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### *Professional Experience*

<b>Associate Professor,</b> Department of Electrical and Computer Engineering National Yang Ming Chiao Tung University, Taiwan	2021 -
<b>Assistant Professor,</b> Department of Electrical and Computer Engineering National Chiao Tung University, Taiwan	2016 - 2020
<b>Postdoctoral Associate,</b> Robotics, Vision, and Sensor Networks Group & Marine Robotics Group, Computer Science and Artificial Intelligence Laboratory (CSAIL), Massachusetts Institute of Technology (MIT), MA, USA.	2013 - 2016

### *Education*

<b>Ph.D.</b> in Computer Science, University of Massachusetts at Boston.	2012
<b>M.A.</b> in Computer-Aided Engineering, Department of Civil Engineering, National Taiwan University, Taiwan.	2003
<b>B.S.</b> in Civil Engineering, National Taiwan University, Taiwan.	2001

### *Research Awards and Robotics Competitions*

<b>Awarded the 3th Place in the Maritime RobotX Challenge</b> Lead Team NYCU to Participate the RobotX Competition in Sydney, Australia	2022
<b>The 7th place in the DARPA Subterranean Challenge</b> Lead Team NCTU to Participate the Tunnel Circuit in Pittsburgh, USA	2019
<b>Facebook PyRobot: Democratizing Robotics - Research Award</b> Facebook AI Research (FAIR)	2019
<b>1st Place Spotlight Poster</b> in RobotX Interactive Forum, Singapore RoboNation, USA	2019
<b>Co-Host The AI Driving Olympics</b> Neural Information Processing Systems	2018
<b>The 5th Place in the Maritime RobotX Challenge</b> Lead Team NCTU to Participate the RobotX Competition in Hawaii, USA	2018
<b>WAM-V Award</b> (with 75,000 USD WAM-V Surface Vehicle) Association for Unmanned Vehicle Systems International, USA	2017
<b>MediaTek Junior Chair Professor</b> MediaTek and National Chiao Tung University, Taiwan	2016
<b>Outstanding Research Talents,</b> Ministry of Science and Technology (MOST), Taiwan	2015

## Journal Papers

- [1]. **H.-C. Wang\***, S.-C. Huang, P.-J. Huang, K.-L. Wang, Y.-C. Teng, Y.-T. Ko, D. Jeon and I.-C. Wu. (2023) "Curriculum Reinforcement Learning from Avoiding Collisions to Navigating among Movable Obstacles in Diverse Environments," *IEEE Robotics and Automation Letters (RA-L)*, 8(5), 2740-2747. (Corresponding author)
- [2]. C.-I Huang, Y.-Y. Huang, J.-X. Liu, Y.-T. Ko, **H.-C. Wang\***, K.-H. Chiang, L.-F. Yu (2023) "Fed-HANet: Federated Visual Grasping Learning for Human Robot Handovers," *IEEE Robotics and Automation Letters (RA-L)*. (Accepted, Corresponding author)
- [3]. F. Zocco, T.-C. Lin, C.-I Huang, **H.-C. Wang**, M. O. Khyam, and M. Van. (2023) "Towards More Efficient EfficientDets and Real-Time Marine Debris Detection," *IEEE Robotics and Automation Letters (RA-L)*, 8(4), 2134-2141.
- [4]. C.-L. Lu, J.-T. Huang, C.-I Huang, C.-C. Hsu, P. Chang, Z. Ewe, P.-J. Huang, P.-L. Li, B.-H. Wang, L. Yim, S.-C. Huang, M. Bai, & **H.-C. Wang\*** (2022). "A Heterogeneous Unmanned Ground Vehicle and Blimp Robot Team for Search and Rescue using Data-driven Autonomy and Communication-aware Navigation," *Field Robotics 2*, 557-594. (Corresponding author)
- [5]. J.-T. Huang, C.-L. Lu, P.-K. Chang, C.-I Huang, C.-C. Hsu, Z. L. Ewe, P.-J. Huang, and **H.-C. Wang\*** (2021) "Cross-Modal Contrastive Learning of Representations for Navigation using Lightweight, Low-Cost Millimeter Wave Radar for Adverse Environmental Conditions," *IEEE Robotics and Automation Letters (RA-L)*. 6(2), 3333-3340. (Corresponding author)
- [6]. C.-L. Lu, Z.-Y. Liu, J.-T. Huang, C.-I. Huang, B.-H. Wang, Y. Chen, N.-H. Wu, **H.-C. Wang\***, L. Giarre, and P.-Y. Kuo, (2021) 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*. (Corresponding author)
- [7]. Huang, H.-K., Lin, N.-C., Barrett, L., Springer, D., **Wang, H.-C.**, Pomplun, M., and Yu, L.-F. Automatic Optimization of Wayfinding Design, *Transactions on Visualization and Computer Graphics (TVCG)*. 2018.

