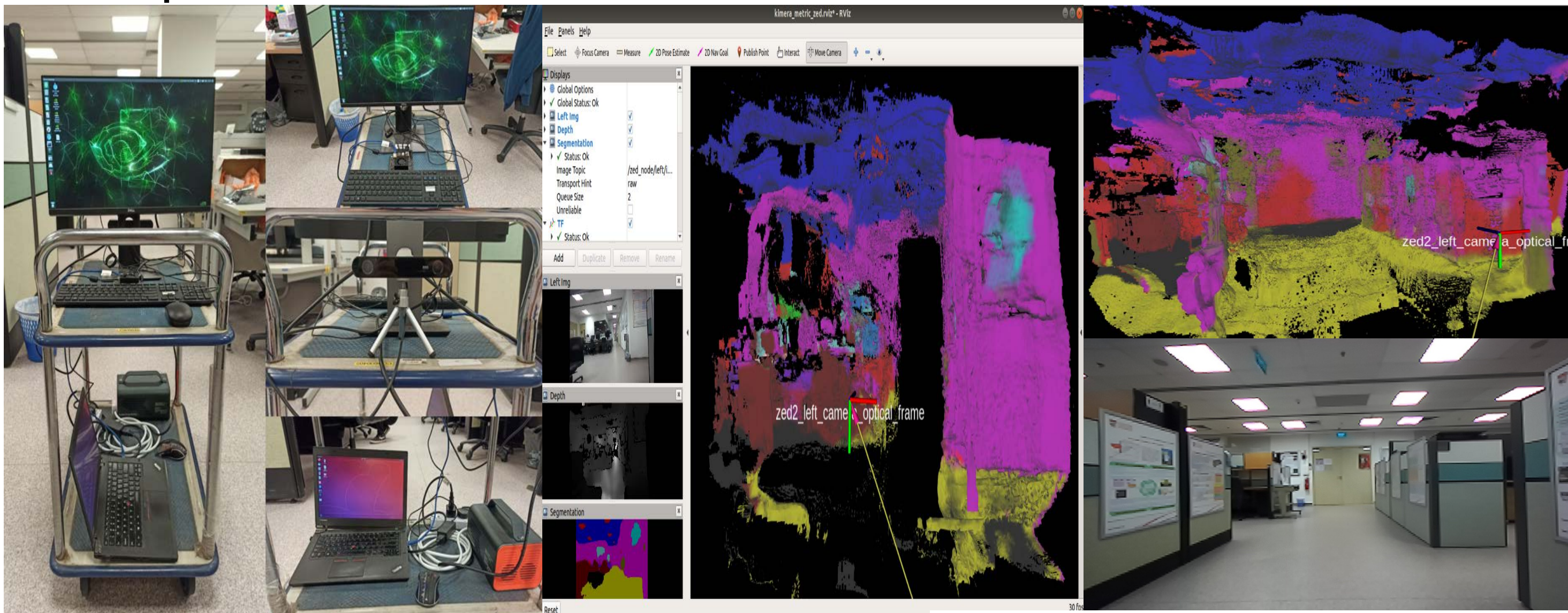# Edge-Server Visual Localization
For Autonomous Agents

