

Multimedia Material Description

Inverse Depth Parametrization for Monocular SLAM

Javier Civera, Andrew J. Davison, J.M.M Montiel

inverseDepth_indoor.avi (11.7 MBytes) Simultaneous Localization and Mapping, from a hand-held camera observing an indoor scene. All the processing is automatic, being the image sequence the only sensorial information used as input. It is shown a top view of the computed camera trajectory and 3D scene map. Image sequence is acquired with a hand-held camera 320×240 at 30 frames/second.

Player Information XviD MPEG-4

Contact Information jcivera@unizar.es, josemari@unizar.es

inverseDepth_outdoor.avi (12.4 MBytes) Real-time Simultaneous Localization and Mapping, from a hand-held camera observing an outdoor scene, including rather distant features. All the processing is automatic, being the image sequence the only sensorial information used as input. It is shown a top view of the computed camera trajectory and 3D scene map. Image sequence is acquired with a hand-held camera 320×240 at 30 frames/second the processing is done with a standard laptop computer.

Player Information XviD MPEG-4

Contact Information jcivera@unizar.es, josemari@unizar.es

inverseDepth_loopClosing.avi (10.2MBytes) Simultaneous Localization and Mapping, from a hand-held camera observing a loop closing indoor scene. All the processing is automatic, being the image sequence the only sensorial information used as input. It is shown a top view of the computed camera trajectory and 3D scene map. Image sequence is acquired with a hand-held camera 320×240 at 30 frames/second.

Player Information XviD MPEG-4

Contact Information jcivera@unizar.es, josemari@unizar.es

inverseDepth_loopClosing_ID_to_XYZ_conversion.avi (10.1MBytes) Simultaneous Localization and Mapping, from a hand-held camera observing the same loop closing indoor sequence as in **inverseDepth_loopClosing.avi**, but switching from inverse depth to XYZ parametrization when necessary. All the processing is automatic, being the image sequence the only sensorial information used as input. It is shown a top view of the computed camera trajectory and 3D scene map. Image sequence is acquired with a hand-held camera 320×240 at 30 frames/second.

Player Information XviD MPEG-4

Contact Information jcivera@unizar.es, josemari@unizar.es

inverseDepth_indoorRawImages.tar.gz (44MBytes) Indoor sequence raw images in .pgm format. Camera calibration in an ASCII file.

Contact Information jcivera@unizar.es, josemari@unizar.es

`inverseDepth_outdoorRawImages.tar.gz`(29MBytes) Outdoor sequence raw images in `.pgm` format. Camera calibration in an ASCII file.

Contact Information `jcivera@unizar.es,josemari@unizar.es`

`inverseDepth_loopClosingRawImages.tar.gz`(33MBytes) Loop closing sequence raw images in `.pgm` format. Camera calibration in an ASCII file.

Contact Information `jcivera@unizar.es,josemari@unizar.es`