Ph: 08398-295005

Veerashaiva Vidyavardhaka Sangha, Ballari

Ambli Dodda Bharamappa First Grade College

(Affiliated to VSK University Ballari)

Accredited with 'B' Grade by NAAC.

Harapanahalli-583131, Vijayanagara District, Karnataka

Website: www.adbcollege.org e mail: adbprince@gmail.com_

DVV Clarification for 7.1.3

DVV Findings:

Value updated as per attachment provided by HEI. Audit has to be conducted by Professional agencies / professionals with Elaborate Technical Reports. Accordingly the values have not been considered.

HEI Response:

In response to the DVV findings, which suggests for an audit conducted by professional agencies or professionals accompanied by elaborate technical reports, we would like to provide justification for our approach of conducting audits through government officers.

The institute is actively engaged in a range of activities including comprehensive **Green and Environment Audit**, as well as **Energy Audit**, aimed at promoting environmental sustainability and achieving a clean and green campus. Further, we also extended our efforts beyond the campus through environmental promotional activities that educate and raise awareness among the public and our students. Following are the initiatives taken by the institution to implement the goals mentioned above.

1. **Green audit/Environment audit:** The institute conducted a Green and Environment audit in collaboration with both external and internal audit teams. The external audit team included Sri. Jayasimha R., Senior Assistant Director of Horticulture, Zillapanchayath, Harapanahalli, and Sri. Ramesh Rathod, Range Forest Officer, Harapanahalli Territorial Range, Harapanahalli. They worked alongside our internal auditing team. The audit team focused on various aspects, including efficient water management through rainwater harvesting systems, analysis of soil and water quality, evaluation of the campus's carbon footprint, and the identification of 67 plant species in and around the campus, signifying it as a species-rich area.

2. **Energy audit:** We have conducted an Energy Audit to monitor energy usage, optimize energy efficiency, and identify areas for improvement. The audit was carried out by an external auditor, Sri. Virupakshappa T., Assistant Executive Engineer, Bangalore Electricity Supply Company Limited

Principal
A.D.B.First Grade College
Harapanahalli-583131

Sub-Division, Harapanahalli, with assistance from our internal audit team. The audit report highlighted important findings such as a consolidated list of electrical and electronic equipment on campus, monthly average energy requirements and consumption, electricity charges over the past twelve months, the proportion of LED bulb usage for lighting, current energy conservation methods in place, and suggested improvements. To conserve energy, we have implemented various strategies, including developing infrastructure for natural lighting and ventilation systems, using energy-efficient LED bulbs that now fulfil 52.12% of our campus lighting requirements, and emphasizing rainwater harvesting and maintaining a green campus.

3. **Clean and Green Campus Initiative:** Our institute regularly organizes college campus cleaning and plantation programs to raise awareness among students about the importance of environmental conservation and cleanliness. Some notable activities include:

   - NCC unit of the institute organized the Plantation of saplings on the eve of Independence Day on 15th August 2017.
   - Celebration of World Environment Day by planting saplings around the campus on 05th June of every year.

   In addition to that, we also organize seminars and programs related to various environment related topics. For instance:

   - The Science Association and Department of Zoology organized a special lecture on "Biodiversity and Its Conservation" where Dr. Shwetha A., Assistant Professor, Dept. of Applied Zoology, Kuvempu University, spoke about the significance and conservation of biodiversity.
   - Department of Botany and Zoology jointly organised "World Soil Day" on 5th December 2022, and lecturers discussed the importance of soil health in Agriculture and environment.

4. **Beyond the Campus Environmental Promotional Activities:** Our institute actively participates in environmental conservation activities beyond the campus. Some noteworthy examples include:

Principal
A.D.B.First Grade College
Harapanahalli-583131

Ph: 08398-295005

Veerashaiva Vidyavardhaka Sangha, Ballari

Ambli Dodda Bharamappa First Grade College

(Affiliated to VSK University Ballari)

Accredited with 'B' Grade by NAAC.

Harapanahalli-583131, Vijayanagara District. Karnataka

Website: www.adbcollege.org e mail: adbprince@gmail.com

- On 12th March 2018, a cleaning and awareness programme was conducted in Adavihalli village of Harapanahallli Talluk during the NSS camp.
- On 02-10-2018, the Harapanahalli IB building premises was cleaned on the eve of Lalbahadur Shastri and Mahatma Gandhi's birthdays. Further, on the same day, a rally was conducted in the Harapanahalli town to spread the awareness of environmental cleanliness.
- On October 2nd 2019, on the eve of Lalbahadur Shastri and Mahatma Gandhi's birthdays, NSS units of the institute cleaned the K S R T C Bus stand of Harapanahalli town to make community awareness.
- On 27th of April 2022, students and employees of the institute have participated in cleaning of Ayyanakere Lake on "Save the Lake" campaign initiated by the Municipality Corporation of Harapanahalli town.
- On 14th August 2022, cleaning and awareness programme was conducted in Bagali village of Harapanahallli Talluk during the NSS camp.
- The NCC unit of our college participated in Puneeth Sagar Abhiyan on 25-04-2023 to remove the plastic materials from the banks of Hirekere Lake.

