

A
Report on
Field Project

“A Case Study on Reducing Coal Consumption of Cogeneration
Power Plant.”



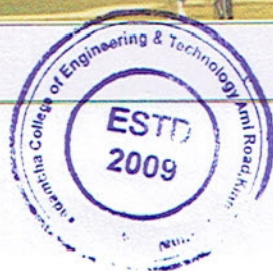
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COLLEGE OF ENGINEERING & TECHNOLOGY, YAVATMAL

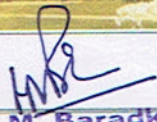
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“A Case Study on Reducing Coal Consumption of Cogeneration Power Plant.”

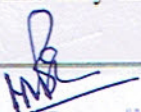
**By
Mechanical Engineering Department**

1. Title of Activity	“A Case Study on Reducing Coal Consumption of Cogeneration Power Plant.”
2. Duration of Activity	30 Days
3. Objective	To provide practical knowledge of power plant
4. Venue	RAYMOND UCO DENIM PVT. LTD. YAVATMAL PLANT
5. No. of Beneficiary	6 Students work on this project <ul style="list-style-type: none">• Shahbaz .M. Sheik• Amit .S. Malvi• Mayur .R. Bonkile• Shoaib .A. Khan Pathan• Dhananjaygiri• Aparna .R. Ambatkar
6. Guided By	Dr. V. L. Bhambere

INTRODUCTION

Project batch had performed the case study in Raymond UCO Denim Pvt. Ltd as their final year project. In Raymond they carried out case study in the 6 MW cogeneration power plant of this industry under the guidance of Mr. D. K. Sharma, who is the head of this power plant. First Project batch had understood the working of the complete power plant. After understanding the system of power plant they found that there was some scope of improvement in the system. So they performed the detailed case study on to reduce the coal consumption of cogeneration power plant by recovering some amount of heat of steam which is actually wasted in current cogeneration power plant system. This loss of heat takes as steam is condensed in condenser. This heat can be recovered by circulating DM water as cooling water in condenser thus extracting the heat of steam and then using this DM water as feed water of boiler. Due to this the amount of coal required for heating the boiler water to a desired temperature is reduced. Project batch had calculated the annual savings of coal which they will obtain if they use DM water as cooling water in the condenser. Also in current system the pressure reducing and desuper heating system is used for reducing pressure and temperature of steam. The same objective can be obtained if they replace this system by a turbine and in addition to this they also




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get power as steam was expanded in turbine. Project batch had calculated the power produced by the turbine for given inlet and outlet conditions. Finally the batch found that they can annually save Rs. 7 lakhs. Then Project batch had submitted their study to Mr. D. K. Sharma sir and it is in consideration for implementation in future.

SNAPSHOTS



Image 1: Boiler

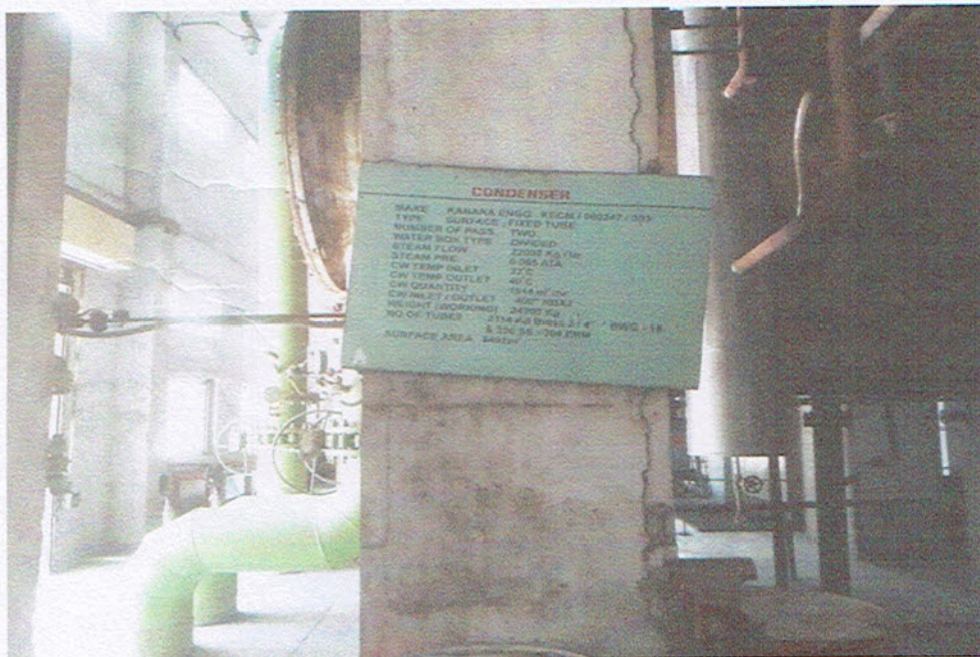


Image 2: Condenser

WBShah



HB
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A
Report on
Field Project

