MES COLLEGE OF ENGINEERING - KUTTIPPURAM DEPARTMENT
OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

Mini Project Proposal Submission - Guidelines

Approval of the mini project proposal is mandatory to continue and submit the project work.

The mini project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken.
The following documents are to be submitted for approval

1. Proforma for approval of the Mini Project
2. Synopsis/Abstract with following contents

    (a) Title of the Mini Project
    (b) Introduction/Overview of the Project
    (c) Motivations of the Project
    (d) Problem Definition and Objectives of the Project
    (e) Basic functionalities of the Project
    (f) Project Developing Environment

Note:

1. An editable PDF is given in the 2nd page for filling the Proforma. Fill all the appropriate entries.
2. Template format for preparing the Mini Project Synopsis/Abstract is given in the 4th page of this document.

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PROFORMA FOR THE APPROVAL OF THE FIFTH SEMESTER MINI PROJECT

(*Note: All entries of the proforma for approval should be filled up with appropriate and complete information. Incomplete proforma of approval in any respect will be rejected.*)

Mini Project Proposal No : _____ *(Filled by the Department)*	Batch: 2024-2025 S3 MCA

1. Title of the Project : AgriInput Advisor

2. Name of the Guide : Reshmi k

3. Register Number of the Students :MES24MCA-2052

4. Date of Submission : 21-07-2025

5. Student Details (in BLOCK LETTERS)

Name	Roll Number	Signature
SHIFANA NASRIN	52	

For Office Use Only Approval Status :

Approved/Not Approved

_____

Comments/Suggestions : _____

Signature of Committee o Members:

First Review Comments/Suggestions:

_____

Second Review Comments/Suggestions :

_____

Final Review Comments/Suggestions:

_____

Dated Signature of Committee Member

Dated Signature of HOD

AgriInput Advisor – Fertilizer & Pesticide Guide for Kerala Crops

Introduction

AgriInput Advisor is a mobile-based application developed to support farmers in Kerala by offering accurate and crop-specific recommendations for fertilizers and pesticides. Many farmers face challenges due to overuse or misuse of agrochemicals, which affects crop yield, soil health, and the environment. This application provides a smart, offline-accessible solution to guide them using a simple interface where they select a crop and district to receive scientifically-backed input suggestions. The app is designed to work in both English and Malayalam to ensure usability among local users.

Motivations

The agricultural sector in Kerala is vital but often suffers from the misuse of fertilizers and pesticides due to lack of awareness, unreliable sources of information, or absence of real-time expert guidance. This not only harms productivity but also impacts environmental sustainability and human health. The motivation for this project stems from the desire to bridge this information gap through digital technology. With increasing smartphone penetration, an offline mobile app in regional language can empower farmers to make better decisions, reduce input costs, and promote safer farming practices. This project also aligns with broader efforts in precision agriculture and rural digital inclusion.

Problem Definition and Objectives of the Project

Farmers in Kerala lack easy access to location- and crop-specific information about correct fertilizer and pesticide usage. They often rely on informal advice or guesswork, leading to over-application, wastage, or crop damage. Current solutions do not cater to offline users or provide localized recommendations in Malayalam.

Objectives:

- To develop a user-friendly Android app that offers fertilizer and pesticide recommendations based on selected crop and district.
- To support both Malayalam and English languages for broader reach.
- To function in offline mode using a local SQLite database.
- To reduce environmental and financial damage caused by improper agrochemical use.
- This work extends the efforts of previous agricultural advisory systems like IFFCO Kisan and eKrishi by incorporating hyper-localized input, offline usability, and regional language support.

Basic Functionalities of the Project

1. User Module:

- Simple login for user access (optional)
- Select district and crop from dropdown or image-based UI
- Receive recommended fertilizers and pesticides
- Language toggle: English / Malayalam
- Offline access to all recommendations

2. Admin Module :

- Add/update crop and district-wise input data
- Manage app content remotely
- Monitor usage and gather feedback for system improvement

Project Developing Environments

- Frontend: Android SDK using Kotlin and XML
- Backend Logic: Kotlin
- Database: SQLite (for offline storage)
- Language Support: English and Malayalam
- IDE: Android Studio
- Platform: Android OS

Conclusion

AgriInput Advisor is a practical, scalable solution tailored for the farming community of Kerala. By providing district-wise, crop-specific fertilizer and pesticide recommendations through a multilingual offline mobile app, it aims to reduce the overuse of harmful agrochemicals and promote sustainable agricultural practices. The project not only enhances productivity but also empowers rural farmers with access to scientific information at their fingertips.