These initiatives exemplify our unwavering commitment to establishing a pristine and environmentally conscious campus while promoting its awareness in students and public. Herewith, we have attached the documents related to the points mentioned above.

Principal
A.D.B.First Grade College
Harapanahalli-583131

Veerashaiva Vidyavardhaka Sangha, Ballari

A.D.B FIRST GRADE COLLEGE. HARAPANAHALLI

Affiliated to V.S.K. University, Ballari

(NAAC Accredited with 'B' Grade in 3rd Cycle)

Website: www.adbcollege.org; Email: adbprince@gmail.com

GREEN AND ENVIRONMENT AUDIT 2021-22

NEED FOR GREEN AND ENVIRONMENT AUDIT

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this front it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric carbon-di-oxide from the environment.

BENEFITS OF GREEN AND ENVIRONMENT AUDIT

If green audit is enforced in an effective way then there are many advantages that could be adopted from it.

- It would help to shield the environment.
- Recognise the cost saving methods through waste minimising and managing.
- Empower the organisations to frame a better environmental performance.
- Enhance the alertness for environmental guidelines and duties.

In view of this our institution has constituted an internal committee and also invited an external team for auditing the campus environment. Target areas included in this green auditing are water, soil, energy, waste and green campus. The observations made by the team are as follows.

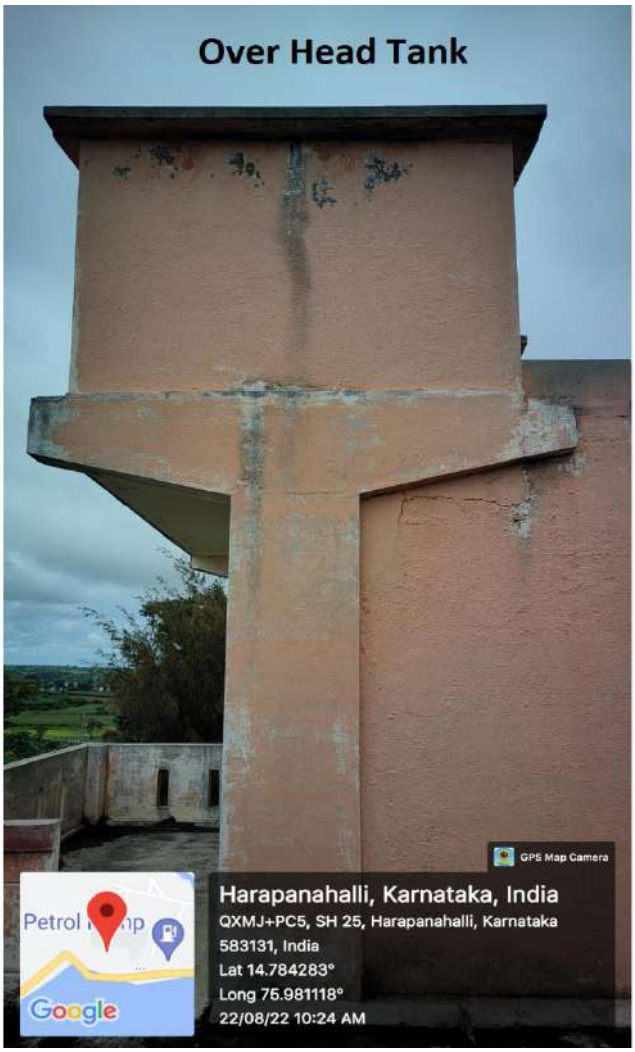
College Location on Google Map

AUDITING FOR WATER MANAGEMENT

Water sources of the college are bore well and the water supplied by municipality. Municipality water is stored in a sump. The analysis of this water will be carried out to confirm that water is suitable for drinking and general usage. For daily consumption, water is stored in the overhead tanks. An RO plant is installed for drinking water.

WATER STORAGE CAPACITY

Sl No	Particulars	Capacity
1	Bore Well	250 feet depth
2	Sump	10000 liters
3	Overhead Tank	10000 liters
4	Rain water for distilled water tanks	500*2=1000 liters
5	R O Filter Tank	500 liters
6	Water usage per day	10000 liters



WATER ANALYSIS

Sl No	Parameters	Bore well Water	R O water	Municipality Water
1	TDS	480 ppm	155 ppm	102 ppm
2	pH	13.8	7.2	7.1
3	Conductivity	0.531	0.73	0.196
4	Residual Sodium Carbonate	1.25	1.2	1.25
5	Sodium Absorption Ratio	10	13	13

SOIL ANALYSIS

Sl No	Particulars	Test values	Rating
1	pH	6.80	Slightly acidic
2	EC	0.20 dS/m	Normal
3	Organic Carbon	0.98%	High
4	Available Nitrogen	565.00 kg/ha	High
5	Available Phosphorus	54.23 kg/ha	Medium
6	Available Potassium	245.00 kg/ha	Medium
7	Available Sulphur	10.40 ppm	Sufficient
8	Available Zinc	0.56 ppm	Deficient
9	Available Boron	0.57 ppm	Sufficient
10	Available Iron	4.70 ppm	Sufficient
11	Available Manganese	2.10 ppm	Sufficient
12	Available Copper	0.21 ppm	Sufficient

Waste water management:

- Rain water from the roof top is collected in the sump and this water is utilised for laboratories and watering the plants.
- The waste water from R O plant is used for plants and excess water is drained out.
- Waste water from washrooms and laboratories are directed to the soak pit through proper drainage system.
- Water recycling system is not yet adopted in the college.

