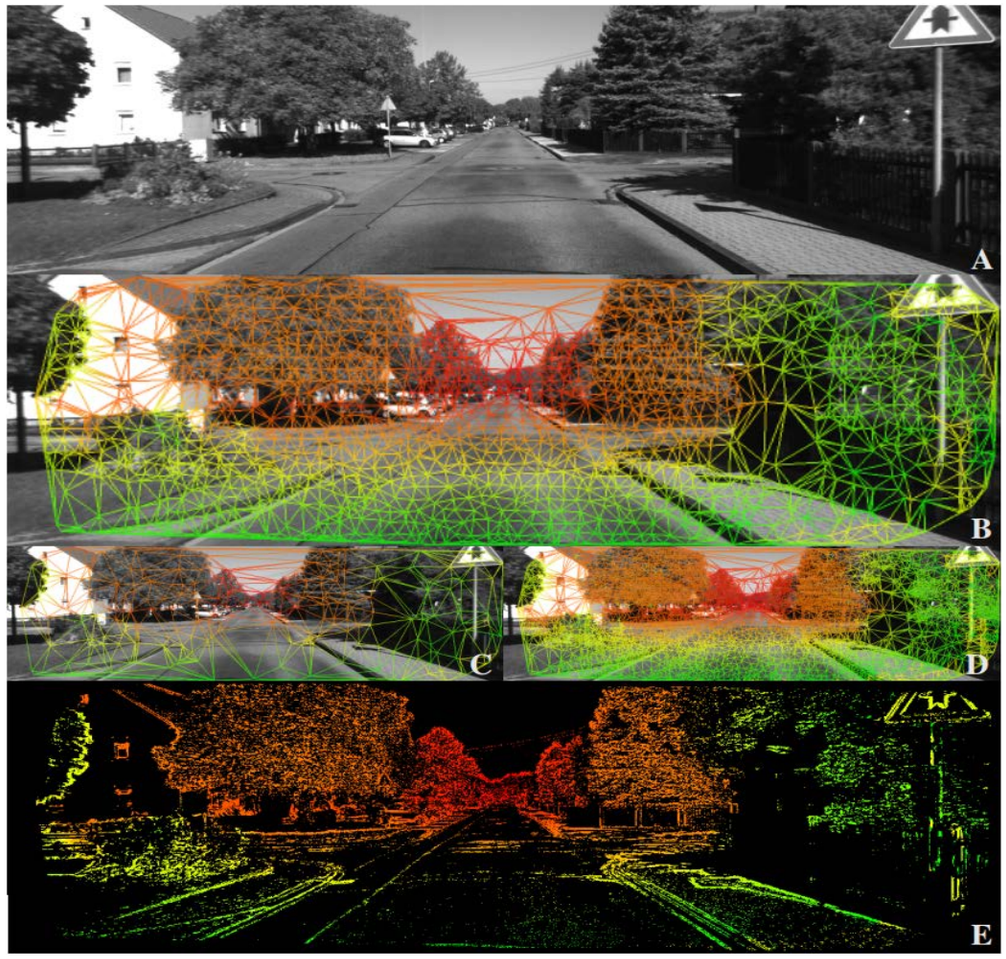
High performance and tunable stereo reconstruction

Description:

Traditional stereo algorithms have focused their efforts on reconstruction quality and have largely avoided prioritizing for run time performance. Robots, on the other hand, require quick maneuverability and effective computation to observe its immediate environment and perform tasks within it. In this project, the students are expected to implement an existing high-performance and tunable stereo disparity estimation method [1]. The pipeline can potentially enable robots to quickly reconstruct their immediate surroundings and maneuver at high-speeds. Please find more details from [1].



[1] Sudeep Pillai et al., “High-Performance and Tunable Stereo Reconstruction”, ICRA 2016

Requirements / Tools:

Required: C++, OpenCV

Supervisor:

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