**Project Design Phase**

**Proposed Solution Template**

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| 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.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Manual pollen identification is slow, difficult, and needs experts. |
|  | Idea / Solution description | Build a computer-based tool using deep learning (CNN) that can identify pollen grains from images quickly. |
|  | Novelty / Uniqueness | - First AI tool for pollen identification. - Saves time. - Easy to use. - Fast and accurate. |
|  | Social Impact / Customer Satisfaction | Helps researchers, students, and farmers by saving time and improving accuracy in pollen identification. |
|  | Business Model (Revenue Model) | - Free for students. - Paid subscription for labs and institutions. - API for integration. |
|  | Scalability of the Solution | The solution can be expanded to more users, more pollen types, and can work online easily. |