



Program Book

Community Service Project

**AP STATE COUNCIL OF HIGHER
EDUCATION**

(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

A Community Service Project Report On

CROP ROTATION

Submitted in partial fulfillment of the requirements for the award of the degree of
BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted by

Roshini yadav

(20NT1A0530)

Under the guidance of

Mr. K.RUPENDRA SINGH, M.Tech

Senior Assistant Professor



**VISAKHA INSTITUTE OF ENGINEERING AND
TECHNOLOGY**

(Approved by AICTE, NEW DELHI Affiliated to JNTUK KAKINADA, AP
& accredited by NAAC

GVMC 88th DIVISION, NARAVA VISAKHAPATNAM-530027

2020-2024

PROGRAM BOOK
FOR
COMMUNITY SERVICE PROJECT

(Submitted in accordance with the requirements for the degree of Bachelor of Technology)

Name of the College : VISAKHA INSTITUTE OF ENGINEERING & TECHNOLOGY
Department : COMPUTER SCIENCE & ENGINEERING
Name of the Student : R o s h i n i y a d a v
Programme of study : B.Tech
Registered Number : 2ONT1A0530
Year of study : 3rd year
Semester : 1st semester
Duration of the CSP : From 18/07/2022 to 04/09/2022
Name of the Faculty Guide: Mr. K. RUPENDRA SINGH .MTech

University
JNTUK, Kakinada

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GVMC 88th DIVISION , NARAVA VISAKHAPATNAM-530027

**DEPARTMENT
OF
COMPUTER SCIENCE AND ENGINEERING**



CERTIFICATE

This is to certify that the Community Service Project work entitled, “**CROP ROTATION** ” is a bonafide work carried out by **Roshini yadav**, in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** in **COMPUTER SCIENCE & ENGINEERING** from **VISAKHA INSTITUTE OF ENGINEERING & TECHNOLOGY**, NARAVA, during the academic year 2022-2023.

PROJECT SUPERVISOR

HEAD OF THE DEPARTMENT

Senior Assistant Professor

Professor & HOD

EXTERNAL EXAMINER

ACKNOWLEDGEMENT

The satisfaction that accompanies successful completion of any task would be incomplete an the

Without the mention of the people who made it possible and whose are constant guidance and encouragement and crown all the efforts with success.Then the acknowledgement transcends the reality of formality.

We are thankful

To our beloved guide **Mr.K.RUPENDRA M.tech** who has spared his valuable time and append novel ideas to guide us in lime light.We are indebted to him without whom we not have culminated to the pinnacle of this project.We also wish to convey our sincere thanks

MR.K.RUPENDRA,M.Tech,Ph.D,Head Of the Department who provided to vital information which was necessary of the project.We are thankful **Dr. SRIDHAR PATNAIK M.Tech,Ph.D,Principal** for providing appropriate environmental required for this project. We are also thankful to all staff members, lab,technicians, librarians, parents and friends who are directly and indirectly help ped us in the completion of the project with flying colours.

Yours sincerely

Roshini yadav

20NT1A0530



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INSTITUTE VISION AND MISSION

VISION:

To induce higher planes of learning by imparting technical education with

- International standards
- Applied research
- Creative Ability
- Value based instruction and to emerge as a premiere institute

MISSION:

Achieving academic excellence by providing globally acceptable technical education by

Forecasting technology through

- Innovative Research and Development
- Industry Institution Interaction
- Empowered Manpower

PRINCIPAL



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GVMC 88th DIVISION, NARAVA VISAKHAPATNAM-530027

DEPARTMENT VISION AND MISSION

Vision:

To be center of excellence and renowned for COMPUTER SCIENCE AND ENGINEERING education and research.

Mission:

- Enlighten the graduates in the basic concepts underlying the principles of analog and digital electronics, communication systems and advanced technologies.
- Provide state of the art infrastructure and research facilities
- Organizing industrial programs and social activities in collaboration with industries, NSS to disseminate knowledge.

Head of the Department



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PROGRAM SPECIFIC OUTCOMES(PSOs)

Program Name:

Bachelor of Technology (B.Tech) in Computer science and engineering

PSO1:

Apply concept in in Computer science and engineering to design and implement systems in the areas related to Communication like AI and cyber security

PSO2:

Demonstrate proficiency in utilization of software and hardware tools related to in Computer science and engineering, While acquiring soft-skills like persistence, proper judgement through projects and industrial interactions.

