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प्रौद्योगिकी के लिए राष्ट्रीय शैक्षणिक सहयोग
National Educational Alliance for Technology

अखिल भारतीय तकनीकी शिक्षा परिषद्
All India Council for Technical Education

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SEETHALA JYOTHI SWARUP

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AI-ML Virtual Internship

during July - Sep 2022

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Program Book

Community Service Project

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(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH

Program Book

for

Community Service Project

Name of the Student:

Name of the College:

Registration Number:

Period of CSP: **From:** **To:**

Name & Address of the Community/Habitation:

Community Service Project Report

Submitted in accordance with the requirement for the degree of …….

Name of the College:

Department:

Name of the Faculty Guide:

Duration of the CSP: From……To……

Name of the Student:

Programme of Study

Year of Study:

Register Number:

Date of Submission:

Student's Declaration

I,….....,a student of …….Program, Reg. No. ……of the Department of……., …… College do hereby declare that I have completed the mandatory community service from…….. to ……in (Name of the Community/Habitation) under the Faculty Guideship of....., (Name of the Faculty Guide), Department of …… in …… College

(Signature and Date)

Endorsements

Faculty Guide

Head of the Department

Principal

ACKNOWLEDGEMENTS

We would like to extend our heartfelt gratitude and appreciation to everyone who contributed to the successful implementation of our community service project on drinking water management. Through your unwavering dedication and support, we were able to make a significant impact on our local community and address the pressing issue of access to clean drinking water. Your efforts have truly made a difference, and we are immensely grateful for your involvement.

First and foremost, we would like to express our deepest appreciation to the members of the community who actively participated in this project. Your willingness to engage, collaborate, and work towards a common goal has been truly inspiring. Whether you joined us for cleanup drives, awareness campaigns, or provided valuable insights and expertise, your commitment to improving the water situation in the community has been invaluable.

Additionally, we would like to extend our gratitude to the local authorities and government agencies who supported our project. Your guidance, expertise, and cooperation were instrumental in navigating various administrative processes and ensuring the smooth execution of our initiatives. Your commitment to addressing water-related challenges and creating a better future for our community is commendable.

Furthermore, we express our gratitude to the volunteers who selflessly dedicated their time and energy to this project. Your enthusiasm, hard work, and willingness to go the extra mile have been crucial to its success. Whether you assisted in organizing events, raising awareness, or directly engaged with the community, your dedication and passion for service have been remarkable.

Last but not least, we would like to acknowledge the educational institutions that lent their support to our project. Your collaborative efforts, sponsorship, and provision of resources have played a pivotal role in achieving our goals. Your commitment to corporate social responsibility and community development has set an exemplary standard for others to follow.

Together, we have made a significant difference in our community's drinking water management, creating a positive and sustainable impact for years to come. Our collective efforts have empowered individuals, raised awareness about water conservation, and enhanced the quality of life for countless individuals.

Once again, we extend our heartfelt appreciation to everyone involved in this community service project. Your contributions have demonstrated the power of unity and the ability to effect positive change. We are immensely grateful for your dedication and support, and we look forward to continuing our journey towards a healthier and more sustainable future together.

Thank you all.

Sincerely,

Project Associates: -

1. CH. Madhavi Sai - 20PA1A0526
2. I. Velanjali - 20PA1A0558
3. I. Surya Teja – 20PA1A0559
4. I. Sushmitha – 20PA1A0560
5. J. Sruthi - 20PA1A0561
6. J. Lokesh Satya Anjibabu - 20PA1A0563
7. J. Harini – 20PA1A0564
8. K. Hanuma Subrahmanya Sri Ram – 20PA1A0565
9. K. Sai Tejaswi – 20PA1A0566
10. K.Teerdhanadh – 21PA5A0506

CHAPTER 1: EXECUTIVE SUMMARY

Community Description:

The CSP focused on addressing the challenges related to drinking water management in our local community. Our community is situated in an area where access to clean and safe drinking water has been a persistent concern, impacting the health and well-being of its residents. The project aimed to improve access to clean drinking water, raise awareness about water conservation, and implement sustainable water management practices.

Summary of Activities:

Throughout the CSP, we undertook various activities to address the drinking water management issue. These activities included:

Conducting a comprehensive assessment of the community's water sources, identifying areas of contamination and scarcity.

Collaborating with local authorities and water experts to design and implement water purification systems in key locations.

Organizing awareness campaigns to educate community members about the importance of clean water and efficient water usage.

Engaging in clean up drives to remove pollutants and enhance the quality of existing water sources.

Establishing community-led initiatives to monitor and maintain water sources and ensure long term sustainability.

Learning Objectives and Outcomes:

The CSP aimed to achieve several learning objectives, enabling students to develop valuable skills and knowledge while contributing to the community. The following learning objectives were emphasized:

Understanding the importance of clean drinking water and its impact on public health and wellbeing.

Acquiring knowledge of various water management strategies, including purification techniques and conservation practices.

Enhancing communication and collaboration skills through engagement with community members, local authorities, and experts.

Developing project management skills by planning, implementing, and evaluating community service initiatives.

Cultivating a sense of civic responsibility and social awareness through active participation in addressing local water management challenges.

The outcomes of the CSP were as follows:

Improved access to clean drinking water for community members, reducing health risks associated with contaminated water.

Increased awareness among community members about the importance of water conservation and efficient water usage.

Enhanced community engagement and collaboration, fostering a sense of ownership and responsibility towards water management.

Empowered students with practical skills in project management, problem-solving, and effective communication.

Established sustainable water management practices and systems for long-term benefit.

