# Zhengrui Huang

Phone: (86)15659153437 ｜ Email: zqh5210@psu.edu

## EDUCATION

**FUZHOU UNIVERSITY** - Geography Master     2017.08 - 2020.05

**FUZHOU UNIVERSITY** - Human Geography and Urban and Rural Planning Bachelor     2013.08 - 2017.05

## PUBLICATIONS AND PATENTS

### Articles

- Pan M, Chen C, Yin X, and **Huang Z**. (2022) UAVs-Aided Emergency Environmental Monitoring in Infrastructure-Less Areas: LoRa Mesh Networking Approach. IEEE Internet of Things Journal. DOI: 10.1109/JIOT.2021.3095494. [IF: 9.471]
- **Huang Z**, et al. (2020) Multiobjective UAV Path Planning for Emergency Information Collection and Transmission. IEEE Internet of Things Journal. DOI: 10.1109/JIOT.2020.2979521. [IF: 9.471]
- **Huang Z**, et al. (2020) Fast Texture Synthesis for Discrete Example-based Elements. IEEE Access. DOI: 10.1109/ACCESS.2020.2989898. [IF: 3.367]
- **Huang Z**, et al. (2019) Data Collection and Transmission Technology for Environment Emergency Monitoring Based on Integration of LoRa and BDS. Geomatics and Information Science of Wuhan University. DOI: 10.13203/j.whugis20190207. (EI)

### Conferences

- **Huang Z**. (2021) CN-LBP: Complex Networks-based Local Binary Pattern for Texture Classification. International Conference on Wavelet Analysis and Pattern Recognition. DOI: 10.1109/ICWAPR54887.2021.9736189.
- **Huang Z**. (2021) Fusion of Complex Networks-based Global and Local Features for Feature Representation. International Conference on Machine Learning and Cybernetics. DOI: 10.1109/ICMLC54886.2021.9737154.

### Preprint

- **Huang Z** and Wang S. (2021) Fusion of Local, Global, and Color Features for High Spatial Resolution Images Scene Classification. Under review.
- **Huang Z**, et al. (2021) Hybrid Device-to-Device and Device-to-Vehicle Networks for Energy-Efficient Emergency Communications. In revision.
- **Huang Z** and Wang S. (2021) Multilink and AUV-Aided Energy-Efficient Underwater Emergency Communications. In revision.
- **Huang Z** and Wang S. (2022) Joint Visual Coverage and Energy Consumption Optimization for UAV-Aided 5G and Beyond Communications. Under review.

## SKILLS LIST

- **Theory**: Machine/Deep learning, Computer vision, Convex optimization, Multi-objective optimization, Remote sensing, Complex networks, Dynamic programming, Reinforcement learning, Mathematical control, Optimal control, Differential geometry, and Stochastic geometry.
- **Computer Ability**: Python, C, and C++.
- **Software**: Pycharm, VS, ENVI 5.3, Arcgis 10.3, Keil uVision5, SPSS, and Unity3D.
- **OS**: Windows (Proficient) and Linux (Basic).

## WORK EXPERIENCE

**Pennsylvania State University** - Graduate Assistant (Research)     2022.07 - Present

**Fuzhou University** - Research Assistant     2020.07 - 2021.07