“Green Audit Report – 2022”

Kalpataru Institute of Technology, Tiptur,
Tumkur District – 572 201

Prepared By:

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1 INTRODUCTION

The green audit aims to analyze environmental practices within and outside the college campuses, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of university environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through the green audit, a direction as how to improve the structure of environment and there are include several factors that have determined the growth of carried out the green audit.

NEED FOR GREEN AUDITING

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water, are become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than required resources? Whether we are handling resources carefully? Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

GOALS OF GREEN AUDIT

University has conducted a green audit with specific goals as:

1. Identification and documentation of green practices followed by college.
2. Identify strength and weakness in green practices
3. Analyze and suggest solution for problems identified.
4. Assess facility of different types of waste management.
5. Increase environmental awareness throughout campus
6. Identify and assess environmental risk.
7. Motivates staff for optimized sustainable use of available resources.
8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

2 OBJECTIVES OF GREEN AUDIT

1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
2. To identify and analyze significant environmental issues.
3. Setup goal, vision, and mission for green practices in campus.
4. Establish and implement Environment Management in various departments.
5. Continuous assessment for betterment in performance in green

BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of green audit to an Educational Institute:

1. It would help to protect the environment in and around the campus.
2. Recognize the cost saving methods through waste minimization and energy conservation.
3. Empower the organization to frame a better environmental performance.
4. It portrays good image of institution through its clean and green campus. Finally, it will help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE AND SCOPE

The broad aims/benefits of the eco-auditing system would be

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people

3 EXECUTIVE SUMMARY

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

4 KIT INFRASTRUCTURE

DETAILS OF TREES AND PLANTS IN CAMPUS

Sl. No.	Botanical Name	Common Name
1	Psidium	Guava
2	Artocarpus heterophyllus	Jackfruit
3	Cocos nucifera	Coconut
4	Jasminum	Jasmin
5	Mangifera indica	Mango
6	Azadirachata indica	Neem tree
7	Syagrus romanzoffiana	Queen Palm
8	Microlaena	Grass
9	Cupressus sempervirens	Italian Cypress
10	Weeping Grass	Microlaena
11	Hamelia patens	Firebush
12	Hibiscus rosa -sinensis	Hibiscus
13	Plumeria rubra	Red Frangipari
14	Plumeria obtuse	Singapore graveyard flower
15	Santalum album	Sandalwood tree
16	Arecanut	Areca catechu

ROOF TOP SOLAR PANELS

Roof top solar water heaters are installed in the KIT hostel building.

Details of Solar Cells Used for Water Heating

S. No.	Hostel	No. of Panels	Capacity of Water Tank (lts)
1	**Boys hostel**	**NIL**	**NIL**
2	**Girls hostel**	**14**	**500 (38 TUBES)**

LIBRARY

The library is housed in administrative block occupies an area about 1500 square meters. The library department comprises four sections Viz., Issue section, Reference section, Digital Library and Reading Hall. The reference section and reading hall can accommodate about 250 students at a time for studies. Our library has always been the brain of the engineering college which houses valuable information for reference and caters to the educational needs of users.

The aim is to motivate and support the process of self-learning. Our Library is extremely proud of itself on having more than **68,042 volumes** of which about 13500 titles cover all disciplines in Science and Technology.

Library subscribes **57** technical journals in print form. Library is maintaining back volumes of more than **2330** since 1986 and student's projects for reference. Library is also subscribing e-consortium through VTU e-portal **IEEE-ASPP-POP, Springer E-journals and E-books, Taylor and Francis Online, CRC Netbase, Elsevier Science Direct, ASCE e-journals, IET Digital Library, ProQuest Management Collection and Knimbus database.** Users can access 24X7 in the campus.

Library is maintaining Digital repository using D space software. Digital Library is having more than 25 systems, each provided with internet connectivity. Our library is fully automated using LIBSOFT 10.0.0 and providing OPAC (Online Public Access Catalogue) services to the users. Collection of books databases is available through WEBOPAC module also. Users can search books using their member ID as login and password-library by default. The working hours of the library and Information centre is from 9.00 AM to 9.00 PM on all working days. Reading Hall functions 24 hours in a day. Library has taken the membership of DELNET and NAL. Library has created E-learning environment to use NPTEL, VTU E-learning, MIT etc to the maximum extent. Library Awareness Programme will be conducted to train the users.


