

Wookjin Ahn

M.S. student

Pusan National University

wookjinahn5@pusan.ac.kr

Research Interests

Education

Pusan National University (PNU)

M.S. in electronics engineering, **ongoing** (GPA: 3.92 / 4.0)

Computer And Machine Engaged Laboratory (CAMEL)

Pusan National University (PNU)

Bachelor in electronics engineering, Feb. 2022 (GPA: 3.92 / 4.0)

Research Topics

1. Legged robot control system

Controlling of legged robot is significantly difficult problem in the real-world. Also, the differences between simulation and real-world are one of the biggest challenges to control robot. I focus on how to overcome these problems. Therefore, I am studying about Model Predictive Control (MPC) and learning based control system on simulation environment (RaiSim) and real-world.

2. Dynamic states estimation

When the legged robot is walking on the ground, dynamic states like ground reaction force, acceleration and velocity of CoM are important measurements for walking control. Measuring or estimating the states of the robot are essential in control system. It needs some skills such like filtering and machine learning. Now, I am researching these skills for ground reaction force estimation on a single-legged robot.

Research Projects

1. Development and Demonstration of Unmanned Patrol Robot System for Local Police Support, Ministry of science and ICT (Jul. 2021-Dec. 2024, **ongoing**)
2. Dynamic states estimation of legged robot (July. 2021 – Present, **ongoing**)

Skills

1. Programming Languages
 - A. C / C++
 - B. Python
 - C. Java
 - D. Deep learning libraries (TensorFlow)
2. Communication Languages
 - A. English
 - B. Korean: Native speaker