

# Multi Camera System Calibration

**Goal:** Automatic calibration routine for a multi camera stereo setup

## Description:

An FPGA featured board includes 10 cameras to support wide field of view applications. As the camera arrangement is not restricted to a single use case a calibration routine is needed.

The cameras intrinsic and extrinsic parameters need to be estimated in order to perform stereo matching.

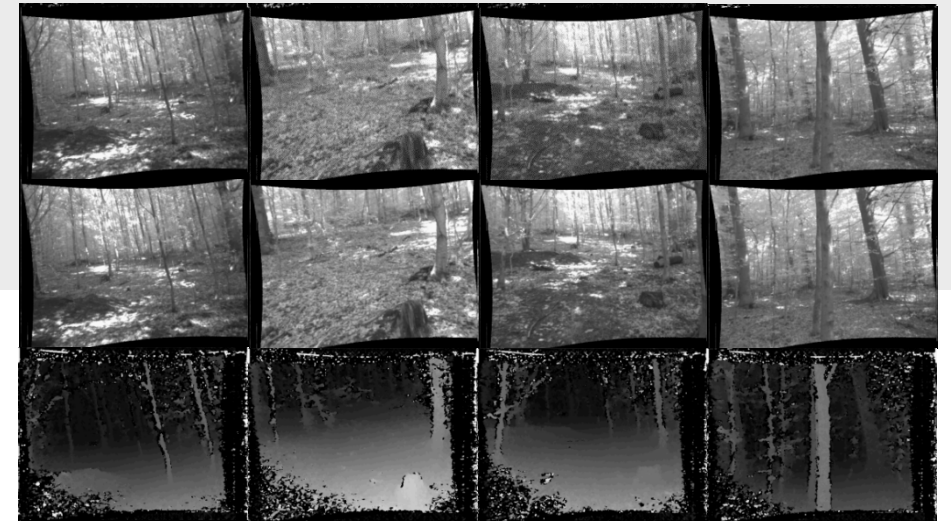
Based on the parameters the FPGA board performs real-time correction.

## Tasks:

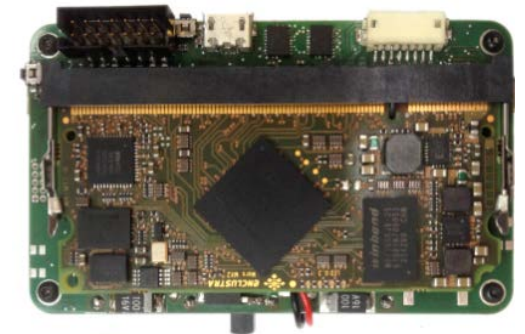
- Calibration routine for intrinsic/extrinsic parameters of one camera pair.
- Extend routine to support multiple camera pairs.
- Upload parameters to the FPGA board.

## Requirements / Tools:

OpenCV / C++



8 Camera System Output: Left, Right, Disparity



FPGA Board

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