CURRICULUM VITAE

Kyungmin Han

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(a) Education

University of Missouri	Columbia, MO	Electrical Computer Engineering	Ph.D., 2006-2010
University of Missouri	Columbia, MO	Electrical Engineering	M.S., 2007
University of Missouri	Columbia, MO	Electrical Engineering	B.S., 2004

(b) Research & Professional Experience

2018 – present	Researh Professor, Ewha Womans University
2014 – 2017	Visiting Scholar, University of Missouri
2012 – 2014	Senior Research Engineer, LG Electronics
2010 – 2012	Postdoctoral Research Scientist, Korea Institute of Ocean Science Technology

(c) Publications

International Journal Articles

1. Heajung Min, **K. Han**, and Young J. Kim, Octomap-rt: Fast probabilistic volumetric mapping using ray-tracing gpus, IEEE Robotics and Automation Letters **8**, 5696 – 5703 (2023).
2. **K. Han** and A. J Rueda, Robust and efficient object reconstructions from closed loop sequences, Machine Vision and Applications **32** (2021).
3. **K. Han** and Young J. Kim, Keyslam: Robust rgb-d camera tracking using adaptive vo and optimal key-frame selection, IEEE Robotics and Automation Letters **5**, 6940–6947 (2020).
4. G. Lu, **K. Han**, G.N. DeSouza, J. Armer, and C.-R. Shyu, A new algorithm for 3d registration and its application in self-monitoring and early detection of lymphedema, IRBM **35**, 370–384 (2014), healthcom 2013.
5. **K. Han** and Guilherme N. DeSouza, Geolocation of multiple targets from airborne video without terrain data, Journal of Intelligent Robotic Systems **62**, 159–183 (2011).

International Conference Papers

6. **K. Han** and Young J. Kim, Neuro-explorer: Efficient and scalable exploration planning via learned frontier regions, in *IEEE International Conference on Intelligent Robots and Systems (IROS)* (2024).
7. **K. Han** and Young J. Kim, Autoexplorer: Autonomous unknown environment exploration using efficient frontier region detection and path planning, in *IEEE International Conference on Intelligent Robots and Systems (IROS)* (2022) pp. 10536 – 10541.
8. Heajung Min, **K. Han**, and Young J. Kim, Accelerating probabilistic volumetric mapping using ray-tracing graphics hardware, in *2021 IEEE International Conference on Robotics and Automation (ICRA)* (2021) pp. 5440–5445.
9. **K. Han** and Young J. Kim, Robust rgb-d camera tracking using optimal key-frame selection,

in *2020 IEEE International Conference on Robotics and Automation (ICRA)* (2020) pp. 6275–6281.

10. **K. Han**, Yeongjun Lee, and Hyun-Taek Choi, Developing an efficient landmark for autonomous docking tasks of underwater robots, in *2012 9th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI)* (2012) pp. 357–361.
11. **K. Han** and Hyun Taek Choi, Shape context based object recognition and tracking in structured underwater environment, in *2011 IEEE International Geoscience and Remote Sensing Symposium (IGARSS)* (2011) pp. 617–620.
12. **K. Han**, Yuanqiang Dong, and Guilherme N. DeSouza, in *International Conference on Informatics in Control, Automation and Robotics (ICINCO)*.
13. **K. Han** and G. N. DeSouza, Multiple targets geolocation using sift and stereo vision on airborne video sequences, in *2009 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (2009) pp. 5327–5332.
14. **K. Han** and G. N. DeSouza, Instataneous geo-location of multiple targets from monocular airborne video, in *2009 IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, Vol. 4 (2009) pp. IV–1003–IV–1006.

(d) Patents

1. **K. Han** and Y. Kim "RGB-D Camera Tracking based 3D Model Reconstruction" 10-2020-0065244
2. **K. Han**, T. Kwon, D. Yi, "Robot cleaner and controlling method thereof" EP2908204A1

(e) Invited Talks

1. "VSLAM tutorial" @ Korea University, 2021/02/24
2. "VSLAM tutorial" @ Sungkyunkwan University, 2020/08/26