Field Circuit Breaker Inspection using Machine Learning and Data Analytics on Sound Recognition

D2 Information systems and telecommunication

PS1 Question 1.1

What experience on improving the performance of machine learning-based systems ?
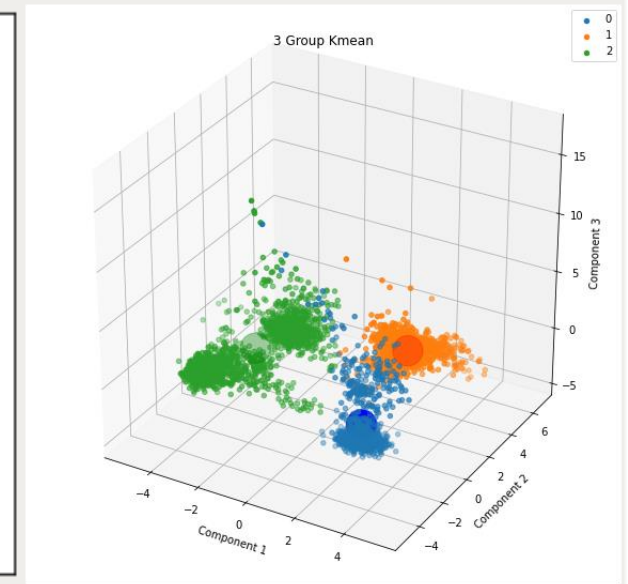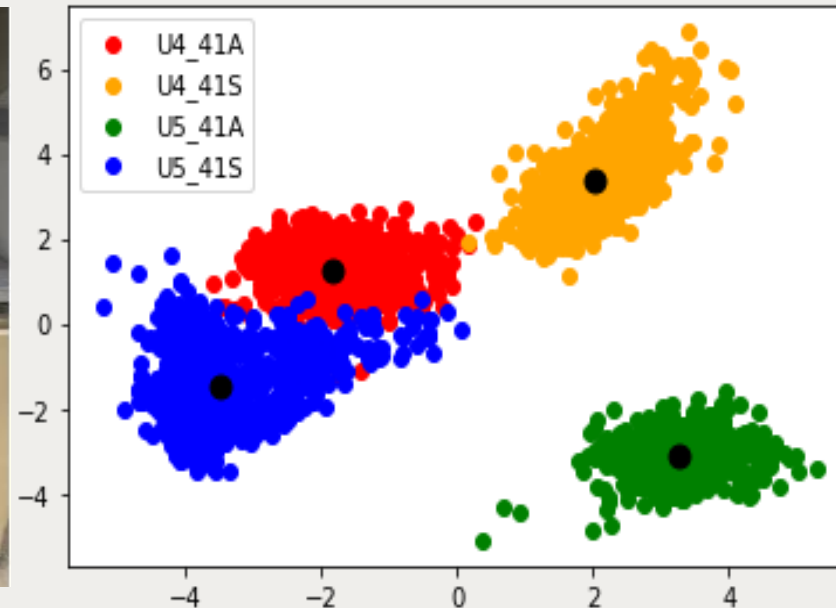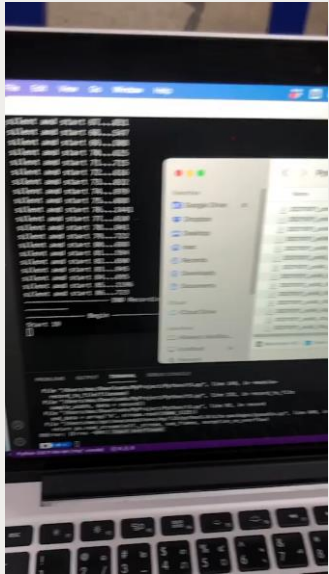
Sethachai DARNSOMBOON