“Analysis & Design of Water Distribution Scheme of Village Kinhi,
Tq.Yavatmal, Dist Yavatmal”



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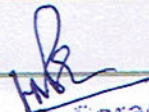
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**“Analysis & Design of Water Distribution Scheme of Village Kinhi,
Tq.Yavatmal, Dist Yavatmal”**

By

Civil Engineering Department

1.Title of Activity	“Analysis & Design of Water Distribution Scheme Of Village Kinhi, Tq.Yavatmal, Dist Yavatmal”
2. Date of Activity	28/03/2018
3. Objective	The basic objective of the project is to design water distribution system for Kinhi village in Yavatmal district of Maharashtra.
4. No. of Beneficiary	66 Students work on this project
5.Guided By	Prof. P. S. Kumbhare Prof. V.R. Baankar Prof. M. G. Mandaokar Prof.V.J.Rathod
6. Venue	Kinhi Tq.Yavatmal

INTRODUCTION

A minor project held on analysis and design of water distribution scheme of village Kinhi, Tq.Yavtamal,Dist. Yavatmal.The village is located in Yavatmal Tahasil of Yavatmal district in Maharashtra state, India. It is situated about 7kms away from district headquarter,Yavatmal.

To make availability of potable water to the villagers and to fulfill requirement of water demand to individuals with considering increased population calls for increase in water demand,we have design water distribution system.

The present system of supply adopted in Kinhi, Gram Panchayat is an intermittent supply and network adopted is a dead end system. This system of supply of water in Kinhi, Gram Panchayat may not be reliable to supply required quantity of water in the upcoming years. As the present water distribution system do not fulfill the requirement of the area. Hence the research is carried out for future requirement of water and detailed analysis of new network and concluded about reliability on the distribution network for the future. The analysis is carried out based on various



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public demands, quantities of inflows and out flow of the overhead reservoir. This analysis provides the information about various demands, and uses of the public.

This project work consists of profile leveling which is part of surveying work, various calculations for water demand, determination of capacity of water demand, pumping installations, design of water distribution system & design of water tank for future life span.

Need of study:-

The present water supply system in Kinhi village is now a day insufficient to of satisfy the water demands of present population because of increased population with passing of years and the increased population calls for increase in water demand. Thus to fulfill the increased demand of population, we need to redesign the present system.

The basic aim of the project is to design water distribution system for Kinhi village in Yavatmal district of Maharashtra.

The objectives are as follows.

1. Identification of water resources for the system.
2. To conduct field survey for inputs in design.
3. Design of water distribution network system.
4. Operational design for working of system.

Conclusion:-

The main focused of this project is to design and analyses the water distribution network so at the end of analysis it is observed that the entire network has uniform flow.



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SNAPSHOTS



Image 1: Students understanding the surveying work on site




Image 2: Discussing map of Villegge Kinhi & surveying work



Image 3: Surveying work




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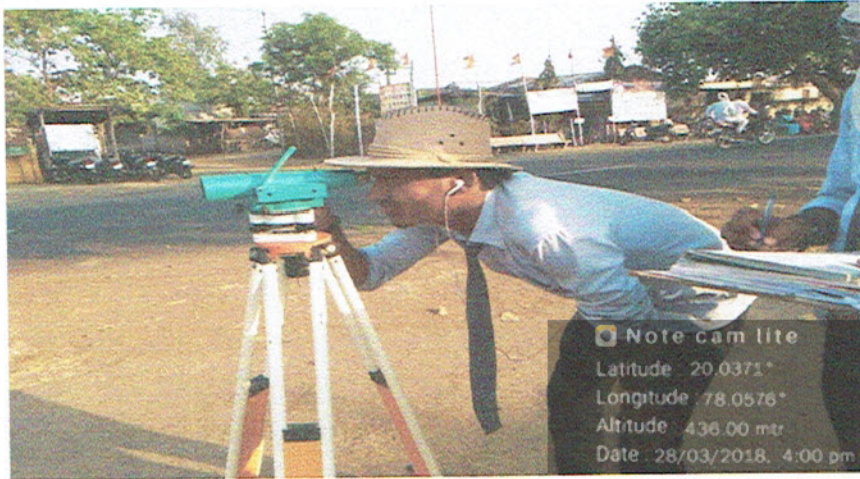


