SREE SIDDAGANGA COLLEGE OF ARTS, SCIENCE AND COMMERCE

GREEN AUDIT REPORT

2022-2023

"Education is the debt to be paid by the present generation to the future generation"

Executive Summary

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological issues. Therefore it becomes essential to have Green Campus that leads to sustainable development.

Our college is deeply concerned about the environmental issues. The purpose of green audit is to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology includes preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and Mapping of Biodiversity. With this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on student health and learning, college operational costs and the environment. The criteria, methods and recommendations used in the audit are based on the identified risks.

Contents

GREEN AUDIT COMMITTEE

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- **NAME OF THE CO-ORDINATOR:** Smt ShahanazFathima

- **MEMBERS:** **1.** Prof C.S Somshekharaiah
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  3. Prof Srivalli K.L
  4. Prof Chandrika N
  5. Sri Renuka Prasad G

- **EXTERNAL SUPPORT MEMBER:**
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Sangam B.R	MCS	I BSC	U11SC22S0091
Srinivas Reddy K	ZBT	II BSC	U11SC21S0190

GREEN AUDIT OF THE CAMPUS

Date commenced : 14th December 2022

Date completed :

Faculty in-charge-Eco-club : Smt Shahnaz Fathima

Student Co-ordinators:

1. **Biodiversity Squad –** Muskan DH
   Niveditha SG
   Rakshitha HS
   Venkatesh GR (**Leader**)
   Vismaya IS

2. **Waste Management Squad –** Chethan DR
   Naveen KR
   Prashanth HR
   Punith AR
   Shalini T **(Leader)**
   SimranKumari A

3. **Water Conservation Squad–**Dhanush S **(Leader)**
   Krishna Prasad B
   Niranjan H
   Prajwal
   Sangam BR

4. Energy Conservation Squad –Ankitha V
Chandana HG
Poornima N
Sagar AS
Karun P
Soumya D **(Leader)**

5. Environmental Legislative Compliance Squad – Mohammed Kaif**(Leader)**
Naveen
Raghunandan
Rahul KS
Shifanaaz
Thanushree

6. Documentation Squad – Chandana GD (**Leader)**
Farheen Hussain
Gagana JS
Ravikanth KS
Shashidhar N

INTRODUCTION

Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The green audit aims to analyse environmental practices within and outside the college campus, which will have an impact on the eco-friendly atmosphere. It is initiated with the motive of inspecting the effort within the institution.

To address these concerns, the Green audit which comes under the criteria 7 of NAAC, can be a useful tool for the institution to determine how it is using the energy or water resources. The college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for recycling project or to improve waste minimization plan.It provides staff and students with better understanding of Green impact on the campus. A clean and healthy environment adds to effective learning and creates a conducive learning environment.

OBJECTIVES

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To reduce energy consumption to foster environment.
- To suggest improvement in the system to promote a safe and clean environment.
- To introduce and make students aware of real concerns of environment and its sustainability.
- To secure the environment and cut down the threats posed to human health by analysing the pattern and extent of the use of resources in the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle by taking appropriate measures.
- To ensure optimum utilization of resources.
- To bring out a status report on environmental compliance.
- To enable waste management through reduction of waste generation, solid- waste and water recycling.
- To ensure Chemical management like storage, handling and use of chemicals, special arrangement for flammable chemical, and consumption tracking etc and most importantly Waste management at site that includes storage and disposal, use of PPEs, hygiene conditions, any means of recycling through vendors. Hazardous waste and e-waste management and disposal in compliance with applicable norms.

METHODOLOGY

- In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:
    - Waste management
    - Energy Conservation
    - Water conservation
    - Environmental legislative compliance
    - Green area management

Firstly, at preliminary data collection phase, exhaustive data collection was done using different tools such as observation, survey communicating with responsible persons,.Following steps were taken for data collection: The team went to each department, centres, Library, canteen etc. Data about the general information was collected through observation and interview. The power consumption of appliances was recorded by taking an average value in some cases.

Secondly, On the basis of the results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. The above target areas particular to the college was evaluated through questionnaire.

VISION AND MISSION:-

>The vision of carrying out green audit is to secure the environment and cut down the threats to human health.

> It would help to shield the environment by Authenticating conformity with the implemented laws. By implementing these laws we can alarm the one who's abusing our environment through his ill works.

> It helps us to recognize the cost saving methods through waste minimizing and managing.

> It helps in Pointing out the prevailing and forthcoming complications.

> Empower the organizations to frame a better environmental performance

> It portrays a good image of an institution which helps to build a better relationship with the group of stakeholders

>It enhances the alertness for environmental guidelines and duties

>To educate and enable youth to enhance the dignity and progress of the society as well as the nation.

ABOUT COLLEGE

SreeSiddaganga College of Arts, Science and Commerce (SSCASC), Tumakuru was established in the year 1966. Dr.SreeSreeShivakumaraMahaswamiji, Founder President, SreeSiddaganga Education Society caters to the needs of Socially and Economically backward masses of rural sections of the society.SSCASC is one of the most preferred Private colleges in Tumakuru.

We have a long history of being recognized as a college at the heart of the local community. The College offers Under Graduate courses in Science, Arts, Commerce, Management and Post Graduate Courses in Commerce and

English. The College has the necessary infrastructure to facilitate meaningful teaching-learning.

It has a resourceful library with more than 65,000 books, well equipped laboratories, playground, LCDs, OHPs and other audio-visual aids that promote learning in. We have Botany and Zoology Museums. To facilitate the all-round development of the students, they are encouraged to join NCC, NSS, Sports, and take part in co-curricular and extra-curricular activities.

Highly qualified and motivated faculty leave no stone unturned to achieve an excellent academic environment in the institution. The College has received great support from the Government, Department of Collegiate Education, TU, CDC, alumni and philanthropists from time to time.