AUDITING FOR WASTE MANAGEMENT

To manage solid waste, separate dustbins for degradable and non-degradable waste are installed at different places in the campus. Non degradable waste is collected by the municipality vehicle. The degradable waste along with other plant waste will be disposed in the compost pit. The manure obtained from the compost pit is used as fertiliser.

E-waste will be sold to scrap buyers with the permission of Principal and college governing body. The campus is a plastic free zone due to the constant awareness created by the faculty among the students regarding the harmful effects of dumping plastic in the environment. Chemical wastes from the laboratories are neutralised with water.

AUDIT FOR CARBON FOOT PRINT

As most of the students are from rural areas, they use public transport on a daily basis. Less than 10% of the students use two wheelers and very rarely do faculty members use four wheelers.

Considering the above parameters the campus can be declared as a near carbon free zone.

GREEN CAMPUS

The College campus is enriched with a variety of plants. The premises are enriched by greenery of various plant species. The plants are seen in the corridor, along the building walls, border area of the playground and in the botanical garden. Several types of plant species are available in the campus including both wild and cultivated. Each species is represented by varied number of individuals. Common wild plants, Fruit trees, Ornamental plants, Medicinal plants are cultivated in the botanical garden for field study and also for practical purpose. Following are the identified list of plant species available in the college campus.

Sl. No.	Botanical name	Common name	Family
1	*Acalypha indica*	Indian nettle	Euphorbiaceae
2	*Aloe vera*	Aloe	Asphodelaceae
3	*Catharanthus roseus*	Periwinkle	Apocynaceae
4	*Mirabilis jalapa*	4'O clock plant	Nyctaginaceae
5	*Parthenium histerophorous*	Congress grass	Asteraceae
6	*Cassia occidentalis*	Cassia	Caesalpiniaceae
7	*Bryophyllum pinnatum*	Gandu kalinga	Crassulaceae
8	*Asparagus racemoses*	Mother herb	Asparagaceae
9	*Cassia auriculata*	Honnarike	Caesalpiniaceae
10	*Cynodon dactylon*	Garike	Poaceae
11	*Withania Somnifera*	Ashwagandha	Solanaceae
12	*Rauvolfia tetrafolia*	Rauvolfia	Apocynaceae
13	*Corchorus species*	Corchorus	Malvaceae
14	*Boerhavia diffusa*	Sanadika,	Nyctaginaceae

15	*Tinospora cordifolia*	Amruta balli	Menispermaceae
16	*Achyranthes aspera*	Uttarani	Amaranthaceae
17	*Tridax procumbens*	Tridax	Asteraceae
18.	*Oxalis corniculata*	Oxalis	Oxalidaceae
19	*Euphorbia hirta*	Euphorbia	Euphorbiaceae
20	*Argemone mexicana*	Argemone	Papavaraceae
21	*Solanum surattense*	Gulalkayi	Solanaceae
22	*Poa species*	Common Grass	Poaceae
23	*Ocimum sanctum*	Sacred basil	Lamiacae
24	*Zingiber officnarum*	Ginger	Zingiberaceae
25	*Allium cepa*	Onon	Liliaceae
26	*Nerium indicum*	Oleander	Apocynaceae
27	*Hibiscus rosa sinensis*	China rose	Malvaceae
28	*Croton species*	Croton	Euphorbiaceae
29	*Haemilia patens*	Fire bush	Rubiaceae
30	*Calotropis procera*	Bili ekka	Asclepiadaceae
31	*Clerodendrum inerme*	Vishamadhari	Verbenaceae
32	*Lantana camera*	Lantana	Verbenaceae
33	*Duranta repens*	Hedge plant	Verbenaceae
34	*Morus alba*	Mulbery	Moraceae
35	*Ficus carica*	Anjura	Moraceae
36	*Acalypha wilkesiana*	Copper plant	Euphorbiaceae
37	*Echinops echinatus*	Brahma dande	Asteraceae
38	*Ipomea palmata*	Morning Glory	Convolvulaceae
39	*Clitorea ternatia*	Shanku pushpa	Fabaceae
40	*Spathodea campanulata*	Nandi flame	Bignoniaceae
41	*Mimusops elengi*	Bullet wood	Sapotaceae
42	*Polyalthia longifolia*	False ashoka	Annonaceae
43	*Albizia lebbec*	Womens tongue tree	Mimosaceae
44	*Millingtonia hortensis*	Tree jasmine	Bignoniaceae
45	*Tecoma stans*	Yellow bells	Bignoniaceae
46	*Azadirachta indica*	Neem	Meliaceae

