Rayat Shikshan Sanstha's
Chandraroop Dakle Jain College of Commerce, Shrirampur.
Dist-Ahmednagr.

Green Campus Policy

Sr.No	Particulars	Details
1	Brief Description	Policy will make sure to keep the campus eco-friendly
2	Scope	College Campus
3	Approved by	Head of the Institution / IQAC
4	Objective	• To Promote sustainability • To inculcate eco-friendly practices among all stakeholders
5	Policy Statement	Eco- Friendly practices will incorporate sustainability and conservation among all stakeholders which will result in making campus green and pollution free.
6	Procedure	• Recycling of waste water and solid waste in the campus. • Observation of No vehicle day in every month. • Promotion of use of cycle, battery powered vehicle, local transport and carpooling to minimize fuel consumption. • Heavy sound vehicles banned in the campus. • Ban of use of plastic in campus. • Promotion of paperless documentation. Use of vrudhi software for paperless documentation. • Landscaping with various plant species in the campus.

Principal,
C.D.Jain College of Commerce,
Shrirampur.

Rayat Shikshan Sanstha's
Chandraroop Dakle Jain College of Commerce, Shrirampur.
Dist-Ahmednagr.

Environment and Energy Usage Policy

Sr.No	Particulars	Details
1	Brief Description	Policy will ensure to improve the use of conventional energy resources and promoting sustainable energy resources.
2	Scope	The college Campus
3	Approved by	Head of the Institution / IQAC
4	Objective	To sensitize all stakeholders towards sustainable energy usage.
5	Policy Statement	Implementation of environment and energy usage policy will make institute energy sustainable by reducing carbon emission.
6	Procedure	• Use of LED bulbs in campus. • Use of solar and wind energy plant for generating energy. • Conducting Environment, Energy audit. • Display of Signboard implying energy conservation message in and around campus. • Parking will be kept free for battery powered vehicle. • Electrical and Electronic devices should be kept off when not in use. • Regular maintenance of high end equipment.

Principal,
C.D.Jain College of Commerce,
Shrirampur

Rayat Shikshan Sanstha's
Chandraroop Dakle Jain College of Commerce, Shrirampur.
Dist - Ahmednagar

The Green Campus, Energy and Environment Policy

Context:

The relationship between C.D.Jain College of Commerce and nature is a long and enduring one, something that students and staff of the college are aware of. C.D.Jain College of Commerce is very often recognized as the college with huge rocks jutting from the concrete giving it a completely natural and organic facade.Since 1962, the college has always had sustainable initiatives at the core of all activities. The rest of the campus can be categorized as playgrounds, lawns and gardens. A huge area is left in its natural form and acts as a naturalhabitat

Scope of the Policy:

The Green Campus, Energy and Environment Policies will develop exciting new co-curricular and extracurricular practices that encourage students to take thelead in creating positive change. These initiatives call for a thorough review of all infrastructural, administrative functions from the standpoints of energy efficiency, sustainability and the environment.

The focus areas of this policy are:

- ➔ Clean Campus Initiatives
- ➔ Landscaping Initiatives
- ➔ Clean Air Initiatives
    - ♦ Smoking Free Campus
- ➔ Infrastructure
    - ♦ Solar Power Plant
    - ♦ Installation of Energy Efficiency Equipment
    - ♦ Water Conservation through Rainwater Harvesting System
- ➔ Waste Management processes
    - ♦ Solid Waste Management
    - ♦ Liquid Waste Management
    - ♦ E-Waste Management
- ➔ Awareness Initiatives
- ➔ Environment-centric Student Societies and Department Activities
- ➔ Green Audit
- ➔ Energy Audit
- ➔ Plastic-Free Campu

Objectives of the Policy:

- To protect and conserve ecological systems and resources within the campus.
- To ensure judicious use of environmental resources to meet the needs

and aspirations of the present and future generations.

- To integrate environmental concerns into policies, plans and programmes for social development and outreach activities.
- To work with all stakeholders and the local community to raise awareness and seek the adoption of environmental good practice and the reduction of any adverse effects on the environment.
- To continuously improve our contribution to climate protection and adaptation to climate change and to the conservation of global resources.
- To continuously improve the efficient use of all resources, including energy and water, and to reduce consumption and the amount of waste produced, recovering and recycling waste where possible.
- To make the campus plastic free.
- To conduct environmental and energy audits from time to time.
- To minimize the use of paper in administration through having policy forE-governance.

Policy:

Clean Campus Initiatives

C.D.Jain College of Commerce had pledged to actively coordinate cleanliness activities in the college and beyond the campus in accordance with the vision of Swachh Bharat Abhiyan. It commits to continue with this Programme. The broad vision is as follows:

1. Generating mass awareness on cleanliness and hygiene amongst students and staff members by holding regular cleanliness drives. The idea is to motivate them to contribute in a proactive manner.

2. Activities under 'Swachh Bharat Abhiyan' will be a key component of all the community work being done by NSS, NCC and Green Society volunteers of the college.

3. Staff Members will be encouraged to participate in the cleanliness drive in the college campus.

4. Events such as poster and slogan competitions, essay writing, , speeches, skits on 'Swachh Bharat' will be organised.

5. Rallies on themes connected with 'Swachh Bharat Abhiyan' in and aroundthe college campus will be conducted to create mass awareness.

7. Remove all kinds of waste material like broken furniture, unusable equipment etc.

8. Administer of the pledge by students and staff members to maintain cleanliness of the college campus and its surrounding areas on an annualbasis.

9. Commit to manage waste and maintain clean campus especially during college events.

Landscaping Initiatives

The campus landscape, like its buildings, can be seen as the physical embodiment of a college's values. It is a vital part of the life of a campus, providing space for study, play, outdoor events, relaxation and aesthetic appreciation. Green campus landscapes also manage runoff, help recharge groundwater, and clean and cool the air on campus. The landscape serves asa visual representation of the campus community's commitment to sustainability. As campus landscapes are so visible and accessible, landscaping initiatives are a great way to build awareness around the environment.

The college commits to enriching this healthy habitat and maintaining the symbiotic relation of the institution with nature by

- Organizing annual tree plantation drives
- Encouraging student societies to hold tree planting events

Clean Air Initiatives

We encourage our students and staff to use public transportation. We encourage carpooling to college, an activity that will control air pollution and strengthen social interaction. The entry of automobiles inside the campus is restricted to discourage the use of private vehicles.

Our campus is also located near the rural area, an area identified as theGreen Lungs of shrirampur. For this reason, we feel responsible to maintain our green cover. The abundant natural landscape not only cleans the air on campus but also becomes an extension of the green lungs of the city.

- **Smoking Free Campus**

In compliance with the framework provided by the National Tobacco Control Programme (NTCP) 2007-2008, the college prohibits smoking and the use of other tobacco products. As a step in this direction, smoking and use of tobacco in and around the campus is strictly prohibited. The anti-smoking committee of the college ensures enforcement of the anti- smoking policy.

Infrastructural Initiatives

- **Renewable Sources of Energy**

C.D.Jain College of Commerce is dedicated to minimize and sustainably manage its use of electricity. The college believes in reducing the consumption of electricity produced by non-renewable resources by switching to clean energy sources like solar energy for purposes like lighting the campus.

- **Energy Saving and Energy Efficient Equipment**

We commit to install environment-friendly electrical appliances that save energy and reduce wasteful inefficiencies. The college believes inusing cleaner energy such as LED lighting.

- **Water Conservation through Rainwater Harvesting System**

C.D.Jain College of commerce has committed itself to this effort to replenish the groundwater table by practicing rainwater harvesting. This practice helps in the replenishment and recharge of the groundwater.

Waste Management Processes

C.D. Jain College of commerce strives to have a minimal impact on the environment and is dedicated toreduce and manage the waste generated by the college campus. The followingspecific procedures will be undertaken to ensure college contribution in protecting the environment.

- **Solid Waste Management**

With its aim to provide holistic education that also has a positive impacton the Environment, the college will adopt practices that will mitigate the generation, and manage solid waste through the followingmethods:

- Collect paper waste produced on campus and collaborate withscrap dealers for recycling.
- Reduce solid waste by developing a technology-centric Teaching and administrative model.
- Reduce use of paper by supporting digitization of attendanceand internal assessment records.
- Reduce requirement of printed books by updating the e-booksand e-journals collection of the college library.
- Encourage the students and teachers to use emails forassignment submissions.
- Take initiatives to spread awareness amongst students about
  - ✓ Food wastage and ways of minimizing it
  - ✓ Minimizing the use of packaged food
  - ✓ The habit of reusing and recycling non-biodegradableproducts
  - ✓ Organizing workshops for students on solid waste Management.

- **Liquid Waste Management**

- Maintain leak proof water fixtures.
- Minimize the use of water by constructing more Indian style toilets Instead of western style toilets.
- Continued employment of a caretaker to take immediate steps tostop any water leakage through taps, pipes, tanks, toilet flush etc.
- Prevention of release and mixing of oil from the college canteen liquid waste in the municipal drainage system by use of Grease trap mechanism..
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.

- **E-Waste Management**

C.D.Jain College of Commerce ensures that its usage of technology and generation of e-waste does notimpact the environment. For this purpose, the college plans to strive towards:

- More provisions for the disposal of the institutional e-waste.
- Collaboration with e-waste recycling companies to get electronicwaste recycled.
- Awareness amongst students about reduction of e-waste and Environment friendly disposal practices for e-waste.
- Encouraging department and society level activities pertaining to e-waste management.

Awareness Initiatives:

Outreach and education are of utmost importance so that all members of the campus community may value the objectives of the policy and aid in its implementation. This is why C.D. Jain College of Commerce supports and encourages awareness campaigns, seminars, workshops, conferences and other interactive sessions to facilitate effective implementation of the Green Campus, Energy and Environment policies.

Environment-centric Student Societies and Department Activities

C.D.Jain College of Commerce encourages all the departments and specific student societies like Green society, NSS, NCC and Students welfare department to organize events, competitions and training sessions that will bring about positive environmental changes at the grass root level. The college supports departments and student societies in moulding the students into active agents of environment protection and conservation.

Conduct Green Audit

The college aims to regularly conduct a Green Audit of our college campus toassess our strengths and weaknesses to further our goals of long-term sustainability. A green audit is a useful tool to determine how and where mostenergy or water or resources are being used. The college can then consider how to implement changes and make savings. It can determine the type andvolume of waste. Recycling projects or waste minimization plans can be adopted. It will create health consciousness and promote environmental values and ethics. It provides a better understanding of the impact of eco- friendly practices on campus. Green auditing will promote financial savings through reduction of resource use. It is imperative that the college evaluate its own contributions toward a sustainable future.

Conduct Energy Audit

An Energy Audit to be conducted as and when required to further reduce its carbon footprint. The importance of reducing energy consumption cannot be overstated. The energy audit, with its specialized tools will identify wastage ofenergy. Such an inspection often reveals several different flaws which cause a loss of significant amounts of energy which the college will not be able to detect. These flaws often have easy and affordable solutions and provide significant savings.

Plastic-Free Campus

C.D.Jain College of Commerce has been observing most of its duties in terms of solid waste managementsince its inception. In view of the Government of India's resolution to ban all single use plastics due to the hazardous impact of plastic use and pollution, the college administration strictly bans the use of single use plastics in its premise to make it a 'Plastic Free Campus'

Principal,
C.D.Jain College of Commerce,
Shrirampur

GREEN AUDIT REPORT

Rayat Shikshan Sanstha's

CHANDRAROOP DAKLE JAIN COLLEGE OF COMMERCE, SHRIRAMPUR, DIST. - AHMEDNAGAR

INDEX

Introduction: Facilities

1.1 About Sanstha :

The Rayat Shikshan Sanstha, Satara is pioneer in the field of rural development through education. Today it occupies a prominent place on the educational map not only of Maharashtra but also of India. The Sanstha was founded by Late Padmabhushan Dr. Karmaveer Bhaurao Patil, popularly known as 'Karmaveer Anna'. He followed the footsteps of Mahatma Jyotiba Phule and Rajashree Chhatrapati Shahu Maharaja, firmly believed the education is the panacea for the social and economical problems of the society.

Presently the Sanstha runs 41 colleges, 434 secondary Schools, D.Ed Colleges, 21 Primary Schools, 36 Pre-Primary Schools, 74 Hostels, 8 Ashramshalas and 6 I.T.I. These institutions are wide spread in 14 district of Maharashtra and 1 District of Karnataka. Over 4 lakh students pursue their education in the Sanstha. It has a plethora of about 19,000 dedicated employees.

The Sanstha stands for the symbol of the aspirations of the common people i.e. “Rayat”. “Education through Self-help” is our motto and the Sanstha strongly advocated the dignity of labour. Like the symbol, “The lush green banyan tree”, the Sanstha has stood the test of time and is ever flourishing.