Our aim is to accomplish academic brilliance and professional aptitude; to inculcate a sense of social concern and integrity so as to mould students into responsible, morally upright and socially conscious individuals. Our college upholds national integration, non-violence and secularism.

D yProf.C.S.Somash

Principal ***IQAC***

Coordinator

LAND USE ANALYSIS:-

Area of the campus =1, 34, 164 SFT (3.08 acres)

Built-up area =80, 198 SFT

Sport field

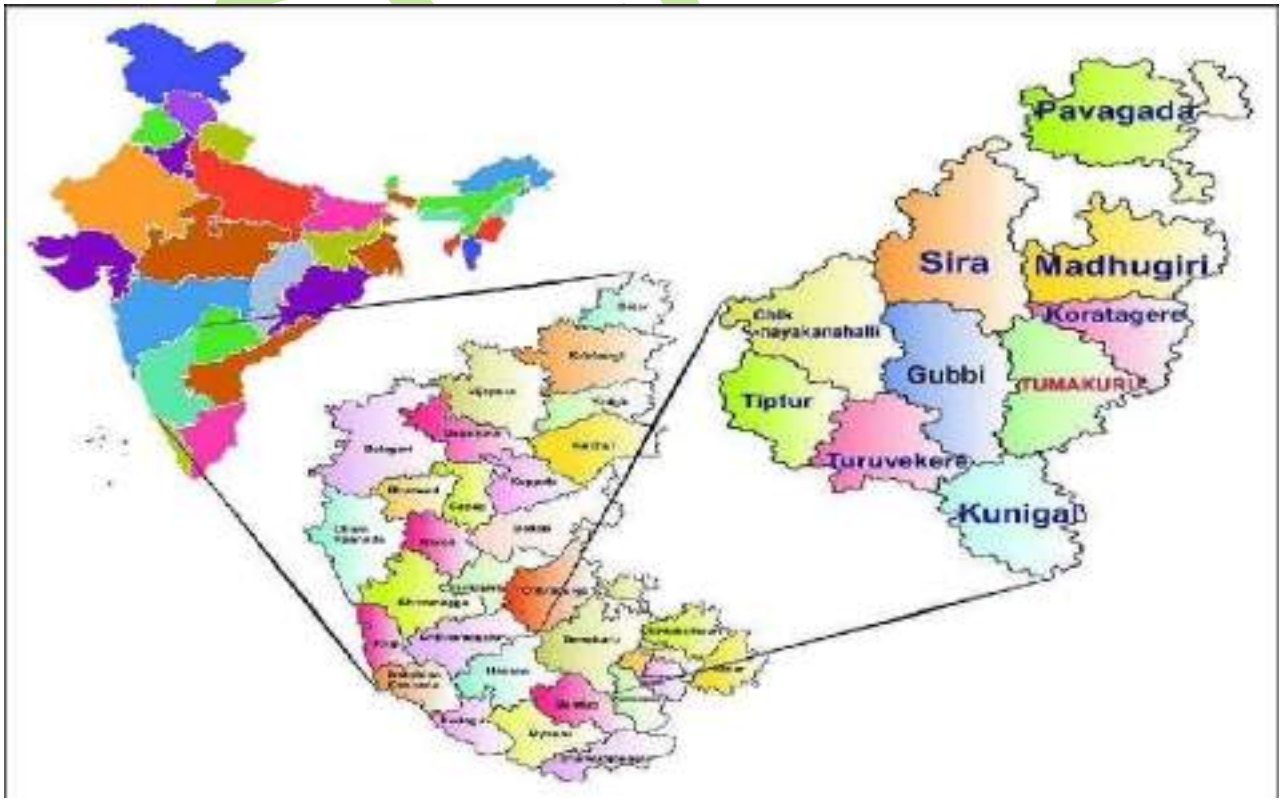
Parking slot

Garden — 98, 966 SFT

Footpath

Open air stage

GEOGRAPHICAL LOCATION THE CAMPUS (MAP):-




Sree Siddaganga College of Arts, Science and Commerce
LAYOUT PLAN
GOLDEN JUBILEE BUILDING
ADMINISTRATIVE BLOCK
AREA OF THE CAMPUS
1,34,164 SFT (3.08ACREA)
BUILTUP AREA=80198 SFT
SPORT FIELD
PARKING SLOT
GARDEN
FOOT PATH
OPEN AIR STAGE
98,966 SFT
S
E
W
N

FLORAL AND FAUNAL DIVERSITY

Diversity or more specifically species diversity is the variety of living organisms found in nature. The word **FLORA** refers to plants and **FAUNA**refers to animals Habitat or surrounding environment [1]. Floral and faunal diversity of an area **portrays the health of the habitat** and **natural wealth of that region**. It is also very important for conservation perspectives.

The species found in our college campus are as follows:

SCIENTIFIC NAME	COMMON NAME	NO. OF SPECIES
Rhopalocera	butterflies	25
Lycosidae	Wolf spider	3
Sparassidae	Huntsman spider	1
Hersiliidae	Tree trunk spider	1
Dolophonesconifera	Wrap-around spider	2
Gonatodes	Yellow-headed gecko	3
Orgyiaantiqua	Rusty tussock moth	2
Oecophyllasmaragdina	Weaver ant	7
Brown anole	Cuban brown anole	1
Isoptera	White ants	9
Lampropholishuichenoti	Common garden skink	1
Scincidae	Skink	1

Lampropholies	Sun skink	1
Erionota torus	Banana skipper	1
Mantodea	Manties	1
Lumbricusterrestries	Earthworm	6
Apisceranaindica	Indian honey bee	5 apache hives
Vespula vulgaris	Common wasp	6
Sciuridae	Tamiar	
Columbidae	Columba livia	
Gruidae	Grus	22
Gyprindicus	Vulture	2
Passer domesticur	House sparrow	4
Corvuscorax	Crow	6
Canislupus	Dog	2
Feliscatus	Cat	3
Aedesaegypti	Mosquito	4
Aedesalbopictur	Mosquito	4
Culextarsalis	Mosquito	2
Philodendron	Philodendron (heart leaf)	1
Wild privet	Ligustrumvulgare	171

