban Planning Manuscript review, Water
2020	Manuscript review, Landscape and Ecological Engineering Manuscript review, Journal of Hydrology Manuscript review, Water
2019	Abstract review, Council of Educators in Landscape Architecture 2020 Conference (Urban Design Track)

## CAMPUS CONTRIBUTIONS

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### *University Level*

2020-Present	Affiliated Faculty, Environmental Science & Policy Program, Michigan State University Affiliated Faculty, Institute of Water Research, Michigan State University Member, Diversity Research Network (DRN), Michigan State University
2019-Present	Faculty Fellow, Microclimatic Design Research Group, Texas A&M University

### *School and Program Level at MSU*

2022-Present	Member, School Advisory Council
2022-2023	Member, LA Program Faculty Search Committee (Tenure Stream Assistant Prof.)
2021-Present	Advisor, LAF Olmsted Scholar Nomination
2019-Present	Member, Technology Ad Hoc Committee Member, PDC PhD Program Application Review Committee Member, MED Program Application Review Committee