AUDITOIRUM

The auditorium can accommodate 250 students, aimed at conducting events like department functions, club activities and meeting of various student support organization. **The college has** an excellent and well-furnished Auditorium with CFL lamps illumination. This is also saving a lot of energy and the monthly Electricity Bill reasonably gets reduced. Presents a picturesque inside view of the Auditorium.

INSIDE & FRONT VIEWS OF AUDITORIUM WITH LED LAMPS

HEALTH CENTER

SEWAGE GENERATED IN KIT CAMPUS

Sewage is a type of waste water (used water) that is produced by a community. Waste water generated in the campus will be connected to municipal sewer line. It is typically transported through a sewer system generated waste water from residences and from commercial, institutional and public facilities that exist in the locality.

Quantity of sewage generated in KIT campus 60 KLD and it is carried through municipal sewer

VIEWS OF GREENERY


GPS Map Camera
Tiptur, Karnataka, India
Administration Block, Bengaluru - Honnavar Rd, Vidya Nagar, Tiptur, Karnataka 572201, India
Lat 13.263372°
Long 76.454664°
17/07/23 12:43 PM GMT +05:30
Google


GPS Map Camera
Tiptur, Karnataka, India
7F73+7XH, Vidya Nagar, Tiptur, Karnataka 572201, India
Lat 13.263443°
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Google


GPS Map Camera
Tiptur, Karnataka, India
Administration Block, Bengaluru - Honnavar Rd, Vidya Nagar, Tiptur, Karnataka 572201, India
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Long 76.454824°
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Google


GPS Map Camera
Tiptur, Karnataka, India
7F73+6XM, Vidya Nagar, Tiptur, Karnataka 572201, India
Lat 13.262926°
Long 76.454814°
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Google

RAINWATER HARVESTING

The rainwater harvesting helps in improving water level of ground water table and also helps to recharge the borewells inside the campus through ground water recharging process.

SIGN BOARDS IN CAMPUS OF KIT

AERIAL VIEW OF GREENERY IN CAMPUS

5 WASTE MANAGEMENT

Generated food (Wet) waste is from BOYS hostel and college canteen. The food waste generated inside the campus is collected and disposed to a nearby farm on a daily basis and it is used for composting purpose by the farm owner.

6 WATER MANAGEMENT

Water conservation is a key activity as water availability affects on the development of the campus as well as on all area of development such as farming, industries, etc. Keeping this view water conservation activity is carried out.

SOURCES OF WATER

• Bore water

A Main source of water is Ground water, which is extracted to fulfill the requirement. There are 02 bore wells inside the campus provided with 10 HP submergible pump to pump the water. The pumped water is delivered to Over head tank from which it is distributed to respective sections.

Ground water recharge pit, Rain water harvesting are some of the activities carried out w.r.t water conservation.

7 ENERGY MANAGEMENT

DIESEL GENERATOR DETAILS

The Kalpataru Institute of Technology has installed 1# of Diesel Generator. The following table provides the Diesel generator capacity in the college campus.

Sl. No.	Equipment Name	Make	Capacity in (kVA)
1	Diesel Generator	KOHLER	250KVA


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Long 76.455606°
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Google


GPS Map Camera
Tiptur, Karnataka, India
7F74+V6C, Vidya Nagar, Tiptur, Karnataka 572201, India
Lat 13.264748°
Long 76.455606°
17/07/23 12:15 PM GMT +05:30
Google