Image 4: Taking a reading on Bench Mark



Image 5: Surveying work

P.S. Kumbhare
P.S. Kumbhare



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List of Students

ROLL NO	STUDENT NAME	ROLL NO	STUDENT NAME
1	Palash Laxman Botare	34	Vikram Shamrao Chavhan
2	Amol Ramkrishna Jambhale	35	Akash Ramdhan Jadhav
3	Ku. Rajashree Ramkrishna Lute	36	Sopan Sheshrao Adhao
4	Nitin Santosh Rathod	37	Sunil Rajiv Jadhav
5	Ku. Vaishnavi Gajanan Raut	38	Jagdish Datta Kalapad
6	Ku. Vaishnavi D. Sulbhewar	39	Nitin Dadarao Arsod
7	Vishal S Swami	40	Saurabh Santosh Kurhewar
8	Shivaji Vilas Chavhan	41	Shubham Raju Ingole
9	Shah Parvez Yakub Shah	42	Shubham Gajanan Keshattiwar
10	Pranay Ramesh Warghat	43	Ku. Ravina Govind Kadekar
11	Girish V Mahalle	44	Sayyad Adnanali Sadique
12	Sairam V Agrawal	45	Shubham Madan Menewar
13	Akashay Santosh Kadam	46	Shyam Subhash Chaudhari
14	Mohan Vasantao Nemane	47	Prashant Rajkumar Nandagawali
15	Priyanka Prakash Dande	48	Vitthal P. Pawar
16	Ku. Samidha Dnyaneshwar Thakare	49	Prashik Suresh Thul
17	Vikrant M. Chaudhari	50	Ashwin Vishwas Rathod
18	Ku. Pujal Tukaram Ade	51	Akash R. Bidkar
19	Mayur Subhash Rathod	52	Ku. Kalyani Pandurang Sutare
20	Kunal Harinarayan Yadav	53	Rushabh Sanjay Dhole
21	Anurag Sushil Ambadkar	54	Akshay Vijay . Khadse
22	Pratik Vilas Kannao	55	Dhananjay Pramod Thakare
23	Abhijeet Vishwanath Rajurkar	56	Akshay Gajanan Hingankar
24	Lavkush Shankar Jadhao	57	Kshitij Uttam Fursule
25	Vipul D. Rathod	58	Atul Wamanrao Rathod
26	Sumit Rajendra Thakare	59	Suraj D. Kathwate
27	Ketak Vinayak Bakhade	60	Tushar Shyamrao Raut
28	Kartik Vitthal Nehare	61	Saurabh K. Selokar
29	Ku. Radhika Prashant Holey	62	Dhiraj P. Wankhade
30	Ku. Swati Ashish Labhsetwar	63	Ku. Vishakha S. Gulhane
31	Prashil U. Suddhawar	64	Mohd. Saddam Shah
32	Akshay H. Shirbhate	65	Pankaj Mohan Jadhao
33	Tausif Gulsher Khan	66	Ku. Usama Sahir

P. Kumbhale
P.S. Kumbhale

Corrected
W. K. Kumbhale
21/01/20



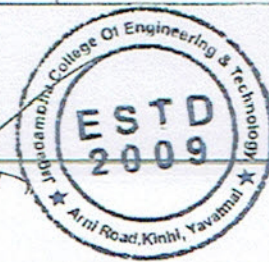
M. B. Baradkar
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31	Prashil U. Suddhavar	64	Mohd. Saddam Shah
32	Akshay H. Shirbhate	65	Pankaj Mohan Jadhao
33	Tausif Gulsher Khan	66	Ku. Usama Sahir

P. S. Kumbhase

*Corrected
W. Shinde
22/8/21*



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A
Report on
Field Project

“Online Blood Bank by the Students of Final Year for Yavatmal
City”



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“Online Blood Bank by the Students of Final Year for Yavatmal City”