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Set-up and Mesh results
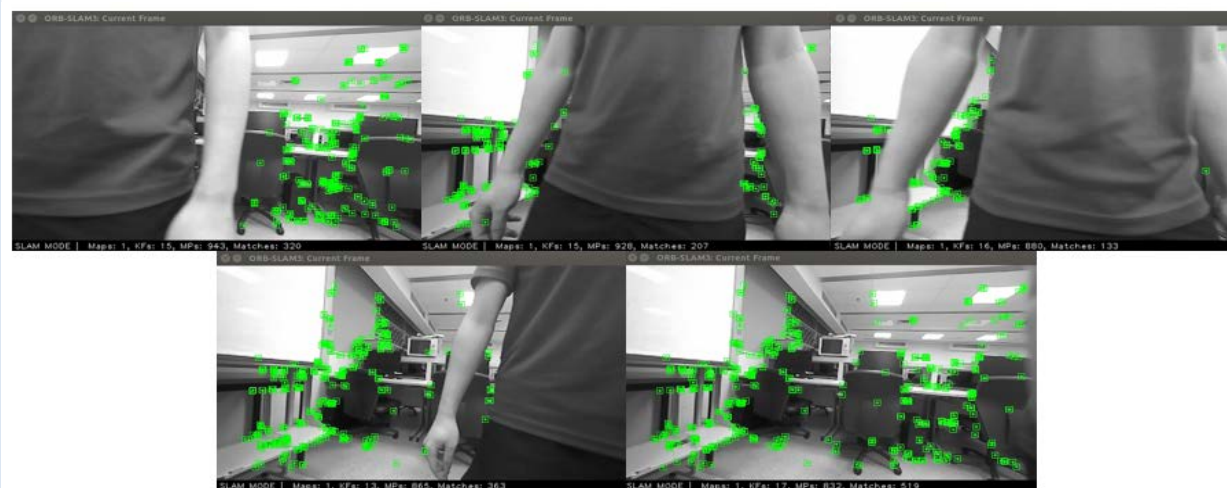

Project Objectives:

The main objective of this project is to design and implement a collaborative visual-inertial Simultaneous Localization and Mapping (viSLAM) system that runs an edge-server system comprising of a Jetson Xavier NX embedded platform with Stereolab ZED2 cameras and host computer.

The use of Inertial Measurement Unit (IMU) and semantic segmentation to differentiate objects, helps to improve robustness and accuracy of pose estimation.

The proposed system can be used in distributed robotic systems for environment reconstruction with semantic labeling in various indoor locations
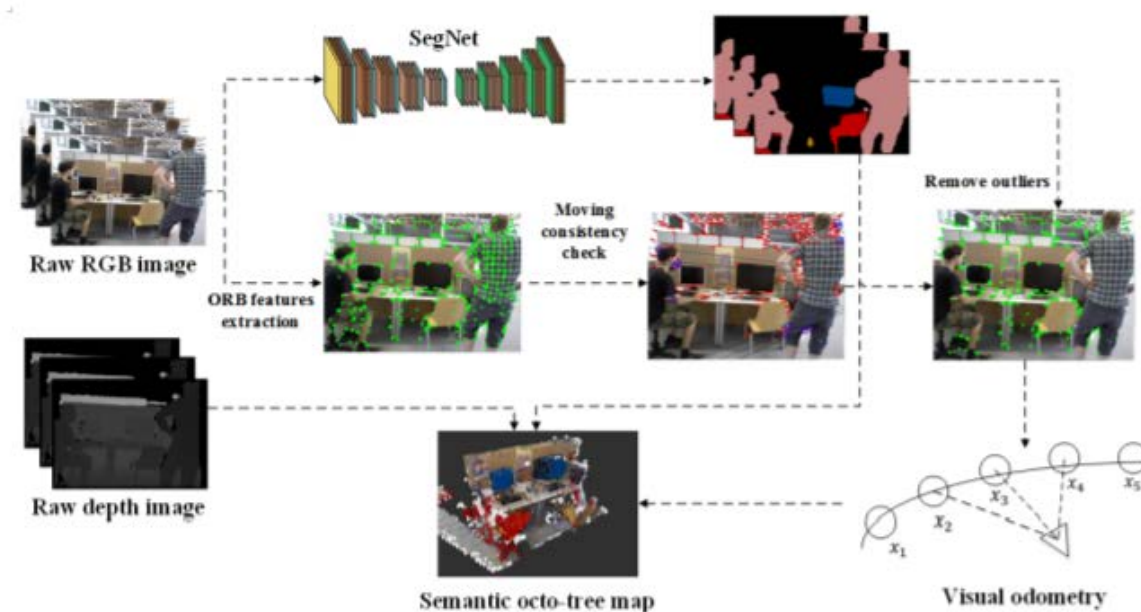
Dynamic Object interference

Sudden camera movement