# Machine Learning-Based Selection of Measurement Technique for Surface Metrology: A pilot study

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## Abstract

The study introduces the application of machine learning (ML) for surface texture metrology in decision-making support for measurement system preliminary selection. The paper delves into the intricate data filtering considerations and the diverse metrological parameters involved across different measurement techniques. Tailored to the specifics of the measuring object, surface texture parameters, and factors such as measurement technique and uncertainty, the algorithm developed offers predictive capabilities. Drawing from a database of available metrological devices streamlines the operator's task by predicting the appropriate system before conducting measurements. Preliminary results from the validation of prediction models are also provided.

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