**Topic Description**

**Project Target**: Given a group of steal images, some of them are severely corroded (i.e. label2) and some of them are partially corroded (i.e. label1). Some are not (label0). Please train a classifier which can accurately classify the steel images corroded or not, and measure the accuracy of the trained classifier.

**Project Solutions**: The employed method can be someone else’s published methods or the one proposed by yourself. But the methods proposed by yourself can gain more marks.

**Evaluation Metrics:** Please use the evaluation metrics such as Precision, Recall, F-measure, AUC, etc. to show the effectiveness of the employed method on steel corrosion classification. You can easily obtain the label of each image by going through the whole dataset.

**Requirements:**

1. No matter what method you used, please describe it clearly in your report, including the main idea, the methodology, and the experiments. Please introduce the training and testing procedures in details.

2. As part of your result, you should provide the quantitative recognition results and corresponded experimental analysis.

3. Please give possible analysis on the advantages and the disadvantages of the employed method.

4. The last tip, please show your novelty and contributions in both your report and your presentation to gain more points.