

TECHNICAL COMMITTEE FOR

MODEL-BASED OPTIMIZATION FOR ROBOTICS

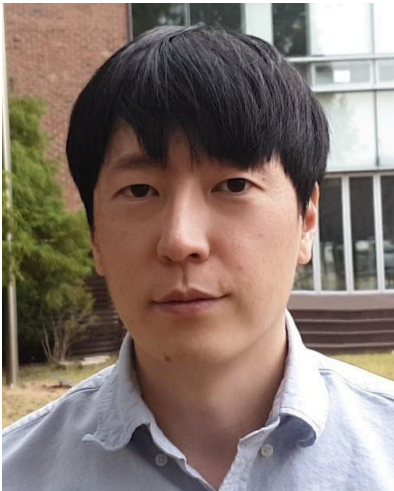


<https://www.tcoptrob.org/>

2024-2025 TC Seminar Series

Zoom: <https://columbiauniversity.zoom.us/j/91247893326?pwd=L2JWU21aQzc4cU1ZQklEb0QrWGQvdz09>

Time: *March 13, 2025, 9 AM EDT*



Prof. Jemin Hwangbo
KAIST

Learning-based control for quadrupedal robots

Abstract:

In this talk, I will introduce our recent work on control and planning for quadrupedal robots. Our goal is to develop a dynamic legged robot capable of autonomously traversing complex and unstructured terrains. Achieving this requires a robust vision system, a path planner that integrates both geometric and semantic information, and a reliable controller that remains effective even with noisy perception data. Additionally, all these components must bridge the sim-to-real gap to ensure reliable performance on the real robot. I will discuss our efforts in achieving these goals with our quadrupedal robot, Raibo.

Biography:

Jemin Hwangbo is an associate professor at the Department of Mechanical Engineering, KAIST, and leads the RaiLab. He earned his bachelor's degree from the University of Toronto and his master's and Ph.D. degrees from ETH Zurich under the supervision of Prof. Marco Hutter.