Hibiscus	Hibiscus	17
Magnifera mango	Mango	8
Phyllanthuurinaria	Chamber bitter(leaf flower)	5
Sproot phlox	Phlox plant	2
Beilschmiedia	Taraire / nees	3
Ligustrumlucidum	Glossy privet	1
Samanaesaman	Rain tree	1
Couroupitaguianesis	Cannonball tree	2
Raystaniaregia	Florida royalpalm	1
Oryzasativa	Paddy/rice	2
Catharanthusroscus	Vincarosea	12
Fittoniaalbivenis	Nerve plant	10
Solanumamericanum	American black night shade	8
Aloe vera	Aloevera	15
Coleus amboinicus	Mexican mint	13
Begonia grandis	Hardy begonia	4
Dymondia	Dymondia	3
Haworthiopsislimifolia	limifolia	4
Vaticadiospyrodes	Vatica	1

Rosa	Rose	11
Trianthemaportulacaetrum	Trianthem	1
Schefferaarboricola	Dwarf umbrella tree	3
Citrus limon	Lemon	3
Goniothalamus	Amuyon	1
Ficuselastica	Rubber plant	1
Phyllanthusacidies	Gooseberry	1
Sapodilla	Zapota	2
Punicagranatum	Pomegranate	1
Oxalis violacea	Violet wood sorrel	21
Momordicacharantia	Bitter melon	1
Malbar spinach	Barilla alba	104
Phyllanthupulcher	Malay	2
Herbalism cordyline	Cordyline	4
Pileamicrophylla	Joy powder plant	1
Solerioliasoleirolli	soleirolia	1
Cordyline Australia	Cordyline	1
Coleus	Ocimeae/colecus	10
Pleioblastus	Dwarf bamboos	1
Vrieseaospinae	Ospinae	2
Chamaecostuscuspidatus	Fiery costus	1

Canna indica	Indian shot	4
Eucalyptus	Eucalyptus	1
Cupheaignea	Cigar flower	8
Asarum	Wild ginger	1
Canna indica	African arrow root	1
Rosa rubiginosa	Rose	11
Azolla	Mosquito ferns	5
Marguerite dairy	Parris daisy	2
Talinumpaniculatum	Jewels of opar	2
Asparagus athiopicus	Foxtail fern	4
Roystonearegia	Florida royal palm	2
Lagorostrobusfranklinii	Huon pine	3
Cyeaspruinosa	Poly cycas	2
Sedum maximum	Stone crops	2
Durantaerecta	Pigeon berry	2
Codiaeumvariegatum	Fire exoton	1
Ipomeacairica	Messina creeper	3
Dysoxyllumalliaceum	Pingku	1
Hypnumcupressiforme	Plaitmoss	1
Ipomeacairica	Morning glory	1
Eucalyptus polyanthemos	Gum tree/red box	1

Quercusbicolor	Swamp white oak	2
Black plum	Jamun	2
Kigeliapinnata	Sausage tree	1
Artocarpusheterophyllus	Jackfruit	3
Musa	Banana	11
Citrus cavaleriei	Citrus	1
Psidiumguajava	Guava	5
Carica papaya	Papaya	14
Ocimumbasilicum	Basil	8
Phylanthusacidus	Otaheite gooseberry	3
Crassocephalumcrepidiodes	Sapsapon	7
Quercussemiserrata	Beech	1
Brassica nigra	Mustard	1
Silphiumconnatum	Cup plant	5
Taraxacumofficinale	Dandelion	2
Microstegiumvimineum	Japanese stilt grass	1
Ficusreligiosa	People tree	2
Saribus	Fan palm	1
Senna tora	Cassis tora	1
Monoonlongifolium	False ashoka tree	3
Yucca filamentosa	Adam's needle	2

Bauhniaforficata	Brazallian orchid tree	2
Vaccinumcorymbosum	High bush blue berry	3
Natilerdplumeria	White frangipani	10
Dypsislutescenes	Areca	27
Magnolia champaca	Champak	1
Chinese ixora	West indian jasmine	3
Ficusbenjamina	Weeping fig	10
Tagetes	Marigold	1
Syngoniumpodophyllum	Arrow head plant	1
Brachystegia	Miombo	1
Fuchsia excorticate	Tree fuchsia	1
Peltophorumpterocarpu	Copper pod	1
Pongamiaglabra	Indian beech	1
Stellaria media	Common chickweed	1
Acalyphanicolia	Bird of paradise white	2
Ixorachinessis	Chinese ixora	1
Vallariglabra	Vallaris	4
Santalum album	Sandalwood	1
Pterocarpussantalinus	Red sandalwood	1
Asparagus officinalis	Asparagus	2
Tabernaemontana divaricate	Pin wheel flower	6

Mosses in the cradle	Mosses	230
Spathiphyllum	Peace lilly	20
Liliropemuscari	Lily turf	6
Dysoxylum	Dysoxylim	1
Poly podiopsida	Fern	23
Trachycarpus fortune	Trachycarpus	2
Axonopus	Axonopus	1
Marata	Maranta	5
Euphorbia	Spurges	1
Hamelia patens	Firebush	2
Ficusauriculata	Cluster fig	1
Kingeliapinnata	Kingelia	1
Thaumotophyllumbipinnatitidum	philodendron	1
Grevillea robusta	Southern silk oak	2
Celtisjessoensis	Celtisjessoensis	1
Millettiapinnata	Pongame oil tree	1
Pouteniasapota	Mameysapote	2
Phyllanthusniruri	Gale of the wind	212
Impatiens balsamina	Balsam	5
Euphorbia milli	Crown of thorns	12
Morindacitrifolia	Noni	2