1.2 About College :

Our college popularly known as “C. D. Jain College” is one of the most flourishing branch of Rayat Shikshan Sanstha. It is located at Shrirampur. The college complex is located on a 16 acre plot, with a fully built up space of about 2226.91 Sq.m. It offers all modern amenities required for all round development of the student such as hostels for boys and girls, library, reading hall, ladies room, seminar hall, audio visual library, computer and internet facility, gymnasium, playgrounds, staff quarters, etc. Apart from graduate and post graduate courses in commerce, the college also offers CPT/CS entrance guidance; MS-CIT and other computer courses are also conducted by the college. The college has a well-equipped and well furnished computer department with BCA and MCA programme. The college also has a Research Centre with M.Phil

and Ph.D. Programmes. We have established our brand as, "The Complete Commerce College." Recently college has been re-accredited and awarded 'A' Grade with CGPA 3.16. The college has also certified for ISO 9001:2008.

1.3 Our Vision :

"To provide quality business education, accessible and affordable to the rural masses and to promote research and entrepreneurship for the development of rural area."

1.4 Our Mission:

The mission statement of the college reflects our endeavour to translate the vision in to reality. Our mission is:

1. To motivate the students from rural areas to go in for commerce education
2. To provide complete commerce education right from XI std. to Ph. D.
3. To enrich commerce education through seminars, tutorials, field visits, industrial tours, quiz contest, essay competitions, etc.
4. To motivate and train students for self-employment
5. To encourage and coach students for MBA, CET, CA, CS, ICWA, Banking Exams, etc.
6. To provide affordable career oriented courses to the rural students
7. To offer various Short Term Courses to the students
8. To undertake research regarding various business problems, especially in the surrounding area
9. To foster research culture amongst faculty and students
10. To inculcate proper ethical, social and responsible behavior amongst the students
11. To bring about all round development of the students, so that they become worthy members of a nation aspiring to be a world power.

1.5 Introduction of Green Audit:

As per the Evaluation Plan of Internal Quality Assurance Cell of C. D. Jain College of Commerce for 2017-18, Green Audit of the college will be conducted on 10 April 2018.

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The 'Green

Audit' aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Green audit is assigned to the criteria 7 of NAAC. It is social responsibility of institution to come forward for environment protection for better future of Nation.

1.6 Objectives:

The purpose of this audit was to ensure that the Green Policy is followed and implemented in the campus, across all departments, administrative bodies and students.

- To introduce and aware students to real concerns of environment and its sustainability
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To introduce and aware students the E-waste Policy
- To create paperless, plastic free campus

1.7 ENVIRONMENTAL POLICY OF THE COLLEGE :

Rayat Shikshan Sanstha's C.D.Jain college of Commerce is a quality conscious college. It protects its own environment with its green campus, kept pollution free. Environment development is its basic work with the educational policies implemented in the campus.

The management and the students of the college look after the environment carefully. Every year, during rainy season, we do tree plantation and carefully look after it. It's our own responsibility to preserve the work done in the campus related to the environment.

We have decided our own environmental policy as-

- To create awareness regarding environmental policy of our college to our students and the management.
- To maintain pollution free campus by avoiding tobacco, pan-masala etc, chewing in the campus. As per the govt. rules and regulations, the instructions are displayed in the campus.

- To Use Solar Energy in College Campus by Solar Lamps & Solar water Heater
- To sensitize the students and staff regarding the use of drinking water properly for which, we have provided aqua-guarded drinking water facilities in the campus.
- To bring into use the 'Rain Water Harvesting' in the campus. We have collected the rain water from the college roof and it is percolated in the land.
- 'No Vehicle Day' concept and keep the campus vehicle free. It helps to save the fuel and make the people use their own natural means.
- To use the ICT and use minimum paper. It will help to go towards 'Paperless Office'.
- To use the garbage for recycling it in the room of fertilizers with the help of wormy compost plant
- To reduce the 'sound pollution the campus, we have built the seating arrangements in the shade of trees in our campus..
- To use 'Use me' dust bin in the college campus so as to keep college campus clean
- To maintain green campus, we are doing 'Green Audit' of our college

This is our environmental policy approved by our father institution, Rayat Shiksahn Sanstha Satara, College Development Committee and IQAC.

1.9 CONSTITUTION FOR GREEN AUDIT :

The Green Audit Committee will act as per the environmental policy and should the responsibility of maintaining and protecting environment surrounding the college. The aim of the committee is to provide advice for the development of environmental policy and practice in the areas of.

- ❖ Soil, Waste and E-waste Management
- ❖ Energy use and conservations
- ❖ Eco-friendly techniques
- ❖ Noise Pollution
- ❖ Air Pollution
- ❖ Paperless operation Procedure
- ❖ Green environment and clean campus

COMMITTEE FOR GREEN AUDIT

S. N.	Name of Member	Designation	Title in Committee

1.	Dr. L. D. Bhor	**Principal**	Chairman
2.	Dr. Ghotekar D. B.	Asst. Prof.	Chief – coordinator
3.	Mr. Vivek M More	IQAC	Coordinator
4.	Dr. Gawali S. N.	Asst. Prof.	Member
5.	Mr. Deshmukh S. Y.	Asst. Prof.	Member
6.	Mr. Sayyed S. B.	Asst. Prof.	Member
7.	Mr. Nagpure V. B.	Asst. Prof.	Member

- **Soil, Waste and E-waste Management**

Scrap and Waste management is Initiated by the College. The College has adopted a policy to maintain cleanliness on the campus. The college Development Committee and IQAC has issued various directive notices and displayed posters at selected locations to instruct the staff, students and faculty members to maintain cleanliness on the Campus. Waste disposable colour dustbins are kept on the campus to distinguish biodegradable waste and non-disposable waste. Garden waste, Kitchen and other waste are collected from different areas of campus and processed for vermi compost. The compost used for the plants and garden purpose. The MOU signed with The Ashok Co-operative Sugar Factory, Ashoknagar, for expert guidance on vermi culture process of biodegradable waste. Dry waste mainly leaves of tress are collected and used for compost plant on the campus premises. The water overflow from the water tank provided to the garden and plants through pipelines. Toilets and Bathrooms are connected with the drainage system of Municipal council for further water treatment. The parent institute Rayat Shikshan Sanstha having MOU with the e-waste management firm for the college. The sanstha appointed e-waste management committee of expert personnel for verification of e-waste management. After verification of e-waste material, the prospective reports send to the college and dealer. The dealer appointed by sanstha purchases that material from college i.e. computer, printer, monitor, peripheral parts, electric and electronic materials etc. Purchase committee of college recommended buyback products policy for Xerox Machine, Batteries and UPS. The college organized state level seminar on "E-waste Management" for the students and staff which has created an impact upon students and faculty about the hazardous effects and importance of e-waste management system. College students donate their non-used outdated electronic gadgets for the recycle of material under guidance of computer department. The reusable electronic equipment is kept aside for future use.

- **Energy use and conservations**

Solar power is the conversion of energy from **sunlight** into electricity, either directly using photovoltaics (PV), indirectly using concentrated solar power, or a combination.

A **solar** thermal **plant** generates heat and electricity by concentrating the sun's energy. That in turn builds steam that helps to feed a turbine and generator to produce electricity. This is the most common type of **solar** thermal **plant**.

Advantages of Solar Plant are:

1. Solar power is pollution free and causes no greenhouse gases to be emitted after installation
2. Reduced dependence on foreign oil and fossil fuels
3. Renewable clean power that is available every day of the year, even cloudy days produce some power
4. Return on investment unlike paying for utility bills
5. Virtually no maintenance as solar panels last over 30 years
6. Creates jobs by employing solar panel manufacturers, solar installers, etc. and in turn helps the economy
7. Excess power can be sold back to the power company if grid intertied
8. Ability to live grid free if all power generated provides enough for the home / building
9. Can be installed virtually anywhere; in a field to on a building
10. Use batteries to store extra power for use at night
11. Solar can be used to heat water, power homes and building, even power cars
12. Safer than traditional electric current
13. Efficiency is always improving so the same size solar that is available today will become more efficient tomorrow
14. Aesthetics are improving making the solar more versatile compared to older models; i.e. printing, flexible, solar shingles, etc.
15. Federal grants, tax incentives, and rebate programs are available to help with initial costs

Our college installed 35 KW Solar on-grid energy plant in college campus. The carbon emission in our campus area reduced due to solar energy plant. 3 KW wind energy project gifted by Fulortron India Pvt. Ltd. Under CSR activity. 10 solar street light installed in the college premises.

❖ **Air Pollution Control**

Rayat Shikshan Sanstha emblem is of banyans tree which also indicates the love, affections and responsibility towards environment. Rayat Shaikshnik Sankul has total 43 acres campus with more than 1000 of tress from various species. In our campus we have planted more than 150 of tress. The campus has garden in the premises i.e. helpful oxygen resources in the city. The awareness is also done by arranging road shows, rallies on various issues related to environment and health. The awareness regarding pollution through formal and informal information in meetings and during environment lectures. Faculty and students follows the norms of Pollution Control Board. The college students and faculty members through NSS/NCC are involved in the activities.

A. Bicycles: bicycle is the most economical way of transportation. It helps to improve the health of the community. It is pollution free. Most of students are from economically weaker sections uses bicycles.

B. 4th day of Every Month as No Vehicle Day in the college for staff and Student. They are actively participated in No Vehicle Day.

❖ **Public Transport**:

Most of the students are from rural area of shrirampur, Rahata, Rahuri, Vaijapur and Newasa Tahshil for their convenience they use public transportation service like bus, train and taxi. Institution instructs the students on transportation etiquette like to remain polite, to follow traffic rules, offer their seats to the elderly, pregnant women etc.

Use of Public transport data

Section: COMMERCE **Class Wise Statistical Report (Conveyance) [For A.Y. 2015-2016]** Page 1 of 1

Class	By Walk		By Bicycle		By Two Wheeler		By Bus		Other		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
F.Y.BCOM	0	0	57	59	4	0	117	119	3	17	376
MCOM I	0	0	1	13	0	0	39	22	0	5	80
MCOM II	0	0	0	0	0	0	0	0	0	0	0
S.Y.B.COM.	0	0	49	55	6	3	134	92	5	9	353
T.Y.B.COM.	0	0	11	17	0	0	32	27	1	0	88
Grand Total	**0**	**0**	**118**	**144**	**10**	**3**	**322**	**260**	**9**	**31**	**897**

Section: COMMERCE **Class Wise Statistical Report (Conveyance) [For A.Y. 2016-2017]** Page 1 of 1

Class	By Walk		By Bicycle		By Two Wheeler		By Bus		Other		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
F.Y.BCOM	0	0	78	63	0	0	157	112	22	15	447
S.Y.B.COM.	0	0	70	54	0	0	115	123	5	17	384
T.Y.B.COM.	0	0	49	56	0	0	133	94	3	10	345
MCOM I	0	0	9	18	0	0	33	40	1	0	101
MCOM II	0	0	1	15	0	0	38	22	0	5	81
Grand Total	**0**	**0**	**207**	**206**	**0**	**0**	**476**	**391**	**31**	**47**	**1358**

Section: COMMERCE **Class Wise Statistical Report (Conveyance) [For A.Y. 2017-2018]** Page 1 of 1

Class	By Walk		By Bicycle		By Two Wheeler		By Bus		Other		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
F.Y.BCOM	0	0	61	59	35	39	126	133	6	2	461
MCOM I	0	0	14	15	0	2	28	46	1	1	107
MCOM II	0	0	8	15	0	0	26	36	0	0	85
S.Y.B.COM.	0	0	57	61	6	0	135	102	17	13	391
T.Y.B.COM.	0	0	52	47	7	3	100	105	6	16	336
Grand Total	**0**	**0**	**192**	**197**	**48**	**44**	**415**	**422**	**30**	**32**	**1380**

- **Plantation programme** :

Every year plantation programme organized by the college in the adopted village and college campus through NSS and NCC. Government of Maharashtra is conscious about the environment in the year 2016-2017 the college has taken imitative to participate in the plantation programme in month of JUNE 2017. Wadala Mahadv which is adopted village by the college for the sake of environmental awareness and plant more than 50 trees. Every year college organizes the NSS camp in the village and various lectures and activities run by college. The adopted village got "Anti Defecation Award "by ZP government of Maharashtra.

On the occasion of Birth Anniversary of Dr. Padmabhushan Bhaurao Patillatation and President Hon. Sharad Pawar (Ex. Agicultur Minister Government of India) observed plantation programme.

S. N.	Year	No. of Plants	Total no. of plants
1.	2016-2017	50	65
2.	2017-2018	05	

❖ **Noise Pollution Management** :

A. Silence zones in college like library, auditorium:

Various display boards are present in college premises for awareness to maintain silence in the college.

B. Noise control during any programme in college:

The college has one huge gate for the entry and exit of students, monitored by the security guard. The security guard and professors of sports department ensure smooth entry and exit of students without any noise and nuisance under Discipline Committee

C. Pedestrian Friendly Roads:

Pedestrian Roads provide a safe path for people to walk along in the campus. The campus is having pedestrian friendly road in campus to classrooms, library, Gymnasium and hostel.