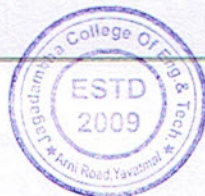
By
Computer Engineering Department


1. Title of Activity	“Online Blood Bank by the Students of Final Year for Yavatmal City”
2. Date of Activity	12/2/2018
3. Objective	To Provide Online Blood Bank facility
4. Venue	Government Medical Hospital, Yavatmal
5. No. of Beneficiary	4 Students work on this project <ul style="list-style-type: none">• Ms. Mrunali Kawalkar• Ms. Namrata Rekwar• Ms. Bhagyshri Thete• Ms. Ashwini Ghoderao
6. Guided By	Prof. P. D. Thakare

INTRODUCTION

Blood is a saver of all existing lives in case of emergency needs. It is specialized body fluid that delivers necessary substances to the body's cells such as nutrients and oxygen. It is possible in some situations that the patient is unable to get the required amount of blood at right time due to lack of interrelationship in form of a networked database among the various blood banks which leads to the lack of knowledge of updated record of all available blood donors. Today mobile and mobile based applications have become a part of our day to day life. With the revolution in mobile computing many great features were added to the field and the mobiles got smaller, faster and better as the decade passed. This Android application is developed to facilitate easy search for blood in nearby areas for medical emergency situation. In this Android app one user will get clear access to blood in real time and right place.

In this project, the authority is given to the admin only who will handle or manage the complete database of a donor, by giving the username and password with some validations. So the authentication is done by verifying the user id and password of the user. Database consist of the detail information of the donor such as name, blood group, address, mobile no., gender, age, weight, last blood donation date etc. At a pilot level this concept is implemented for Yavatmal city only.




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In future this android application will prove to be most useful application to save the life of patients who are in need of blood bottles under medical emergency situation.

SNAPSHOTS

The result/snapshot generated through this project work is given as below:-

- **DONOR REGISTRATION**

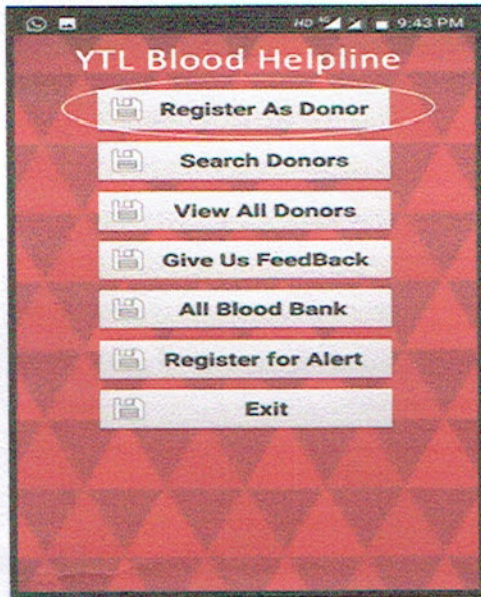


Figure 1: Home page

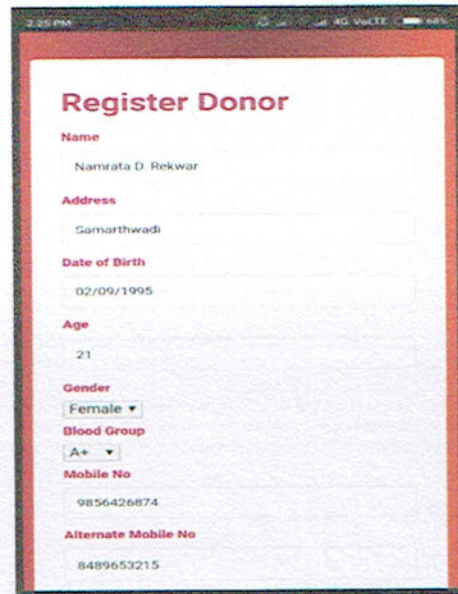


Figure 2: Register Donor



Figure 3: Register Donor

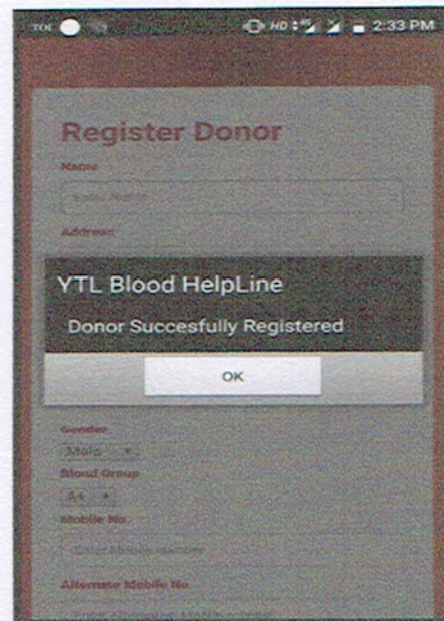
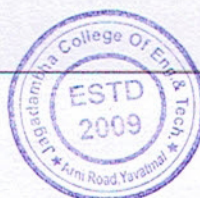