CHAPTER 2: OVERVIEW OF THE COMMUNITY

Vissakoderu is a village located in the West Godavari district of Andhra Pradesh, India.

Community Diversity: Vissakoderu is known for its diverse community. People from different castes, religions, and socio-economic backgrounds reside in the village. The major castes in the area include Kaapus, Kshatriyas, Brahmins, and Scheduled Castes. This diversity contributes to the rich cultural tapestry of the community. The village community places importance on respecting elders, maintaining social harmony, and upholding cultural values. Hospitality is a significant aspect of the community, and visitors are often welcomed warmly.

Socio-Economic Conditions: The socio-economic conditions in Vissakoderu are primarily centred around agriculture. The village is blessed with fertile lands, and agriculture is the main occupation for a significant portion of the population. Farmers cultivate crops such as paddy, sugarcane, and various vegetables. Some farmers have also adopted modern farming techniques to enhance productivity.

In terms of infrastructure, Vissakoderu has basic amenities such as schools, medical facilities, and electricity. The village has primary and secondary schools to cater to the educational needs of the local population. Healthcare services are provided through primary health centres and nearby hospitals.

The economic activities in the village are not solely dependent on agriculture. Some individuals engage in small-scale businesses, local trade, and services to supplement their income. However, the overall economic development of the village is still evolving, and the majority of the population is engaged in traditional agricultural practices.

Social development initiatives and government schemes have played a role in improving the socio-economic conditions of Vissakoderu and the well-being of its residents. Efforts have been made to enhance infrastructure, provide access to quality education, and promote sustainable agricultural practices.

In recent years, there have been advancements in connectivity and transportation. The village is well-connected to nearby towns and cities through road networks, enabling better access to markets and opportunities.

Overall, Vissakoderu is a community with a rich historical background, cultural diversity, and a strong agricultural foundation. While the socio-economic conditions have seen improvements, there is still potential for further development and diversification of economic activities to enhance the overall well-being of the community.

CHAPTER 3: COMMUNITY SERVICE PART

During the Community Service Project in Vissakoderu, several activities were undertaken to address the issue of drinking water management in the community. The project aimed to improve access to clean and safe drinking water for the residents. Here's a description of the activities carried out:

1. Assessment and Survey: The project began with a thorough assessment of the existing drinking water situation in Vissakoderu. A team of volunteers conducted surveys and interviews to gather information about the availability, quality, and distribution of drinking water in the village.

2. Water Testing and Analysis: Water samples were collected from various sources, including wells, borewells, and taps, for testing. The samples were analysed for chemical and microbial contaminants to assess the quality of the drinking water. The findings helped identify areas that needed immediate attention.

3. Awareness Campaigns: To create awareness among the residents about the importance of clean drinking water and proper water management, awareness campaigns were organized. These campaigns involved conducting community meetings, distributing pamphlets, and using visual aids to educate people about the significance of safe drinking water practices.

4. Infrastructure Development: Based on the assessment, it was identified that some areas in Vissakoderu lacked proper infrastructure for accessing clean drinking water. As part of the project, efforts were made to develop and upgrade water supply systems, repair existing pipelines, and install filtration units in strategic locations.

5. Training and Capacity Building: To ensure the sustainability of the project, training sessions were conducted for community members on various aspects of drinking water management. Topics covered included water conservation, sanitation practices, maintenance of water infrastructure, and basic water treatment methods.

6. Community Participation: The success of the project relied on active community participation. Regular meetings were held with community members to seek their inputs, address concerns, and involve them in decision-making processes. The community was encouraged to take ownership of the water management initiatives and actively participate in their implementation.

Throughout the project, the students involved gained valuable values, life skills, and technical skills. They developed a sense of empathy and social responsibility by working closely with the community and understanding their challenges. They learned the importance of teamwork, communication, and leadership skills while organizing awareness campaigns and conducting community meetings.

In terms of technical skills, the students acquired knowledge about water quality testing, data analysis, and infrastructure development. They learned about different water treatment methods and gained practical experience in implementing these techniques.

The project also instilled a sense of problem-solving and critical thinking as the students had to analyse the water situation, identify areas for improvement, and develop appropriate strategies to address the challenges. Overall, the students developed a deep understanding of the importance of clean drinking water and the impact it has on the well-being of a community's

ACTIVITY LOG FOR THE FIRST WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day – 1	Conducted a survey of water sources in the community, including wells, borewells, and taps, to assess their condition.	Gained an understanding of the existing water sources and infrastructure, identified areas that required improvement.	
Day 2	Collected water samples from different sources and conducted water quality tests.	Developed skills in water quality analysis, understood the importance of testing for ensuring safe drinking water.	
Day 3	Analysed the test results and identified potential contaminants or issues in the water sources.	Learned to interpret water quality data, recognized potential health risks associated with poor water quality.	
Day 4	Conducted interviews and surveys with community members to understand their perceptions and concerns related to drinking water.	Enhanced communication and interpersonal skills, gained insights into the community's perspectives on water management.	

Day 5	Organized a workshop to educate community members about the importance of clean drinking water and proper hygiene practices.	Raised awareness among community members about the significance of safe drinking water and improved hygiene practices.	
Day 6	Prepared a presentation on the benefits of drinking water management for the community.	Enhanced communication and presentation skills while highlighting the advantages of effective water management.	

