

**Project Design Phase**  
**Proposed Solution Template**

Date	21 June 2025
Team ID	LTVIP2025TMID32832
Project Name	Pollen's Profiling: Automated Classification of Pollen Grains
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Manual pollen identification is slow, difficult, and needs experts.
2.	Idea / Solution description	Build a computer-based tool using deep learning (CNN) that can identify pollen grains from images quickly.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"><li>- First AI tool for pollen identification.</li><li>- Saves time.</li><li>- Easy to use.</li><li>- Fast and accurate.</li></ul>
4.	Social Impact / Customer Satisfaction	Helps researchers, students, and farmers by saving time and improving accuracy in pollen identification.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>- Free for students.</li><li>- Paid subscription for labs and institutions.</li><li>- API for integration.</li></ul>
6.	Scalability of the Solution	The solution can be expanded to more users, more pollen types, and can work online easily.