

- Thesis (Bachelor) -



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Investigation of Suitability of Time Series Forest for LED Degradation Time Series Classification

Modeling, Statistics, Programming

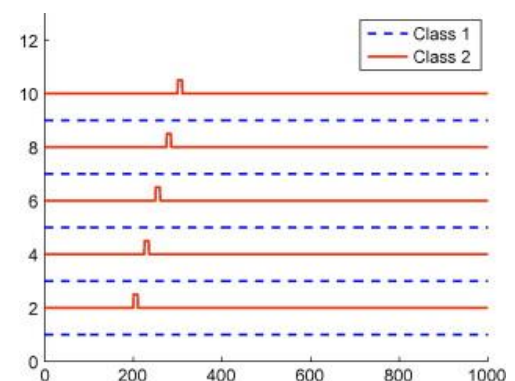
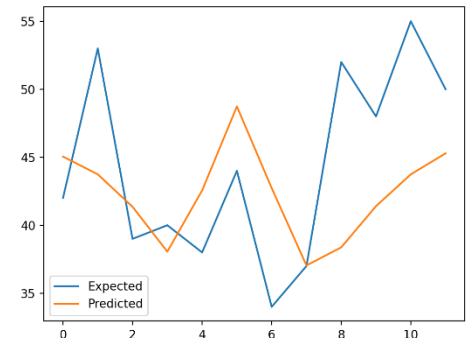
FACHGEBIET
LICHTTECHNIK

LED light sources are nowadays widely used in various applications. Over the lifetime of the LED, both the intensity and the shape of the spectrum change due to degradation processes affecting the LED. Therefore, it is important to uncover underlying degradation processes in order to determine the expected lifetime of the LED.

The purpose of this work is to investigate whether Time Series Forest (TSF) classifiers are suitable for classifying LED lifetime data. The work is divided into the following work packages:

- Literature research on TSF for univariate and multivariate time series
- Implementation of TSF classifiers
- Evaluation of implemented algorithm(s) on a given data set
- Evaluate results in terms of suitability for further use

The specific task and the scope of the work can be adapted to the students' wishes or professional preferences.



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