WEEKLY REPORT

WEEK – 1 (From to Dt…… to Dt ……)

Objective of the Activity Done: Assessing Water Sources and Infrastructure
Detailed Report: During the first week, the team focused on assessing water sources and infrastructure in the community. They conducted surveys and collected water samples to evaluate the condition and quality of the existing sources. Through this process, they gained an understanding of the community's water needs and identified areas that required improvement.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day 1	Collaborated with local authorities and contractors to repair and maintain existing water pipelines and distribution systems.	Gained hands-on experience in infrastructure development and repair, understood the significance of proper maintenance for ensuring access to clean water	
Day 2	Assisted in installing water storage tanks and filtration units in strategic locations within the community.	Developed skills in project coordination, learned about different water storage and filtration technologies, ensuring safe drinking water access.	
Day 3	Conducted training sessions for community members on basic maintenance of water infrastructure and water conservation practices	Enhanced teaching and facilitation skills, empowered community members to take ownership of water infrastructure maintenance and conservation efforts.	

Day 4	Organized a community meeting to discuss water management initiatives, gather feedback, and address concerns.	Developed skills in community engagement and conflict resolution, actively involved community members in decision-making processes.	
Day 5	Collaborated with local schools to conduct educational workshops on water conservation and hygiene practices.	Enhanced presentation and workshop facilitation skills, raised awareness among students about water conservation and hygiene	
Day 6	Developed a proposal for implementing water-saving measures in public buildings.	Developed project planning and proposal writing skills while proposing practical solutions for water conservation.	

WEEKLY REPORT

WEEK – 2 (From to Dt…… .. to Dt ……)

Objective of the Activity Done: Infrastructure Development and Repair
Detailed Report: In the second week, the team worked on infrastructure development and repair. They collaborated with local authorities and contractors to repair water pipelines and install storage tanks and filtration units. They also conducted training sessions for community members on basic maintenance of water infrastructure and organized community meetings to address concerns and gather feedback.

ACTIVITY LOG FOR THE THIRD WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day 1	Organized capacity-building workshops for community members on water quality monitoring and basic water treatment methods.	Equipped community members with technical skills related to water quality monitoring and treatment, enabling active participation in ensuring safe drinking water.	
Day 2	Conducted sessions in collaboration with local health centers on the health impacts of unsafe drinking water and the importance of sanitation.	Gained knowledge about water-related health issues, developed skills in health education and promotion.	
Day 3	Facilitated the formation of a community-led water management committee and provided training on committee roles and responsibilities.	Understood the importance of community-led initiatives in sustainable water management, developed skills in committee facilitation and leadership.	
Day 4	Conducted a survey to assess community satisfaction with the project, gathered feedback, and identified areas for improvement.	Gained skills in survey design and data collection, utilized feedback for continuous improvement.	

Day 5	Collaborated with local NGOs and organizations to organize an exhibition showcasing the project's achievements and lessons learned.	Enhanced networking and collaboration skills, showcased project outcomes to inspire others in the community.	
Day 6	Evaluated the impact of implemented water management initiatives and prepared a progress report.	Developed monitoring and evaluation skills while assessing the effectiveness of water conservation efforts.	

WEEKLY REPORT

WEEK – 3 (From to Dt…… to Dt ……)

Objective of the Activity Done: Capacity Building and Community Empowerment
Detailed Report: During the third week, the team focused on capacity building and community empowerment. They conducted workshops on water quality monitoring and treatment for community members and facilitated the formation of a community-led water management committee. They also collaborated with local health centers to raise awareness about the health impacts of unsafe drinking water.

ACTIVITY LOG FOR THE FOURTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day 1	Conducted awareness campaigns in the community about the importance of water conservation and efficient water usage.	Raised community awareness about water conservation practices, fostering a sense of responsibility towards water resources.	
Day 2	Organized interactive workshops on rainwater harvesting techniques and implemented small-scale rainwater harvesting systems.	Developed knowledge and skills in rainwater harvesting, promoted sustainable water management practices within the community	
Day 3	Collaborated with local schools to conduct educational sessions on water conservation and engaged students in practical activities, such as creating water-saving devices.	Fostered a sense of environmental stewardship among students, empowering them to become advocates for water conservation.	
Day 4	Conducted a community clean up campaign around water bodies and water sources to raise awareness about the importance of maintaining a clean environment.	Encouraged community members to take collective responsibility for keeping water sources clean, ensuring the availability of safe drinking water.	

Day 5	Organized a public seminar on sustainable water management practices, inviting experts and community leaders to share their knowledge and experiences.	Enhanced community understanding of sustainable water management, facilitated knowledge exchange and collaboration among stakeholders.	
Day 6	Conducted educational sessions for community members on the health benefits of drinking water.	Shared knowledge about the positive impact of adequate hydration on overall well-being.	

WEEKLY REPORT

WEEK – 4 (From Dt…….….. to Dt……)

Objective of the Activity Done: Water Conservation and Education
Detailed Report: In the fourth week, the team emphasized water conservation and education. They conducted awareness campaigns, workshops on rainwater harvesting techniques, and educational sessions in local schools. They also organized a community cleanup campaign to promote a clean environment and engaged community members in understanding and practicing water-saving measures.

ACTIVITY LOG FOR THE FIFTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day 1	Engaged in discussions with local government officials to advocate for improved water infrastructure and policies.	Developed skills in public advocacy, influenced decision-makers to prioritize sustainable water management in the community.	
Day 2	Facilitated the establishment of a community-based monitoring system to regularly assess water quality and infrastructure maintenance.	Empowered community members to take ownership of their water resources, ensuring continuous monitoring and maintenance for long-term sustainability.	
Day 3	Organized a workshop on income generating activities related to water management, such as setting up small scale water treatment businesses or water vending stations.	Provided opportunities for community members to generate income while contributing to improved access to safe drinking water.	

