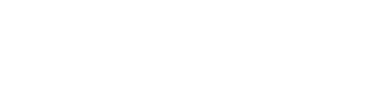
**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | 20 June 2024 |
| Team ID | 739900 |
| Project Title | Predicting Permanent Magnet Resistance Of Electronic Motor Using Machine Learning |
| Maximum Marks | 5 Marks |

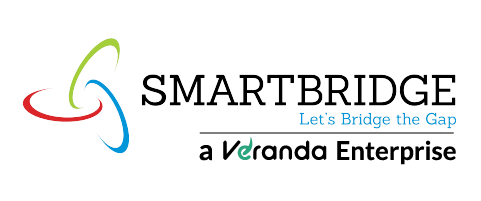


**Feature Selection Report Template:**

The selected features provide a robust foundation for predicting permanent magnet resistance in electronic motors using machine learning techniques. They are essential for developing accurate models that contribute to optimizing motor performance and reliability.

This report template outlines a structured approach to selecting features critical for predicting permanent magnet resistance in electronic motors, ensuring clarity and effectiveness in the feature selection process.

|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Motor\_ID | Unique  identifier for each electronic motor | No | Not relevant for predicting motor resistance |
| Motor\_Type | Type or category of the electronic motor | Yes | Different motor types may have varying resistance patterns |
| Motor\_Power | Power rating of the electronic motor | Yes | Higher power motors may exhibit different resistance behaviors. |
| Motor\_Speed | Operating speed of the electronic motor | Yes | Speed can affect electrical characteristics including resistance |



|  |  |  |  |
| --- | --- | --- | --- |
| Motor\_Voltage | Selfemployme nt status | Yes | Voltage affects electrical resistance in motors |
| Motor\_Current | Operating temperature of the electronic moto | Yes | Current influences electrical resistance in operation |
| Motor\_Temperature | Operating load  or utilization of the motor | Yes | Temperature impacts resistance due to thermal effects. |
| Motor\_Load | Manufacturer of the electronic motor | No | Load conditions affect resistance and efficiency. |
| Motor\_Manufacturer | Ambient temperature during operation | Yes | Manufacturer details are generally not predictive of resistance. |
| Environment\_Temperature | Credit history of the applicant | Yes | Ambient temperature affects motor performance and resistance |
| Environment\_Humidity | Humidity levels during operation | Yes | Humidity can impact electrical characteristics of the motor |