D. 'No Smoking, No Tobacco' in campus area:

C. D. Jain College Commerce College is completely smoking and tobacco free campus and use of these are a punishable offence. The instructions regarding this are already given to the students and the staff members. The display boards are displayed at various places in the college.

E. Display boards in college campus:

Various boards for the awareness on the environment control, noise control, and tobacco free campus, conservation of energy, recycling of resources, tree plantation and environmental policy of college are displayed for all the stakeholders.

F. Controlling entry and exit of students monitoring.

1. Our college has the main gate & one gate in main building. The teaching learning programme and head office activities run in this building. During cultural programme and examination, we use the main gate through which the students can come and go easily. The emergency gates are used to control the rush of students.
2. We have security guards at the entry level of main gate. Most of the times, the parents visit the college, they register their name at the gate and then they are allowed to enter the college.
3. The college has installed 16 CCTV cameras in the campus along with the security guard at the entry level. The security guard looks after the safety of the college campus.
4. The library has barcode machine for timely entry and exit of the students and faculty.

G. No pressure horns for vehicle:

Our college staff members and students does not use pressure horns and is not permissible for the students studying in the college.

HUMAN HEALTH AND SAFETY MANAGAMENT

A. Group insurance for staff and students:

To ensure the safety of the staff members the college has adopted the group insurance. The Savitribai Phule Pune University has student's accidental policy. Every year college contribute amount according to guideline of university.

B. Accident policy :

The staff has LIC insurance policy in relation to accident. C. D. Jain College of Commerce, Shrirampur is a complete commerce college and being a commerce college students and faculty knows the importance of insurance policy.

C. Periodic health check-up:

College organizes periodic health checkup for the students. The colleges have MOU with Saint Luke Hospital

- **Contract with Lady Doctor :**

  Girls students are near about in equal proportion to boys. And so it is responsibility of the college to provide them the medicinal guidance in college. We do organize various lectures giving guidance about health and medical problems. But there is also a need of regular visit of a lady doctor with whom girl students can discuss their problems and in case of any emergency we call the doctor at any time in college and girls' hostel.

  The college has made a contract with Dr. Shital Hivarkar from Shrirampur working at Kamgar Hospital. She visits the college and girls' hostel twice in a month on Thursday. We do keep records of the visit and girls feel free to talk with her about their health problems.

  From the year 2012-13 upto 2016-17 college has appointed Dr. Shital Hivarkar as a medical officer and she gives regular visits as per the contract and solves the medical problems of girl students and give them the proper guidance.

- **Hemoglobin Checkup of Students :**

The college has two important departments i.e. Commerce and Computer. On an average there are nearly 800 girl students in senior college from commerce and computer department.

Since last two years college has been organizing the hemoglobin check-up programme. HB is the very important aspect to make the girl students feasible to face the medical problems and let the health be very strong. It is the practice to not to visit the doctor without any illness and so majority girl students do not know their level of HB. Hence, college has organized HB testing programmes. Details about participation of girls students in HB testing programme is given below.

D. Awareness campaign on human health:

Various lectures and programmes are arranged for creating health awareness and developing diet habits among students and staff members. Short term programme on "Health Awareness programme and Advanced Fitness Exercise" introduced in the academic year 2016-2017. Awareness rally by students for "Swatch Bharat Abhiyaan" Every year NSS unit organizes a camp in nearby villages and plans to clean the village campus and various lectures are organized to create awareness in villagers.

- **Napkin Vending and Disposal Machine :**

With a view to promote menstrual health of women and adolescent girls by ensuring availability of quality sanitary napkins, the college has installed automated sanitary napkin vending machine and incinerator.

- **Yoga / Meditation for staff at least once in a week**

Health is wealth, is understood by our students and staff. Our college campus provides the facilities of indoor and outdoor stadium for the students, staff and the citizens of Shrirampur. Our sports faculty provides proper guidance and we are motivated to do the daily exercise of Yoga / Meditation in the college. International Yoga day celebrated in the college campus.






- **Gymnasium and Health Club:**

The Centre of Disease Control and Prevention recommends that all adults get at least 30 minutes of moderate exercise five days a week. These exercises can be done in gym. Regular exercises carry many physical and mental health benefits. Going to gym helps a person to lose extra weight. Reduced weight reduces the risk of developing serious conditions. Exercising daily strengthens the heart and allows it to pump more

efficiently with less strain. Exercises lower the blood pressure, cholesterol level, allows the blood to circulate smoothly through arteries. All this lowers the risk of heart diseases or having a stroke, developing diabetes, metabolic syndromes, colon cancer, breast cancer, etc. Hence, with the point of view of maintain the health of all the students; college has made an arrangement of well-equipped gymnasium. Two separate gyms are provided by the college- one in college campus and other in ladies hostel. The equipments available in the gym are listed below:

a. College Gym:

1. For male students- malt station gym free weight, mallakhamb, boxing ring, Olympic size lifting set
2. For female students- assist machine, six separate single station weight, and Olympic size lifting bar machines

b. Hostel Gym (For girls only)

Lat pull down machine, leg curl and leg extension machine, free weights and bars and dumbbells of various sizes.

c. Beneficiaries of the gym are:

1. Male students
2. Female students
3. Male staff
4. Female staff
5. Hostel girls
6. Outsiders of the college (with proper permission of the Principal and Physical Director)

The college also provides Physio Therapy Consultancy to the outsiders. The Physical Director, Prof. Deshmukh S. Y. (B. Com., M. Ed. Physical and SET) provides this consultancy.

- **Awareness campaign for aids, cancer and TB with coordination of Civil Hospital**

Our college NSS activities, NCC activities are visible in doing the awareness regarding Aids, Cancer and TB. Time to time, the other activities of the college also creates awareness by organizing poster competitions, wallpapers etc.






B. Arranging Blood donation camps:

The NSS and NCC unit of the college organised blood donation programme every year in association with Civil Hospital Ahmednagar.

Sr. No	Year	No. of students who donated blood	Total
1.	2014-2015	42	124
2.	2015-2016	48	
3.	2016-2017	36	
4.	2017-2018	24	

C. Fire safety:

Mrs. Kesharbai Sonajirao Kshirsagar Alias kaku Arts, Science & Commerce College Beed is having awareness & safety facility.we have about 05 fire extinguisher all across College Buildings. Fire extinguishers are fixed in the main building, library building, Auditorium, and all Dept. of the college for safety purpose.

D. First aid box:

All the laboratories are equipped with SOP's, Do's Don't' for the laboratory safety. The students are also trained for first aid and emergency treatment in various situations. First aid boxes are fixed in administrative office and indoor stadium & all laboratories are having first aid box of the college.

E. Emergency phone numbers:

All the emergency phone numbers are displayed at the entrance and copy is also available in administrative office.

Sr. No.	Office	Contact No.
1.	Office of the College	02422-222245
2.	Hospital	02422-223663
3.	Police Station	100 02422-222666
4.	Women Helpline	103
5.	Fire Brigade	02422-221100
6.	Ambulance	108

SOIL POLLUTION MANAGEMENT

A. Vermi compost plant in college (use of bio-fertilizers):

Waste disposable color dustbins are kept in the campus area to distinguish biodegradable waste and Non Disposable waste. Garden waste and other waste are collected from different areas of campus and processed for vermi compost. The ready compost used for the plants and garden purpose. The MOU signed with Ashok Sahkari Sakhar Karkhana Ltd. Ashoknagar, a cooperative sugar factory for expert guidance on vermi culture process of biodegradable waste. Dry waste mainly leaves of tress are collected and used for compost plant in the campus premises.

B. Rain water harvesting:

Water is an integral part of human life and eco system. College has its internal source of water through bore well system. Increasing demand of water supply and marginal rainfall in the College campus so it is decides to establish its own water harvesting project in the college campus. All building roof tops are covered through such a rain water harvesting project. The earth water level is increased which helped to have water to our college boar. It increases natural storage of water, and helps the college in getting water for various purposes. The college is having its own well and it's located at girl's hostel. This dug well may be utilized as recharge structure for the girls hostel water harvesting.

- **Rain Water Harvesting: Structure and Utility:**
  - **Introduction**

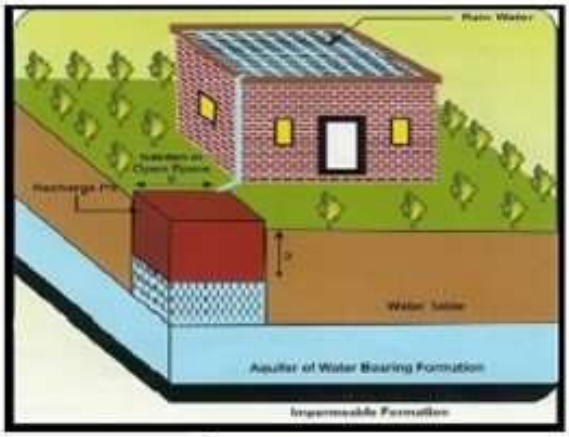
    As the scarcity of water is rapidly increasing everyday particularly during the summer season, the demand for water in the college campus also substantially increased. Therefore college has installed three rooftop rain water harvesting systems in the college campus.
  - **Design of proposed catchment area:**

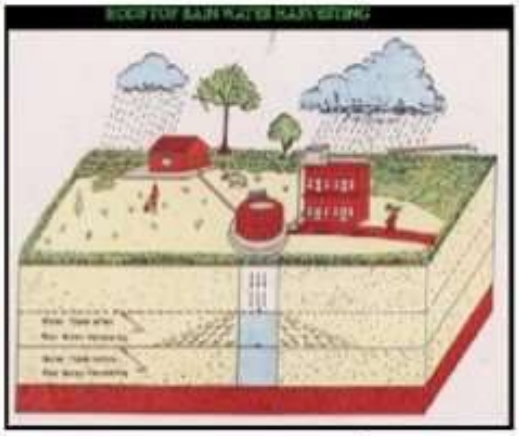
    The catchment of water harvesting system is the rooftop that receives rainfall directly and drains the water system. The existing roof is made use of to collect rainwater. Therefore the rooftop is swept and cleaned regularly for collecting the water to its maximum purity.

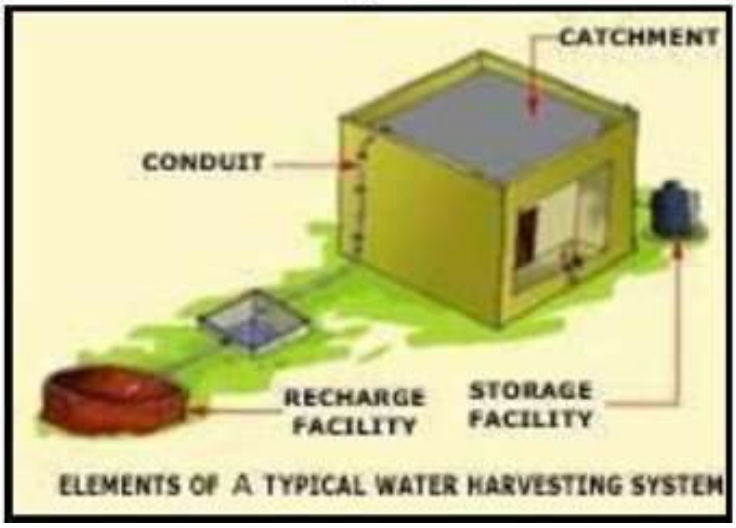
From the design of the terrace floor, we calculated total rooftop area of our college.

S. N.	Particulars	Area in Sq.m.
1	College Building and Office	297.39
2	Women Hostel	425.31
3	Students Welfare	197.50
4	Principal Residence	85.77
5	Staff Quarter	121.70
6	Staff Quarter No.1 (Non-Teaching)	106.02
7	Staff Quarter No.2 (Non-Teaching))	178.28
8	Administrative Building	284.07
9	New Building	646.79
10	Gymkhana	473.20
	Total	2816.03

- **Design of transportation system:**







For transporting the rain water from the catchment area in this project we have used Polyvinyl chloride (PVC) pipes and fittings. For the collection purpose, we are using pipes ranging 2.5 - 3 inches diameter. A care has been taken that the first spell of rain is flushed out and does not enter the system. This is done since the first spell of rain carries a relatively larger amount of pollutants from the air and catchment surface. Rain water from girl's hostel rooftop is transferred into specifically designed dug well near the bore well of girls hostel. Rain water harvesting is the process of collecting, conveying and storing water from rainfall in an area. Institution has Roof Top Rain Water Harvesting System of catching rainwater where it falls. Rainwater is collected from rooftop of the building is diverted through pipes to bore well. Clear water then passes to bore well to recharge the groundwater.

- **Approximate amount of water percolated under the ground per year:**

The average monsoon rainfall in the area is approximately 666 mm per year. From average rainfall and the total surface of rooftop catchment area for each system,

we have calculated the amount of water percolated under the ground per year which is given as below.

C. Plastic free environment:

Our college is plastic free environment and also creating awareness amongst the students and staff members regarding the same by display boards and other programmes. College takes care of environmental hazardous substance like plastic**,** Students and staff members are instructed to use paper bags and cloth bags. Initiative has been taken to make campus plastic free by discouraging use of plastic bags to minimize environmental damage and risks associated with it.