47	*Tectona grandis*	Teak	Lamiaceae
48	*Santalm album*	Sandal wood	Santalaceae
49	*Aegle marmelos*	Bhel, Golden apple	Rutaceae
50	*Bahuinia purpurea*	Butterfly tree	Fabaceae
51	*Terminalia catappa*	Indian almond	Combretaceae
52	*Psidium guajava*	Guava	Myrtaceae
53	*Phyllanthus acidus*	Goose berry	Phyllanthaceae
54	*Bambusa vulgaris*	Bamboo	Poaceae
55	*Moringa olefera*	Drum stick tree	Moringaceae
56	*Cycas circinalis*	Palm tree	Cycadaceae
57	*Carica papaya*	Papaya	Caricaceae
58	*Mangifera indica*	Mango	Anacardiaceae
59	*Cocos nucifera*	Coconut	Arecaceae
60	*Ficus racemosa*	Hatti mara	Moraceae
61	*Sesbania species*	Sesban	Fabaceae
62	*Acacia nilotica*	karijali	Mimosaceae
63	*Emblica officnalis*	Bettada nelli	Euphorbiaceae
64	*Acacia melanoxylon*	Australian acacia	Mimosaceae
65	*Prosopis Juliflora*	Jali gida	Mimosaceae
66	*Terminalia arjuna*	Arjun tree	Combretaceae
67	*Roystonea regia*	Royal palm	Arecaceae

Acknowledgement

This is to acknowledge that with the support of teaching and non-teaching faculty the team has conducted the audit smoothly and successfully.

COLLEGE LEVEL COMMITTEE FOR GREEN AND ENVIRONMENT AUDIT

Sl No	Name of the Staff	Department	Signature
1	Prof.G.Umesh, Associate Professor.	Chemistry	
2	Prof.G.B.Naganagouda, Associate Professor.	English	
3	Dr. D. Tippeswamy, Associate Professor	Kannada	
4	Prof.N.Veerabhadrappa, Associate Professor.	Electronics	
5	Prof.Anand.S, Asst Professor.	Chemistry	
6	Dr.A.M.Rajashekharaiah, Asst Professor	Kannada	

EXTERNAL AUDIT TEAM

Sl No	Name and Designation	Signature
1	Sri Jayasimha. R Senior Assistant Director of Horticulture, Zillapanchayath, Harapanahalli-583131	
2	Range Forest Officer, Harapanahalli Territorial Range, Harapanahalli-583131	Range Forest Officer, Harapanahalli Range. Harapanahalli.

Veerashaiva Vidyavardhaka Sangha, Ballari

A. D. B. FIRST GRADE COLLEGE, HARAPANAHALLI

(NAAC Accredited with 'B' Grade in 3rd Cycle)

Affiliated to Vijayanagara Sri Krishnadevaraya University, Ballari

"ENERGY AUDIT FOR THE YEAR 2021-22"

1. ABOUT COLLEGE

Ambli Dodda Bharamappa First Grade College, Harapanahalli, was established in the year 1972 by Veerasaiva Vidyavardhaka Sangha (V.V Sangha), Ballari, a pioneer educational organization. A. D. B. First Grade College is the Rural College of V. V. Sangha, Ballari, located at the Western part of Harapanahalli, with a campus area of 6.93 acres, that was constructed by a donation of Rupees One Lakh by Late Sri Ambli Mallappa and gift of land with ready basement for a building by Sri. Seshaji Hastimal Jain. The college came to existence in 1972 blessed and inaugurated by veteran leader Sri S. Nijalingappa, ex-chief minister of Karnataka. Since then, institute is providing a quality education in the Harapanahalli region. The infrastructure and facilities are being upgraded continuously according to the student strength and needs.

2. SCOPE AND GOALS OF ENERGY AUDITING

Energy auditing in educational organizations is a systematic process of evaluating and analyzing the energy consumption patterns of a facility. The scope of energy auditing in educational organizations is quite broad, as it covers all aspects of energy use within the facility. This includes lighting, heating, ventilation, air conditioning, and the use of equipment and appliances, as well as transportation-related energy use. The audit typically involves a comprehensive analysis of energy consumption patterns, energy bills, and building systems, as well as interviews with staff and other stakeholders.

The primary goals of energy auditing in educational organizations are to identify opportunities to improve energy efficiency, reduce energy costs, and promote sustainable practices. Some specific goals may include:

1. Identifying areas of high energy use: This step helps to identify opportunities for energy savings through more efficient lighting, HVAC systems or other measures. Areas of high energy use may include classrooms, laboratories, or other areas with high occupancy rates.
2. Evaluating building systems: This step involves assessing the performance of heating, cooling, and ventilation systems, as well as identifying opportunities for upgrades or retrofits that can improve energy efficiency.
3. Assessing equipment and appliances: The energy efficiency of appliances and equipment, such as computers, printers, and kitchen appliances, can be evaluated to

identify opportunities for upgrades or replacements that can reduce energy consumption.

4. Assessing transportation-related energy use: Energy audits can evaluate the energy consumption associated with transportation, including staff and student commuting and identify opportunities for promoting alternative modes of transportation, such as cycling or public transit.
5. Developing an energy management plan: This step involves developing a comprehensive plan that outlines specific actions to be taken to improve energy efficiency and reduce energy costs.