Nerium oleander	Oleander	2
Piper betle	Betel	5
Codiaeumvarigatum	Garden craton	1
AcalyphaWilesiana	Copper leaf	150
Parpalum	Crown grass bull grass	60feet – length 25 feet-width
Streblualper	Khoi/serut	19
Brassaiopis	Setochuletro tree	1
Pricklysida	Tea weed	1
Rhoeo	Boat lily/ayster plant	1
Menthe spicata	Pudina	1
Phyllanthusamarus	Gale of wind	1
Vincarosea	Crimson periwinkle	2
Asparagus	Sparrow grass	1
Cissusquadrangularis	Verdt grape	1


spathyphyllum wallisi


Jungle jeranium


Oleandrin


Rauwolfia serpentana


bigonea peltatifolia


Morinda citrifolia


Spanthuyphyllum wallisi


Oelander


Momordica charantia


Acalphya wickesiana


Rose periwinkle


rusty tussock moth


Earthworm


Tamias


white ants


banana skipper


mantis

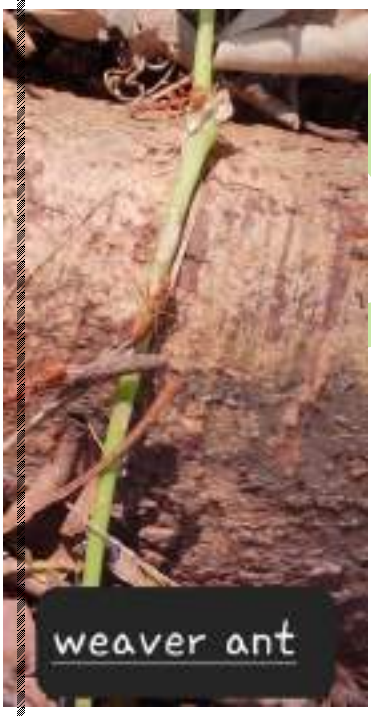

common wasp


brown anole


lampropholies


common garden skink


skink


weaver ant


yellow headed gecko


wolf spider


Wrap around spider


Huntsman spider


Tree trunk spider

OBSERVATION AND EXPERIENCE

By the survey of the green which refers to plants it has been observed that our campus is replete with many creatures,

Our experience which we got in this audit is and will be so special for us forever as we got ourselves involved completely in our keen observation in discovering the species found in our college campus. we

WASTE MANAGEMENT

This is an important area in educational institutions. This addresses waste production and disposal, plastic waste, paper waste, food waste, and recycling. Solid waste has a number of adverse environmental impacts. Solid waste can be divided into two categories: general waste and hazardous waste. General waste includes paper, plastics tins and glass bottles. Hazardous waste is waste that is likely to be a threat to one's health or the environment like cleaning chemicals and petrol.

Unscientific landfills may contain harmful contaminants that leach into soil and water supplies, and produce greenhouse gases contributing to global climate change. Furthermore, solid waste often includes wasted material resources that could otherwise be channelled into better service through recycling, repair, and reuse. Thus the minimization of solid waste is essential for a sustainable college.

WASTE SEGREGATION:

This is the separation of wet waste and dry waste. The purpose is to recycle dry waste easily and to use wet waste as compost. While segregating waste, the amount of waste that gets land filled is reduced considerably, resulting in lower levels of air and water pollution. Importantly, waste segregation should be based on the type of waste and the most appropriate treatment and disposal. This makes it easier to apply different processes , like composting, recycling and incineration. It is important to practice waste management and segregation in a community. One way to practice waste management is to ensure there is awareness. The process of waste segregation should be explained to the community.

WASTE MANAGEMENT TEAM WORIKING AND COLLECTING DATA OF GARBAGE WASTE

TEAM COLLECTING DATA FROM CAN

GARBAGE COLLECTION BY TEAM


GPS Map Camera
Tumakuru, Karnataka, India
TOWN HALL CIRCLE, SSCASC Office, Gandhi Nagar,
Tumakuru, Karnataka 572102, India
Lat 13.337755°
Long 77.100231°
17/12/22 11:30 AM GMT +05:30
Google

E- WASTE

Questionnaire:

1. Our college has

- Garden area : 1
- Play ground : 1
- Toilets : 20
- Garbage dump: 63
- Laboratory: 14
- Canteen: 1

2. The following are found near our college:

- Municipal dump yard
- Garbage heap
- Public convenience
- Sewer line
- Bus/Railway station
- Market/ shopping complex/ public halls

3. Our college generatse waste like-

- Wet waste: From canteen and toilet
- E waste : From labs
- Bio-degradable waste: From garden

4. The approximate amount of waste generated per day:

Bio-degradable waste	Non bio-degradable waste	Hazardous waste	E-waste
Canteen - 5 kg Garden - 15 kg Paper - 5 kg Filter paper- 900g	Plastic - 9 kg Glass - 700 g	Chemicals - 500 ML	500 grams

5. *Ways of managing the waste in the college:*
    1. Composting: The leaves and degradable waste is dumped into compost pit.

6 *We have placed 15 to 17 separate boxes in the classrooms for waste segregation.*

6. *With NCC and NSS units we spread the message regarding waste management and we organize rallies to cause awareness among people about recycling and reusing the waste material*

7. *We try our best to achieve zero garbage in our college*

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RECOMMENDATION:

1. Dustbin near canteen.
2Paper recycling
3.Separate the waste like dry waste and wet waste
4 Use the clot bags
5.Paper can be reused.
6Bio waste can be recycled and reused.
7.In E-waste we can make use of the useful.

-

1. In our college using the bio waste we can plantation the plants.
2. Plastic can be make as a craft.

- DEPT OF KANNADA

ENVIRONMENTAL LEGISLATIVE COMPLIANCE

INTRODUCTION:-

Environmental law is an integral part of any government agency. It includes a series of laws and regulations related to water quality, air quality, and other environmental aspects. The success of environmental legislation mainly depends on how they are implemented. Legislation is also a valuable tool to educate people about their responsibility to maintain a healthy environment. Environmental law in India is based on the principle of environmental law and focuses on the management of certain natural resources such as minerals, forests, fisheries.

