

Extended version of paper “A comparison among three different image analysis methods for the displacement measurement in a novel MEMS device”, presented during the IMEKO TC-4 2020 Symposium.

Major points of extension:

- The Title has been modified in: “Comparative evaluation of three image analysis methods for angular displacement measurement in a MEMS microgripper prototype: a preliminary study.”
- The content of the abstract has been modified in accordance with the changes made in the extended version of the paper.
- In Section 1, the authors described in detail how the article has been structured, with reference to the different sections and their content.
- In Section 2.1, a new version of the previous method SAM has been described, in order to consider the uncertainty component introduced by the operator’s subjectivity.
- In Section 2.3, the authors implemented a new test to verify the applicability limits of the previously proposed FFT based method.
- In Section 3, the uncertainty analysis has been proposed, to evaluate the uncertainty contribution due to the subjectivity of the operator in SAM, and the angle measurement uncertainty contribution of FFT based method.
- In Section 4 and 5 the results have been described and discussed, through new graphs and tables for the representation of the major obtained results.
- In Section 5, the conclusions have been reported, in accordance to the novel version of the paper.