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Sri Kavitha Educational Society's
KHAMMAM INSTITUTE OF TECHNOLOGY & SCIENCES

(Affiliated to JNTUH & Approved by AICTE, New Delhi)
Ponnekal (Village), Khammam (Rural), Khammam (Dist) -507170
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Green Audit Report

(28.12.2020)



KHAMMAM INSTITUTE OF TECHNOLOGY & ENGINEERING
KHAMMAM, TELANGANA – 507170


PRINCIPAL
KHAMMAM INSTITUTE OF TECHNOLOGY & ENGINEERING
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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 College 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

College 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.

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 built positive impression for through green initiatives the upcoming NAAC visit.

2. 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. KITS INFRASTRUCTURE

DETAILS OF TREES AND PLANTS IN CAMPUS

| S.No | Botanical Name | Common Name |
|------|--------------------------|---------------|
| 1 | Citrus × aurantiifolia | Lime |
| 2 | Psidium | Guava |
| 3 | Manikara zapota | Sapota |
| 4 | Artocarpus heterophyllus | Jackfruit |
| 5 | Syzygium aromaticum | Clove |
| 6 | Annona reticula | Custard Apple |
| 7 | Ananas comosus | Pine Apple |
| 8 | Durio | Durian |
| 9 | Terminalia catappa | Badam Tree |
| 10 | Vitis | Grapes |
| 11 | Cyanococcus | Blueberry |
| 12 | Mangifera indica | Mango |
| 13 | Cocos nucifera | Coconut |
| 14 | Phyllanthus emblica | Gooseberry |
| 15 | Hibiscus | Hibiscus |
| 16 | Polianthes tuberosa | Sampagi |
| 17 | Synsepalum dulcificum | Miracle fruit |
| 18 | Garcinia indica | Cocum |
| 19 | Abelmoschus esculentus | Ladies finger |

ROOF TOP SOLAR PANELS

Roof top solar plant Including pannels installed in the AK building.

Details of Solar Cells Used for Power Generation:

| S.No | MV BLOCK | No. of Panels | Capacity) |
|------|----------------|---------------|------------|
| 1 | SOLAR PLANT-01 | 240 | 80KW |
| 2 | SOLAR PLANT-02 | 04 | 500W |



LIBRARY



The college library is fully automated and it has a collection of over 26,500 books and a subscription of about 7,631 e- journals and 10000+ e-books for Engineering & Management. Internet browsing and mobilelibrary app is also available.

SEMINAR HALL

The Seminar Hall auditorium can accommodate 500 students, aimed at conducting events like department functions, club activities and meeting of various student support organization.



STUDENT COUNSELLING ROOM & CAFETERIA:

Student Counseling Room facility and Cafeteria is provided inside the campus for easy accessibility to the students.



INNOVATION CENTER



KITS has a state-of-the-art incubation Center with 60 Pcs with the latest configuration, video conferencing facilities

HEALTH CENTER

These centers often provide medical facilities on campus where students can receive emergency treatment and preventive care.



SEWAGE TREATMENT MANAGEMENT:

No's of Sewage Treatment Management procedures are installed in the College campus. The total Sewage Treatment dump Capacity is

| S.No | Description | Capacity in (KLD) |
|------|----------------------------|-------------------|
| 1 | Sewage Treatment dump - 01 | 100 |
| 2 | Sewage Treatment dump 02 | 100 |
| 3 | Sewage Treatment dump - 03 | 100 |

RO PLANT

RO plant is provided inside the campus to supply water to the entire campus.

| S.No | Description | Capacity in (Lts/Hour) |
|------|---------------|------------------------|
| 1 | RO Plant - 01 | 500 (Lts / hr) |



SPORTS & GAMES:

Sports, Games & Gymnasium is provided inside the campus facility to encourage physical activity among the students.




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RAINWATER HARVESTING

The rainwater harvesting strengthens the water supply to the campus lakes as well as enhance water level of wells in the campus through ground water recharging process.