Environmental law in India directly reflects the provisions of the constitution. The need to protect and maintain the environment and make sustainable use of natural resources is reflected in India's constitutional framework and India's international obligations.

1. What is the total permanent population of the institute?

	Male	female	total
Students	**-----**	**----------**	**1592**
Teachers	**34**	**44**	**78**
Non-teaching staff	**22**	**15**	**37**
Sub total	**-----**	**-----**	**1707**

2. **What is the total number of working days of your campus in a year?**

Non-teaching staff	**337 days/year**
Even semester	97 days
Odd semester	93 days
Total	190 days

3. Are you aware of any environmental laws pertaining to different aspects of environmental management?

- Yes

4. Does your institute have any rules to protect the environment?

Ours is a "plastic free zone"

- To protect environment, college has an "ECO CLUB TEAM"

5. Does housekeeping schedule in your campus?

- Yes.
- Schedule : morning-6:00-9:00AM && 3:30-5:30PM

6. Are students and faculties aware of environmental cleanliness ways?

- Yes.
  College students and faculties are aware of environmental cleanliness. Our College is plastic free zone'
  College has 'eco-club'
  There is a team to create awareness among students & teachers to keep college campus clean and neat.

7. Does important days like world environment day, earth day, ozone day etc….. Observed in campus?

- Yes.
  - Ozone day(conducting lectures to students)
  - Environmental day.

8. Does institute participate in national and local environmental protection movement?

- Yes.
  "College students and faculties participated in 'plastic free India' movement in Tumkur and carried out an awareness procession"

Sanitation:-

TOILET: 20

DRINKING WATER UNITS:-1 UNIT with 3 taps and RO system.

HANDWASH UNITS:-4 UNITS with 11 taps.

OTHER ACTIVITIES OF COLLEGE REGARDING ENVIRONMENT.

- **TREE PLANTATION BY NCC IN COLLEGE.**
- **TREE PLANATATION BY NSS STUDENTS IN 'ARIYUR' VILLAGE,TUMKUR**
- **TREE PLANTATION BY BOTANY DEPARTMENT**

WATER MANGEMENT

Water is a precious natural resource. It is available in fixed quantum , The availability of water is decreasing due to increase in i population. Due to industrialization, and urbanization, the demand of fresh water is increasing day by day. The unabated discharge of industrial effluent in the available water bodies is reducing the quality of these sample sources of water continuously hence, the notional mission on water conservation was declared by the then hon,ourable prime minister NAREDRA MODI as 'jal Shakti abhiyan' and appealed to all citizens to collectively address the problem of water shortage, by conserving energy drop of water and suggested for conducting water audit for all sector of water use.

Water audit can be defined as a qualitative analysis of water consumption to identify means of reducing, reusing and recycling of water. Water audit is nothing but an effective measure for minimizing losses, optimizing various uses and thus enabling considerable conservation of water in irrigation sector, domestic ,power and identical sectors . The measurement of water losses due to different uses in the system or any utility is essential.

IMPORTANCE OF WATER AUDIT

- **SYSTEMATIC PROCESS**
- **MAY YIELD SOME SURPRISING RESULTS**
- **EASIER TO WORK ON SOLUTION WHEN THE PROBLEM S ARE IDENTIFIED.**
- **A TRACKING MECHANISM CAN BE PUT INTO PLACE.**

Where does your water come from? (Source)

- Our college has its own bore well and we also get water from the city corporation.

  Rain water is harvested..

Where does the waste water go?

Behind administrative block there is underground drainage (UGD), Wastewater is released into it,

How does your college store water?

Our college has good water storage r facility.The sump has the capacity of about 1.15.000 litres. Shivakumaraswamiji block has 2 water tanks .Each has the capacity of 3.000 litres .siddalingaswamiji block has a tank of 2.000 litres capacity .
Administrative block reuses the RO waste water for toilets and for labs (200&bot),The water is supplied from college bore well and city corporation.

Are there any water savings techniques followed in our college? What are they?

- Yes, our college has adapted few techniques and measures to reduce the usage of water.
- Excess water flow from tank is usually prevented by switching off motor. The water is saved by reusing it.
- Approximately 1400 litres of water released (wastage/from RO unit is utilised for the purposes mentioned above.

3. *If there is water wastage , specify why?*

- There is no major water wastage in one college, even if pipeline or taps are damaged it will be replaced soone.

4. *How to prevent the wastage of water?*

- Check toilet for leaks
- While watering the plants, water as fast as the soil can absorb it.
- 'Save water 'boards at particular areas
- Reward students for water-saving tips.

5. *Write down four ways that could reduce the amount of water used in your college.*

- Preventing the water leakage at taps
- Minimize the usage of water while gardening by adopting few measures.
- Immediately switch off the water motors, after filling the tanks
- By STP techniques wastage of water is reduced.

IN COLLEGE THE WATER CONSUMPTION IN THE COLLEGE

TABLE: SECTOR WISE USE OF WATER

SL.NO	SECTOR	PERDAY (LITER)		
			730	9.90
			1095	14.85
	TOTAL	20.200	7.373	100

ENERGY

n most countries.

ring and analysis of the use

n of report containing

recommendations for improving energy efficiency and an action plan to reduce energy consumption (The Energy Conservation Act, 2001). It is a study to determine how and where energy is used, and to identify methods for energy savings. It identifies all the energy streams in a system and quantifies the use of energy according to its discrete functions. It facilitates a systematic approach to the energy management in a system, trying to balance the total energy input with its use.

The energy auditing is an on-going process, a part of a larger procedure to ensure long term sustainable development. Based on the outcome of our analysis of data we have enlisted probable solutions in order to ensure minimizing energy waste and maximizing energy potential in the campus. We hope that the audit will be fruitful in terms of energy conservation.