Head of the Department

Student's Declaration

I, **Roshini yadav** a student of **B.Tech** Program, Reg. no: **2ONT1A0530** of the department of **COMPUTER SCIENCE AND ENGINEERING**. **VISAKHA INSTITUTE OF ENGINEERING AND TECHNOLOGY**. do here by declare that, I have completed the mandatory community service project from the 18/07/2022 to 04/09/2022 in **NARAVA**. Under the Faculty Guide ship of **MR. K.RUPENDRA** Department of **COMPUTER SCIENCE AND ENGINEERING** in **VISAKHA INSTITUTE OF ENGINEERING AND TECHNOLOGY**

(Student Signature and Date)

Endorsements

Faculty Guide

Head of The Department

**Certificate from
Official of the Community**

This is to certify that **shiniv** Reg. No. **21NT5A0516** of VISAKHA
INSTITUTE OF ENGINEERING AND TECHNOLOGY underwent community
service in NARAVA from 18/07/2022 to 04/09/2022. The overall performance of the
Community Service Volunteer during his/her community service is found to be
_____ *(Satisfactory/Good)*.

Authorized Signatory with Date and Seal

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EXECUTIVE SUMMARY

Brief description of the Community :

A **cash crop** or **profit crop** is an [agricultural crop](#) which is grown to sell for profit. It is typically purchased by parties separate from a [farm](#). The term is used to differentiate marketed crops from [staple crop](#) (or “subsistence crop”) in the [subsistence agriculture](#), which are those fed to the producer's own livestock or grown as food for the producer's family.

Summary of activities done:

- Finding the details of the village.
- Conducted the survey by asking them Questions.
- Finding the problem behind the disease.
- Finding the solution to cure it.

Learning Objectives:

- To know which type of process they follow while growing the crop.
- Acquire life Skills and knowledge.
- And there by knowing how to reduce the disease occur to a crop.

Project outcomes:

- Improved Knowledge.
- Improved Communication skills.
- Greater interpersonal development, particularly the ability to work well with others.

OVERVIEW OF THE COMMUNITY

Historical profile of the community/habitation:

According to Census 2011 information the location code or village code of NARAVA village is 530027. NARAVA village is located in Pendurthi mandal of Vishakapatnam district in Andhra Pradesh, India. As per 2009 stats, Narava village is also a gram panchayat.

The total geographical area of village is 2101 hectares. pendurthi has a total population of 11,120 peoples, out of which male population is 5,552 while female population is 5,568 Literacy rate of village Narava is the nearest town to pendurthi for all major economic activities, which is approximately 15Km away

NARAVA -village overview	
Gram panchayat:	NARAVA
Block/Mandal:	Pendurthi
District:	Visakhapatnam District
State:	Andhra Pradesh
Pincode:	530027
Area:	13.99km square

COMMUNITY SERVICE PART

Activities under taken in the community:

By conducting the survey, I gathered the information from the people of these area which are related to my project to identify the problems faced by the people staying there.

Analysing the problems and finding out the solutions:

After conducting the survey, I had identified all the major problems that are facing by the People related to their area and I have found some solutions for the problems.

Conducting campaign:

With all the possible solutions I had conducted a campaign by going to that area and Interacting with the peoples and telling them the solution which I had discovered for their problems and explained the benefits in using the solutions.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature

Day – 1	We went to the NARAVA sachivalayam and explained them about our project details and taken permission from the VRO	Interacting with superiors	
Day - 2	We have visited the fields and identified problems of the farmers.	Observed the crop and analyzed the problems that we Identified.	
Day – 3	Surveyed the fields and noticed problems facing by the farmers during cultivation.	Experienced spraying fertilizers in fields.	
Day – 4	Interacted with the farmers about the crops and cultivating methods,	Noted that farmers are facing a lot of financial problems because of not having valid price for their yield.	
Day – 5	The next day we knew the cultivating methods and fertilizers they are using.	Farmers are using a lot of fertilizers while cultivating.	
Day – 6	On last day we suggested some tips for high yielding by natural way of cultivation.	We learned about paddy cultivation methods.	

WEEKLY REPORT

WEEK – 1 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report:

On the first week survey, we discussed the title of our project and choose a place to conduct a survey on our title and prepared the schedule.

Took the permission from the municipal commissioner of NARAVA to conduct survey in selected areas

In this week, I interacted with farmers where I collected various important information like how many acres of land they are holding and what types of crops they are planting in the fields. And also what are the implementations or exceptions they are using in their day to day farming

There are various types of plantations .plantations is done based on the weather , season ,and types of land

We collect the data from them like which type of fertilizers they are using and we got researched each and every fertilizer of the disadvantage and health issue from the fertilizer

Use of excessive quantity of synthetic fertilizers are harmful for human health. It is containing the surface water via run offs and its consequent effects.

