

**DEPARTMENT OF MECHANICAL ENGINEERING****SEMINAR****Online**

Title: Intrinsic and Extrinsic LiDAR-Camera Calibration in Target-less Environments

Speaker: Mr. Li Liang (MPhil candidate)
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Date: 28 April, 2022 (Thursday)

Time: 4:00 p.m. (Hong Kong Time)

Zoom meeting: 1) Link to join the meeting:

<https://hku.zoom.us/j/94473734652?pwd=U3JYMWZZbXVtMU91THNtUWJxQm9oUT09>

2) Meeting ID: 944 7373 4652

3) Password: 972319

Abstract:

LiDAR and camera sensor fusion is important for autonomous robots to perceive the world. To fuse the measurements from these two sensors, extrinsic calibration is required beforehand. A common approach to register the camera and LiDAR coordinate systems is to align the 3D edges detected by the LiDAR with the 2D edges captured by the camera, and state-of-the-art algorithms can achieve pixel-level precision. However, one practical problem is that inaccurate camera intrinsic parameters would influence the accuracy of extrinsic calibration. Therefore, we propose to conduct camera intrinsic calibration and LiDAR-camera extrinsic calibration simultaneously in target-less environments.

ALL INTERESTED ARE WELCOME

For further information, please contact Dr. F. Zhang at 3917 7909.

Research areas: Robotics and Control