

## Zi-Yan Liu

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Graduate Degree Program of Robotics, EE622  
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### Education

**M.S. in** Graduate Degree Program of Robotics, National Yang Ming Chiao Tung University

**B.S. in** Interdisciplinary Program of Engineering(IPE), National Tsing Hua University

### Research Interests

Robotics, Mapping and Path Navigation, Crowd Navigation, Field and Service Robots, Assistive Technology, Automatic Control Systems, Computer Vision

### Publication

#### JOURNAL

- C.-L. Lu, **Z.-Y. Liu**, J.-T. Huang, C.-I Huang, B.-H. Wang, Y. Chen, N.-H. Wu, H.-C. Wang, L. Giarré, P.-Y. Kuo.  
**Assistive Navigation using Deep Reinforcement Learning Guiding Robot with UWB/Voice Beacons and Semantic Feedbacks for Blind and Visually Impaired People**  
(*Frontier in Robotics and AI*. 2021)

#### CONFERENCE

- **Sample Efficient Reinforcement Learning with Curriculum Learning for Environment Generalization and Multi-Robot Transfer of Goal Navigation (2021/08 ~ )**
- C.-L Lu\*, J.-T. Huang\*, C.-I Huang, **Z.-Y. Liu**, C.-C. Hsu, Y.-Y. Huang, S.-C. Huang, P.-K. Chang, Z. L. Ewe, P.-J. Huang, P.-L. Li, B.-H. Wang, L.-S. Yim, S.-W. Huang, M.-S Bai, H.-C. Wang, (\*Equal Contribution)  
**A Heterogeneous Unmanned Ground Vehicle and Blimp Robot Team for Search and Rescue using Data-driven Autonomy and Communication-aware Navigation**  
(*Field Robotics - Special Issue: Advancements and lessons learned during Phase I & II of the DARPA Subterranean Challenge*. 2021)