

Freespace, Ground Plane Estimation and IPM

Final Project Proposal

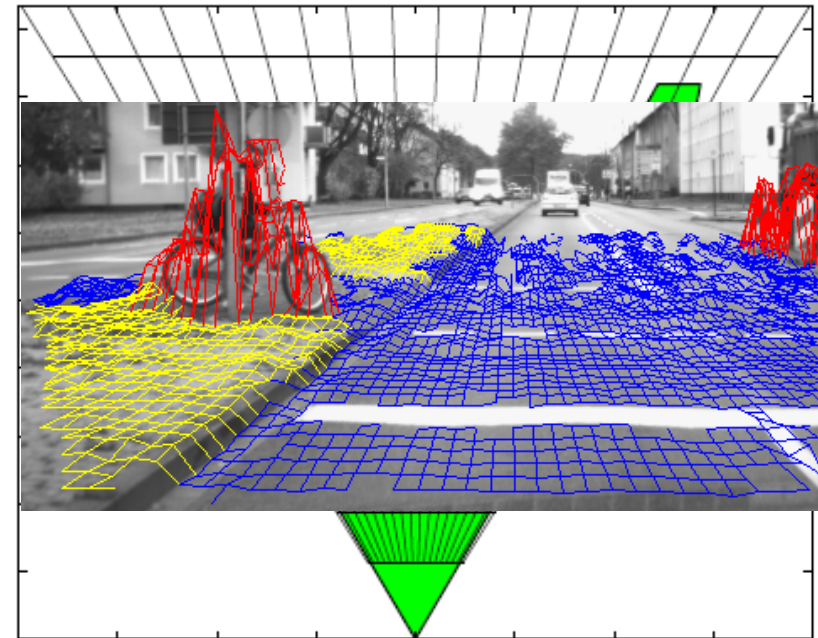
Bug Busters

Agenda

- Task Description
- Our Approach
- Milestones

Task Description

- Find the Ground Plane
- Perform a Free Space Estimation
- Project the Free Space into Bird's Eye View (Inverse Projection Mapping)



Our Approach (1/2)

- Extract height information from dense point cloud.
- Interpolation of missing data points to generate dense occupancy grid.
- Find ground plane by using regression methods (RANSAC) and prior knowledge about road level.

Our Approach (2/2)

- Intersect ground plane with occupancy grid to yield free space.
- Visualize ground plane and free space in Video Stream and Bird's Eye View.

Milestones

- **17.06.2014:** Task Breakdown completed and feasible approach found
- **24.06.2014:** Dense Occupancy Grid generated
- **01.07.2014:** Ground Plane Estimation completed
- **08.07.2014:** All Tasks completed / Final Presentation

Thank you for your attention!

Bug Busters