High levels of nitrates and nitrates in chemical fertilizer may cause some diseases like hemoglobin disorders ,Diabetic mellitus

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	We have conducted awareness program on importance of organic farming.	Leadership qualities.	
Day - 2	Create awareness among the community by explaining the advantages of organic farming.	Teamwork for creating awareness on organic farming.	
Day – 3	Explain about the advantages of organic cultivation and explained how it is useful for health.	We know that, quality is more important than quantity.	
Day – 4	Create awareness on problems which are faced by future generations by using of inorganic farming.	Assertiveness, sharing the views among the community.	
Day – 5	How organic farming establishes sustainable health.	Effective speaking.	
Day –6	Main aim of the project is to encourage the people to follow the organic farming methods.	Supportiveness of the team.	

WEEKLY REPORT

WEEK – 2 (From Dt..... to Dt.....)

Objective of the Activity Done:
Detailed Report:
Educating farmers about the crop rotation
In the second week's survey, we have created awareness program based on the crop rotation
We have explained the advantages of crop rotation by creating a community among them and also explained how it is good for production and soil fertility
We have described to farmers the need of using crop rotation in this Corporate world
Created awareness about the effects caused by pesticides and the side-effects causing by using inorganic farming by future generation
The main theme of this week is to encourage the farming people to follow the crop rotation methods in their farms

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Explained about which soil is better for crop rotation and how it maintained according to crop.	Social skills.	
Day - 2	Crop Rotation methods for increasing soil fertility like plowing under mining.	Learned about soil fertility techniques.	
Day – 3	Soil fertility and nutrient management of crop rotation.	Social skills.	
Day – 4	Selection of seeds for farming and how it plays a key role in farming.	Communication skills.	
Day – 5	Seed purification. techniques and why it needs purification.	Time management.	
Day – 6	Watering methods for cultivation by Drip irrigationmethod.	Technical management.	

WEEKLY REPORT

WEEK – 3 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report:

In the third week's survey, we learned about the key components of farming like seed selection, watering techniques etc

For best crop yield seed selection plays an vital role

Soil fertility is a major deciding factor about the yield

We learned about seed purification techniques and nutrient management for crop rotation

We came to know about the watering techniques and irrigation details

ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	The crop required which type of micro and macro nutrients and importance of jeevamrutham.	Jeevamrutham is a natural liquid fertilizer. It is made by mixing water, dung and urine from cows	
Day - 2	Explain the procedure and importance of amrithajalam.	presence of microbes. that help plant growth is essential in the soil.	
Day – 3	We also created awareness on acchadana, which reduce water consumption.	Social Skills.	
Day – 4	Interact with the farmers about crops and cultivating methods.	Awareness on selling crop.	
Day – 5	On the 5 day, we know the cultivating methods which are used by community in detail.	Machinery usage in the fields.	
Day – 6	Last Day of the week, we know the crop yield status of the community and also know how much time is taken.	An Idea about duration of crop.	

WEEKLY REPORT

WEEK – 4 (From Dt..... to Dt)

Objective of the Activity Done:
Detailed Report:
After conducting a 1 week long survey, we came to know that the literacy rate is a little bit low
We came to know that many farmers are facing so many problems
And also we also know about organic farming, It is comprised of an integrated suite of practices that provides the benefits in addition of producing food, fiber and feed.
The farmers in that area said that, even though they work hard the income is less
And in rainy seasons they face lot of problems to cultivate the crop and maintain the crop is very difficult.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Brief description of the daily activity	Awareness on selling crop.	
Day - 2	We listened about the issues they are facing.	Social responsibility.	
Day – 3	We understand they don't getting enough profit for their production.	Awareness on selling production.	
Day – 4	We also observed power charges for them are so high and they are not getting any subsidies.	Investment is more profit is less.	
Day – 5	On the 5th day, we know the cultivating methods which are used by community in detail.	Learning skills	
Day –6	Last day we suggested some key points to increase production.	Ideal thinking.	

WEEKLY REPORT

WEEK – 5 (From Dt..... to Dt.....)

Objective of the Activity Done:
Detailed Report:
We started this week some brief description about our activity and created cognizance on selling crops
After some surveys we also perceive some issues on are they facing
We also noticed that the power bills for these individuals are exceptionally high and they are not receiving any financial assistance
We are aware that the community is not reaping sufficient gains from their efforts. We have an in- depth understanding of the farming techniques employed by the group. Recently, we proposed a few strategies to amplify their yield
To ensure success in crop selling, it is important to have awareness on social responsibility, selling production and investments, while also focusing on learning new skills and having ideal thinking
It is essential to consider the impact of diseases on crop production, as diseases can significantly reduce crop yields

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Approached the mentor to know about the campaign process for this month	Initiative and planning	
Day - 2	Me and my teammates gathered together to discuss on how to conduct the survey and we decided to survey on crops	Work collaboratively	
Day – 3	We collected the information regarding the different crops around their surroundings.	Surveying	
Day – 4	We found the diseases are caused due to lack of improper suggested products.	Communicate with others	
Day – 5	We together plan to create the documentation process and completed the final report.	Communication	
Day – 6	Final report was submitted to higher authority and the same was submitted to the mentor.	Working Collaboratively	

WEEKLY REPORT

WEEK – 6 (From Dt..... to Dt.....)

