

Faculty for Informatics Prof. Dr. G. Umlauf



Konstanz, 03.03.2023

Assignment 2

"3d Computer Vision"

Deadline 08.05.2023.

Preliminary remark: Use your solution from the first assignment.

Part 1 (2nd Perspective Camera Model)

Implement a second perspective camera consisting of all relevant camera parameters and render the relevant quantities, e.g. center of projection, camera pose, image plane, image principle point, etc.

Part 2 (Perspective Reconstruction)

Implement a reconstruction of your scene from the two images of the projected scene using the **stereo vision normal case**.

Part 3 (Error Propagation) required only for the 6th ETCS...

Change the pose of the second perspective camera slightly, e.g. by 1° only. This corresponds to an error in the calibration of the relative pose of both cameras. Reconstruct your scene again using the **stereo vision normal case** and render it.