

Calibration of Digital Sun Sensors on Satellite Flight Models

Bachelor / Master Thesis

Task Description

Perform sun sensor calibration with acquired data by developing an automated calibration method:

- Review calibration method for sun sensor based on miniature digital camera
- Review calibration setup and data and identify (systematic) errors
- Evaluate existing test setup calibration data: Sun simulator and motion simulator position measurement using precise measurement system
- Evaluate existing sun sensor calibration data and develop method for automated calibration
- Evaluate calibration process and accuracy using uncertainty analysis

Preliminary Knowledge

- Matlab for Calibration and Data Evaluation
- Experience/Knowledge with Uncertainty Analysis
- Digital camera models and Coordinate Frames

Contact via Mail or Video Chat

Oliver Ruf: oliver.ruf@telematik-zentrum.de

Anna Aumann: anna.aumann@telematik-zentrum.de

