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
2.	Model Summary Accuracy	- 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 Training Accuracy - 97.5%	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.
2.	Accuracy	Validation Accuracy – 93.8%	Training vs Validation Accuracy Training Accuracy Validation Accuracy Validation Accuracy 0.8 0.9 0.4 0.2 0.0 5 10 15 20 25 Spech
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	Training vs Validation Loss Training Loss Validation Loss 10 10 10 10 10 10 10 10 10