NANO KOREA 2018
July 10~13, KINTEX, Korea

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EDUCATION

U.C. at Berkeley, Ca, USA	Ph.D	Mechanical Engineering	1985
Yonsei University, Seoul, Korea	MS	Mechanical Engineering	1979
Yonsei University, Seoul, Korea	BS	Mechanical Engineering	1977

PROFESSIONAL ACTIVITIES

- 2015.03 ~ Present Samsung Chair Professor
- 2013 ~ 2014 Vice-President for Budget and Planning of KAIST
- 2010.03 ~ 2015.02 Distinguished Professor
- 1985.10 ~ Present Professor of Mechanical Engineering, KAIST, KOREA
- 1997.09 ~ 1998.08 Visiting Professor, U.T., Austin, USA
- 1985.10 ~ Present Professor of Productive Engineering, KAIST, KOREA

AWARD AND HONORS

- 2016.06 The 26th Hoam Awards, Engineering Awards (Hoam Prize, Samsung Foundation)
- 2016.04 Medal Of Science and Technology, The Koeean Government
- 2015.06 70 Grand Technologies of Korea, Ministry of Science, Ict and Future Planning
- 2015.06 First Prize, DARPA Robotics Challenge, USA
- 2010.02 Research Award of the Year, KAIST
- 2009.12 Presidential Citation, President of Korea
- 2007.08 Most Respectable Scientist Award of the Year, Korea Ministry of Science and
- Technology
- 2006.03 Official Commendation, Minister of Information and Telecom- munication
- 2006.02 Official Commendation, Minister of Foreign Affairs and Trade
- 2005.12 10 Grand Scientific Achievement of the Year, Korean Federation of Science and Technology Societies
- 2005.01 Professor of the Year, KAIST

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MAIN SCIENTIFIC PUBLICATION

[1] Lee, Yongsoo, et al. "COMPARATIVE ANALYSIS OF THE EVENNESS OF LASER IRRADIATION BY A ROBOT vs HUMAN HAND: A PILOT STUDY OF THE IMPLICATION ON THE EFFECTIVENESS AND SAFETY OF ENERGY-BASED MEDICAL DEVICES." LASERS IN SURGERY AND MEDICINE. Vol. 49. 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY, 2017.

[2] Oh, Jaesung, Hyoin Bae, and Jun-Ho Oh. "Analytic Inverse Kinematics Considering the Joint Constraints and Self-Collision for Redundant 7DOF Manipulator." Robotic Computing (IRC), IEEE International Conference on. IEEE, 2017.

[3] Bae, Hyoin, and Jun-Ho Oh. "Humanoid state estimation using a moving horizon estimator." Advanced Robotics (2017): 1-11.

[4] Lee, KangKyu, et al. "Inverse kinematics with strict nonholonomic constraints on mobile manipulator." Robotics and Automation (ICRA), 2017 IEEE International Conference on. IEEE, 2017.

[5] Lim, Jeongsoo, et al. "Robot System of DRC-HUBO+ and Control Strategy of Team KAIST in DARPA Robotics Challenge Finals." Journal of Field Robotics 34.4 (2017): 802-829.

[6] Lee, Inho, et al. "Camera-laser fusion sensor system and environmental recognition for humanoids in disaster scenarios." Journal of Mechanical Science and Technology 31.6 (2017): 2997-3003.

[7] Lee, Inho, and Jun-Ho Oh. "Humanoid posture selection for reaching motion and a cooperative balancing controller." Journal of Intelligent & Robotic Systems 81.3-4 (2016): 301-316.

[8] Shim, Inwook, et al. "Vision system and depth processing for DRC-HUBO+." Robotics and Automation (ICRA), 2016 IEEE International Conference on. IEEE, 2016.

[9] Oh, Jun Ho, et al. "Probability analysis of position errors using uncooled IR stereo camera." Infrared Physics & Technology 76 (2016): 346-352.

[10] Oh, Jaesung, et al. "Development of autonomous laser toning system based on vision recognition and robot manipulator." Biomedical Robotics and Biomechatronics (BioRob), 2016 6th IEEE International Conference on. IEEE, 2016.

[11] Lim, Jeongsoo, and Jun-Ho Oh. "Backward ladder climbing locomotion of humanoid robot with gain overriding method on position control." Journal of Field Robotics 33.5 (2016): 687-705.

[12] Shin, Seunghak, et al. "Object proposal using 3D point cloud for DRC-HUBO+." Intelligent Robots and Systems (IROS), 2016 IEEE/RSJ International Conference on. IEEE, 2016.

[13] Park, Sangsin, and Jun-Ho Oh. "Bipedal walking pattern generation based on an extrapolated center of mass." Intelligent Robots and Systems (IROS), 2016 IEEE/RSJ International Conference on. IEEE, 2016.

[14] Bae, Hyoin, et al. "Walking-wheeling dual mode strategy for humanoid robot, DRC-HUBO+." Intelligent Robots and Systems (IROS), 2016 IEEE/RSJ International Conference on. IEEE, 2016.

[15] Kim, Mingeuk, and Jun-Ho Oh. "Study on optimal velocity selection using velocity obstacle (OVVO) in dynamic and crowded environment." Autonomous Robots 40.8 (2016): 1459-1470.

[16] Bae, Hyoin, et al. "Low-cost indoor positioning system using BLE (bluetooth low energy) based sensor fusion with constrained extended Kalman Filter." Robotics and Biomimetics (ROBIO), 2016 IEEE International Conference on. IEEE, 2016.

[17] Jun-Ho Oh, Hyang Jun Lee, "Hopping system control with an approximated dynamics model and upper-body motion", JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.29 no.11, pp.4891-4900, 2015.11 ; DOI(http://dx.doi.org/10.1007/s12206-015-1037-6)

RESEARCH INTERESTS

- 2013.07 Development of a version with hardware retrofits and algorithms for autonomy, DRC-Hubo
- 2008.10 Development of light weight humanoid robot, HUBO II
- 2006.02 Development of human carrying biped robot, FX-1
- 2005.11 Development of the world first Android type Humanoid Robot, Albert HUBO
- 2004.12 Development of the first Humanoid Robot in Korea, HUBO
- 2003.12 Development of Prototype Humanoid Robot, KHR-2
- 2002.12 Development of Biped Robot, KHR-1