3. BENEFITS OF ENERGY AUDITING

The energy auditing in an educational institute provides immense benefits, Such as;

1. Energy auditing can save educational institutions money by identifying areas of high energy consumption and inefficiencies, allowing them to implement energy-saving measures that reduce energy bills over time.
2. The environmental benefits by reducing energy consumption and promoting sustainable practices, which can help institutions reduce their carbon footprint and contribute to a more sustainable future.
3. It improves energy efficiency by upgrading building systems, equipment, and appliances.
4. Educational institutions that prioritize energy efficiency and sustainability can enhance their public image and reputation, attracting environmentally conscious students, faculty, and staff who value sustainability.
5. Energy auditing can provide educational opportunities for students to learn about energy conservation and sustainability and participate in energy-saving initiatives, contributing to their knowledge and skills in these important areas.

4. EXECUTIVE SUMMARY

4.1 Electrical and electronic equipment present in the college campus and their consolidated list

The auditing team has visited each classroom and made a list of all the electrical equipment present in the college campus. Further, a consolidated list of equipment present in the A. D. B. College campus is made along with their energy consuming capacity.

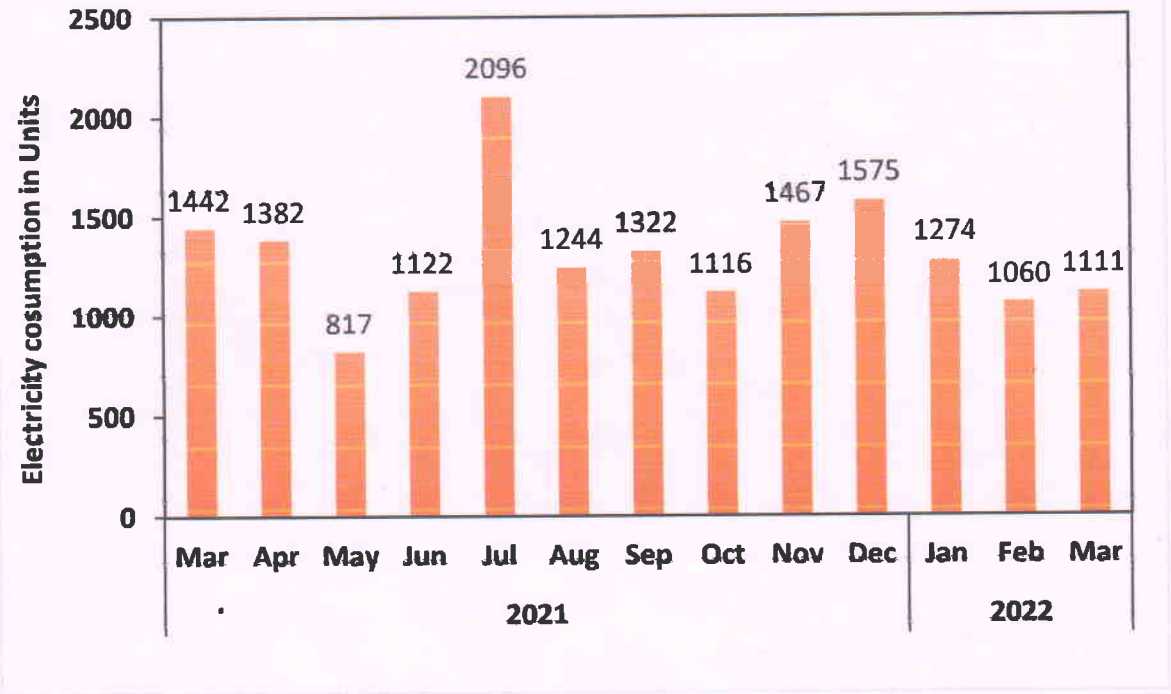
Table 1. List of electrical equipment in the A. D. B. College campus.

Particulars	LED lights			Tube lights			Fans	CCTV	Projector	Computer	Any other equipment
	20 W	9 W	15 W	40 W	36 W	23 W	75 W	2 W	200 W	150 W	
Ground floor											
Principal's cabin and office	8	3	1	-	-	-	8	2	-	5	AC (1720 W) – 1 CCTV screen (40 W) – 1 Biometric (9 W) – 2 Printer (260 W) – 4 Xerox (415 W) - 1
Staff room	4	-	-	-	2	-	7	2	-	-	-
Classrooms (No. 2-28)	40	14	-	-	-	-	47	27	3	1	Printer (260 W) – 1
Language lab (Classroom no. 1)	2	-	-	3	-	-	1	1	1	24	Smartboard (20 W) – 1
Chemistry lab 1& 2	5	1	-	1	1	-	2	2	1	-	Exhaust fan (60 W) - 4
Chemistry staff room	1	-	-	-	1		1	-	-	-	Refrigerator (200 W) – 1 Hot air oven (1100 W) - 1
Library	-	-	-	6	5	1	8	-	-	12	Printer (260 W) – 1
Auditorium	-	44	-	-	-	-	10 (100 W)	2	1	-	-
NCC office	-	-	-	-	-	3	2	-	-	-	-
Female lounge 1 & 2	2	2	-	-	-	-	1	-	-	-	-
Additional staff room	-	-	-	2	-	-	4	1	-	-	-
Office of the Chairman	1	-	1	4	-	-	5	1	-	3	CCTV Screen (40 W) – 1 Xerox (415 W) – 1 Printer (260W) -1
First floor											
Physics lab 1 and 2	6	-	-	4	2	-	4	3	1	1	-
Physics staff room	-	-	-	-	1	-	1	-	-	1	Printer (260W) -1
Mathematics lab	1	-	-	5	-	-	2	-	1	24	
Electronics lab	3	-	-	3	2	-	4	1	1	1	Smartboard (20 W) – 1
NSS office	1	-	-	-	-	-	1	-	-	-	-
Second floor											
Botany Lab	-	-	-	4	-	-	2	1	1	-	Smartboard (20 W) – 1
Botany staff room	-	-	-	1	-	-	1	-	-	1	Printer (260W) -1
Zoology Lab	-	-	-	5	-	1	3	2	1	1	Smartboard (20 W) – 1
Other places	4	18	-	-	-	-	-	19	-	-	Water purifying unit (1500 W) – 1 Borewell (4413 W) - 1