Day 4	Conducted training sessions on water governance and leadership skills, empowering community members to actively participate in decision-making processes related to water management.	Strengthened community leadership and governance capacities, fostering a sense of collective responsibility for sustainable water management.	
Day 5	Celebrated the achievements of the community service project through a public event, highlighting the progress made and inspiring other communities to undertake similar initiatives.	Increased community pride and motivation, promoted the replication of successful water management practices in other areas.	
Day 6	Conducted a community survey to assess the impact of water management initiatives and gather feedback.	Evaluated the effectiveness of implemented measures and identified areas for further improvement based on community input.	

WEEKLY REPORT

WEEK – 5 (From Dt……..….. to Dt……)

Objective of the Activity Done: Objective: Long-Term Sustainability and Community Empowerment

Detailed Report:

The final week focused on long-term sustainability and community empowerment. The team engaged in advocacy efforts with local government officials for improved water infrastructure and policies. They facilitated the establishment of a community-based monitoring system and organized workshops on income-generating activities related to water management. The week concluded with a public event celebrating the project's achievements and inspiring other communities to adopt similar initiatives. Throughout the five weeks, the team gained a comprehensive understanding of drinking water management and developed technical skills, such as water analysis, infrastructure repair, and rainwater harvesting. They also enhanced essential life skills like communication, collaboration, leadership, and advocacy. The project resulted in an empowered community with improved access to safe drinking water and increased awareness of sustainable water management practices.

CHAPTER 5: OUTCOMES DESCRIPTION

Details of the Socio-Economic Survey of the Village/Habitation. Attach the questionnaire prepared for the survey.

VISHNU INSTITUTE OF TECHNOLOGY VISHNU UNIVERSAL LEARNING

(AUTONOMUS)

COMMUNITY SERVICE PROJECT

DRINKING WATER MANAGEMENT

Name: **HouseNo:** **Panchayat:** **Pincode:**

Post Office: **Mandal:** **District:**

1. How frequently do you access drinking water in your village?

1. Daily
2. A few times a week
3. Once a week
4. Rarely

2. How satisfied are you with the quality of drinking water in your village?

1. Satisfied
2. Somewhat satisfied
3. Neither satisfied nor dissatisfied
4. Somewhat dissatisfied
5. Very dissatisfied

3. How is drinking water supplied to your village?

1. Through public taps
2. Through private taps
3. Through wells
4. Through borewells
5. Other (please specify)

4. How much time do you spend on average to collect drinking water?

1.Less than 30 minutes
2. 30 minutes to 1 hour
3. 1 to 2 hours
4. More than 2 hours

5. How much do you pay for drinking water per month on average?

1. Less than Rs. 100
2. Rs. 100 to Rs. 200
3. Rs. 200 to Rs. 500

4. More than Rs. 500

6. Are there any issues with the drinking water supply in your village? (Select all that apply)

1. Insufficient supply
2. Poor quality
3. High cost
4. Inadequate storage facilities
5. Inadequate distribution system
6. Other (please specify)

7. Have you faced any health issues due to drinking water in your village?

- Yes
- No

8. How do you suggest improving the drinking water management in your village?

1. Increasing supply
2. Improving quality
3. Reducing cost
4. Providing better storage facilities
5. Enhancing distribution system
6. Other (please specify)

9. How important do you think it is to conserve water in your village?

1. Very important
2. Somewhat important
3. Neither important nor unimportant
4. Somewhat unimportant
5. Not important at all

10. Would you be willing to contribute to a community effort to improve drinking water management in your village?

- Yes
- No

Thank you for participating in this survey!

Place: **Signature of the family member**

Date: **Signature of the mentor**

Describe the problems you have identified in the community

As we all know problems are Omni present. For this Case, in this Village we have Identified some Problems
Regarding the Drinking Water Facilities. These all were framed based on the Response of the local people and local Geographical Conditions. They are

1. Limited Infrastructure: Rural areas often lack adequate water infrastructure, including pipelines, treatment plants, and distribution systems. The absence of proper infrastructure makes it difficult to ensure the delivery of safe drinking water to every household.

2. Water Source Contamination: Rural areas may rely on natural water sources such as rivers, lakes, or wells, which can be prone to contamination from agricultural runoff, industrial pollutants, or improper waste disposal. Contaminated water sources pose health risks to the community.

3. Distance and Accessibility: Rural communities are often dispersed over a large area, making it challenging to provide centralized water treatment and distribution systems. Some households may be located far from water sources, making it difficult to access safe drinking water.

4. Financial Constraints: Rural communities may have limited financial resources to invest in the construction, maintenance, and operation of water treatment and distribution systems. Lack of funding can hinder the implementation of necessary infrastructure and ongoing maintenance.

5. Technological Limitations: Some rural areas may lack the technical expertise or resources to implement advanced water treatment technologies. Traditional methods of water treatment may be insufficient to remove contaminants effectively.

6. Seasonal Variability: In certain rural areas, the availability and quality of water can fluctuate significantly with changing seasons. Droughts or heavy rains can affect the quantity and quality of water sources, making it challenging to provide a consistent supply of safe drinking water.

7. Lack of Awareness and Education: Limited access to information and education about safe water practices can contribute to the persistence of unhealthy habits and practices within the community. Lack of awareness about the importance of clean drinking water and proper sanitation can hinder efforts to improve water quality.