Objective of the Activity Done:

Detailed Report:

When submitting the data collected throughout the survey to the mentor, it is important to provide a clear and concise report that outlines the key findings

It is important to discuss any issues related to crop production that arose during the survey, such as soil fertility, climate change, pest and disease infestations, and water availability

The mentor should be provided with an action plan detailing how the issues can be addressed and what steps need to be taken to improve crop production

The mentor should be provided with recommendations for how to prevent and control such as using resistant varieties, crop rotations, and good agronomic practices.

We hope that you have found our project to be beneficial and we thank you for your guidance and support throughout the process.

CHAPTER 4: OUTCOMES DESCRIPTION

Details of the Socio-Economic Survey of the village:

The project aims to identify, and observe diseases and collect information about from farmers. And to find out the problems the farmers are facing. To find out and the implement short term and long term action plans for the solutions of these problems identified. To conduct community awareness programs concerning these problems. Giving them the best knowledge about some online platforms. Which give details and about farming.

Questionnaire prepared for the survey:

- 1.What are the most frequent diseases?
- 2.Which pesticides do you use?
- 3.Where do you buy pesticides from?
- 4.How much does fertilizers cost?
- 5.What kind of irrigation methods do you follow?
- 6.In which time span the crops are Rotated?
- 7.what crops are suitable crop Rotation?
- 8.Is your crop yield gives you profit or loss?
- 9.what other problems are you facing while rotating crops?
- 10.Which season is best for crop Rotation?

Problems of Community

Problems identified in the community:

While surveying different fields and meeting several farmers and the officer in farmer welfare office . We observed many problems like the problem like pests and climatic changes water problems etc. We observed a major issue that the capital needed for the farming is not sufficient for a farmer these days due to increase in cost of seeds, fertilizers, pesticides and machinery needed and hence farmers are seeking loan unofficially and are facing problems paying the debt and even after that there is no guarantee for a fruitful yield so after many discussions with team and interacting with people in farmer welfare office and also many farmer. We managed to think of a solution to this issue which is Crop Rotation. Because cultivating only main crops doesn't give much of a profit hence rotating to a cash crop after cultivation of main crop gives you a great profit and also rotating crops is good for the soil fertility. Also by rotating the crops and cultivating different crops the variety of the edible and other useful crops in our area increases, Increasing the community value.

Short-Term and Long-Term action plan for possible solutions :

Short-Term Solutions

Knowing about the agriculture yield's and type of diseases that each and every crop by the farmers knowledge. In which, every crop has it's own specific disease and specific yielding method which has to followed to except a better yield.

The knowledge we have learnt about the crop disease and made an detail evaluation give a clear explanation for the farmers for a best yield.

These explanation helps the farmers to increase the profit of the yield and give us a best and good healthy crop.

Long-Term Solutions

We have learnt about various crops as shown below with their specific diseases.

DRAGON FRUIT	:	Rhizome soft rot , Leaf speckle
IVY GOURD	:	Powdery mildew
LADY'S FINGER (Okra)	:	1. Damping off – Pythium aphanidermatum 2. Twing canker – Fusarium pallidoroseum
COTTON	:	Areolate mildew,Crown gall,Blue disease
OIL PALM	:	Basal stem rot, Ganoderma Butt rot
MARI GOLD	:	Septoria, Alternaria
BANANA	:	Rhizome, soft rot, Leaf speckle

For all the above mentioned crops, there are different types of Pesticides which are used in different methods and there are from different places. The Pesticides are of different prices and a specific pesticide has a different type of Medicine in it.

The main objective of this is to learnt about the different type of crop, its method of irrigation and its own specific disease in which usage of Pesticide is also known.

Community awareness program and outcomes :

During our project, we conducted awareness programs in the form of campaigns. We conducted these campaigns in order to bring awareness among the people about agriculture.

We created awareness on what are the difficulties they faced in cultivation and how they overcome. We created awareness on new cultivation techniques. Created awareness about crop diseases and bio degradable pesticides.

Outcomes:

- During the awareness campaign we helped the people understand modern techniques for agriculture
- and we created an awareness on irrigation methods.
- Additionally, we stressed the significance of bio-degradable pesticides.
- Outlined the negative implications of neglecting crop disease in initial stage.
- We explained to them how modern world is depending on food products.

CONCLUSION

***Agriculture is an integral part of smart growth.**

***The ability to feed one's own population is critical to the independence of any state.**

***Agriculture is an important sector of Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population**

PHOTOS





CONCLUSION

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