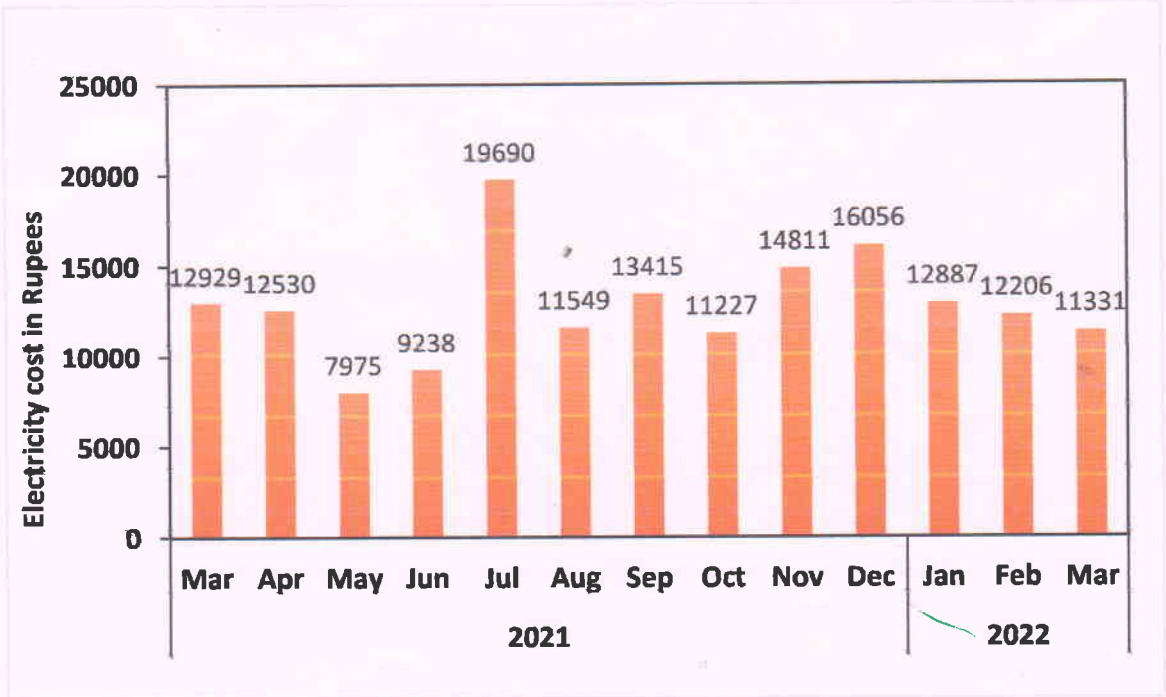
Table 2. Consolidated list of electronic and electrical equipment available in the college campus

Sl. No.	Equipment		Quantity	Daily average usage (in hours)	Energy consumption per day	Per month
1.	LED bulb	9 W	82	3	2.214	53.136
		15 W	2	3	0.09	2.16
		20 W	78	3	4.68	112.32
2.	Tube light	23 W	5	3	0.345	8.28
		36 W	14	3	1.512	36.288
		40 W	38	3	4.56	109.44
3.	Fan	70 W	104	2	14.56	349.44
		100 W	10	0.5	0.5	12
4.	CCTV	2 W	64	24	3.072	73.728
5.	Projector	225 W	11	1	2.475	59.4
6.	Computer	150 W	74	1	22.2	532.8
7.	AC	1720 W	1	1	1.72	41.28
8.	Borewell	4413 W (6HP)	1	1	4.413	105.912
9.	Biometric	9 W	1	10	0.09	2.16
10.	CCTV screen	40 W	2	10	0.8	19.2
11.	Exhaust fan	60 W	4	2	0.48	11.52
12.	Hot air oven	1100 W	1	1110	1.1	26.4
13.	Printer	260 W	9	1	2.34	56.16
14.	Refrigerator	200 W	1	24	4.8	115.2
15.	Smart board	20 W	4	2	0.16	3.84
16.	Water purifiers	1500 W	1	2	3	72
17.	Xerox machine	415 W	2	1	0.83	19.92
Average energy requirement per day = 64.84 units						
Monthly energy requirement = 1556.18 unit						
Average actual monthly energy usage = 1310 units						
Average monthly electricity cost = Rs. 12757/-						

