

Sangil Lee

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EDUCATION

Seoul National University, Korea, Republic of Sep. 2017 – present

Ph.D. Student in Mechanical and Aerospace Engineering

- Advisor: Professor H. Jin Kim
- Research Focus: 3D Vision for Autonomous Systems

Seoul National University, Korea, Republic of Mar. 2015 – Aug. 2017

M.S. in Mechanical and Aerospace Engineering

- Thesis: Robust Visual Odometry via Rigid Motion Segmentation for Dynamic Environments
- Advisor: Professor H. Jin Kim
- Cumulative GPA: 3.89/4.3

Seoul National University, Korea, Republic of Mar. 2010 – Feb. 2015

B.S. in Electrical and Computer Engineering

- Thesis: Adaptive Formation Control for Multi-agent Systems
- Advisor: Professor Hyungbo Shim
- GPA: 3.82/4.3 (cumulative) 3.95/4.3 (in major) Cum Laude

EXPERIENCE

Sigma Intelligence, Seoul National University Apr. 2010 – present

member of robotics club

- Served as education director Mar. 2011 – Feb. 2012
 - made a curriculum of annual education
 - taught AVR/ MATLAB programming to freshmen

- Served as club vice president Mar. 2012 – Feb. 2013
 - Assisted club president with managing clubs

PUBLICATIONS

International Journals

Sangil Lee and H. Jin Kim, “Real-time Robust Visual Odometry via Rigid Motion Segmentation for Dynamic Environments,” *IEEE Robotics and Automation Letters*, 2017. (under review)

International Conferences

Sangil Lee and H. Jin Kim, “Real-time Rigid Motion Segmentation using Grid-based Optical Flow,” *System, Man, and Cybernetics, IEEE International Conference on*, 2017.

Changhyeon Kim, **Sangil Lee**, Pyojin Kim, H. Jin Kim, “Time-Efficient Dense Visual 12-DoF State Estimator Using RGB-D Camera,” *International Conference on Ubiquitous Robots and Ambient Intelligence*, 2017.

Sangil Lee, P. Jin Kim, Changhyeon Kim, and H. jin Kim, “Depth-based Direct Visual Odometry for Stereo Camera,” *Asia-Pacific International Symposium on Aerospace Technology*, 2016.

Sangil Lee, Seung-jae Lee, Jaehyun Park, and H. Jin Kim, “Exposure Correction and Image Blending for Planar Panorama Stitching,” *International Conference on Control, Automation and Systems*, 2016. (**Outstanding Paper Award**)

Sangil Lee and H. Jin Kim, "Detection of 3-Dimensional Textured Object without Depth Information," *14th International Conference on Control, Automation and Systems*, Korea, October 13-16, 2015.

Domestic Journals

Sangil Lee, P. Jin Kim, Changhyeon Kim, Hyeonbeom Lee, and H. Jin Kim, "Survey on Visual Odometry Technology for Unmanned Systems," *Journal of Institute of Control, Robotics, and Systems*, 23(6):424-431, 2017.

Domestic Conferences

Sangil Lee and H. Jin Kim, "Image Stitching for 2-D Global Mapping," *31st Institute of Control, Robotics and Systems Annual Conference*, March 10-11, 2016.

Sangil Lee and H. Jin Kim, "Hexa-rotors 3-dimensional Position Control based on Spiral Potential Function with Collision Avoidance," *The Korean Society for Aeronautical & Space Sciences Fall Conference*, November 18-20, 2015.

HONORS, AWARDS, SCHOLARSHIPS

- Encouragement Prize (4th place) at the 24th Samsung Humantech Paper Award 7 Feb. 2018
- Outstanding Paper Award of the Ministry of Trade, Industry, and Energy 18 Oct. 2016
- BK21 plus PhD Fellowship Scholarship Mar. 2015 – Feb. 2016
- First prize in an 2012 International Capstone Design Fair Jan. 2012

SKILLS

Computer Languages	C/C++, Matlab, Simulink, ROS, LabVIEW, Markdown
Tools	Vim, Git, Adobe Photoshop/ Premiere, Basic OrCAD, Solidworks
Hardware	AVR, Arduino, Arm processor, Basic spartan FPGA board programming