- **OTHER SECTORS FOR ENVIRONMENT MANAGEMENT:**
  - **Waste Streams**

    Primarily segregated waste from Lecture quarters Blocks, Hostel Blocks, Residential areas (Sevak Niwas) travel in their respective streams and reach the segregation shed for appropriate treatment and disposal. There are different technologies used for treatment of various types of wastes. They are illustrated below.

    - **Wet Waste**

      Waste especially from kitchen, such as vegetable refuses, food scraps etc. are called wet waste. Send them for composting using one of the methods such as aerobic or anaerobic methods.

    - **Aerobic Methods:**

      Windrow composting, vermin-composting, composting are some of the popular methods. See references section of this SOP for a list of useful guides that can explain each of these methods.

    - **Dry Waste**

      Dry wastes must undergo sifting for picking out the recyclables to be passed on to the recyclers. The residual reject are sent for incineration in an eco-friendly incinerator. Generation of electrical energy from incinerated dry waste is possible by addition some simple technologies.

- **Hazardous Waste**

  The best approach is to select and use as far as possible only those products which are eco-friendly and environmentally safe. When items such as batteries (dry cell and wet batteries), paints and other household / office chemicals are used, the best thing to do is to approach the supplier to take them back. It is good to find operator of common facility for treatment of hazardous waste, and dispose hazardous waste through such operators. In the absence of such exchange or buy-back arrangement, steps must be taken for environmentally sound management of hazardous wastes.

  Care must be taken so as to protect health and the environment against the adverse effects which may result from disposing such wastes. We must make informed decision about which method of disposal would not harm the health or environment.

- **E-waste**

  The parent institute Rayat Shikshan Sanstha having MOU with the e-waste management firm for college. The Sanstha appointed e-waste management committee of expert personnel for verification of e-waste management. After verification of e-waste material, the prospective reports send to the college and dealer. Dealer appointed by sanstha borrows that material from college i.e. computer, printer, monitor, peripheral parts, electric and electronic materials etc. Purchase committee of college recommended buyback product policy for Xerox Machine, Batteries and UPS. B.B.A.(C.A.) department organized state level seminar on "E-waste Management" for the students and staff which is useful to know ways, hazardous effect and importance of e-waste management system. College students donate their non-used outdated electronic gadgets for the recycle of material under guidance of computer department.

- **Use of LED bulbs :**

  Principal's Office, Administrative Building, Research department, Office of IQAC, Administrative Office, Library, Ladies Common Room, Virtual Classrooms, Language Lab, Computer Labs, Commerce Lab, Gymnasium hall, Departmental Offices, and all classrooms have LED bulbs to save energy.

- **Conducting energy audit :**

  In near future, we are about to conduct energy audit of our college. It will help us in maintaining our energy use in the college campus.

- **Dustbins in the premises:**

  College adopted a policy to maintain cleanliness in the campus. For this purpose the College Development Committee has issued various directives from time to time, notice and posters are displayed at selected location to instruct the staff, students and faculty members to maintain cleanliness in the Campus. Waste disposable color dustbins are kept in the campus area to distinguish biodegradable waste and Non Disposable waste. The use of dustbins maintains garbage free campus.

- **Use of dust proof chalks:**

  All the classrooms are fitted with white and green boards with dust free chalks and marker pens. LCD projector also installed in all classroom which minimizing the use of dust chalks.

- ## E-Waste Management :

The Rayat Shikshan Sanstha appointed e-waste management committee of expert personnel for verification of e-waste management. After verification of e-waste material, the prospective reports send to the college and dealer. The dealer appointed by sanstha purchases that material from college i.e. computer, printer, monitor, peripheral parts, electric and electronic materials etc. Purchase committee of college recommended buyback products policy for Xerox Machine, Batteries and UPS. The B.B.A.C.A. department organized state level seminar on "E-waste Management" for the students and staff which has created an impact upon students and faculty about the hazardous effects and importance of e-waste management system. College students donate their non-used outdated electronic gadgets for the recycle of material under guidance of computer department. The reusable electronic equipment is kept aside for future use.

Plants Botanical Names

S. N.	Botanical Name	Common Name	Family	Total
1.	***Grevillea robusta***	Silver oak	Proteaceae	**07**
2.	***Albizia saman***	Rain tree	Fabaceae	**10**
3.	***Cocos nucifera***	Naral	Arecaeae	**13**
4.	***Alstonia scholaris***	Saptparni	Apocynaceae	**07**
5.	***Cassia siamea***	Cassia tree	Fabaceae	**06**
6.	***Delonix regia***	Gulmohor	Fabaceae	**03**
7.	***Thespesia populnea***	Paras Bhendi	Malvaceae	**03**
8.	***Ficus panda***	Ficus	Moraceae	**10**
9.	***Cordia dichotoma***	Bhokar	Boraginaceae	**01**
10.	***Peltophorum pterocarpum***	Yellow-frame tree	Fabaceae	**02**
11.	***Azadirachta indica***	Neem	Meliaceae	**08**
12.	***Cassia fistula***	Bahava	Fabaceae	**01**
13.	***Ficus religiosa***	peepal tree	Moraceae	**05**
14.	***Caesalpinia pulcherrima***	Shankeshwar	Fabaceae	**04**
15.	***Cascabela thevetia***	Pivala Kanher	Apocynaceae	**02**
16.	***Terminaliacatappa***	Badam	Combretaceae	**07**
17.	***Spathodea campanulata***	Pichkari	Bignoniaceae	**06**
18.	***Hyophorbe lagenicaulis***	Bottle Palm	Aracaceae	**06**
19.	***Ficus benghalensis***	Vad	Moraceae	**03**
20	***Polyalthia longifolia***	Ashok tree	Annonaceae	**27**
21	***Santalumalbum***	Chandan	Santalaceae	**02**
22	***Casuarina equisetifolia***	Suru	Casuarinaceae	**06**
23	***Mimusops elengi***	Bakul	Sapotaceae	**03**
24	***Araucaria angustifolia***	Khrismas tree	Araucariaceae	**01**
25	***Thuja occidentalis***	Morepankhi	Cupressaceae	**13**
26	***Dracaena***	--	Asparagaceae	**03**
	Total			**159**

Details of Tree and Location

1. Silver Oak

- It is a fast-growing evergreen tree, between 18–35 m (59–115 ft) tall, with dark green delicately dented bipinnatifid leaves
- Its flowers are golden-orange bottlebrush-like blooms, between 8–15 cm (3–6 in) long, in the spring, on a 2–3 cm long stem and are used for honey production
- Health benefits : Act as antioxidant against free radicals, Support the cardio protective activity
- Location : Near Gymkhana road on the way to the RBNB College.

2. Rain Tree

- It usually reaches a height of 25 m (82 ft) and a diameter of 40 m. The leaves fold in rainy weather and in the evening, hence the name "rain tree" and "five o'clock tree" (Pukul Lima) in Malay. Several lineages of this tree are available, e.g., with reddish pink and creamish golden colored flowers.
- According to a research conducted at the School of Forestry of the Bogor Agricultural Institute, Indonesia, a mature tree with a crown diameter measuring 15 meters absorbed 28.5 tons of CO_2 annually
- Location : in front of Administrative Block, Near Parking and Infront of Principal Bunglow.

3. Coconut Tree

- *Cocos nucifera* is a large palm, growing up to 30 m (98 ft) tall, with pinnate leaves 4–6 m (13–20 ft) long, and pinnae 60–90 cm (2–3 ft) long; old leaves break away.
- Per 100-gram serving with 354 calories, raw coconut meat supplies a high amount oftotal fat (33grams), especially saturated fat 89% and carbohydrates (Micronutrients in significant content include the dietary minerals manganese, iron, phosphorus, and zinc. Coconut Water is useful in many diseases.

4. Saptaparni

- Alstonia is evergreen fast-growing tree, that grows up to 40 m tall. The fragnant flowers are greenish white and occurs in early winter.
- The bark of Alstonia scholaris is used solely for medicinal purposes, ranging from Malaria and epilepsy to skin conditions and asthma.
- In Ayurveda it is used as a bitter and as an astringent herb for treating skin disorders, malarial fever, urticaria, chronic dysentery, diarrhea, in snake bite and for upper purification process of Panchakarma.
- Location : Front of Examination Centre

5. Cassia tree

- *Cassia fistula* is a medium sized deciduous tree, with an oval to rounded shape, 5 to 15 meter in height and 5 to 10 meter wide. Cassia fistula tree is well known for its impressive yellow flowers that cover the entire canopy.
- *Cassia fistula* also grown as an ornamental tree. *Cassia fistula* also used in the treatment of cancer, constipation, convulsions, delirium, diarrhea, dysuria, epilepsy, gravel, hematuria, pimples and glandular tumors. Pest of root is useful in skin diseases, burning sensations and syphilis. Bark is useful in boils, leprosy, ringworm affection, diabetes, strangury and cardiac problems. Leaves are useful in skin diseases, burning sensation, dry cough and fever.
- *Location : Near Main Gate*

6. Gulmohar (*Delonix regia)*

- *The flowers of Delonixregia are large, with four spreading scarlet or orange-red petals up to 8 cm long and a fifth upright petal called the standard, which is slightly larger and spotted with yellow and white.*
- Because of its hardy nature and aggressive root system, it is a good tree to control soil erosion in the arid and semi- arid areas.
- Location : Near Water Cooler

7. Paras Bhendi (*Thespesia populnea*)

- ***commonly known as**: aden apple, bhendi tree, cork tree, Indian tulip tree, John-Bull tree, king of flowers, large-leaved tulip tree, mangrove, milo (in Hawaii), Pacific rosewood, portia tree, seaside mahoe (in Florida), umbrella tree.*
- *Growth Form: It is a tree or shrub, with dense crown, and usually grows up to 10 m tall although it has been recorded to be 20 m tall.*
- *Location: Front of Gymnashium Road*

8. Ficus (Ficus Panda)

- *Ficus is a pantropical genus of trees, shrubs, and vines occupying a wide variety of ecological niches; most are evergreen, but some deciduous species are endemic to areas outside of the tropics and to higher elevations. Fig species are characterized by their unique inflorescence and distinctive pollination syndrome, which utilizes wasp species belonging to the Agaonidae family for pollination.*
- *Ficus trees can maintain their tree-like shape regardless of their size, so this makes them ideal for bonsais or for massive houseplants in large spaces. The plant is used for ornamental purpose.*
- **Location: Front of Hall B2**

9. Bhokar *(Cordia dichotoma)*

- *Cordia dichotoma is a small to moderate-sized deciduous tree with a short bole and spreading crown. The stem bark is greyish brown, smooth or longitudinally wrinkled. Flowers are short-stalked, bisexual, and white in colour which opens only at night. The fruit is a yellow or pinkish-yellow shining globose which turns black on ripening and the pulp gets viscid.*
- The immature fruits are pickled and are also used as a vegetable fodder. The leaves also yield good fodder. The seed kernel has medicinal properties.
- Location : (College Road Behind Wall compound)

10. Yellow Frame Tree peltophorum pterocarpum

- *It is a deciduous tree growing to 15–25 m (rarely up to 50 m) tall, with a trunk diameter of up to 1 m belonging to Family Leguminosae and sub-family Caesalpiniaceaea.*
- *Used as decorating flower in Telangana State's Batukamma festival.*
- *In traditional medicine it is used as an astringent to cure or relieve intestinal disorders after pain at childbirth, sprains, bruises and swelling or as a lotion for eye troubles, muscular pains and sores.*
- *Location : Behind The Compound Wall of girls parking*

11. Neem *Azadirachta India*

- *Neem is a fast-growing tree that can reach a height of 15–20 metres (49–66 ft), and rarely 35–40 metres (115–131 ft). It is evergreen, but in severe drought it may shed most of its leaves or nearly all leaves. The branches are wide and spreading. The fairly dense crown is roundish and may reach a diameter of 15–20 metres (49–66 ft) in old, free-standing specimens*
- *Used in toothbrush, Neem blossom, Neem Gum, Cosmetic, fertilizers, used against prox virus,Soap, Honey.*
- *Location : College campus and College residence*

12. Ficus Religiosa

- *Ficus religiosa is a large dry season-deciduous or semi-evergreen tree up to 30 metres (98 ft) tall and with a trunk diameter of up to 3 metres (9.8 ft).*
- The *Ficus religiosa* tree is considered sacred
  By the followers of Hinduism, Jainsiam and Buddhism.
- *Location : College campus and College residence*

13. Phytopharmacology of *Ficus religiosa*

Herbs have always been the principal form of medicine in India. Medicinal plants have curative properties due to the presence of various complex chemical substances of different composition, which are found as secondary plant metabolites in one or more parts of these plants. It is circular in shape and compressed. When it is raw, it is of green color and turns black when it is ripe. The tree fruits in summer and the fruits get

ripened by rainy season.The vasculature comprises a single main vein (the midrib), secondaries, tertiaries, quaternaries, and intermediaries. The number of areoles per square millimeter decreases from 15.5 to 2.7, while the number of vein endings and vein tips per areole show no correlation either with one another or with leaf size

14. Mexican oleander

Mexican oleander is a large shrub or a small tree, up to 10 to 20 feet tall with Oleander-like leaves mostly in whorls of three, long and narrow up to 10 inches long. Tip of leafs are pointed with a dark green color. Flowers are generally yellow, but there are varieties with white and orange flowers too. Fruit is small, containing two to four flat seeds. If ingested may experience pain in the mouth and lips, may also develop vomiting, cramping, abdominal pain, nausea and bradycardia shortly after ingestion. Mexican oleander is native to tropical America.