8. Sustainability and Maintenance: Establishing safe drinking water facilities is not enough; ensuring their long- term sustainability and maintenance pose additional challenges. Without proper training, resources, and community involvement, the infrastructure may deteriorate over time, compromising the quality of drinking water.

Short-term and long term action plan for possible solutions for the problems identified and that could be recommended to the concerned authorities for implementation.

Short-Term Action Plan:

1.Conduct a comprehensive assessment:

-Assess the existing water sources and infrastructure in the rural area.

-Identify the main sources of contamination and areas lacking safe drinking water facilities.

-Survey the community to understand their needs, concerns, and preferences.

2.Provide immediate access to safe drinking water:

-Identify temporary solutions such as water purification tablets or portable filters to address immediate water quality concerns.

-Collaborate with NGOs or government agencies to distribute these temporary solutions to households in need.

3.Raise awareness and promote hygiene practices:

-Organize workshops and awareness campaigns to educate the community about the importance of clean water and proper sanitation practices.

-Distribute educational materials such as brochures, posters, or videos in the local language.

-Emphasize the importance of handwashing, water storage, and basic hygiene practices to prevent waterborne diseases.

4.Develop partnerships and seek funding:

-Engage with local government authorities, NGOs, and corporate entities to seek support and funding for long- term solutions.

-Collaborate with organizations specializing in water and sanitation projects to leverage their expertise and resources.

5.Establish a community water management committee:

-Encourage the formation of a committee comprising community members responsible for overseeing water- related issues.

-Provide training and capacity building to the committee members on water management, infrastructure maintenance, and community mobilization.

Long-Term Action Plan:

1.Improve water infrastructure:

-Develop a comprehensive plan to improve water infrastructure, including the construction or rehabilitation of wells, boreholes, or piped water systems.

-Implement water treatment facilities to ensure safe drinking water quality.

2.Enhance water source protection:

-Implement measures to protect water sources from contamination, such as fencing, afforestation, and land- use regulations.

-Promote sustainable agricultural practices to reduce the use of pesticides and fertilizers that can pollute water sources.

3.Strengthen community involvement and ownership:

-Empower the community by involving them in the planning, implementation, and maintenance of water facilities.

-Establish mechanisms for regular community engagement and feedback.

4.Implement water quality monitoring:

-Establish a system for regular water quality testing and monitoring to ensure the continuous provision of safe drinking water.

-Train local technicians or community members to conduct basic water quality tests and report any issues.

5.Sustainable funding and resource management:

-Advocate for long-term funding commitments from government agencies, NGOs, and other stakeholders to ensure sustainable financing for water infrastructure development and maintenance.

-Explore innovative financing models such as public-private partnerships or community-based funding initiatives.

6.Continuous education and capacity building:

-Conduct ongoing training programs for the community and water management committee members on water quality, infrastructure maintenance, and sustainability.

-Organize workshops to build skills in operation and maintenance of water treatment systems.

7.Monitoring and evaluation:

-Regularly monitor the effectiveness and impact of the implemented solutions on water quality, community health, and well-being.

-Conduct periodic evaluations to identify areas for improvement and make necessary adjustments to the project plan.

Recommendations for Authorities:

-Allocate sufficient funding and resources to address the water-related challenges in rural areas.

-Create policies and regulations to ensure the protection of water sources and the provision of safe drinking water.

-Collaborate with relevant stakeholders, including NGOs, community organizations, and technical experts, to leverage their expertise and resources.

-Establish partnerships with local communities to ensure their active participation and ownership in water management initiatives.

-Promote knowledge sharing and collaboration among different regions facing similar water challenges to facilitate learning and replication of successful models.

Description of the Community awareness programme/s conducted w.r.t the problems and their outcomes.

Title: Community Awareness Program: Improving Drinking Water Facilities in Vissakoderu Village in West Godavari District, Andhra Pradesh, INDIA

Introduction:

The Community Awareness Program aims to address the problems associated with drinking water facilities in Vissakoderu Village. This program is designed to create awareness among community members about the issues surrounding access to clean and safe drinking water and to foster community-driven solutions. By engaging the community, this initiative seeks to empower residents and facilitate positive outcomes in terms of improved water infrastructure and better health outcomes.

Objectives:

1. Raise awareness: Educate the community about the importance of clean and safe drinking water and the potential health risks associated with inadequate water facilities.
2. Identify problems: Conduct surveys and community meetings to identify specific challenges related to drinking water facilities in the village.
3. Mobilize resources: Seek collaboration with local government bodies, NGOs, and other stakeholders to gather resources and support for addressing the identified issues.
4. Promote community involvement: Encourage active participation and engagement of community members in finding and implementing sustainable solutions.
5. Monitor and evaluate: Continuously monitor the progress of implemented interventions and assess their effectiveness in improving drinking water facilities.

Program Activities:

1. Community Meetings and Workshops:

- Conduct introductory meetings to explain the purpose, objectives, and benefits of the program.
- Organize workshops to provide information on waterborne diseases, water quality testing, and proper hygiene practices.

2. Surveys and Assessments:

- Administer surveys and questionnaires to gather data on the current state of drinking water facilities, including availability, accessibility, and quality.
- Perform water quality tests to assess contamination levels and identify potential sources of pollution.

3. Awareness Campaigns:

- Organize public awareness campaigns through posters, leaflets, and community radio programs.
- Utilize social media platforms and local media channels to disseminate information and generate interest in the program.

4. Community Action:

- Establish community-based water committees or task forces to actively involve community members in decision-making processes.
- Facilitate discussions and brainstorming sessions to identify feasible solutions, such as constructing new wells, repairing existing infrastructure, or implementing water treatment systems.

