

Hanshi Chen

Ph. D. student, Intercollege Graduate Degree Program (IGDP) in Ecology
Pennsylvania State University
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A. Professional Preparation

Institution	Location	Major	Degree & Year
Fujian Normal Univ	Fujian, China	Geogr. Inf. Sci.	BSc 2019
National Taiwan Univ	Taipei, Taiwan	Environ. Plan. Manag.	MEng 2021
Pennsylvania State Univ	University Park, PA.	IGDP in Ecology	Ongoing

B. Publications

Journal Articles

- Wang, Q. C., Lu, T., Chen, H. S., Wang, L., Jia, J., & Chen, W. Q. (2024). Tracing environmental footprint of copper wire rod manufacturing in China. *Resources, Conservation and Recycling*, 204, 107503. <https://doi.org/10.1016/j.resconrec.2024.107503>
- Chen, H. S., Lin, Y. C., Chiueh, P. T. (2023). Nexus of Ecosystem Service-Human Health-Natural Resources: Nature-Based Solutions (NBS) for Urban PM_{2.5} Pollution. *Sustainable Cities and Society*, 91, 104441. <https://doi.org/10.1016/j.scs.2023.104441>
- Chen, H. S., Tam, K. I., Zhao, Y. L., Yuan, L., Wang, W., Lin, M., Chiang, P. C. (2023). Development of Environmental Action Plans for Adaptation to Climate Change: A Perspective of Air Quality Management. *Aerosol and Air Quality Research*, 23, 220377. <https://doi.org/10.4209/aaqr.220377>
- Fang, C., Hu, Z., Chen, H. S., Zhang, L., Tu, X., Liu, Y., Chen, W. Q. (2023). Optimization of power supply structure in Fujian province toward the carbon neutrality target. *Science & Technology Review*, 41 (22): 67-76. <http://www.kjdb.org/EN/10.3981/j.issn.1000-7857.2023.22.009>
- Chen, H. S., Lin, Y. C., Chiueh, P. T. (2022). High-resolution Spatial Analysis for the Air Quality Regulation Service from Urban Vegetation: A Case Study of Taipei City. *Sustainable Cities and Society*, 83, 103976. <https://doi.org/10.1016/j.scs.2022.103976>
- Chen, H. S., Yu, M. (2020). Spatial Analysis of Food Deserts Based on GIS Technology: A Case Study of Fuzhou City. *Journal of Fujian Normal University (Natural Science Edition)*, 36(3), 60-69. doi: 10.12046/j.issn.1000-5277.2020.03.008.
- Chen, H. S., Lin, Y. C. (2020). Assessing the City Happiness and Sustainable Index (CHS) of Taichung City and Fuzhou City. *Journal of Social and Regional Development*, 6(1), 1-42. doi: 10.29868/JSRD

Theses

- Master Thesis (MS.) (National Taiwan University)
Title: Nature-based Solutions for Urban Air Pollution Mitigation: A Case Study of Taipei City

C. Selected presentations

- Chen, H. S., Chiueh, P. T. 2020. *Integrating Air Quality Regulation Service on Urban Green Planning*, The 32nd Annual Meeting of the Chinese Institute of Environmental Engineering and

Academic Seminars, Nov. 28th, (poster).

- Chen, H. S., Lin, Y. C. 2018. *A Framework of City Happiness and Sustainable Index: Case Studies of Taichung City and Fuzhou City*, 2018 Smart City International Forum and the 5th Urban Planning and Spatial Information Seminar, May. 5th, (oral talk).

D. Honors and Award

- Fully funded participant of Spectral Ecology Summer School, National Science Foundation 2024
- Robert W. Graham Endowed Graduate Fellowships, Pennsylvania State University 2023-2025
- Scholarship of Carbon Emission Accounts & Datasets (CEADs) (2 teams/14 teams) 2022
- Sustainable Development Goals Academic Paper Awards (Master Thesis), TAISE (6/146) 2021
- NTU Postgraduate Scholarship, National Taiwan University 2019-2021
- Outstanding Assistant, NTU Carbon Cycle Research Center 2020
- Excellent Graduate, Fujian Normal University (5/43) 2019
- Academic Excellence Award (exchanged student), Feng Chia University (1/43) 2018
- First Prize Scholarship (exchanged student), Feng Chia University (1/43) 2017-2018
- Second-level Scholarship, Fujian Normal University (Top 10% of 43) 2015-2019
- Merit Student, Fujian Normal University (Top 10% of 43) 2015-2018

E. Project/Professional Experience

- IGDP in Ecology, Pennsylvania State University 2023–present
 - Position: Ph.D. student
 - PI: Dr. Tong Qiu
 - My current work on the following research topic:
Understanding how environmental factors influence land surface phenology changes; Combining multispectral and LiDAR remote sensing to quantify how habitat mitigates climate change impacts on vegetation phenology; Using multi-source remote sensing datasets to quantify how environmental variables affect urban phenology.
- Institute of Urban Environment, Chinese Academy of Sciences 2021–2023
 - Position: Full-time Research Assistant
 - PI: Prof. Weiqiang Chen
 - My contribution to the following projects:
Understanding climate change impacts on carbon cycling and energy consumption; Quantifying carbon emissions of online food delivery services in cities; Using life-cycle analysis to generate insights for conservation planning and climate change mitigation and adaptation strategy.
- Graduate institute of environmental engineering, National Taiwan University 2020–2021
 - Position: Part-time Research Assistant
 - PI: Distinguished Prof. Pen-Chi Chiang
 - My contribution to the following projects:
Collecting country-level environmental action plans for climate change adaptation; Quantifying environmental impacts of water reclamation technologies for municipal wastewater by using a life cycle analysis.