MACHINE LEARNING ALGORITHMS FOR CLASSIFYING COMPONENT DEFECTS FOR PREDICTIVE MAINTENANCE

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Reducing costs is an important part in todays business. Therefore manufacturers try to reduce unnecessary work processes and storage costs. Machine maintenance is a big, complex, regular process. In addition, the spare parts required for this must be kept in stock until a machine fails. In order to avoid a production breakdown in the event of an unexpected failure, more and more manufacturers rely on predictive maintenance for their machines. This enables more precise planning of necessary maintenance and repair work, as well as a precise ordering of the spare parts required for this. A large amount of past as well as current information is required to create such a predictive forecast about machines. With the classification of motors based on vibration, this paper deals with the implementation of predictive maintenance for thermal systems. There is an overview of suitable sensors and data processing methods, as well as various classification algorithms. In the end, the best sensor-algorithm combinations are shown.