Figure 4: Donor Successfully registered



M.S.R.
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- SEARCH DONOR

1. SEARCH BY BLOOD GROUP

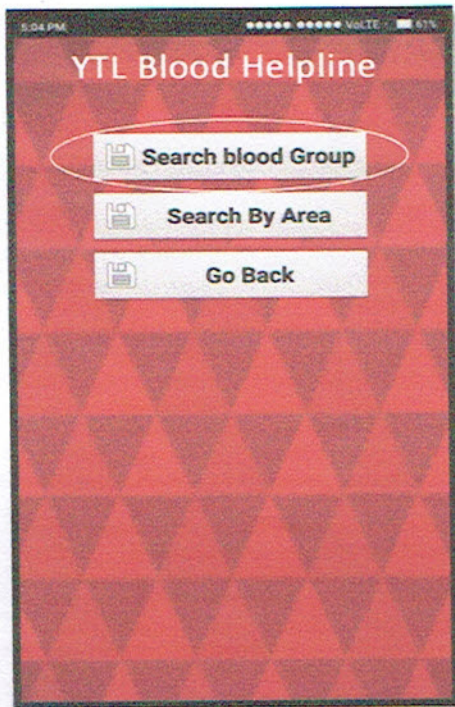


Figure 5: Search by Blood Group

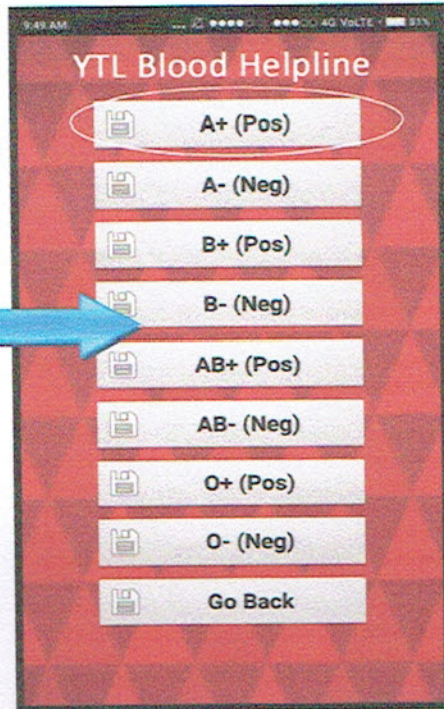


Figure 6: List Of Blood Group

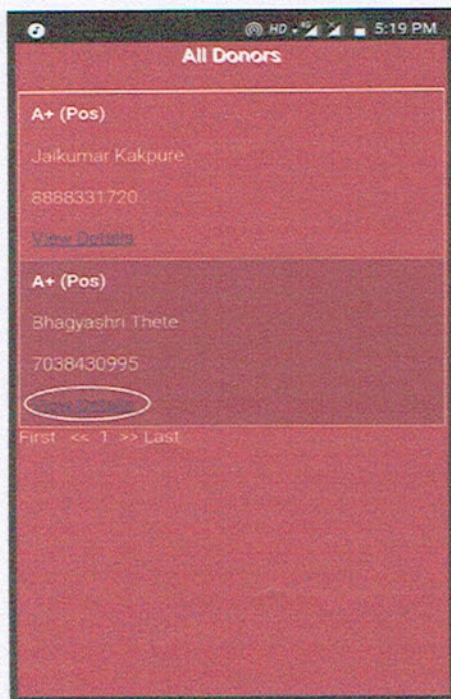


Figure 7: All donors

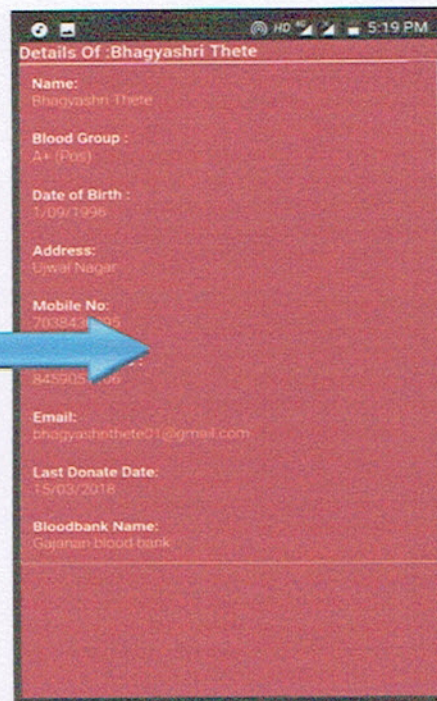
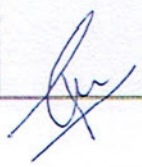
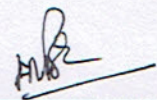
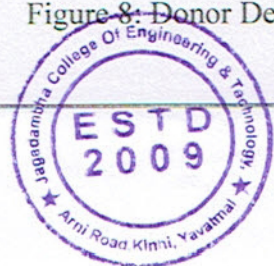


Figure 8: Donor Details



Verified
WSD
11/2/2018



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A
Report on
Field Project

“Rehabilitation and Resettlement of Village Ghanapur under
Submergence”



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“Rehabilitation and Resettlement of Village Ghanapur under Submergence”
By
Civil Engineering Department

1. Title of Activity	“Rehabilitation and Resettlement of Village Ghanapur under Submergence”
2. Date of Activity	29/03/2018
3. Objective	To study detailed concept of Water Supply & Drainage System
4. No. of Beneficiary	63 Students work on this project
5. Guided By	Prof. K.S.Kulkarni Prof. M.R.Bhatkar
6. Venue	Gharapur


INTRODUCTION

The construction of dam is the luckiest thing for the any state. It create number of advantages which can't count on the finger also such as Increase in food production, Protection from famine, Domestic water supply, Generation of hydroelectric power, Increase in facilities of communication, Flood Control. But many times we can study and see in T.V. channels and in newspapers the villagers in oppose to major irrigation project because due this good fertile land and village are submerge under these project. As well as after rehabilitation in village no more good facilities are provided. After completion of project number of problems are occurred in these villages due to lack of facilities provided by government. Because when government decide to construct the major irrigation project that time government fully concentrated on that particular project such as construction of major project at that time government cannot carefully concentrate on villages that get affected or submerged under that project.

Hence after the study of all aspects, we concluded that to solve these problems well town planning is very essential. The main object of this project is that to provide proper plot area and to provide the better facilities for the comfort life of villager as well as developed modern village

Any infrastructural development project such as irrigation dams are the symbol of national progress, though they bring economic prosperity but at the same time they create an unpleasant and undesirable displacement of section of population from their ancestral habitat,