15. Indian almonds

Indian almonds are spreading trees with large, leathery, oval leaves which turn red before they fall. The tree has a distinctive shape, its horizontal branches growing in wide spreading circles at different levels on the trunk. The greenish - white female - and male flowers are on the same tree; these flowers are inconspicuous and not very showy. The pale green fruit is the size and shape of an almond in its shell. Some varieties become reddish-purple when ripe. The nuts are edible, taste like almonds and are eaten. A highly ornamental tree, much planted in avenues and gardens. Flowering: February-May.

16. *Spathodea campanulata*

One of the world's most spectacular flowering trees, African tulip tree is a large upright tree with glossy deep green pinnate leaves and glorious orange scarlet flowers. It may grow to 80 ft on an ideal site, but most specimens are much smaller. The tree has a stout, tapering, somewhat buttressed trunk covered in warty light gray bark. The lateral branches are short and thick. They are composed of 5-19 deeply veined oval leaflets. The horn shaped velvety olive buds appear in upturned whorls at the branch tips. A few at a time, the buds of the lowest tier bend outward and open into big crinkled red orange tuliplike bells with red streaked gold throats, frilly yellow edges, and four brown-anthered stamens in the center. Each of these pods

contains about 500 tissue papery seeds. The tree flowers in spurts all through the growing season, but peak bloom is usually in the spring.

17. Hyophorbe lagenicaulis

Growth Form: An unusual but intriguing, solitary, dainty, slow-growing palm with a large swollen trunkbase, which tapers upards to the attractive crownshaft, resembling a bottle, topped with a sparse, delightful crown of ascending to spreading, bright green, featheryfronds.Trunk: Trunk grey, ringed with visible old leaf scars, up to 60 to 70 cm in diameter, with a bulge at the base, crownshaft smooth, green.

Prefers suntrap location, but will also do fairly well under partial shade conditions. Moist but well-drained soils are its preferences but is adaptable to many soil types. It is fairly salt tolerant but best not to let soil dry out. Propagate by seeds, which germinates in 4 to 6 months.

18. *Hyophorbe lagenicaulis*

The trunk is a rounded bulge in young specimens and gradually elongates and flattens somewhat as the palm matures. These oldtimer bottle palms can be seen at Miami's Fairchild Tropical Garden. A small crown consisting of 4 to 8 pinnate (feather-like) leaves sits atop a smooth green crownshaft that connects the leaves to the trunk. The upwardly arching leaves grow to about 10 ft (3.1 m) in length in mature specimens. Leaflets are about 2 ft (0.6 m) long and arranged in two upward pointing rows. The inflorescences emerge at the point where the crownshaft meets the trunk. They grow upward as they mature supporting numerous male and female small white flowers on the same stalk. The female flowers are followed by 1 in (2.5 cm) round fruits which change from green to black as they mature. Hyophorbe lagenicaulis has a single trunk up to 20 ft (6 m) tall, about 2 ft in diameter with ring scars and green crownshaft at the top. The gray, self-cleaning trunk is bottle shaped, hence the name Bottle Palm.

19. *Ficus benghalensis*

Ficus benghalensis is an evergreen tree with a wide, spreading crown; it can grow 20 - 30 metres or more tall. The plant usually begins life as an epiphyte, growing in the branch of another tree; as it grows older it sends down aerial roots which, when they reach the ground quickly form roots and become much thicker and more vigorous. They supply nutrients to the fig, allowing it to grow faster than the host tree. The aerial roots gradually encircle the host tree, preventing its main trunk from

expanding, whilst at the same time the foliage smothers the foliage of the host. Eventually the host dies, leaving the fig to carry on growing without competition.

The leaves are used to remedy dysentery and diarrhea. They are used in a decoction with toasted rice as a diaphoretic. They are applied to abscesses as a poultice to promote suppurations and discharge of pus.

20. *Polyaltialongifolia*

Ashok is native to India and Srilanka. Somehow, the name Ashok has stuck in north India, although the "real" Ashok is what is also called Sita Ashok. The weeping, branching habit of this 25-foot tall tree gives it a narrow columnar shape. Glossy green, long, narrow leaves have attractive wavy edges. Ashok is commonly seen as a lofty column, very graceful with its downward-sweeping branchlets and shining, green foliage ; but sometimes wide-spreading slender branches issue from the straight trunk and form a compact symmetrical crown. It is a very popular tree in India. The bark is smooth and dark greyish-brown. Flowers appear during March and April. For a short period — two or three weeks only — the tree is covered with a profusion of delicate, star-like flowers, which, being palest-green in colour, give the tree a peculiar hazy appearance. They grow in clusters from small protuberances all along the dark branchlets. Each flower, borne on a slim, green stem has a tiny calyx and six long, narrow, wavy petals arranged in two sets of three.

21. Sandalwood

Sandalwood is an evergreen tree, growing up to 4-9 m tall. The trees have a long life, and may live up to one hundred years of age. The tree is variable in habit, usually upright to sprawling, and may intertwine with other species. The reddish or brown bark can be almost black and is smooth in young trees, becoming cracked with a red reveal. The heartwood is pale green to white as the common name indicates. The oval leaves are thin, oppositely arranged. Smooth surface is shiny and bright green, with a glaucous pale underside. Fruit is produced after three years, viable seeds after five. These seeds are distributed by birds. Sandalwood oil was used traditionally to treat skin diseases, acne, dysentery, gonorrhea, and a number of other conditions.1 in traditional Chinese medicine, sandalwood oil is considered an excellent sedating agent.

22. Spanish cherry

Spanish cherry is a lovely green small tree of the Indian subcontinent. With its small shiny, thick, narrow, pointed leaves, straight trunk and spreading branches, it is a prized oranamental specimen because it provides a dense shade and during the months from

March to July fills the night air with the delicious heady aroma of its tiny cream colored flowers. Flowers are small, star-shaped, yellowish white in color, with a crown rising from the center. Oval leaves, People love to collect them as they retain their odor for many days after they fall. They are offered in temples and shrines throughout the country. Appears in Indian mythology as *Vakula* - said to put forth blossoms when sprinkled with nectar from the mouth of lovely women. Fruits are eaten fresh.

Medicinal uses: Various parts of the tree have medicinal properties. It is used in the treatment and maintenance of oral hygiene. Rinsing mouth with water solution made with bakul helps in strengthening the teeth. It also prevents bad breath and helps keep the gums healthy.

23. Morpankhi

Morpankhi is a plant which is found in every small garden in India. Belonging to the cypress family, it is a densely branched evergreen conifer that can become 50 ft tall with a spread of 20. However, it is commonly grown as a smaller, bushier shrub. It tends to have several to many stems, but can be trimmed to a single leader stem creating a treelike form. The overall shape is conical, with the crown becoming more irregular and spreading with age. The bark is rusty-brown and fibrous. The numerous slender ascending branches support shoots that spread out in flat, vertical planes. The leaves are like little scales overlapping and tightly packed on the shoots. The cones are 15-25 mm long, green ripening brown in about 8 months from pollination, and have 6-12 thick scales arranged in opposite pairs. Morpankhi is native to China and Korea, but cultivated as an ornamental plant the world over.

Evidences of Project

News of Colleges

दैनिक पुढारी
09/12/2016

9/12/2016 (दैनिक पुढारी)

शाश्वत पाण्यासाठी पुनर्भरण करा

फुलारी; वडाळा महादेव येथे श्रमसंस्कार शिबिरास सुरुवात

10 KW Jain Solar Panel

Electric Meter and Net Metering 10 KW project at New Building

10 KW project Jain Solar at Girls Hostel

Girls Hostel net Meter

5KW Solar project at Principal bungalow

Principal Residence Net meter

10 KW project under BCUD Savitribai Phule Pune University "Plaaning and Development Grant
Worth Rs. 50000 Rs. And 15000 college share.

Wind Energy under CSR project of Fullerton India Ltd.

रयतचे तीनही महाविद्यालय सौर उर्जेने उजळून निघणार

श्रीरामपूर (प्रतिनिधी) - रयत संकुलातील तीनही महाविद्यालये सौर ऊर्जेने उजळून निघणार आहे. त्यामुळे विजेचे बिल कमी होऊन लाखो रुपयांची बचत होणार आहे.

रयत शिक्षण संस्थेचे शहरात तीन महाविद्यालये आहेत. संस्थेच्या व्यवस्थापन समितीच्या सदस्या मीनाताई जगधने यांनी विजेचे बिल कमी करण्यासाठी सौर ऊर्जेचा वापर करण्याचे ठरवले. त्यांनी जैन उद्योग समूहाशी यासंदर्भात चर्चा केली. त्यानंतर हा प्रकल्प तीनही महाविद्यालयाने राबविण्याचा निर्णय घेतला. आता या प्रकल्पाचे काम सुरु आहे. दोन महिन्यात ऊर्जानिर्मिती सुरू होणार आहे.

बोरावके महाविद्यालयाचा सौर ऊर्जा प्रकल्प हा ५३ के.व्ही. क्षमतेचा असून त्याकरिता ५३ लाख रुपये खर्च आला आहे. सरकारचे साडे सात लाख रुपयांचे अनुदान मिळणार आहे. पुणे विद्यापीठाने पाच लाख रुपयांचे अनुदान दिले आहे. महाविद्यालयाला वर्षाला वीज बिलावर बारा लाख रुपये खर्च करावा लागत होता. पण आता सौर ऊर्जेचा वापर सुरू झाल्याने वर्षाला केवळ अडीच ते तीन लाख रुपये खर्च येणार आहे अशी माहिती प्राचार्य के.एच. शिंदे यांनी दिली.

डाकले महाविद्यालयाच्या सौर ऊर्जा प्रकल्पासाठी २१ लाख रुपयांचा खर्च आला असून पाच लाख रुपये पुणे विद्यापीठाने दिले आहे. तसेच सरकारी अनुदान मिळणार आहे. वर्षाला ६ लाख रुपयांचे बिल येत होते. त्यात आता मोठी बचत होणार आहे. शिवाय हरित ऊर्जेचा वापर होणार आहे. पर्यावरणासाठी ते महत्वाचे आहे. असे प्राचार्य लक्ष्मण भोर यांनी सांगितले. शिक्षणशास्त्र महाविद्यालयानेही सौर ऊर्जा प्रकल्प उभारला आहे. संपूर्ण रयत संकुल हे सौर ऊर्जेने उजळून निघाला आहे. यापूर्वी अशोक शिक्षण संस्थेच्या रामराम आदिक पब्लिक स्कुलने पवन ऊर्जा निर्मिती प्रकल्प राबविला होता. त्यांचा विजबिलाचा खर्च वाचला होता. स्वर्गीय गोविंदराव आदिक यांच्या संकल्पनेतून हा प्रकल्प राबविला गेला. आता रयतने सौर ऊर्जा प्रकल्प राबविला आहे.


नवी आशा नवी दिशा
सार्वमत
रयत संकुलात लवकरच सौरऊर्जा प्रकल्प कार्यान्वित होणार

वन्यप्राणी व पक्ष्यांसाठी स्वखर्चाने पाणवठा

डॉ. बखळे यांनी वन्यप्राण्यासाठी बांधलेली टाकी

पुणतांबा (वार्ताहर) – परिसरात वाड्यावस्त्यांवर तीव्र पाणीटंचाई जाणवत आहे. याचा फटका परिसरातील वन्यप्राणी व पक्षांना बसत आहे. वन्यप्राण्यांनी पाण्यासाठी आपला मोर्चा नागरी वस्त्याकडे वळविला आहे. पाणीटंचाईची भीषण स्थिती पाहून येथील सामाजिक कार्यकर्ते प्रा. डॉ. एस. आर. बखळे यांनी ९०० लिटर पाण्याची क्षमता असलेला पाण्याचा हौद बांधून वन्यप्राण्यांना व पक्षांसाठी खुला केला आहे.

डॉ बखळे यांची वस्ती जळगाव- पुणतांबा रोडवर डेरानाला भागात आहे. या परिसरात शेती महामंडळाची पडित जमीन असल्यामुळे हरणे काळवीट यांचे कळप आहेत तसेच मोर, तितरे यासारखे वन्य पक्षी आहेत पाण्यासाठी पाणवट बांधल्यामुळे वन्य प्राण्यांची सो झाली आहे. या कामात त्यां रतन चौधरी, आसने, बी. शिंदे, संजय जाधव, गोरख खेड यांनी मदत केली आहे.

