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| **Project Number** | 06 | |
| **Project Title** | BAKERY-Spectra-Classification | |
| **Dataset Description** | Measurement characteristics | Impedancemetry with Vector Network Analyzer |
| Acquisition conditions | Acquisition range: frequency from 300 to 900 MHz |
| Samples description | 2 Bakery products: bread (**A**) and cookies (**B**)  3 Different (24h) storage conditions (**1** Open; **2** Wrapped; **3** humid environment)  10 replicates (1 to 10) |
| Number of samples | 30 |
| Additional information | **Datafiles**: in the “bread-cookies\_trials” folder |
| **Learning Task Description** | In this project, the aim is to compare five different supervised classification methods to discriminate between the different classes. In particular, two classification problems could be considered (discrimination between the two types of bakery products, and between the three storage conditions). No constraint is put on the choice of the classification methods, but it is advised that they be conceptually as much different as possible. In the comparative analysis, it is also suggested to put an emphasis of the feature engineering part in order to understand if some preprocessing would be beneficial and which part(s) of the spectra are the most informative for the considered learning task. | |
| **Additional Information** |  |  |