Defects and Dirt in Test and Measurement

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Workpieces in production are tested for the right shape, i.e. their dimensions and defects. On the one hand the goal is to find and describe defects, which can be small and sometimes sparce on the surface. On the other hand the defects should be distinguished from dirt. In addition dirt can disturb the measurement of the shape of the sample. There are different challenges concerning this issue. How to find small and sparse defects, distinguish defects from dirt or to eliminate the influence of dirt on the measurement? An overview of the topic is given in this presentation. Solutions are based on algorithms in signal processing or filtering but there are also ideas involving AI for finding the artefacts.