Benefits of Conservation of Energy

Energy conservation helps in:

- Saving the cost and reducing utility bills.
- Prolongs the existence of fossil fuels.
- Protects the environment.
- Reduces pollution.

ENERGY CONSERVATION

- Energy is a broad term and is the fundamental source of living. Energy is classified into various types depending on its nature.
- Energy conservation is the means of reducing the consumption of energy.
- To reduce the environmental impact on society, energy conservation measures are being imparted. Remember, by saving energy, you are protecting the environment directly.
  Energy is precious. Energy cannot be created or destroyed but can be transformed from one form to another.

Best Ways to Conserve Energy in Daily Life

• Adjust your day-to-day behaviours to turn off devices and appliances when not in use. Purchase devices and appliances which consume less energy.

• Adapt smart power strips:. Yes, appliances draw power from outlets and are referred to as phantom loads. These smart power strips will help to cut down on phantom-load costs and save energy.

• Refrigerator is one of the main appliances that consume power. Keep the setting of the refrigerator low to save energy.

• Using CFL and LED bulbs to save energy. Regular incandescent bulbs consume more energy than CFL and LED.

• Clean or replace air filters as recommended. Air conditioners (AC) and heaters consume more energy than other appliances.

• Cleaning or replacing air filters improves efficiency and consumes less energy.

• Operate dishwasher and washing machines in a full load.

Questionnaire:

1. List of ways that we use energy in our college (Electricity, LPG, Firewood, Others).

- Solar energy
- Generator
- Electrical energy(BESCOM)

2. How much money does your college spend on energy such as electricity, Gas, Firewood, etc. in a month?

Month(2021)	Electricity bill amount in rs	LPG consumption in rs

Jan	38325	8000
Feb	32189	8000
Mar	20488	8000
Apr	20600	8000
May	21000	8000
Jun	14136	8000
Jul	23083	8000
Aug	26161	8000
Sept	25104	8000
Oct	26473	8000
Nov	35193	8000
Dec	36258	8000

3. Are there any energy saving methods employed in your college?

Yes, Solar panels are used in our college for the Computer Science labs for emergency backup situations.

4. Are there any alternative energy sources employed/installed in your college specify

Yes, we use solar panels as an alternative source of energy in our college. There are total 72 solar panels.

5. Do you run "switch off" drills at the end of each day?

Yes, we do to save energy and save lives.

6. Are your computers put on power saving mode?

Yes

Time-8 AM to 5 PM

7. Does your machinery (TV, AC, Computer, weighing balance, printers etc.) run on standby modes most of the time?

Yes, during class hours.

Block-wise number of different electrical appliances:

Administrative Block Corridor	3	2	-	-	-	-	-	-	-
Male and Female Washroom	-	1	-	-	-	-	-	-	-
Accountant Block	3	-	-	4	-	-	3	2	-
Establishment Office	8	4	-	1	1(PTR)	-	6	-	-
Department of Botany	1	-	-	-	-	-	1	-	-
Botany Lab	15	-	-	1	1	-	7	-	1
Department of Zoology	1	-	5	-	-	-	2	-	-
Zoology Labs(Lab 1&2)	13	2	-	1	-	-	6	-	1
Zoology Museum	-	2	-	-	-	-	-	-	-

Administrative Block

Final Report:

Total number of CCTV cameras-10
Total number of LED lights-64
Total number of Tube lights-12
Total number of computers-13
Total number of Printers-7
Total number of Scanner-2
Total number of photocopying machine-1
Total number of Fans-28
Total number of Money counting machines-2
Total number of Projectors-2

Dr. Sri Sri Sri Shivakumara Swamiji Block

Class rooms and Departments	LED Lights	Tube Lights	Corridor Lights	Projector	UPS Battery	Fans	Computer Systems
Ground Floor	33	1	1	-	-	-	-
Indoor games room	4	-	2	-	-	-	-
1st Floor(101 to 107)	29	3	-	2	-	15	-
Department of Kannada	2	-	-	-	-	1	1
Department of Political Science	2	-	-	-	-	1	-
Girls Waiting Room	6	-	-	-	-	3	-
1st Floor Rest room	3	-	5	-	-	3	-
2nd Floor(201 to 207)	32	-	-	1	-	15	-
2nd Floor Female washroom	-	1	-	-	-	-	-
2nd Floor Male washroom	-	1	-	-	-	-	-
Department of English	2	-	-	-	-	1	1
Department of Commerce and Management	3	-	5	-	-	2	1
Department of History	2	-	-	-	-	1	-
3rd Floor(301 to 308)	35	-	-	-	-	17	-
3rd Floor Female washroom	-	2	-	-	-	-	-
Department of Mathematics	2	-	-	-	-	1	-
Department of Post Graduate Studies in Commerce	2	-	-	-	-	2	-
Department of Computer Science	4	-	-	-	-	2	1
Computer Science Labs (Lab 1 to 3)	11	-	-	1	25	10	72
4th Floor(401 to 403)	18	-	-	2	-	10	1(Smart Board)
4th Floor Mathematics Labs	8	-	-	1	-	4	48
4th Floor Male Washroom	-	2	-	-	-	-	-

Final Report:

Total number of CCTV cameras-58
Total number of LED lights-209
Total number of Tube lights-15
Total number of computers-125
Total number of projectors-7
Total number of UPS batteries for emergency backup-25
Total number of fans-88