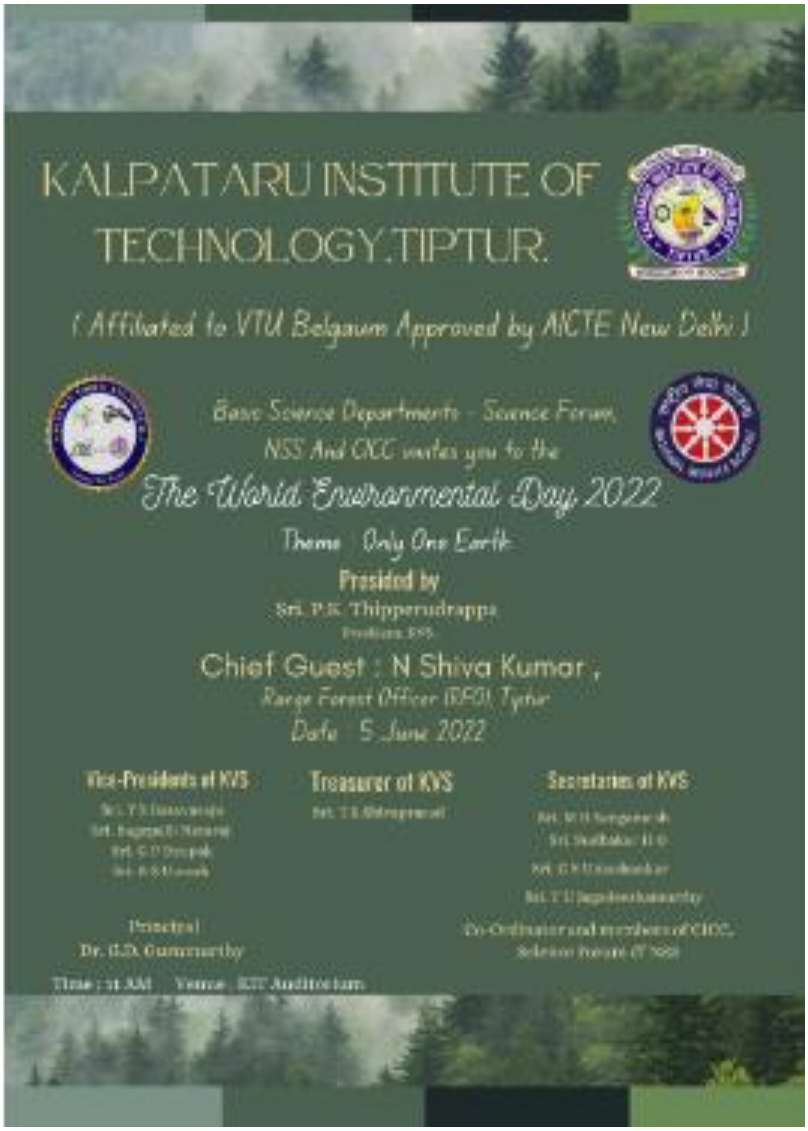
TRANSFORMER DETAIL

The Kalpataru Institute of Technology has installed 2# of Transformer. The following table provides the transformer capacity in the college campus.

Sl. No	Equipment Name	Capacity in (kVA)
1	**TRANSFORMER**	250KVA

The World Environmental Day - 2022

Celebration June 5th, 2022



World Environment Day is a global platform for inspiring positive change. People from more than 150 countries participate in this United Nations international day, which celebrates environmental action and the power of governments, businesses and individuals to create a more sustainable world.

SWACH BHARATH ABHIYAN - 2022

The Swachh Bharat Mission is a countrywide campaign by the government of India named as the Bharat Abhiyan or the Clean India Mission that was initiated in 2014 that aims at eliminating open excretion and also the management of solid waste is being improved. Its main slogan is one step towards cleanliness, under this program some cleaning drive campaigns have been conducted inside the campus.

8. SUMMARY

Green Audit is one of the important tools to check the balance of natural resources and its judicial use. Green auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area.

Kalpataru Institute of Technology has conducted a “Green Audit” in the academic year 2019-2020. The main objective to carry out green audit is to check the green practices followed by KIT and to conduct a well-defined audit report to understand whether the KIT is on the track of sustainable development.

9. CONCLUSION

From the green audit following are the conclusions, which can be taken for consideration:-

1) During our Survey, it was observed that most of the academic's buildings produces paper waste.
2) Food waste (wet) generated inside the campus is mostly from the BOYS hostel canteen.
3) Out of 2 borewells, 1borewell is provided ground water recharge structure.

10. RECOMMENDATIONS

Following are some of the key recommendations for improving campus environment:

1) An environmental policy document has to be prepared in consultation with expertise which includes the recommendations in order to meet the NGT guidelines.
2) Paper waste generated inside the campus should be reused or to be transported to industries which coverts them as recyclables.
3) It is recommended to provide RWH facilities to the buildings present in mechanical dept. and it is also recommended to provide ground water recharge structure to the borewell present in Mechanical Dept.
4) Frequent monitoring of both ground/waste water is recommended.
5) It is recommended to have a sewage treatment plant inside the campus to treat the waste water generated inside the campus.
6) It is recommended to practice segregation of waste at source and to practice some techniques like Composting (tank method/vermi compost), installation of Organic waste converter, bio gas plant in order to deal with the organic waste generated inside the campus.
7) Ban of single use plastic inside the campus is recommended.

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