

Final Project - Power Line Partial Discharge Detection

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Machine learning
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Abstract

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1 Introduction

1.1 Problem

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1.2 Performance Metric

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2 Preprocessing

2.1 Input Data

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2.2 Features Extracted

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2.3 Cross Validation

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3 Dimensionality Reduction

3.1 PCA

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3.2 FLD

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4 Classification Techniques

4.1 MPP

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4.2 kNN

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4.3 Random Forest

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4.4 SVM

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4.5 K-Means Clustering

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4.6 Back-Propagation Neural Network

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5 Results

5.1 MCC

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5.2 Processing Time

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5.3 Classifier Fusion

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5.4 Comparison to Kaggle

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6 Conclusion

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A Adrian Cross Code

A.1 SVM

B

C

References