**RESULTS SUMMARY:**

RESULTS FOR EGR AFTER ML MODELS TUNED:

- Random Forest models gave more promising results comparing to other techniques like SVM and KNN

- The Best results achieved after multiple iterations of hyperparameters tuning is mentioned below:

RF – Random Forest

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MODEL** | **TN** | **FP** | **FN** | **TP** | **ACCURACY** | **PRECISION** | **RECALL** |
| **RF1** | 416 | 630 | 1 | 77 | **0.4386** | **0.1089** | **0.98** |
| **RF2** | 757 | 289 | 3 | 75 | **0.7402** | **0.2060** | **0.96** |
| **RF3** | 697 | 349 | 1 | 77 | **0.6886** | **0.1808** | **0.98** |

RESULTS FOR AIR FILTER AFTER ML MODELS TUNED:

- Random Forest models gave more promising results comparing to other techniques like SVM.

- The Best results achieved after multiple iterations of hyperparameters tuning is mentioned below:

RF – Random Forest

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MODEL** | **TN** | **FP** | **FN** | **TP** | **ACCURACY** | **PRECISION** | **RECALL** |
| **RF1** | 791 | 288 | 1 | 42 | **0.7424** | **0.1273** | **0.9767** |
| **RF2** | 894 | 185 | 0 | 43 | **0.8351** | **0.188596** | **1.0** |
| **RF3** | 1008 | 71 | 1 | 42 | **0.9358** | **0.3717** | **0.98** |
| **RF4** | 1009 | 70 | 5 | 38 | **0.9332** | **0.3519** | **0.8837** |