FORMAT FOR STUDENT PROJECT PROPOSAL

1.	Name of the Students	:	Kirthika P, Madhummitha, Monish B
	one valid e-mail id	:	monishmonib@gmail.com
2.	Name of the guide	:	Dr. N. Ananthi
	Department / Designation	:	Head of the Department / Information Technology
	Institutional Address	:	162, Bharathi Salai, Ramapuram, Chennai, Tamil Nadu, 600089
	Phone No & Mobile No	:	9444365882
3.	Project Title	:	Digital Companion: A Smart Way forward for Agriculture
4.	Sector in which your Project proposal is to be Considered	:	Agriculture
5.	Project Details	:	(Attached as Annexure)

CERTIFICATE

This is to certify that Mr./Miss. _____ is a bonafide final year student of P.G. Science / U.G. Engineering / P.G. professional courses of our college and it is also certified that two copies of utilization certificate and final report along with seminar paper will be sent to the Council after completion of the project by the end of April 2022.

Signature of the Guide Signature of the HOD Signature of the Principal/ Head of the Institution

ANNEXURE

Digital Companion: A Smart Way forward for Agriculture

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

DOTE Campus, Chennai-600025

STUDENT PROJECTS SCHEME

2021-2022

Digital Companion: A Smart Way forward for Agriculture

SUPERVISOR: Dr. N. Ananthi

TEAM MEMBERS:

Kirthika P

Madhummitha

Monish B

Department of Computer Science and Engineering

Academic Year 2021 - 2022

INTRODUCTION:

- Agriculture has been the primary occupation in our country for ages. It is the craft and science of developing plants.
- As the world is moving towards the trending technologies for automation it became very important to introduce these trending technologies in the field of agriculture to increase the production and quality of the crops.
- In concern with the ecosystem and the farmers, these technologies will benefit the agricultural engineering and technology in overcoming all the local myths and ethics decreasing the mega problems in the agriculture arena.

OBJECTIVE:

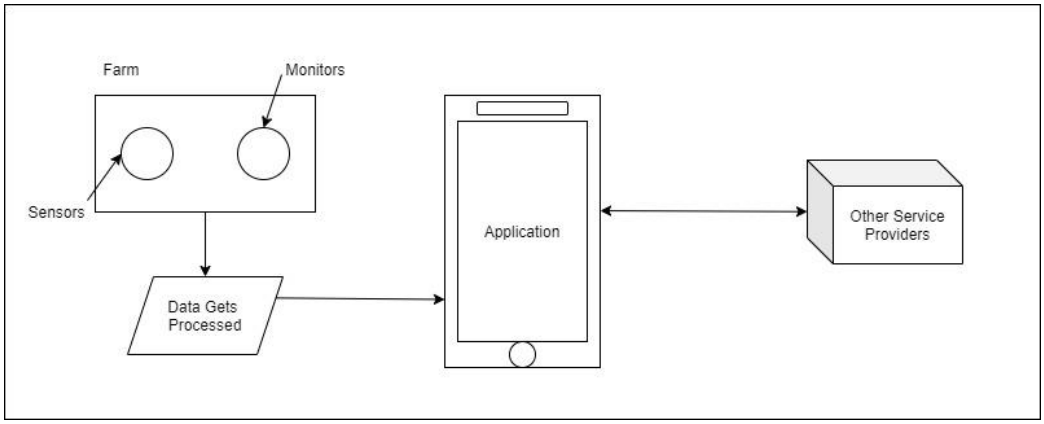
- Increased Production such as Accurate planting, watering, pesticide application, and harvesting.
- Water Conservation by Weather predictions and soil moisture sensors.
- Real-Time Data and Production Insight
- Farmers can visualize production levels, soil moisture, sunlight intensity, etc remotely in real-time.
- Lowered Operation Costs by Reduce resource consumption, human errors, and overall cost.
- Farmers can remotely monitor multiple fields in multiple locations around the globe from an internet connection.
- The app design offers a user-friendly interface and provides information on current weather and market prices of crops in the nearest town, knowledge on fertilizers, seeds, machinery, etc.

PROPOSED SYSTEM:

The proposed system will let the farmer monitor day to day activities in the farm such as automatic and smart irrigation, Measurement of important ground parameters such as heat, moisture, pH etc. in order to better understand the crop yield and use the necessary data to make informed decisions about crop rotation.

It will also help the farmer to connect with other Smart Cities / Environments projects in the future to intelligently manage the inventory, sell the goods that are being cultivated and many more.

WORKFLOW:



WORK PLAN/ SCHEDULE:

Activities	Months				
	1-2	3-4	5-6	7-8	9-10
Literature Survey					
Requirements Gathering					
Building Prototype					
Testing Prototype and Build Stable Module					
Performance Evaluation					
Final Phase Development					
Report Generation					

APPLICATIONS:

- Monitor Fields in Real time
- Get Intelligent Reports and periodic updates
- Utilize the smart projects to make intelligent decisions
- Easy access to markets and resources for better crop production
- Easily accessible and understandable

ADVANTAGES:

- Increased Production
- Resource Conservation
- Real-Time Monitoring
- Low Cost
- Remote Monitoring

LIMITATION:

- Internet Availability
- Basic Understanding of Technology

BUDGET:

Item Description	**Amount in Rs**
Soil pH Meter	1645
Soil Moisture Sensor	150
Arduino UNO	2508
Humidity Sensor	830
Temperature Sensor	200
Application Cost	2000
Node MCU	700
Total	**8030**