5. Resource Mobilization:

- Collaborate with local government bodies, NGOs, and private organizations to seek financial and technical assistance for infrastructure development and capacity-building initiatives.
- Organize fundraising events and encourage donations from community members and external sources.

Outcomes:

1. Increased Awareness:

- Community members gain a comprehensive understanding of the importance of clean drinking water and adopt improved hygiene practices.
- Increased knowledge leads to a decrease in waterborne diseases and improved overall health in the community.

2. Improved Infrastructure:

- Collaboration with stakeholders results in the construction of new wells, repair of existing water sources, installation of water treatment systems, or other infrastructure improvements.
- Increased access to safe and reliable drinking water for all residents.

3. Sustainability and Empowerment:

- Community involvement and ownership of the program ensure the sustainability of implemented interventions.

- Empowered community members continue to advocate for their water rights, leading to long-term improvements in drinking water facilities.

4. Collaboration and Support:

- Strengthened partnerships between the community, local government, NGOs, and other stakeholders establish a framework for ongoing support and future initiatives.
- Continued collaboration results in additional resources and expertise being made available for addressing other community needs.

Conclusion:

Through the Community Awareness Program, Vissakoderu Village aims to address the problems associated with drinking water facilities by raising awareness, fostering community involvement, and mobilizing resources. By actively involving community members, this program promotes sustainable solutions and empowers residents to take charge of their water resources, ultimately leading to improved health and well- being for all.

Report of the mini-project work done in the related subject w.r.t the habitation/village.

A mini-project work in the related subject w.r.t the habitation/village. (For ex., a student of Botany may do a project on Organic Farming or Horticulture or usage of biofertilizers or biopesticides or effect of the inorganic pesticides, etc. A student of Zoology may do a project on Aquaculture practices or animal husbandry or poultry or health and hygiene or Blood group analysis or survey on the Hypertension or survey on the prevalence of diabetes, etc.

The Report shall be limited to 6 pages.

We have conducted a survey in Vissakoderu village. We surveyed around 60 families in the village and came to know about the problems faced by the villagers. The main concern of the people in that village is the quality of drinking. water, long power cuts, water being supplied is not pure, poor drainage system. We came to know about the consequences of water wastage. Every individual is using water and making some mistakes like when they are all using it for some purpose such as bathing and many more.
They leave the tap open until their work is completed. They don't have any idea that water is degrading time by time and will not be available for the next generation. So for saving water, we need to do something better than older techniques rather than spreading awareness. Our team decided to make an IOT-based water monitoring system that will help people save water even if we don't want to do it.

Abstract

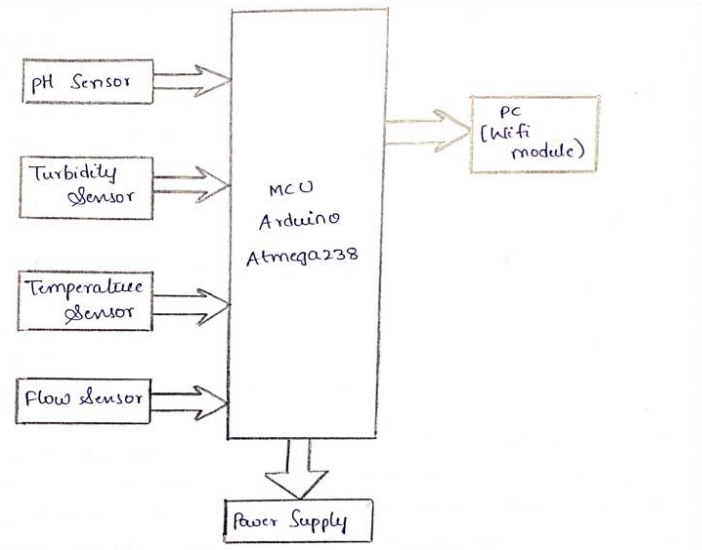
In order to ensure the safe supply of drinking water the quality needs to be monitored in real-time We thought of a design and development of a low-cost system for real-time monitoring of the water quality in IOT. The system consists of several sensors, used to measure the physical and chemical parameters of the water. The parameters such as temperature, pH, turbidity, and flow sensor of the water can be measured. The measured values from the sensors are processed by the core controller. The Arduino model can be used as a core controller. Finally, the sensor data can be viewed on the internet using the Wifi system.

Introduction:

Nowadays, water quality monitoring in real-time faces challenges because of global warming. limited water resources, growing population etc. Hence there is a need to develop better methodologies to monitor the water quality parameters in real-time. The water quality parameter PH measures the concentration of hydrogen ions. It shows whether the water is acidic or alkaline. Pure water has 7PH value, less than 7PH has acidic, and more than 7PH has alkaline for drinking purposes it should be

6.5-8.5 PH. Turbidity measures a large number of suspended particles in water that are invisible. Higher turbidity higher the risk of diarrhea, cholera. Lower the turbidity then the water is clean. Temperature sensor measures how hot or cold the water is. Flow measures the flow of water through a flow sensor. The traditional methods of water quality monitoring involved the manual collection of water samples from different locations in a place.

Proposed System :-



In this proposed block diagram, several sensors (temperature, PH, flow, turbidity) are connected to the core controller .The core controllers are accessing other sensor values and processing them to transfer the data through the internet. Arduino is used as a core controller. The sensor data can be viewed on the internet Wi-Fi system.