4.2 Electricity consumption and cost of last twelve months

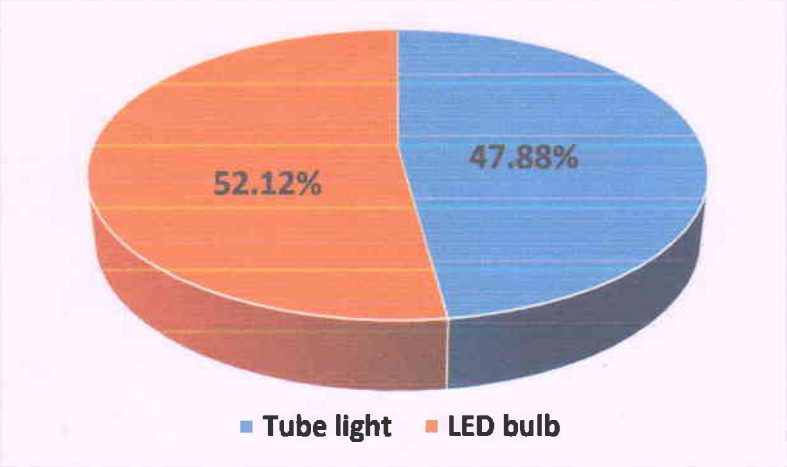


Graph 1. The graph showing the electricity consumption of A. D. B. College during the last twelve months.



Graph 2. The graph showing the electricity cost of A. D. B. College during the last twelve months.

4.3 Percentage of LED light load compared to total light load



5. ENERGY CONSERVATION MEASURES CURRENTLY FOLLOWING

A. The building have a good natural lighting and ventilation systems

The rooms of the building have good natural lighting and ventilation systems. The presence of sufficient number of windows can help to provide natural daylighting, which can reduce the need for electric lighting during the day. Natural ventilation can also help to regulate indoor temperatures and provide fresh air, reducing the need for air conditioning and mechanical ventilation systems. Therefore, it is reasonable to say that the building's natural ventilation system and windows reduce the need for electricity for lighting and aeration, which can result in significant energy savings and contribute to a more sustainable operation.

B. Signboards for the students awareness

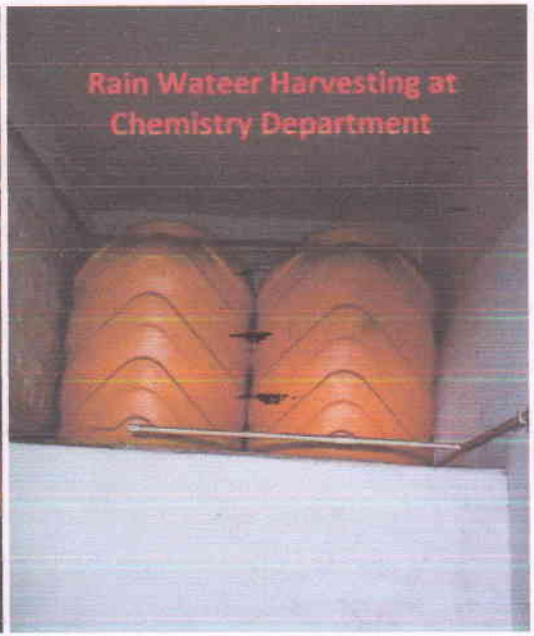
Various signboards and energy saving awareness information has been written across the college campus. Majorly, turning off the taps, lights, fans and computers when they are not in use. This subsequently contribute in reducing electricity usage and also make the students to follow the same in their households.

C. Usage of LED bulbs

Switching to energy-efficient LED lighting can significantly reduce energy consumption and save money on electricity bills. As the report mentioned above, about 52.12% of the lighting need is fulfilled by LED lights which last longer and consume less energy than traditional lighting options.

D. Rain water harvesting

The college has infrastructure for the rain water harvesting. Rain water from the roof top is collected in the Syntaxes and sumps, and subsequently utilised for laboratories and watering the plants. This reduces the energy utilization by borewells to take out the water during the rainy season. Two syntaxes each with 500 L storage capacity has been installed in the chemistry laboratory.



Green campus **Rain water harvesting**

E. Green campus

The college campus is rich in vegetation and green cover is increasing constantly with the collective efforts of college administration, teachers, students and non-teaching staff. This green cover helps maintaining temperature low and keep the environment cool which in turn helps to save electricity. Trees were planted on various plantation programs and maintained until they reach to certain age. Conducting green auditing helps much in this regard. 67 plant species has been reported in the college's Green and Environment audit.

6. ENERGY CONSERVATION METHODS RECOMMENDED

The college have good infrastructure to facilitate the usage of less energy and sustainable utilization of energy. The college has taken tremendous effort to save the energy, However, there are some issues that needs to be addressed. The following recommendations were made by the auditing team for the betterment of energy management.