जलसंधारणाच्या कामात सेवाभावी संस्थांनी पुढाकार घ्यावा : बोरबने

पुणतांबा (वार्ताहर)– शेती व पिण्याच्या पाण्याचा प्रश्न दिवसेंदिवस गंभीर होत चाललेला आहे. या प्रश्नाचे गांभीर्य लक्षात देऊन प्रत्येक गावांत, शहरात जलसंधारणाची कामे हाती घेणे गरजेचे आहे. राज्य शासनाप्रमाणेच सेवाभावी संस्था, शैक्षणिक संस्था यांनी कामात पुढाकार घेतला पाहिजे, असे प्रतिपादन सामाजिक कार्यकर्ते किसन बोरबने यांनी केले.

रयत शिक्षण संस्थेच्या श्रीरामपूर येथील चंद्ररूप डाकले महाविद्यालयामार्फत जलसंधारण जाणीव जागृती अभियानाअंतर्गत आयोजित केलेल्या कार्यक्रमात ते बोलत होते. अध्यक्षस्थानी साहेबराव बनकर होते. यावेळी संभाजी गमे, प्रसाद उपाध्ये, कुमार हासे, विशाल शेळके, गोविंद बोरबने आदी उपस्थित होते. श्री. बोरबने यांनी जलसंधारणाच्या कामाचे महत्त्व पटवून दिले. पावसाच्या पाण्याचा प्रत्येक थेंब जमिनीत जिरला पाहिजे, तसेच बांधबंधारे, नाला बंडिंग यांच्यामार्फत वाहून जाणारे पाणी अडविले पाहिजे. याबाबत लोकांमध्ये जागृती निर्माण करणे गरजेचे आहे पाणी अडवा, पाणी जिरवा यासारखी मोहीम प्रभावीपणे राबविली पाहिजे. यावेळी साहेबराव बनकर यांनी मनोगत व्यक्त केले. प्रास्ताविक प्रा.डॉ. एस.आर. बखळे यांनी केले. पुणतांबा परिसरात डाकले महाविद्यालयाचे विद्यार्थी जलसंधारणाच्या कामात सहभागी होणार असल्याचे त्यांनी स्पष्ट केले. संभाजी गमे यांनी आभार मानले.

जलसंधारण जागृती अभियानात मार्गदर्शन करताना किसनराव बोरबने. समवेत साहेबराव बनकर, संभाजी गमे व मान्यवर.

Rayat Shikshan Sanstha's

C. D. JAIN COLLEGE OF COMMERCE, SHRIRAMPUR,

TAL. – SHRIRAMPUR, DIST. – AHMEDNAGAR (M.S.)

ROOFTOP RAINWATER HARVESTING PROJECT

PRINCIPAL
C D Jain College of Commerce
Shrirampur

-: Project By :-

Jain Irrigation Systems Ltd.
AHMEDNAGAR

JAIN IRRIGATION SYSTEMS LTD. JALGAON

Rain Water Harvesting Project for C. D. Jain College of Commerce, Shrirampur, Dist. Ahmednagar, (M.S.)

1] ABSTRACT: -

Water is life. This is the universe truth. But this truth was earlier denied by every person. Now when they are facing the problem of water being lesser day by day, they have started to think of this problem. As the scarcity of water is rapidly increasing everyday particularly during the summer season, the demand for water also substantially increases. Previously around thirty to forty years back, the major part of the earth is unpaved and the amount of infrastructure built on the earth were also very low, hence during the monsoon season the rainwater easily percolates into the earth through the soil and the ground water level increases.

Rain water harvesting is the best AlterNet source of water.

This is the way which helps collecting water during rain time and this is a really an essay way also wan the entire world is facing the problem if water scarcity, this roof top water harvesting system has snatched there attention. The rainwater harvesting is simple collection or storing of water through scientific techniques where the rain falls. The rainwater harvesting not only helps in meeting the daily water usage but also helps in increasing the groundwater levels quality and quantity.

This is the high time when we have to make plan and design something from which we can collect water and satisfy the increasing water demand encouraging of water or more sustainable basis. This method doesn't cost too much but affect a lot.

Here in our project, we are going to adopt the roof-top rainwater harvesting method and implement it in college itself, without allowing the water to be wasted through the gutters. In this project main focus is to design the collection procedure, store the rainwater from rooftop of the Administration Building and Junior College Building of C. D. Jain College of Commerce, Shrirampur Tal. – Shrirampur, Dist. – Ahmednagar.

Key words: - Rainwater Harvesting, Roof- Top Water, Multistoried Buildings, Catchment, Ground Water, Rain Fall.

2] INTRODUCTION: -

Who can imagine few decades before that the world will have to suffer this paucity of water earlier the scenario was different and now it has changed completely. People never value the use of water they never thought that they would have to buy water in future. The time changed itself and now it's time of real difficulty so it's the time when its exchange value is given importance.

The number of people who will suffer in future because of the scarcity of water is really alarming by 2050 more than that people would live under condition of high water stress. The population in India is to expected to stabilize around 1640 million by the year 2050, as a result, gross per capita water availability will declaim from 1820 m3 in 2001 to as low as ~1140m3/ Year in 2050 thus the growing concern about water scarcity challenges us to think of alternative solutions to avoid the current problem of water scarcity.

One of the biggest challenges of the 21'ST century is to overcome the growing water shortage. Over the years, rising population, growing industrialization and expanding agriculture have pushed up demand for water. So that water conservation has become the need of the day.

3] AIM AND OBJECTIVE: -

The main aim of this project is to cater the need of water in Rayat Shikshan Sanstha's C. D. Jain College of Commerce, Shrirampur, Dist.– Ahmednagar, (M.S.). This project will not only be helpful to fulfill the need of water to our college, but also to increase the groundwater levels and reduce the depletion of reservoirs. Keeping in mind the increasing water demands, quality of water supply, variations in water availability, and also advantages and disadvantages of collecting the rainwater, it was planned to design the rainwater harvesting in the college.

4] MATERIALS AND METHODS:-

4.1 Project area:-

Rayat Shikshan Sanstha's C. D. Jain College is a Commerce college located in Shrirampur city, which is one of the major city located in the Indian state of Maharashtra. It is located about 265 Kilometers to the east of the state capital of Maharashtra (Mumbai). The average elevation of Shrirampur city is about 541 meters (1,775 feet) and its geographical area is about 10 square kilometers. The city is situated in north latitude 19°62' and east longitude 74°66' in western Maharashtra.

The main purpose of constructing the rainwater harvesting in this college is to meet the increasing demand of water for utilization in college premises, main building, Jr. college building, ladies and gents hostels and staff quarters. The present population of C. D. Jain College is nearly 2,774 members which includes students, teaching and non- teaching staff. There is estimated consumption of water that is nearly 5,548 liters /day.

4.2 Data Collection:-

Rayat Shikshan Sanstha's C. D. Jain College is located in drought prone area; the average annual rainfall in the study area is hardly approx. 550 mm. The proposed study is based on data collected from field work, Socio Economic Reviews, district statistical reports articles, books and study area.

Uses for	Consumptions in liter / day
Students, Teachers and Non-teaching staff	5,548
Drinking Water	4,000
General Garden	2,400
Washing floors, Labs, Offices & Classrooms	2,000
Toilets	3,000
Others	1,000
Total	**17,948**

Table: 1 Daily water usage of CDJ College, Shrirampur.

4.3 Rain fall:-

The average rainfall of all the years is taken into consideration while computing the average rainfall data (in mm). This rainfall data is essential for calculating the total discharge into the pipeline and also an essential factor during the design of storage tank. Hence, in our project we considered the rainfall data of previous five years, from the year 2012-2016. In this 2010-2011 shows high rainfall and 2014-2015 shows that very less rainfall this available rainfall will automatically reflects on Ground water table in particular area.

Year	Average Rain fall (mm)
2012	502
2013	489
2014	337
2015	457
2016	524
Average	**461.8**

Table: 2 Average rainfall data (mm) Shrirampur.

The climate of the district is characterised by a hot summer and general dryness throughout the year except during the southwest monsoon season, i.e. June to September. The mean minimum temperature is 12.3°C and mean maximum temperature is 39.1°C. The normal rainfall over the district varies from 454 mm to about 879 mm. The area being situated in "Rain Shadow" zone of Western Ghats, it often suffers the drought conditions. The average annual rainfall in the Shrirampur area is 550 mm.

5] DESIGN OF ROOF TOP RAIN WATER HARVESTING SYSTEM:-

To design the roof-top rainwater harvesting system we need to design six main steps, they are as follows.

1. In the first step we have to determine the total amount of water required for daily usage in college.
2. Amount of available rainwater
3. To design the proposed catchment area.
4. To design the transportation system.
5. First -flushing.
6. In the final step we will compute the amount of storage reservoir required.

5.1 Determine the total amount of water required:

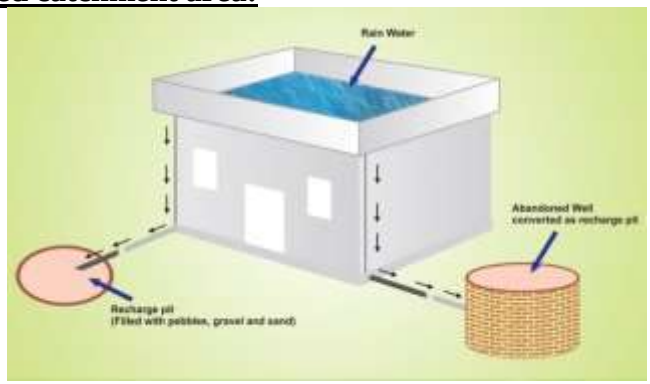
To determine the amount of water required the daily water consumption in the college must be known. Hence, this data can be borrowed from the table 1, which is given above.

5.2 Amount of available rain water:

We can calculate the amount of available rain water from the below calculations:

Mean annual rain water supply(S)
Average rainfall of Shrirampur = 461.8 mm
Considering 470 mm for future
Average rainfall (R) = 470 mm
The average rainfall in terms of meters per year (R) =0.47m/year
Catchment Area (A) = 902.26 m2
Run off coefficient (Cr) = 0.8
Mean annual rain water supply(S) =Average rainfall X Area of catchment X Runoff coefficient (R*A*Cr)
S=0.47*902*0.8
= 339.15 cubic meter / year
= 339.15*1000
= 339152 liter / year
= 28.26 cubic meter / month
= 28262 liter / month
= 0.942 cubic meter / day
= 942.083 liter / day

5.3 Design of proposed catchment area:



The catchment of water harvesting system is the surface that receives rainfall directly and drains the water system. Any roofing material is acceptable for collecting of water. From the design of the terrace floor, we calculated total rooftop area of the C. D. Jain College, Shrirampur Jr. College Building and also Administration Building.

Area of the C.D. Jain College Jr. College Building = 624.68 m^2

Area of the C.D. Jain College Administration Building = 277.58 m^2

Total area of proposed catchment = 902.26 m^2

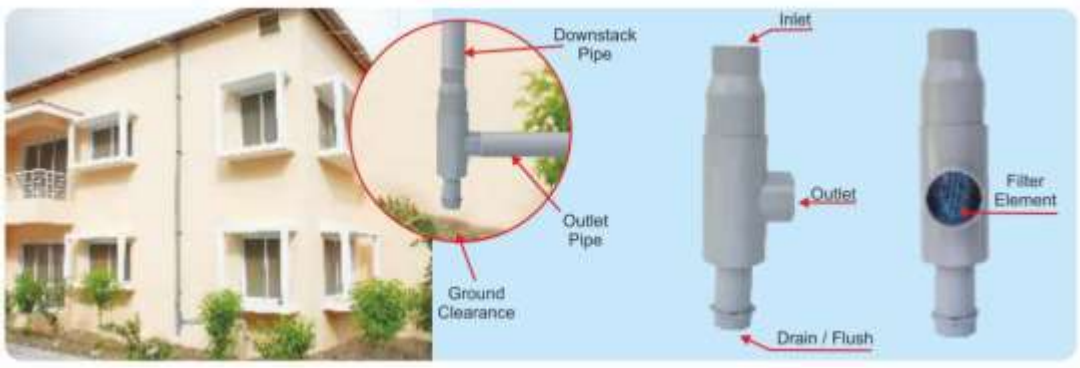
5.4 Design of transportation system:

For transporting the rain water from the catchment area, in this project we are using Soil, Waste and Rain water (SWR) pipes and fittings and Under Ground Drainage & Sewerage (UDS) pipes and fittings. For vertical transportation purpose, we are using SWR pipes of 2.5 and 4 inches diameter. And for the underground transportation purpose we are using the UDS pipes of 6-inches diameter.

