

Ni-Ching ‘Monica’ Lin

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Research Interests

Assistive Robots, Haptics, Autonomous Navigation, Marine Robotics, and Virtual/Augmented Reality.

Education and Professional Experiences:

Graduate Student, Institute of Electrical and Control Engineering National Chiao Tung University (NCTU), Taiwan 09/2016 – present

Advisor: Prof. Hsueh-Cheng Nick Wang

Intern Student, In.Sight Company & Università degli Studi di Palermo, Italy 06/2017 – 07/2017

Advisor: Prof. Laura Giarré

Visiting Student, University of Massachusetts at Boston, USA 02/2016 – 06/2016

Advisors: Prof. Lap-Fai Yu and Prof. Marc Pomplun

Undergraduate Student, Department of Electrical Engineering, Tamkang University (TKU). GPA: 3.89/4.00, Ranking: 3/67. 09/2012 – 01/2016

Advisor: Prof. Ching-Chang Wong

Publications and Projects:

Journal Paper:

- [J1] H. Huang, **N.-C. Lin**, L. Barrett, D. Springer, H.-C. Wang, M. Pomplun, & L.-F. Yu (2017). Automatic Optimization of Wayfinding Design. *IEEE transactions on visualization and computer graphics (TVCG)*.

Conference Presentations:

- [C1] T.-K. Chuang*, **N.-C. Lin***, J.-S. Chen, C.-H. Hung, Y.-W. Huang, C.-C. Teng, H. Huang, L.-F. Yu, L. Giarré, & 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* (to appear in ICRA 2018).
*T.-K. Chuang and N.-C. Lin contributed equally to this work.
- [C2] Y.-S. Su, Y.-W. Huang, **N.-C. Lin**, H.-M. Huang, K.-T. Yu, & H.-C. Wang. Picking and Placing at the Right Pose using Text on Objects. *IEEE/RSJ International Conference on Intelligent Robots and Systems* (submitted to IROS 2018).

[C3] H. Huang, N.-C. Lin, L. Barrett, D. Springer, H.-C. Wang, M. Pomplun, & L. F. Yu. Analyzing visual attention via virtual environments. Virtual Reality meets Physical Reality: Modelling and Simulating Virtual Humans and Environments. *In SIGGRAPH ASIA 2016*.

Projects:

Duckietown @ NCTU, Education and Research Platform for Autonomous Vehicles

- **Teaching Assistant**, Creative Software Project, Department of Electrical and Computer Engineering, NCTU, Taiwan, 09/2016 – 01/2017.
- **Lab Assistant and Organizing Staff**, Tutorial in the IEEE International Robotic Computing Conference. 05/2017

Robotic Manipulator End Effector

- Develop a robot gripper for grasping and sucking objects in warehouse automation scenarios.
- In charge of designing mechanism, circuits, and programming of the grippers in HIWIN Contest 2015, and International Robot Hands-on Competition 2014 and 2015.

Honor and Awards:

Pilot Overseas Internships , Ministry of Education, Taiwan. (\$10,000 USD).	06/2017
First Place Award , HIWIN Intelligence Robot Implementations Contest, Taiwan (\$13,000 USD)	07/2015
Honorable Mention , International Robot Hands-on Competition & Symposium, Taiwan	2014
Honorable Mention , International Robot Hands-on Competition & Symposium, Taiwan	2015
Da Yu Award , College of Engineering Tamkang University (Top 3%)	05/2015

Technical Skills:

Programming language: Python, C/C++, C#

Middleware: Robot Operating System (ROS)

Sensors and Hardware: Google Tango device, NVidia Jetson, Raspberry Pi, Haptic device

Software: Arduino, Solidwork, Altium Designer, Unity3D, Blender, Android