## Peer-reviewed Conference Proceeding Papers

- [8]. L. S. Yim, Q. T. Vo, C.-I. Huang, C.-R. Wang, W. McQueary, **H.-C. Wang\***, H. Huang, and L.-F. Yu, (2022) "WFH-VR: Teleoperating a Robot arm to Set a Dining Table across the Globe via Virtual Reality," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2022)*. (Corresponding author)
- [9]. N.-C. Lin, Y.-C. Hsiao, Y.-W. Huang, C.-T. Hung, T.-K. Chuang, P.-W. Chen, J.-T. Huang, C.-C. Hsu, A. Censi, M. Benjamin, C.-F. Chen, **H.-C. Wang\***, "Duckiepond: An Open Education and Research Environment for a Fleet of Autonomous Maritime Vehicles," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)*. (Corresponding author)
- [10]. Y.-S. Su, S.-H. Lu, P.-S. Ser, W.-T. Hsu, W.-C. Lai, B. Xie, H.-M. Huang, T.-Y. Lee, H.-W. Chen, L.-F. Yu, **H.-C. Wang\***, "Pose-aware Placement of Objects- Brandname-based Affordance Prediction and Cooperative Dual-Arm Active Manipulation," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)*. (Corresponding author)
- [11]. R. Alghofaili, Y. Sawahata, H. Huang, **H.-C. Wang**, T. Shiratori, L.-F. Yu. "Lost in Style: Gaze-driven Adaptive Aid for VR Navigation," *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2019)*, Glasgow.
- [12]. T.-K. Chuang, N.-C. Lin, J.-S. Chen, C.-H. Hung, Y.-W. Huang, Chunchih Teng, Haikun Huang, L.-F. Yu, Laura Giarre, and **H.-C. Wang\***. "Deep Trail-Following Robotic Guide Dog in Pedestrian Environments for People who are Blind and Visually Impaired - Learning from Virtual and Real Worlds," *IEEE International Conference on Robotics and Automation (ICRA 2018)*, Australia. (Corresponding author)
- [13]. **H.-C. Wang\***, R. Katschmann, S. Teng, B. Araki, L. Giarré, and D. Rus, "Enabling independent navigation for visually impaired people through a wearable vision-based feedback system," in *Robotics and Automation (ICRA), IEEE International Conference on*, 2017. (Corresponding author)

- [14].L. Paull, J. Tani, H. Ahn, J. Alonso-Mora, L. Carlone, M. Cap, Y. F. Chen, C. Choi, J. Dusek, Y. Fang, D. Hoehener, S.-Y. Liu, M. Novitzky, I. F. Okuyama, J. Papis, G. Rosman, V. Varricchio, **H.-C. Wang**, D. Yershov, H. Zhao, M. Benjamin, C. Carr, M. Zuber, S. Karaman, E. Frazzoli, D. D. Vecchio, D. Rus, J. How, J. Leonard, and A. Censi, "Duckietown: an Open, Inexpensive and Flexible Platform for Autonomy Education and Research," in *Robotics and Automation (ICRA), IEEE International Conference on*, 2017.
- [15].D. Jeon, N. Ickes, P. Raina, **H.-C. Wang**, and A.-P. Chandrakasan, "A 0.6V, 8 mW 3D Vision Processor for a Navigation Device for the Visually Impaired," *IEEE International Solid-State Circuits Conference (ISSCC 2016)*, San Francisco, USA.
- [16].**H.-C. Wang**, C. Finn, L. Paull, M. Kaess, R. Rosenholtz, S. Teller, and J. Leonard (2015) "Bridging Text Spotting and SLAM using Junction Features," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Hamburg, Germany.
- [17].A. Anderson, E. Fischell, T. Howe, T. Miller, A. Parrales-Salinas, N. Rypkema, D. Barrett, M. Benjamin, A. Brennen, M. DeFillipo, J. Lenoard, L. Paull, H. Schmidt, **H.-C. Wang**, and A. Yaari (2015) "An Overview of MIT-Olin's Winning Entry in the Inaugural AUVSI RobotX Competition," *10th Conference on Field and Service Robotics (FSR)*, Toronto, Canada. (Oral Presentation)
- [18].**H.-C. Wang**, Y. Landa, M. Fallon, and S. Teller (2013) "Spatially Prioritized and Persistent Text Detection and Decoding," *5th International Workshop on Camera-Based Document Analysis and Recognition (CBDAR)*, Washington D. C., USA. (Oral Presentation)