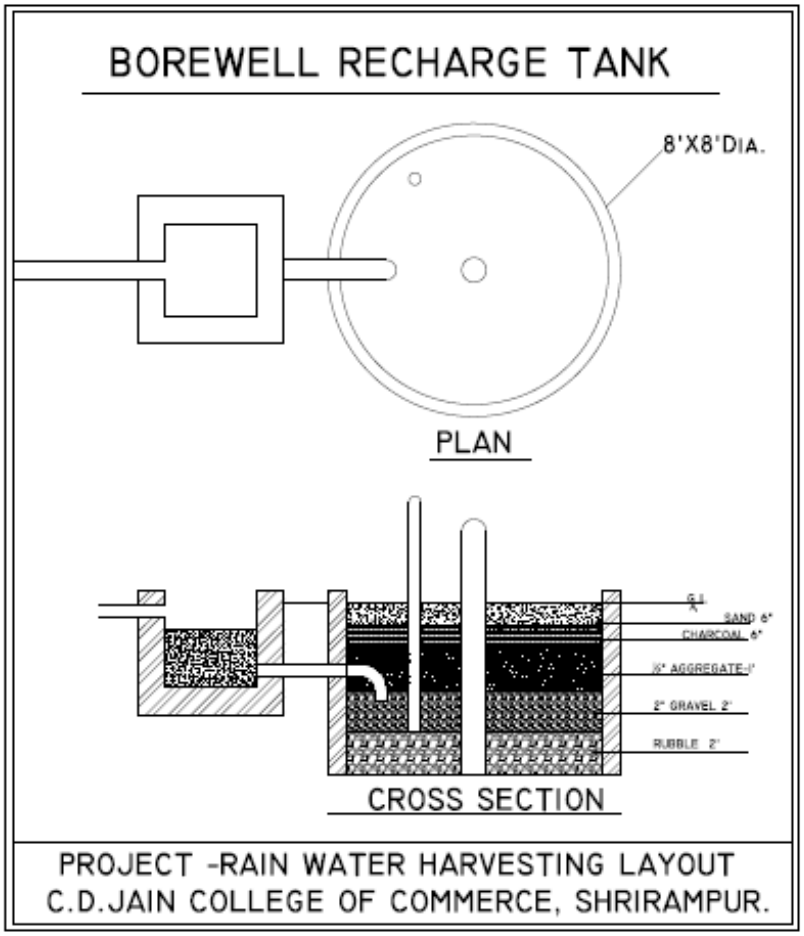
The number of pipes and fittings required for the transportation are taken as per the topographical conditions.

5.5 First –flushing:

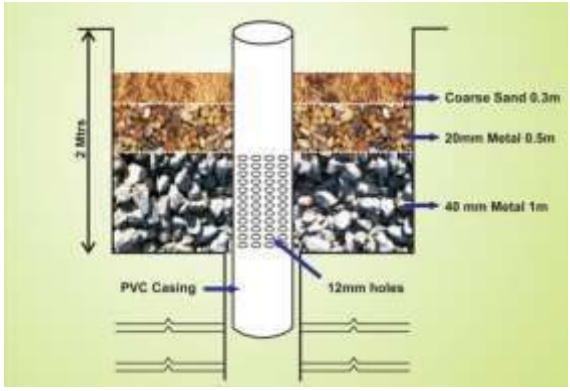
A first flush device is a Jain Filtrain that ensures that runoff from the first spell of rain is flushed out and does not enter the system. This needs to be done since the first spell of rain carries a relatively larger amount of pollutants from the air and catchment surface.



5.6 <u>Storage reservoir computation:</u>



In the sand filters, the main filtering media is commonly available sand sandwiched between two layers of gravels. The filter can be constructed in a cement concrete tank. This is a simple type of filter which is easy to construct and maintain. The sand fillers are very effective in removing turbidity, colour and microorganism. In a simple sand filter that can be constructed domestically, filter media are placed. And Charcoal filter is almost similar to sand filter except that a 10-15cm thick charcoal layer placed above the sand layer. The Charcoal layer inside the filter results into better filtration and purification of water. The charcoal water filter is a very commonly used.



6] CONCLUSION:-

This study evaluated the feasibility of rainwater harvesting in a locality of Rayat Shikshan Sanstha's C. D. Jain College of Commerce, Shrirampur where there is a need of water for use of laboratories, drinking water, Ladies and Gents hostels and teaching and non-teaching staff to the approximately 3000 number of people regularly throughout the year. It was found that amount of harvested rainwater could be stored in soak pit for recharging bore well water level in campus.

There are so many misconceptions in the world and rain water is no exception. When people think about rainwater, they often erroneously think that it contains pollutants but the truth is that rain water is extremely clean and safe, so in such area if rainwater can be collected and stored in a proper and scientific manner, management of water resources would enter a new era. Since the discussed roof harvesting technology does not have any harmful effect on the environment.

Rain water harvesting seems to be a beneficial and sustainable method, therefore advocacy for the adaptation of rain water would certainly lead to a reduction of problems related to water shortage. A planned approach is hence needed in order to fully utilize the potential of rainwater to adequately meet our water requirements. Hence, an equal and positive thrust is needed in developing and encouraging both harvesting systems. We have to catch water in every possible way and every possible place it falls. And the government has to make considerable amount of attention for the implementation of rainwater harvesting, and enact laws which promote the practice of rainwater harvesting by reducing the sales tax on the rainwater harvesting equipment and also redemption on taxes for the buildings which are using rainwater harvesting.

7] REFERENCE:-

1. CENTRAL GROUND WATER BOARD - Aquifer Maps and Ground Water Management Plan.

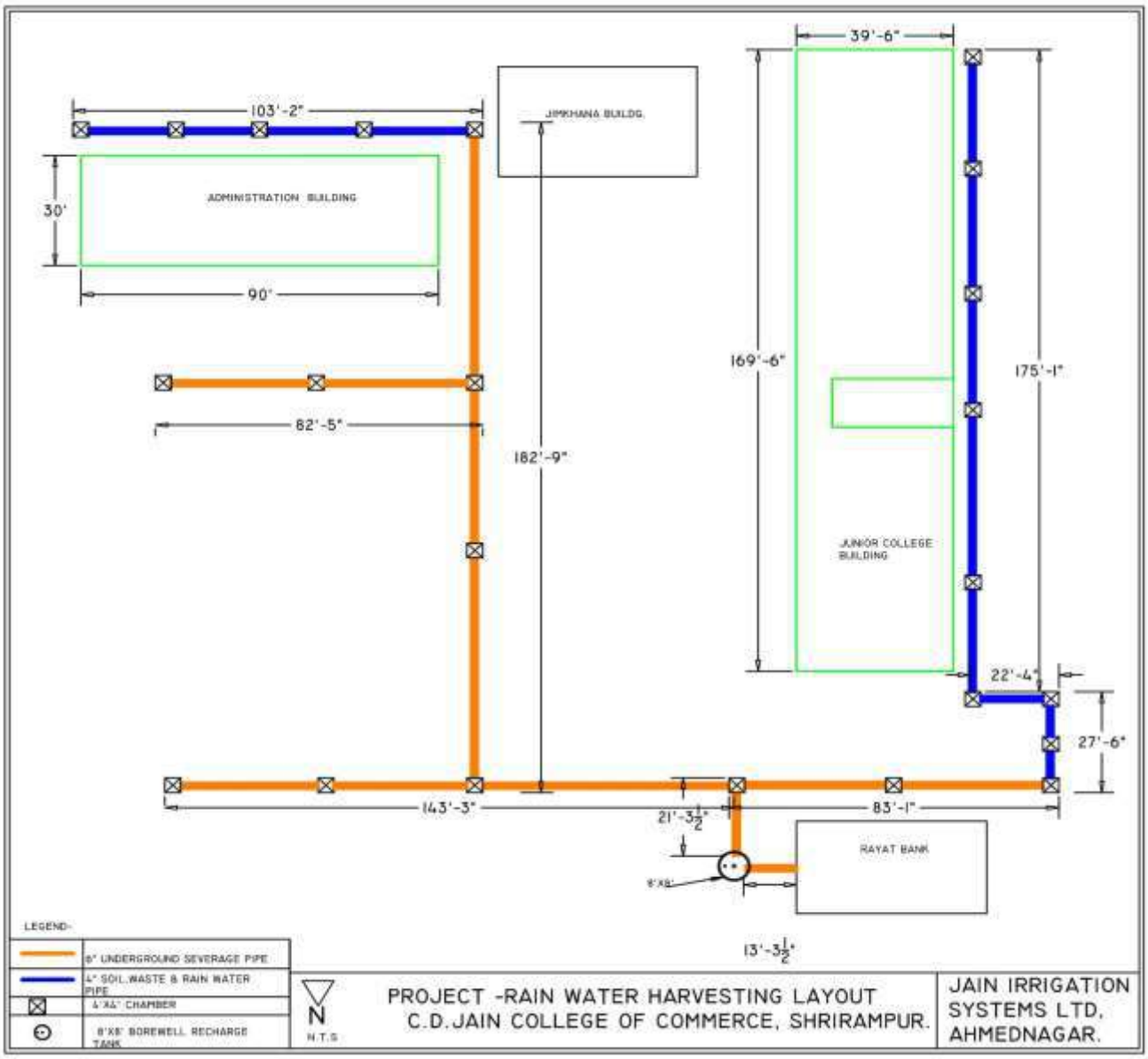
2. RAINFALL SPATIAL DISTRIBUTION IN AHMEDNAGAR DISTRICT (MS)
Conference Paper · January 2016

3. International Journal of Recent Advances in Engineering & Technology (IJRAET)

4. International Journal of Civil Engineering and Technology (IJCIET) –

5. JAIN IRRIGATION SYSTEMS LTD. RAIN WATER HARVESTING REPORT (RESEARCH AND DEVELOPMENT DEPT.)

8] SCHEMATIC LAYOUT DRAWING OF RAINWATER HARVESTING PROJECT AT C. D. JAIN COLLEGE OF COMMERCE, SHRIRAMPUR:-

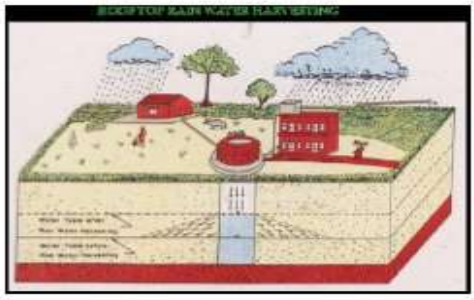


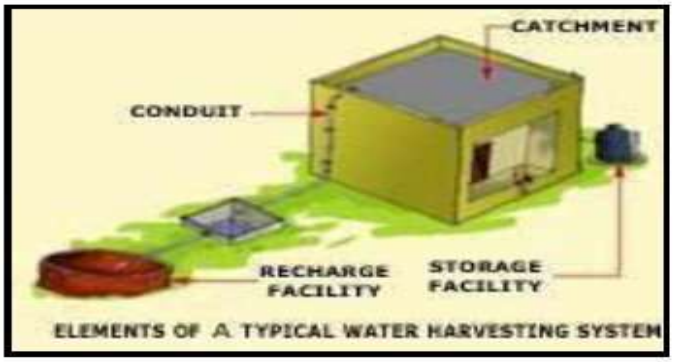
Principal
C.D.Jain College of Commerce,
Shrirampur

JAIN IRRIGATION SYSTEMS LTD. JALGAON

Rahul Waghunde
Head
M.No: 9422775930

- **Design of transportation system:**





For transporting the rain water from the catchment area in this project we have used Polyvinyl chloride (PVC) pipes and fittings. For the collection purpose, we are using pipes ranging 2.5 - 3 inches diameter. A care has been taken that the first spell of rain is flushed out and does not enter the system. This is done since the first spell of rain carries a relatively larger amount of pollutants from the air and catchment surface. Rain water from girl's hostel rooftop is transferred into specifically designed dug well near the bore well of girls hostel. Rain water harvesting is the process of collecting, conveying and storing water from rainfall in an area. Institution has Roof Top Rain Water Harvesting System of catching rainwater where it falls. Rainwater is collected from rooftop of the building is diverted through pipes to bore well. Clear water then passes to bore well to recharge the groundwater.

Principal
C.D.Jain College of Commerce,
Shrirampur

Water Harvesting

Principal
C.D.Jain College of Commerce,
Shrirampur

ASSURE QUALITY

MANAGEMENT CERTIFICATION SERVICES PVT. LTD.

COMPLIANCE VERIFICATION

This is to certify that

Rayat Shikshan Sanstha's
CHANDRAROOP DAKLE JAIN COLLEGE OF COMMERCE
Ward No. 2, Rakat Shaikshnik Sankul
Shrirampur-413709, Maharashtra
India

Has been assessed and found to be in accordance with the requirements of detailed below

Green Audit

Reference A064latest revision

Certificate Number: HI0BAA/0BAG:0219

Originally Registered: 09 Feb.2019 Latest Issue: 09 Feb.2019 Originally Expiry Date: 08 Feb.2022

Validity of this certificate is subject to annual surveillance audit to be done successfully on or before of 03 Feb.2020 & 03 Feb.2021 respectively. In case if surveillance audit is not allowed to be conducted; this certificate shall be suspended/withdrawn.