Sri SriSiddalingaSwamiji Block

Class rooms and Departments	LED Lights	Tube Lights	Corridor Lights	Projector	UPS Battery	Fans	Computer Systems
Library	-	45	-	-	-	17	15
Seminar Hall	-	23	-	1	4	13	1
Canteen	1	5	-	-	-	2	-
Placement Cell	-	1	-	-	-	2	1
NCC Room(Ground Floor)	-	4	1	-	-	1	-
Department of Economics	2	-	-	-	-	1	-
Department of Chemistry	4	-	-	1(PTR)	1	3	1
Chemistry Lab(1 to 3)	-	20	4	-	-	16	-
Chemistry Store room	-	2	-	1(Oven)	-	2	-
Department of Physics	-	1	-	-	-	2	-
Physics Lab(1 and 2)	-	7	3	-	2	8	1
2nd Floor Rest Room	-	2	-	-	-	-	-
Department of Bio-Technology	-	5	3	-	-	5	-
Management Board Room	10	2	-	-	-	1	-

Final Report:

Total number of CCTV cameras-20
Total number of LED lights-22
Total number of Tube lights-124
Total number of computers-19
Total number of projectors-2
Total number of UPS batteries for emergency backup-7
Total number of fans-74

Bio-Technology lab Instruments:

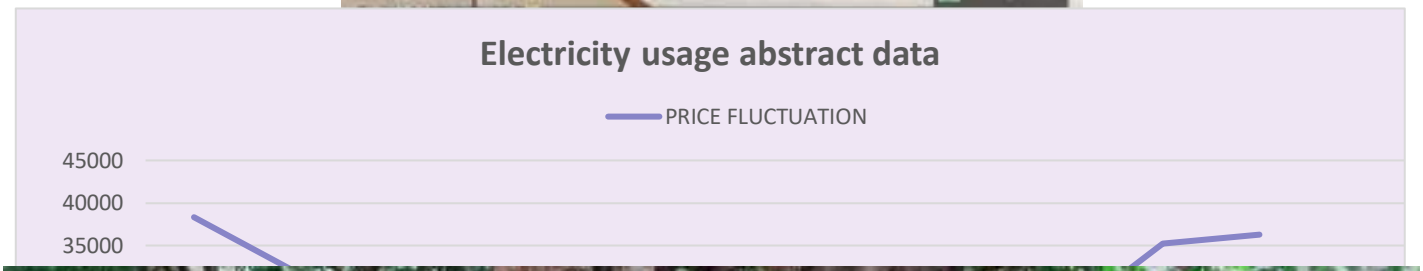
- Hot air oven-1
- Incubator-1
- Cooling centrifuge-1
- Auto clave-1
- Refrigerator-1
- Laboratory centrifuge-1
- Laminar air flow-1

Seminar Hall Equipment's:

1. Speaker-4
2. Mic-1
3. UPS Invertor-1

- AC-1
- Calorimeter-1
- Water bath-1

The mont sumption

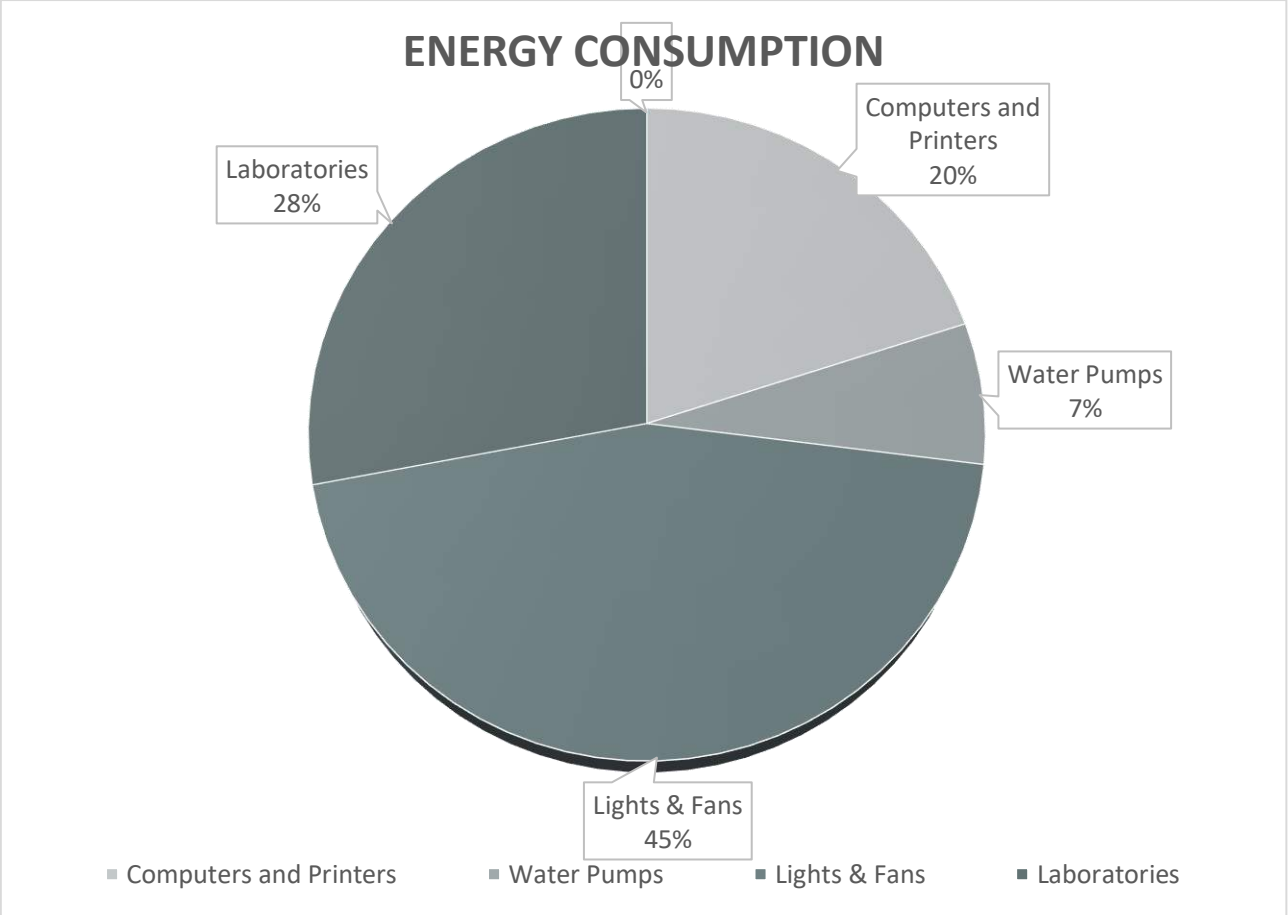



GPS Map Camera
Tumakuru, Karnataka, India
SSCASC Labs, Gandhi Nagar, Tumakuru, Karnataka
572102, India
Lat 13.33745°
Long 77.09979°
20/12/22 01:42 PM GMT +05:30
Google