Walanchabhorn BOON-NONTAE

Thailand

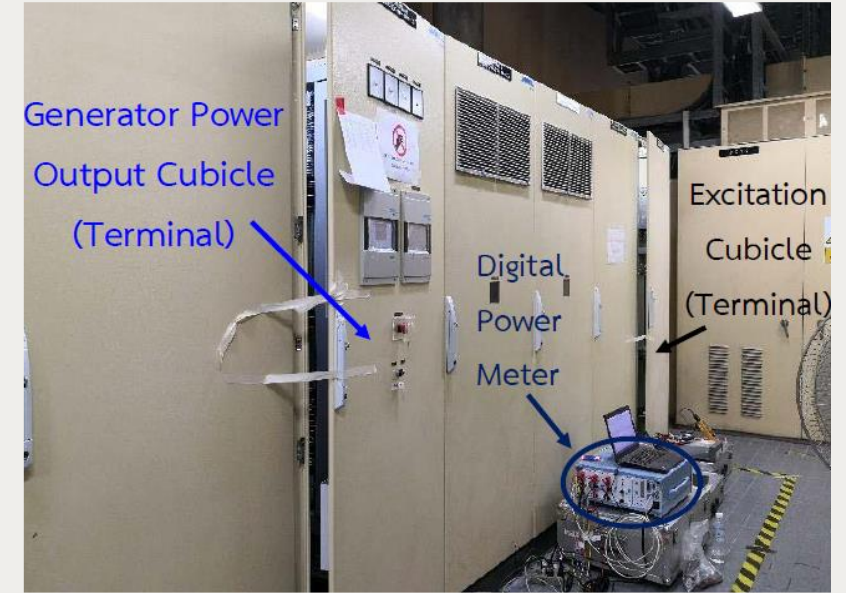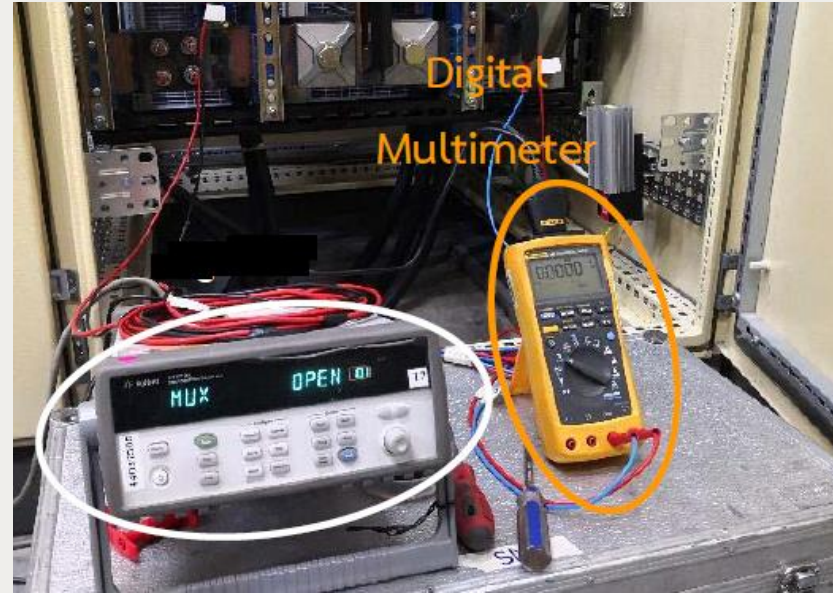**Group Discussion Meeting**   © CIGRE 2022   1

Experience on Improving the Performance of Machine Learning

- Sufficient data in every datasets are required, in order to improve the performance of Machine Learning so that it can learn and address the anomaly successfully.
- We need to generate our own datasets by simulating the missing incidents; when we possess insufficient data
- The correlation matrix and PCA technique is used to determine the relation between each variable in more compact way

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Distinct anomalies and data outliers

- The equipment must have been tested with various techniques such as visual inspection, closing time test, insulation resistance test, contact resistance test, etc. and approved by inspector. The data from inspection can distinct between anomalies and data outliers

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