AQMCS

ACCREDITATION ACI COUNCIL OF INDIA

GREEN SEAL CERTIFIED

Jugjinder Kaur

For AQMCS PVT LTD

Validity of this certificate can be checked at www.aqmcs.com at registration status. The validity of certificate is subject to continuous compliance the requirement of concerned standard & relevant provision of AQMCS customer contract & scheme of registration A004(latest version) available at www.aqmcs.com.This certificate remains the property of AQMCS & shall be returned immediately at the request to AQMCS headquarters:
#1172, Sector-11, Panchkula-134109, Tricity Chandigarh- India

ASSURE QUALITY

MANAGEMENT CERTIFICATION SERVICES PVT. LTD.

Certificate of Registration

QUALITY MANAGEMENT SYSTEM

This is to certify that

Rayat Shikshan Sanstha's

CHANDRAROOP DAKLE JAIN COLLEGE OF COMMERCE

Ward No. 2, Rakat Shaikshnik Sankul
Shrirampur-413709, Maharashtra
India

Has been assessed and found to be in accordance with the requirements of standard detailed below

ISO 9001:2015

For the following scope

Providing Educational Services for the Student of Commerce in Graduation, Post-Graduation, Doctoral and Diploma Courses

Certificate Number: HI0BA0/0BAF:0219

Originally Registered: 09 Feb.2019 Latest Issue: 09 Feb.2019 Originally Expiry Date: 08 Feb.2022

Validity of this certificate is subject to annual surveillance audit to be done successfully on or before of 03 Feb.2020 & 03 Feb.2021 respectively. In case if surveillance audit is not allowed to be conducted; this certificate shall be suspended/withdrawn.

AQMCS JAS-ANZ MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

For AQMCS PVT LTD

Validity of this certificate can be checked at www.jas-anz.org/register. The validity of certificate is subject to continuous compliance the requirement of concerned standard & relevant provision of AQMCS customer contract & scheme of registration A004(latest version) available at www.aqmcs.com.This certificate remains the property of AQMCS & shall be returned immediately at the request to AQMCS headquarters:
1172, Sector-11, Panchkula-134109, Tricity Chandigarh- India

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Kolhar Bk, Tal. Rahata, Dist. A.Nagar. M : 9552543232, 9552548425
E mail : laxman.dighe@gmail.com

09/12/2019

TO,

The Hon. Principal.

C.D. Jain College of Commerce, Shrirampur.

SUB- Electrical safety Audit for C.D. Jain college campus.

Ref- Audit done on date 09/12/2019.

Respected Sir,

With reference to the above cited subject, we are very thankful to Hon. Management of C.D.JAIN College, Shrirampur. For selection of us for Electrical audit of your campus.

We visited to campus on Dt-09/12/2019 for the purpose of audit; during the audit process we visit all our buildings, hostels, library, labs, gymnasium hall, and all campus.

Following points are observed during the electrical safety Audit;please complete the repairing work where it's necessary and priority basis.

1)At the entrance of the college, MSEDCL Transformer situated at the right hand side behind the watchman cabin and L.T. Line originated from transformer and passes through the college campus along with the road and somewhere crossing the roads .its observed that maintenance of the L.T. Line is properly carried out. Please focus on following points to maintain LT Line in proper way

1a) Tree cutting to be done to avoid snapping of conductor during the stormy conditions.

1b) LT Line lacing guarding not done for road crossings, ask MSEDCL to provide the same.

1c) At entrance of college one LT Line stay wire is obstructing the Gate. Please shift the stay by providing alternative to wired type stay.

1d)as conductor of the line is very old and current carrying capacity of conductor is low ask MSEDCL to replace the conductor by higher capacity and higher strength.

2) All class rooms checked and observed several common points as safety point of view.Please focus on following points for safety of students and the wealth.

2a) Switches and sockets and switch board found in broken (damaged) condition, and not good for electrical operation of switching ON/OFF the fans and tube lights in the class room. Please replace the broken switches, sockets, holders, ceiling rose etc. to avoid any electrical accident.

2b)PVC Casing of the wires (Patti)is also found not in position, also wires are hanging on walls or on nails in the class room, many of them have a open joints, which are live, please repair the same.

2c) Maximum Fans installed in the classroom found there blades, twisted, removed. Please remove such fans to avoid electrical billing expenses as well as any mishap in the class room.

2d) Its suggested that provide stickers near all switch boards to aware the student or any person who is doing all these thing ,that do not damage switches ,board, fans, tubes, wires etc. because all they are electrically live parts and may cause heavy flash overdue that, may lead in electrical shock.

2d) Its observed in the administrative office ph to earth voltage is 227 volts. But neutral to earth voltage observed 65 volts it's not safe for electrical equipments as well as the users, kindly check the earthling of the installation, neutral of the connection from the pole. Or does new fresh earthling for the office premises, Also ask our maintenance person to check the all neutral and earth connections. Its strongly recommend that provide separate earthling for all computer labs, office, servers etc. make sure that inverter neutral separate from inverter.

2e) UPS room –UPS room is nothing but a shed, it has no proper ventilation, exhaust fans, provided due to that room temperature of UPS room found very high at the time of inspection. Please provide proper ventilation, exhaust fans to the room, also kept room clean, kept batteries and UPS dust free. Its suggest that use cement slab, or asbestos sheets as roof top of the UPS room instead of tin sheets. Repair the wiring of the room and panels of DGs, UPS, and MSEDCL. UPS installed in A building is not clean. Repaired the installation wiring.

3) After visiting to the campus following points observed for old connection, for safety point of view please do the needful as mentioned below:

3a) Install proper capacity 2 Pole / 4 pole MCB to All our single phase /three phase connections of the campus. Also use RCCB s 300 mA. For main to avoided fault leakage current

3b) Provide proper Size of earth wire from earth electrode to installation.(flexible wire observed for earthling)

5) Please ask MSEDCL persons to make proper clearance between trees and the line in our college campus, especially in the staff quarter campus, along the roads, along the grounds.

6) Water the earth pits of DG sets. Regularly, check for any loose connection or carbon to the neutral connection of DG.

Kindly please complete the maintenance work, for smooth operation of the electrical equipments of the institute.

Thanking you

Yours faithfully

L.S.Dighe.

Rayat Shikshan Sanstha's

Chandraroop Dakle Jain College of Commerce, Shrirampur.

Dist - Ahmednagar.

Notice

Date:- 04/07/2019

Entry Restriction to Heavy Noise Vehicles

Noise pollution is causing significant environmental problem everywhere. Movement of heavy noise vehicles, pressure horns and defective silencer noises in the campus create the noise pollution and disturb the classes. Keeping this in mind, college authority invoked to ban movement of heavy sound vehicle in the campus for all stakeholders, staff and students.

All are requested to be the part of this awareness campaign. Your co-operation is highly appreciated.

Principal,
C.D.Jain College of Commerce,
Shrirampur.

Rayat Shikshan Sanstha's

Chandraroop Dakle Jain College of Commerce, Shrirampur.
Dist-Ahmednagar.

Notice

Date:- 08/08/2019

Free Parking for Battery Powered Vehicle and Bicycle

We all are aware of the problems of pollution arising due to usage of petrol and diesel vehicles. The exhaust gases from the cars and bikes are increasing the problem of asthma, stress and also add to greenhouse effect. We can take a step for suitable environment by using bicycles and battery powered vehicles. The college administration has facilitated Free Parking for bicycles and vehicles in college campus.

This will help to create awareness among all stakeholders and students as well as balance the environment to some extent.

Principal,
C.D.Jain College of Commerce,
Shrirampur

Rayat Shikshan Sanstha's
Chandraroop Dakle Jain College of Commerce, Shrirampur.
Dist-Ahmednagar.

Notice

Date:- 06/09/2019

Ban on Plastic

Now days, mother earth is facing many environmental concerns, plastic pollution being one of them. As well all know that plastic bags are non-biodegradable and it pollutes our environment very badly. With the goal to make our college campus Plastic Free, Plastic Ban and Awareness board are displayed in the campus.

To be a step towards green and clean campus, all stakeholders, staff members and students are hereby informed that the use of Plastic **Bag is STRICTLY** banned in the campus.

Your co-operation is highly appreciated

Principal,
C.D.Jain College of Commerce,
Shrirampur

Green Initiative Photo’s

Green Campus Photo’s

Solar Energy

Solar Energy in Girls Hostel	Wind and Solar Energy
	


GPS Map
Camera Lite
JMCC+P8X, Shrirampur, Maharashtra 413709, India
Latitude
19.62185523°
Longitude
74.67068963°
Local 05:07:30 PM
GMT 11:37:30 AM
Altitude 467.33 meters
Monday, 09-03-2020


GPS Map
Camera Lite
JM99+RXV, Siddharth Nagar, Maharashtra 413709, India
Latitude
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Longitude
74.67029666666667°
Local 12:32:28 PM
GMT 07:02:28 AM
Altitude 531.2 meters
Monday, 09-03-2020

Waste Management

Battery powered vehicles

Landscaping with trees and plants

Bicycles use in College

Rain Water Harvesting


GPS Map
Camera Lite
JM9C+V86, Shrirampur, Maharashtra 413709, India
Latitude
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Longitude
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Altitude 538.2 meters
Monday, 09-03-2020


GPS Map
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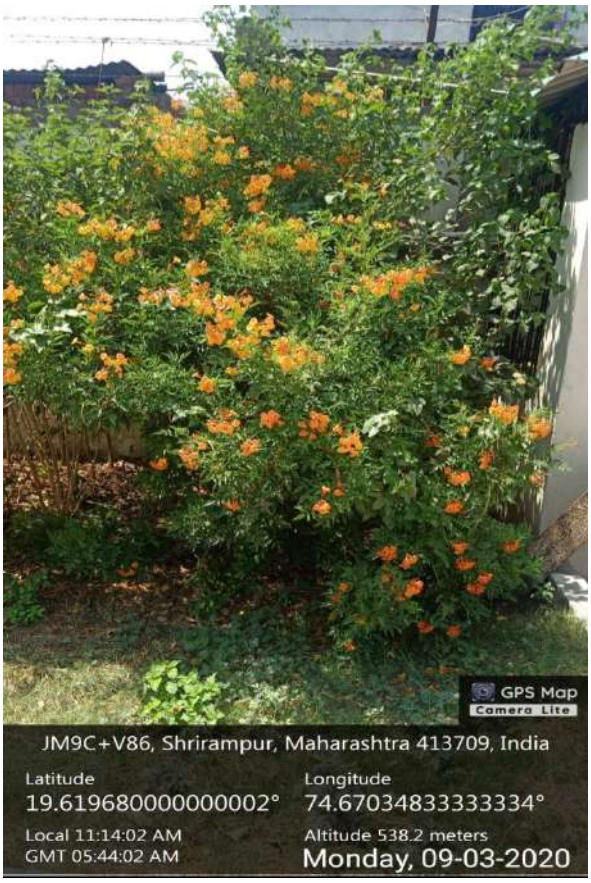
Monday, 02-03-2020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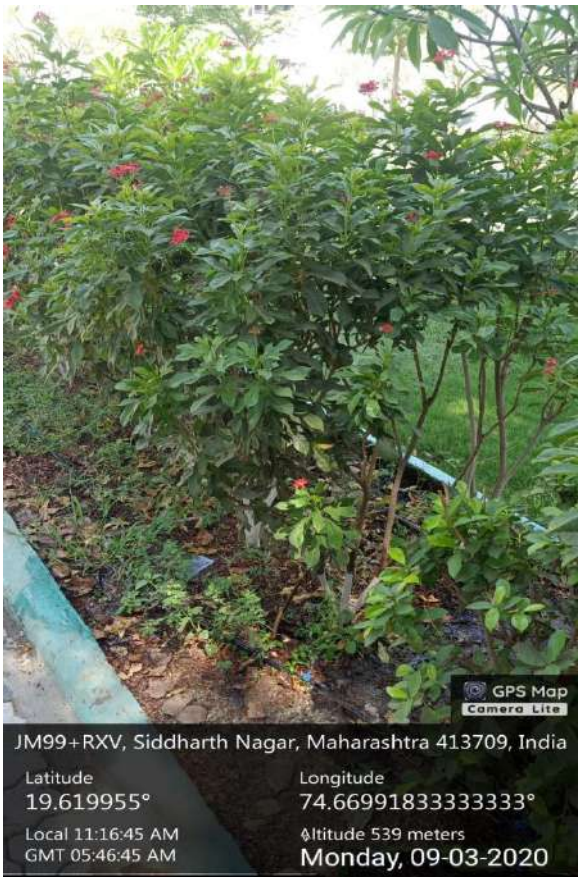
Monday, 09-03-2020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Altitude 539 meters
Monday, 09-03-2020


SILENCE PLEASE.
GPS Map
Camera Lite
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Latitude
19.61974°
Longitude
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Local 11:12:13 AM
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Altitude 547 meters
Monday, 09-03-2020


GPS Map
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Latitude
19.62011°
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Altitude 534.3 meters
Monday, 02-03-2020


GPS Map
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Latitude
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Altitude 540.5 meters
Monday, 02-03-2020


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Monday, 02-03-2020