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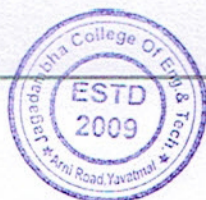
uprooting them from their immovable properties, their livestock wealth, religious and educational institutions etc. This makes rehabilitation the most sensitive yet important aspect of that development project which should be properly handled, that's why many times success of a project depends on quality Rehabilitation and Resettlement (R&R) work. Displacement is a painful process and every effort should be taken to avoid or minimize hardships to disturb people's lives to the extent possible. In the light of these difficulties faced by the farming and non-farming households in the submerged villages, there is need to rehabilitate them with great sensitivity, compassion and justice because Project Affected People's (PAP's) have been sacrificed in the name of development project but whose benefits mostly reach to other classes.

We have identified various basic problems faced by PAP's due to their involuntary displacement such as land and homelessness, joblessness, marginalization Increased, morbidity, mortality, food insecurity, social disintegration and in addition to this psychological trauma due to disruption of established pattern of life systems. These problems have different impact on various categories of people differently.

In this project we have selected village Ghanapur which affected by the takalidolhari medium irrigation project. We have collected preliminary information from ground level such as population, number of houses, number of cattle's number of tree, common amenities etc. which are required for planning of rehabilitation of village. The selected place for rehabilitation we got government authority for rehabilitation planning and fixing of selection of village. The norms given by central government of India by following this norms we fix component of infrastructure amenities propose to be provided by the acquired of land which are basic minimum amenities in addition to this we decide some modern amenities and plant in that layout.

Following are the different objectives of this project:-

- The main object of this project is to provide proper plot area to rehabilitees' villages.
- To provide the facilities for comfortable life to villages.
- Prevent distance migration from rural to urban area, which is common phenomenon in India's villages due to lack of opportunities and facilities that saunter a descent standard of living.
- Make the model village a 'hub' that could attract resources for development of other villages in its vicinity (surrounding).



