March 2022

CHEOLHEE YOO , PH.D

yoclhe@unist.ac.kr
Web: Cheolheeyoo.com
Phone: (+82)10-9238-8065

RESEARCH AREA

- Remote sensing of urban climate
- Spatial Analysis and Modeling
- Artificial intelligence

EDUCATION

Mar.2017 – Feb.2022

Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea
Combined Master's-Doctoral Course, Major: Environmental Science and Engineering
GPA: 4.23/4.3

Mar.2013 – Feb.2017

Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea
B.S., Double Major: Environmental Science and Engineering, Disaster Management Engineering
GPA: 4.02/4.3, Graduated Summa Cum Laude

RESEARCH EXPERIENCE AND ACTIVITIES

- **Research Intern** in RIKEN Center for Advanced Intelligence Project (AIP), Japan (January-March, 2019)
- **Urban climate summer school** hosted by Research Institute of the University of Bucharest, Bucharest, Romania (21-26 August, 2017, 27-31 August, 2018)
- **Tuition Assistance** in Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea (*Spring 2020, Spring 2017, Fall 2016*)

GRANTS AND AWARDS

- **Best Research Award** from Department of Urban and Environmental Engineering, UNIST (Feb. 2022)
- **2020 Talent Award of Korea** from Ministry of Education, South Korea (Dec. 2020)
- **Global PhD Fellowship** from National Research Foundation of Korea (*Mar.2018 – present* , **~17,000 USD/year**)
- **The Administrator of Korea Meteorological Administration's Award** for 2019 The 5th Student Competition in Research using Meteorological Satellite
- **The Environment Minister's Award** for 2017 Environmental Spatial Information Research Papers Competition

- Excellent **Oral Presentation Award** at the conference of the Korean Association of Geographic Information Studies (KAGIS) (*May, 2016*)

SELECTED PUBLICATIONS (FIRST AUTHORSHIP)

†: Shared co-first authorship

1. Cho, D., **Yoo, C.** *†*, Son, B., Im, J., Yoon, D., & Cha, D. (2021). "A Novel Multi-model Ensemble for Post-Processing of NWP Model's Next-day Maximum Air Temperature Forecast in Summer Using Deep Learning and Statistical Approaches " ***Weather and Climate Extremes*** *, 100410.*
2. **Yoo, C.,** Lee, Y. *†*, Cho, D., Im, J., & Han, D. (2020). "Improving Local Climate Zone Classification Using Incomplete Building Data and Sentinel 2 Images Based on Convolutional Neural Networks." ***Remote Sensing****, 12(21), 3552.*
3. **Yoo, C**., Im, J., Cho, D., Yokoya, N., Xia, J., & Bechtel, B. (2020). "Estimation of all-weather 1 km MODIS land surface temperature for humid summer days**."** ***Remote Sensing****, 12(9), 1398*
4. Cho, D., **Yoo, C***.†*, Im, J., & Cha, D. H. (2020). "Comparative assessment of various machine learning-based bias correction methods for numerical weather prediction model forecasts of extreme air temperatures in urban areas." ***Earth and Space Science****, 7(4), e2019EA000740.*
5. **Yoo, C**., Han, D., Im, J., & Bechtel, B. (2019). "Comparison between convolutional neural networks and random forest for local climate zone classification in mega urban areas using Landsat images." ***ISPRS Journal of Photogrammetry and Remote Sensing****, 157, 155-170.*
6. **Yoo, C.,** Im, J., Park, S., & Quackenbush, L. J. (2018). "Estimation of daily maximum and minimum air temperatures in urban landscapes using MODIS time series satellite data." ***ISPRS journal of photogrammetry and remote sensing****, 137, 149-162.*

REVIEWER

- ISPRS Journal of Photogrammetry and Remote Sensing
- Remote Sensing of Environment
- GIScience & Remote Sensing
- IEEE Journal of Selected Topics on Applied Remote Sensing
- Remote Sensing
- Journal of Hydrology
- Land
- Communications Earth & Environment
- Geocarto International

LANGUAGE SKILLS

English, Korean, Japanese

COMPUTER SKILLS

Program language: Matlab, Python, R
Visualization tool: Google Earth Engine, ArcGIS, ERDAS Imagine, ENVI