Practicum:1 Stereo camera calibration :
output : checker board positions with respect to camera co-ordinate origin
1. Intrinsic parameters for camera 1:   2. Intrinsic parameters for camera 2:

```
cameraParams_cam1 =
  cameraParameters with properties:

  Camera Intrinsics
                    Intrinsics: [0×0 cameraIntrinsics]

  Camera Extrinsics
              PatternExtrinsics: [10×1 rigidtform3d]

  Accuracy of Estimation
          MeanReprojectionError: 0.7382
              ReprojectionErrors: [77×2×10 double]
              ReprojectedPoints: [77×2×10 double]

  Calibration Settings
                    NumPatterns: 10
              DetectedKeypoints: [77×10 logical]
                    WorldPoints: [77×2 double]
                      WorldUnits: 'mm'
                    EstimateSkew: 0
  NumRadialDistortionCoefficients: 2
      EstimateTangentialDistortion: 0
imagesUsed_cam1 = 10×1 logical array
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1


estimationErrors_cam1 =
  cameraCalibrationErrors with properties:

    IntrinsicsErrors: [1×1 intrinsicsEstimationErrors]
    ExtrinsicsErrors: [1×1 extrinsicsEstimationErrors]
```
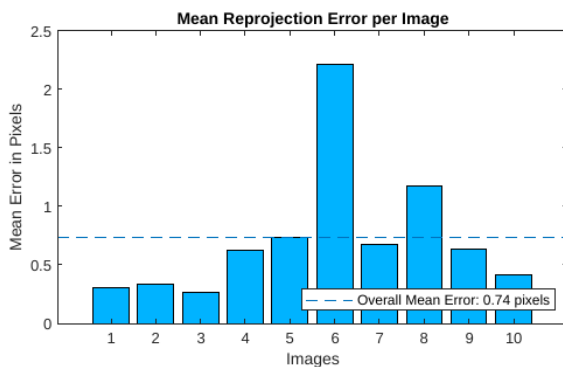
```
cameraParams_cam2 =
  cameraParameters with properties:

  Camera Intrinsics
                    Intrinsics: [0×0 cameraIntrinsics]

  Camera Extrinsics
              PatternExtrinsics: [10×1 rigidtform3d]

  Accuracy of Estimation
          MeanReprojectionError: 0.5931
              ReprojectionErrors: [77×2×10 double]
              ReprojectedPoints: [77×2×10 double]

  Calibration Settings
                    NumPatterns: 10
              DetectedKeypoints: [77×10 logical]
                    WorldPoints: [77×2 double]
                      WorldUnits: 'mm'
                    EstimateSkew: 0
  NumRadialDistortionCoefficients: 2
      EstimateTangentialDistortion: 0
imagesUsed_cam2 = 10×1 logical array
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1

estimationErrors_cam2 =
  cameraCalibrationErrors with properties:

    IntrinsicsErrors: [1×1 intrinsicsEstimationErrors]
    ExtrinsicsErrors: [1×1 extrinsicsEstimationErrors]
```
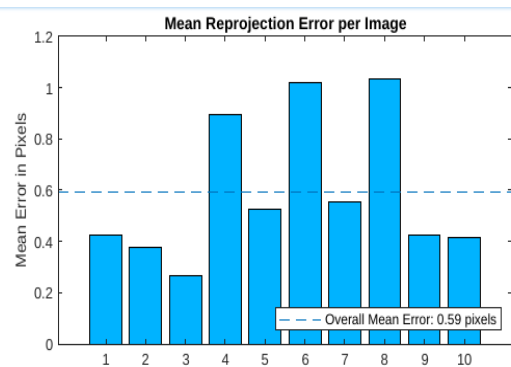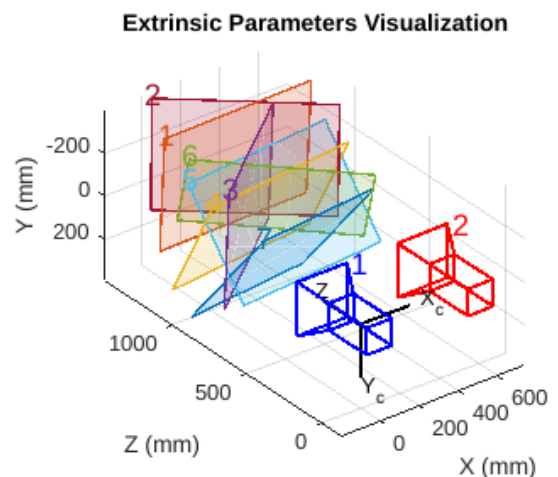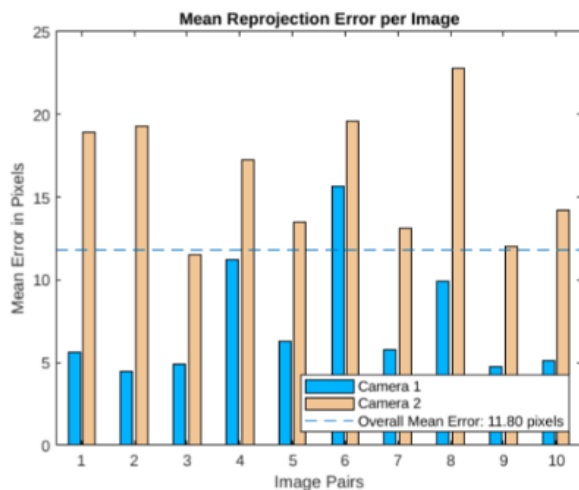

- Mean re-projection error per camera for stereo-camera pair:

- Rectification of stereo images

1. Before Rectification   2. After Rectification

- Disparity map

- Reconstructing the 3-d scene