PH SENSOR:

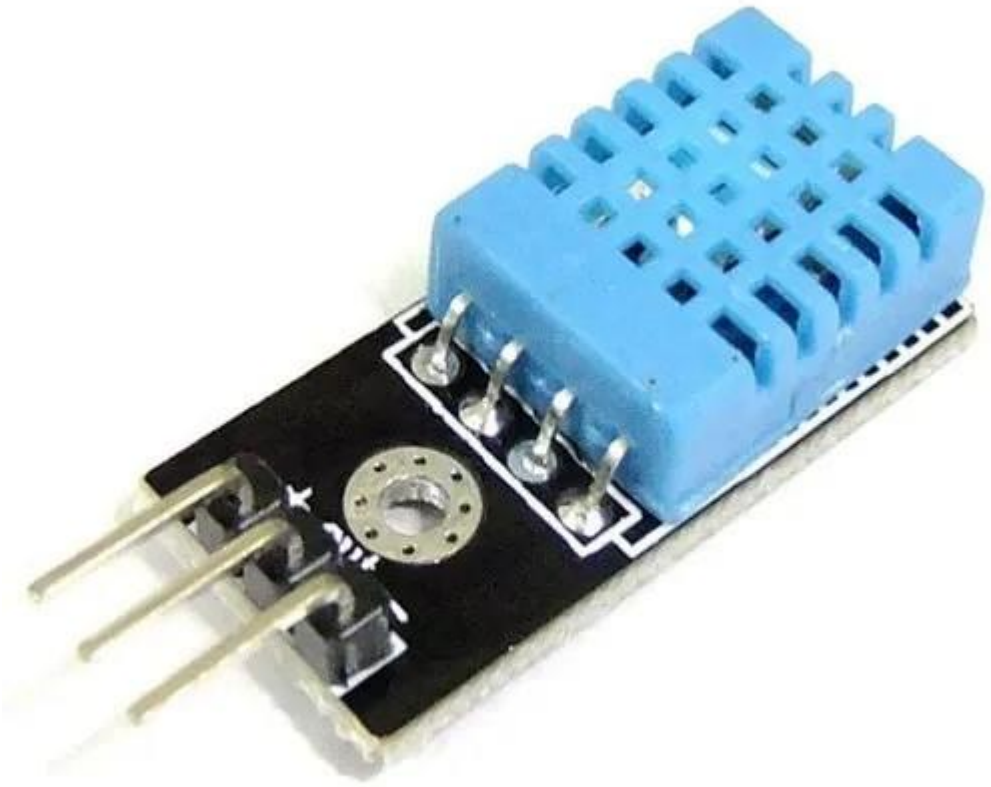
The pH of a solution is the measure of the acidity or alkalinity of that solution. The pH scale is a logarithmic scale whose range is from 0-14 with a neutral point being 7. Values above 7 indicate a basic or neutral solution and values below 7 would indicate an acidic solution. It operates on a 5V power supply and it is easy to interface with Arduino.

TURBIDITY SENSOR:

It is a measure of the cloudiness of water, Turbidity has indicated the degree to which water loses its transparency. It can raise surface water temperatures above normal because suspended particles near the surface facilitate the absorption of heat from sunlight.

TEMPERATURE SENSOR:

Water temperature indicates how hot or cold water is. This temperature sensor is the digital type that gives accurate readings.



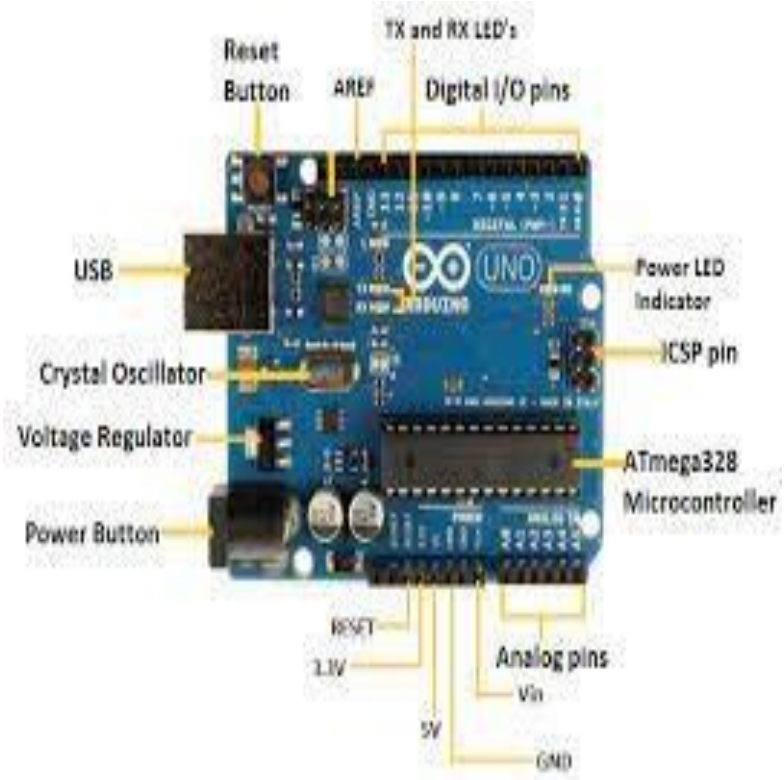
FLOW SENSOR:

Flow sensor is used to measure the flow of water through the flow sensor. This sensor basically consists of a plastic valve body, a rotor and a Hall Effect sensor. The pinwheel rotor rotates when water/liquid flows through the value and its speed will be directly proportional to the flow rate.

ARDUINO UNO:

Arduino is a microcontroller board based on the ATmega328P.It has 14 digital input/output fins, 6 analogue inputs, a 16 MHz quartz crystal, a USB connection, a power jack, an ICSP header and a reset button.