1. Conduct regular energy audits to identify areas for improvement and track progress towards energy conservation goals.
2. Consider the installation of renewable energy systems, such as solar panels to generate clean energy and reduce reliance on non-renewable energy sources.
3. Encourage sustainable transportation practices among staff and students, such as biking or carpooling, and consider the adoption of electric vehicles for college-owned transportation.
4. Establish a campus-wide energy conservation program that educates students, faculty and staff on the importance of energy conservation and encourages individual energy-saving behaviours.
5. Implement a waste reduction program that promotes recycling, composting and reduction of single-use items to reduce waste and associated energy consumption.
6. Provide regular maintenance and upgrades to existing equipment and appliances to ensure optimal efficiency and reduce energy consumption.
7. Install low-flow water fixtures and repair leaks to reduce water usage and associated energy consumption for water heating.
8. Implement an energy monitoring system to track energy consumption and identify areas where further energy savings can be achieved.

ACKNOWLEDGEMENT

This is to acknowledge that with the support of internal energy audit team, we have conducted the audit smoothly and successfully.

INTERNAL ENERGY AUDIT TEAM

Sl. No.	Name of the staff	Department	Signature
1.	Prof. H. Asha, Associate Professor	Physics	H. Asha
2.	Prof. Anand S., Associate Professor	Chemistry	

EXTERNAL ENERGY AUDIT TEAM

Name and Designation

VIRUPAKSHAPPA. T

Assistant Executive Engineer

BESCOM Sub-Division,

Harapanahalli -583131

Signature

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್ (ವಿ),
ವಾ ಕಾರ್ಯ ಮತ್ತು ಪಾಲನ ಉಪ-ವಿಭಾಗ
ಬೆ.ವಿ.ಕಂ ಹರಪನಹಳ್ಳಿ

3. Clean and Green Campus Initiative

NCC unit of the institute organised the Plantation of saplings organized on the eve of Independence Day on 5th August 2017.


Celebration of World Environment Day by planting saplings around the campus on 05th June 2020


Celebration of World Environment Day by NSS units 1 and 2 of our college on 6th June 2022 by planting the saplings around the campus.

The Science Association and Department of Zoology organized a special lecture on "Biodiversity and Its Conservation" where Dr. Shwetha A., Assistant Professor, Dept. of Applied Zoology, Kuvempu University, spoke about the significance and conservation of biodiversity

Department of Botany and Zoology jointly organised "World Soil Day" on 5th December 2022, and lecturers discussed the importance of soil health in Agriculture and environment

4. Beyond the Campus Environmental Promotional Activities

On 12th March 2018, a cleaning and awareness programme was conducted in Adavihalli village of Harapanahallli Talluk during the NSS camp

On 02-10-2018, the Harapanahalli IB building premises was cleaned on the eve of Lalbahadur Shastri and Mahatma Gandhi's birthdays. Further, on the same day, a rally was conducted in the Harapanahalli town to spread the awareness of environmental cleanliness

On October 2nd 2019, on the eve of Lalbahadur Shastri and Mahatma Gandhi's birthdays, NSS units of the institute cleaned the Bus stand of Harapanahalli town to make community awareness


On 27th of April 2022, students and employees of the institute have participated in cleaning of Ayyanakere lake on "Save the Lake" campaign initiated by the Municipality corporation of Harapanahalli town

On 14th August 2022, cleaning and awareness programme was conducted in Bagali village of Harapanahallli Talluk during the NSS camp

The NCC unit of our college participated in Puneeth Sagar Abhiyan on 25-04-2023 to remove the plastic materials from the banks of Hirekere lake

ಎಡಿಬಿ ಕಾಲೇಜಿನ ಎನ್‌ಸಿಸಿ ಕೆಡೆಟ್‌ಗಳಿಂದ ಸ್ವಚ್ಛತಾ ಕಾರ್ಯಕ್ರಮ

nagaraj patnamad

Davanagere public voice

ಹರಪನಹಳ್ಳಿ ಪುನೀತ್ ಸಾಗರ್ ಸ್ವಚ್ಛತಾ ಅಭಿಯಾನವನ್ನು ಬು.25 ರ ಮಂಗಳವಾರ ಪಟ್ಟಣದ ಎಡಿಬಿ ಕಾಲೇಜ್ ಮುಂಭಾಗದಲ್ಲಿರುವ ಹಾಗೂ ಹರಪನ ರಸ್ತೆಗೆ ಹೊಂದಿ ಕೊಂಡಿರುವ ಹಿರೇಕೆರೆ ಏರಿಯಾ ದಂಡೆಯ ಮೇಲೆ ಅಭಿಯಾನದ ಧ್ಯೇಯ ವಾಕ್ಯದಂತೆ ಎನ್‌ಸಿಸಿ ಕೆಡೆಟ್‌ಗಳಿಂದ ಹಮ್ಮಿಕೊಳ್ಳಲಾಗಿತ್ತು. ಈ ಸ್ವಚ್ಛತಾ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಪ್ರಾಂಶುಪಾಲರಾದ ಡಾ. ಸಿದ್ದಲಿಂಗಮೂರ್ತಿ ಎಸ್. ಎಂ ಹಾಗೂ ಎನ್‌ಸಿಸಿ ಘಟಕಾಧಿಕಾರಿ ಬಸವಲಿಂಗಪ್ಪ ಮತ್ತು ಎನ್‌ಸಿಸಿ ಘಟಕದ ಕೆಡೆಟ್‌ಗಳು ಪಾಲ್ಗೊಂಡಿದ್ದರು.

Principal
A.D.B. First Grade College
Harapanahalli-583 131.