SOLAR PANELS ELECTRICITY GENERATION:

- Solar energy is one among the useful sources of energy in our life.
- Solar technologies convert sunlight into electrical energy either through photovoltaic (PV) panels or through mirrors that concentrate solar radiation.
- Our college has total 72 solar panels and generated electricity is stored in PCU batteries which we use for emergency backup situations.
- Nearly 300000watts of electricity is generated through Solar panels per year.

Energy Consumption by End-usage:




GPS Map Camera
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Long 77.100878°
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572102, India
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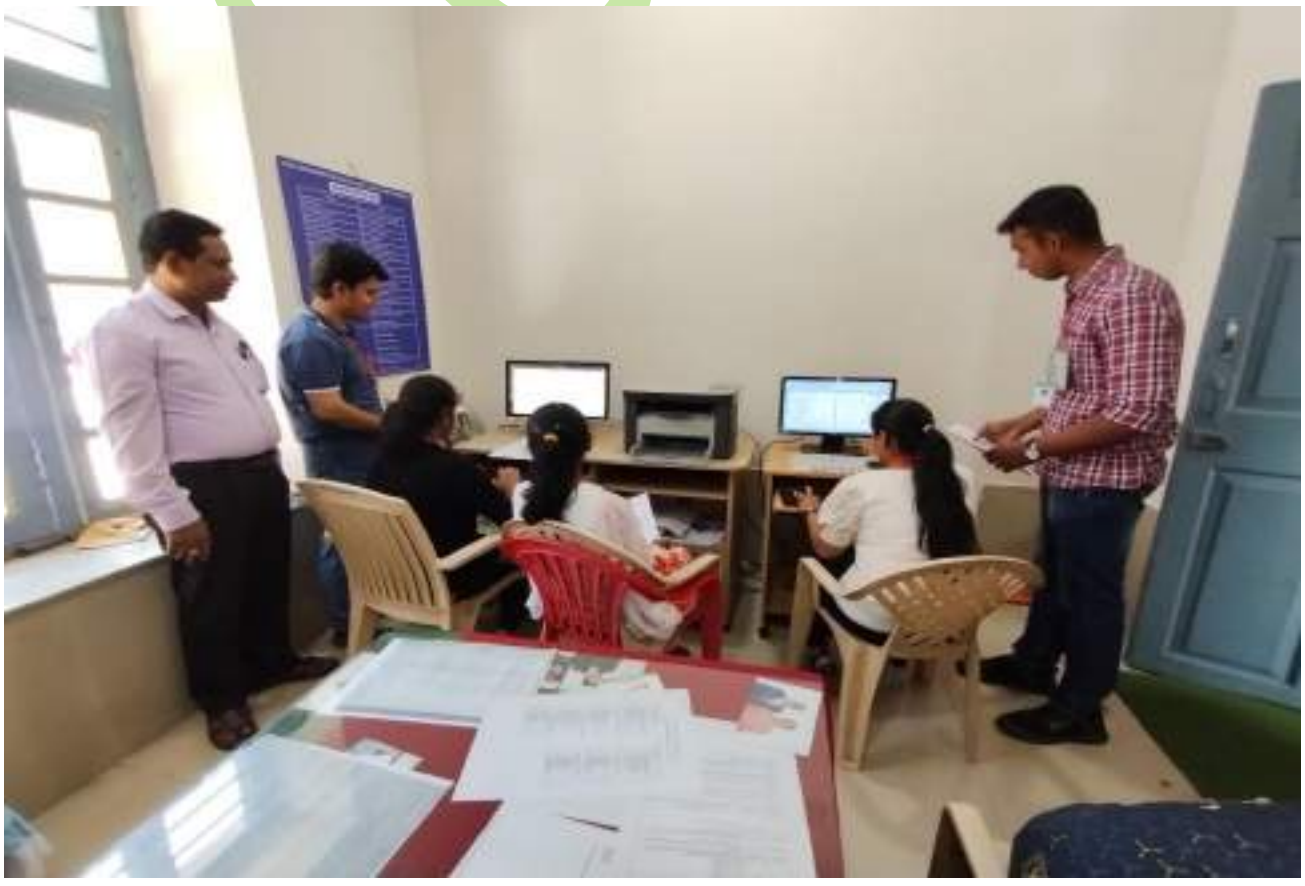


Eco-Club

Suggestions/Feedback:

- Renovate or improve the lighting control, i.e. add more switches to existing rooms/spaces where only one switch controls more than 10 lights, especially the lights in large meeting rooms.
- Replace all lights with energy efficient LED light bulbs, which is expected to get 50% lighting power savings.
- Replace 40 W fluorescent tube lights with 10W LED lights.
- Lighting for corridors is can be replaced by 3W or 7W LED lamps.
- Remove faulty appliances located in the building.

SELF ASSESSMENT REPORT

CRITERIA	INDICATOR	SCORE VALUE LOW/MEDIUM/

		HIGH
Enhanced Greenery/ Biodiversity	Species Richness	**High**
Waste management	Collection and Segregation of Waste	**High**
Water Conservation	Rainwater harvesting No wastage of water	**High**
Energy Conversation	No wastage of Energy	**High**
Sanitation	Toilet Facility Functional , Clean Drinking water	**High**
	Average Score Value	**High**