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- To provide easier, faster & cheaper access to urban market for agricultural produce or other marketable commodities produce in such village.
- Create sustain cultural of co-operative living for inclusive & rapid development.

From this Minor Project we have concluded that :

- In present investigation, an attempt has been made to investigate and developed the existing structure.
- From drawing of existing structure and estimate we got an idea about the approximate cost of structure or idea about the provision of first floor. It will help in proposed construction and proposed provision.
- It will be benefited for two villagers as they get separate Grampanchayat office for conducting meetings in village and efficient implementation of government schemes.

PHOTOGRAPH



Image1: Dumpy Level



Image2: Students at Ghanapur



[Handwritten Signature]

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List of Students

ROLL NO	STUDENT NAME	ROLL NO	STUDENT NAME
1	SAURABH G. SAWALE	33	NIKHIL JINEKAR
2	KU. MAYURI R. KALMORE	34	HAISH SHAIKH
3	KU. SHIFA S. AHMAD TANWAR	35	KRUSHNA TEWARE
4	KU. DARSHANA S. KATIRIYA	36	PRANJALI NALHE
5	KU. JANHVI V. VYAWHARE	37	KAJAL BHOYAR(D)
6	RASIKA SARDAR	38	KOMAL GHATE(D)
7	KU. SONALI GADGE	39	SAMIKSHA NIKAM(D)
8	YOGESH G. THOSAR	40	AVINASH DHABARDE
9	KU. ANUSHREE A. PATINGE	41	HRISHIKESH GAWANDE
10	SMITESH K. FIRKE	42	ASHWIN S. SHIRBHATE
11	AKASH JADHAO	43	PRAGATI S. NAKTODE
12	AHTESHAN FAROOQUE	44	DIKSHA A. JAWARE
13	PUJA UGE	45	PRACHI A. INGALKAR
14	NIKHIL P. ASUTKAR	46	RAHUL MAGARE
15	YASH R. DUDHE	47	VAISHNAVI SAWAKE
16	KU. SHWETA KAMBLE	48	PRATIK BATTALWAR
17	MAHESH E. BIJWE	49	SUMIT S KHANDARE
18	ANKUSH C. KHANDER	50	YASH SUNIL NAROLE
19	ASHISH P. YEMBADWAR	51	GULSHAN V. PATIL
20	GAURAV RUDRAKAR	52	NIKHIL S. BHAGAT
21	AKSHAY A. KURATKAR	53	SATYAM INGOLE
22	UMMED N. CHAUDHARI	54	POOJA DAHAKE
23	BULBUL BHAGAT	55	SHIVAM SANAP
24	SWATI PATE	56	SAMEER S. HAGAWANE
25	SHEIKH I MUSA	57	SITARAM P. WAGHMARE
26	ASHISH MAHAJAN	58	UJAWL U. PAIKRAO
27	SHRAMIK RADE	59	LALIT G. DHANORKAR
28	KU. SHAMALI JAISWAL	60	ANIKET KATKAR
29	SHARUKH I. SOLANKI	61	PRASHIL URKUDE
30	NEHA REKHWAR	62	RAJKUMAR S. MAIVIYA
31	MAYURI PAWAR	63	PRATIK BOBADE
32	VIBHA BORADE		

M.R. Bhatkar



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A
Report on
Field Project

“Design Of Water Supply & Drainage System for Jagadambha
College Of Engineering & Technology”



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“Design Of Water Supply & Drainage System For Jagadambha College Of Engineering & Technology”

By

Civil Engineering Department


1. Title of Activity	“Design Of Water Supply & Drainage System For Jagadambha College Of Engineering & Technology”
2. Duration of Activity	6 Month(Session 2017-18)
3. Objective	To study detailed concept of Water Supply & Drainage System
4. No. of Beneficiary	9 Students work on this project <ul style="list-style-type: none">• Akshay Sardar• Abhinav Patil• Sheikh Zibran Hakeem• Pragati Gaikwad• Amol Kathale• Bhushan Kale• Aakash Bihade• Pratik Sursaut• Shivani Pate
5. Guided By	Prof.M.R.Nalamwar

INTRODUCTION

We have investigated and analyze the building services system like water supply and drainage system and given the suggestions on current system to overcome the current problems. Also we have suggested the design of rain water harvesting, efficient water supply to garden, and most important drinking water provision as par standard.

