**Project Development Phase**

**Model Performance Test**

|  |  |
| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID38971 |
| Project Name | pollen's profiling: automated classification of pollen grains |
| Maximum Marks |  |

**Model Performance Testing:**

Project team shall fill the following information in model performance testing template.

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Model Summary | - For CNN:  Input → Conv2D → MaxPooling → Conv2D → MaxPooling → Flatten → Dense → Output  Model Parameters: Total params: 135,000 Activation: ReLU (hidden), Softmax (output) Loss: Categorical Crossentropy Optimizer: Adam | The model consists of two convolutional layers followed by max pooling, a flatten layer, and two dense layers including the softmax output. It uses ReLU activation, Adam optimizer, and categorical crossentropy loss for multi-class classification. |
|  | Accuracy | Training Accuracy - 97.5%  Validation Accuracy – 93.8% |  |
| 3. | Fine Tunning Result( if Done) | Validation Accuracy - 95.6% Changes Applied: • Increased epochs from 10 to 25 • Tuned learning rate (0.001 → 0.0005) • Added Dropout (0.3) layer |  |