It contains everything needed to support the microcontroller. Arduino software IDE was the reference version of Arduino, now evolved to newer releases. The Uno board is the first in a series of USB Arduino boards, and the reference model for the Arduino platform, for an extensive list of the current, past or outdated boards see the Arduino index of boards.



WIFI MODULE:

It is a self-contained soc with an integrated TCP/IP protocol stack that can give any microcontroller access to your WIFI network.

Working:

The whole design of the system is based mainly on IoT which is a newly introduced concept in the world of development. There are basically two parts included, the first one is hardware and the second one is software. The hardware part has sensor which helps to measure the real time values, another one is an arduino ATmega 328 converts the analog to the connection between hardware and software. Im software we have to develop a program based on embedded c language.

The PCB is designed at first level of construction , with components and sensors mounted on it .BLYNK app installed in the android version to see the output. When the system gets started due to the current given to the kit and arduino, WIFI gets on. The parameters of water are tested one by one and their result is given to the LCD display. The app when provided with hotspot gives the exact value as on the LCD display shown on the kit.
Thus like this when the kit is located in any specific water body and WIFI is provided we can observe its real time value on our Android phone anywhere at any time.

Result and Discussion:

We have found a suitable implementation model that consists of different sensor devices and other modules, their functionalities. In that implementation model we will have to use ATMEGA328 with a WIFI module. Inbuilt ADC and Wi-Fi modules connect the embedded device to the internet. Sensors are connected to the Arduino UNO board for monitoring.
After sensing the data from different sensor devices, which are placed in particular areas of the internet, The sensed data will be automatically sent to the web server, when a proper connection is established with the server device.

Recommendations:

These are the required recommendations we all give to the people living in Vissakoderu.

1.All levels of government should recognize the potential usefulness of water tansfull as means of responding to changing demands for use of water resources and should facilitate voluntary water transfer as a component of policies for overall water allocation and management.

2. they should develop and publish clear criteria and guidelines for evaluating water transfer proposals and addressing.

3. They should require agencies to develop technical capabilities for evaluating and monitoring surface and ground water quality as part of the transfer evaluation process.

4.Implement rainwater harvesting systems to collect and store rainwater for drinking. recharging underground aquifer

CHAPTER 6: RECOMMENDATIONS AND CONCLUSIONS OF THE MINI PROJECT

Recommendations:

These are the required recommendations we all give to the people living in Vissakoderu.

1.All levels of government should recognize the potential usefulness of water transfers in responding to changing demands for the use of water resources and should facilitate voluntary water transfer as a component of policies for overall water allocation and management.

2. They should develop and publish clear criteria and guidelines for evaluating water transfer proposals and addressing them.

3.They should require agencies to develop technical capabilities for evaluating and monitoring. surface and ground water quality as part of the transfer evaluation process .

4. Implement rainwater harvesting systems to collect and store rainwater for drinking or recharging underground aquifers.

Conclusions Of Mini Project:

Monitoring of turbidity, pt and temperature of the water makes use of water detection sensors with unique advantages and existing GSM networks. The system can monitor water quality automatically, and it is low in cost and doesn't require people on duty.

So water quality testing is likely to be more economical, convenient and fast. The system has good flexibility Only by replacing the corresponding sensor and changing the relevant software programs, this system can be used to monitor other water quality parameters. By deploying devices in the environment, we can bring the environment into real life i.e., can interact with other objects through the network then the collected data and analysis results will be available to the end user through the Wi-Fi sensor.

Student Self-Evaluation for the Community Service Project

Student Name:

Registration No:

Period of CSP: From: To:

Date of Evaluation :

Name of the Person in-charge:

Address with mobile number :

Please rate your performance in the following areas:

Rating Scale: **1 is lowest and 5 is highest rank**

1) Oral communication	**1**	**2**	**3**	**4**	**5**
2) Written communication	**1**	**2**	**3**	**4**	**5**
3) Proactiveness	**1**	**2**	**3**	**4**	**5**
4) Interaction ability with community	**1**	**2**	**3**	**4**	**5**
5) Positive Attitude	**1**	**2**	**3**	**4**	**5**
6) Self-confidence	**1**	**2**	**3**	**4**	**5**
7) Ability to learn	**1**	**2**	**3**	**4**	**5**
8) Work Plan and organization	**1**	**2**	**3**	**4**	**5**
9) Professionalism	**1**	**2**	**3**	**4**	**5**
10) Creativity	**1**	**2**	**3**	**4**	**5**
11) Quality of work done	**1**	**2**	**3**	**4**	**5**
12) Time Management	**1**	**2**	**3**	**4**	**5**
13) Understanding the Community	**1**	**2**	**3**	**4**	**5**
14) Achievement of Desired Outcomes	**1**	**2**	**3**	**4**	**5**
15) OVERALL PERFORMANCE	**1**	**2**	**3**	**4**	**5**

Date: **Signature of the Student**

Evaluation by the Person in-charge in the Community/Habitation

Student Name:

Registration No:

To:

Period of CSP: From:

Date of Evaluation
:

Name of the Person in-charge: Address with mobile number :

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	**1**	**2**	**3**	**4**	**5**
2) Written communication	**1**	**2**	**3**	**4**	**5**
3) Proactiveness	**1**	**2**	**3**	**4**	**5**
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15) OVERALL PERFORMANCE	**1**	**2**	**3**	**4**	**5**

Date: **Signature of the Supervisor**

PHOTOS AND VIDEO LINKS