Water supply and drainage system are two of the most important sectors of development. Drinking water in adequate quantity and safe quality is a basic requirement for life and a determinant of standard of living. Development of institutional or communal water supplies and drainage system results in improved social and economic conditions. The supply side factors include sustainability of water sources e.g. Rainfall, surface flows, ground water availability and recharge process quality of available water, operations and maintenance of water supply schemes. Likewise, on the demand side factors such as population pressure, use inappropriate




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pressure, use inappropriate water pricing mechanisms, etc, are contributing to the problems of the deterioration of water quality and depletion of the resources.

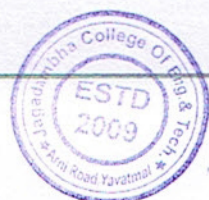
At institutional level, it is necessary to provide an efficient and sustainable water supply and drainage system to provide better facilities to students and staffs and to maintain reputation of college. Jagadambha College of engineering and technology starts with four prestigious branch with intake of 360 and 72 of (ME). It has a heavy demand of water requirement and for drinking, maintenance and drainage purpose. Also there can be increases in number of branches and number of intakes of student and staff in coming years. Therefore, it is required to provide an efficient system of water supply to meet the daily water demand. In this project we are case studying the existing water supply system and drainage system, analyze the water demand required to fulfill the supply at daily basis and provide a suitable water supply and drainage system if required any. Also we are going to analyze the problems occurring in drainage system and suggests some suitable measures to counter the associated problems. Guidelines of suitability of water for drinking purpose need to be prepared according to standard requirements


For future water demand, necessary methods and systems are adopted. The whole project is divides into five sub-topics as follows:-

- Water supply system
- Drinking water standards
- Rainwater harvesting.
- Gardening (landscape design)
- Drainage system.

AIM OF PROJECT

Now in INDIA so many universities and colleges has to overcome or face one common problem of water supply and sanitation/drainage distribution. To overcome this problem with some implementation at profitable budget we are going to design water supply distribution and drainage distribution system for the Jagadambha College of engineering and technology, Yavatmal.




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SCOPE OF PROJECT

A. Water supply system:-

- a) Study of existing water supply system.
- b) Estimation of Quantity of fresh water.
- c) Provide Continuous pressurized water supply (24x7).
- d) Avail the water at tap, washroom, drinking and gardening purposes.
- e) Maintain the standard of drinking water and design of water supply system.

B. Drinking water standard:-

- a) Study of drinking water quality at present.
- b) Improving the quality of drinking water.
- c) Selecting suitable drinking water purification system.
- d) Suggest guidelines for selection of water purification.

C. Rain water harvesting:-

- a) Meet the future water demand of college campus.
- b) Utilized the storm water that gets rested during rainfall.
- c) Increase the ground water level.
- d) Create awareness about the rain water harvesting.


D. Gardening:-

- a) Study the existing plants and garden.
- b) Suggest the proper arrangement of water supply system to gardening purpose.
- c) Suggest the automatic operated system for garden for the purpose of save the water.

E. Drainage system:-

- a) Study of existing drainage system.
- b) Safe disposal of drainage water.
- c) Maintain and separate black water and grey water.




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d) Find amount of disposed drainage water

PROJECT SITE

Jagadambha College of engineering & technology was established in the year of 2009 in District Yavatmal, State Maharashtra, India. It belongs to vidarbha region. It is located at 6 km towards south from bus stand Yavatmal. It is situated at:

- Latitude:- 20.3547485
- Longitude:- 78.0855527
- Altitude:- 443m (from sea level)

The total area is 33367.85 SQM of college is divided in four parts:-

Building 1 (admin) = 1929.6 SQM

Building 2 (MECH & EXTC) = 1462.86 SQM

Building 3 (CIVIL & EE) = 1651.61 SQM

Building 4 (WORKSHOP) = 1424.43 SQM

The college starts with 5 prestigious branches with intake of 360 and 72 of (ME).

CONCLUSION


We study and identify water supply and drainage system problem, and suggested required solutions and to satisfy the water demand for future.

We suggest the efficient water distribution system for gardening and maintenance.

We discussed parameters of drinking water and after testing the water sample, we have concluded that the water of college campus is not satisfied the standard as par IS, so we suggested integrated RO and UV water purification method.

as par study we calculated the total rain water that can be harvested is 15661.619 cubic meter/year through settlement tank. This will definitely increase ground water level. And provide continuously supply to bore well.




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SNAPSHOTS



Image 1: College image from google map



Image 2: Taking a reading on Bench Mark




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Image 3: Taking a reading on Bench Mark



Image 4: Surveying work