VIEWS OF GREENERY





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SIGN BOARDS IN CAMPUS OF KITS




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| | | |
|---|--|--|
| <p>N.S.S</p>   <p>BETI BACHAO BETI PADHAO</p> | <p>N.S.S</p>  <p>Make 'SMS' your habit!</p> <p>S Sanitizer wash your hands frequently</p> <p>M MASK Wear a mask</p> <p>S SOCIAL DISTANCE Keep distance</p> | <p>SAVE ENERGY</p>  <p>PLEASE SWITCH OFF LIGHT & FAN WHEN NOT IN USE</p>  |
|---|--|--|

| | | |
|---|--------------------------------|--|
|  | <p>WHAT WE PRACTICE</p> | <p>STATUTORY POLICIES</p> |
| <p>Zero - tolerance</p> <ul style="list-style-type: none"> ■ Women Harassment ■ Damaging Institute Property ■ Unfair Practices in Examinations ■ Physical / Oral abuse of any person <p>Strictly prohibited</p> <ul style="list-style-type: none"> ■ Ragging in any form ■ Consumption of Alcohol & Drugs ■ Smoking in Public places | | <p>Discrimination treated seriously</p> <ul style="list-style-type: none"> ■ Gender / Social status ■ Academic Performance ■ Nationality / Religion / Region |



AERIAL VIEW OF GREENERY IN CAMPUS



భారత సర్కార్ / Government of India
 మహాత్మా గాంధీ రాష్ట్రీయ గ్రామీణ శిక్షా పరిషద్ / Mahatma Gandhi National Council of Rural Education
 ఉచ్చ శిక్షా విభాగ/Department of Higher Education
 శిక్షా మంత్రిాలయ / Ministry of Education



District Green Champion Certificate

This is to certify that **Khammam Institute of Technology and Sciences** is hereby recognized as **District Green Champion** for **Khammam District** for the Academic Year 2020-21. The Institution has successfully set up the Swachhta Action Plan Committee, adopted and implemented best practices in the areas of Sanitation, Hygiene, Waste Management, Water Management, Energy Management and Greenery Management.

This certificate is given in the presence of **Shri V.P. Gautham, I.A.S, District Collector & Magistrate, Khammam, Telangana.**

AUGUST 2021

Dr W G Prasanna Kumar
 Chairman
 MGNCRE, Ministry of Education
 Government of India



“కిట్స్”కు జిల్లా గ్రీన్ ఛాలెంజ్ ఛాంపియన్షిప్ అవార్డు

సవతెలంగాణ- ఖమ్మం రూరల్

మండలంలోని పొన్నెకల్లు గ్రామం పద్ద గల కిట్స్ ఇంజనీరింగ్ కళాశాలకు జిల్లా గ్రీన్ ఛాలెంజ్ ఛాంపియన్షిప్ అవార్డును కలెక్టర్ వీపీ గౌతమ్ శుక్రవారం ఖమ్మంలో అందజేశారు. భారత ప్రభుత్వ సంస్థ మహాత్మా గాంధీ కౌన్సిల్ ఫర్ రూరల్ ఎడ్యుకేషన్ వారు ఆజ్ఞానే విద్యాసంస్థల్లో స్వచ్ఛత కార్యక్రమాలు పచ్చదనం, పరిశుభ్రతపై ఇటీవల జాతీయ సర్వేను నిర్వహించారు. సర్వేలో జిల్లాలో పర్యావరణ పరిరక్షణ చేస్తున్న కిట్స్ కళాశాల గ్రీన్ ఛాంపియన్ అవార్డుకు ఎంపికయినట్లుగా మహాత్మాగాంధీ జాతీయ కౌన్సిల్ ఫర్ రూరల్ ఎడ్యుకేషన్ చైర్మన్ డాక్టర్ ప్రసన్నకుమార్ ప్రకటించారు. ఈ మేరకు కలెక్టర్ గౌతమ్ చేతుల మీదుగా కిట్స్ కళాశాల వారికి అవార్డును అందజేశారు. ఈ సందర్భంగా కళాశాల కార్యదర్శి కోట అప్పిరెడ్డి మాట్లాడుతూ పచ్చదనానికి ప్రతీకగా కళాశాల ఆవరణలో 185 రకాల చెట్లను పెంచుతున్నామన్నారు. నిరంతరం విద్యార్థులు, అధ్యాపకులు వాటిని పరిరక్షిస్తున్నారని వివరించారు. కార్యక్రమంలో కళాశాల ప్రిన్సిపల్ పన్నాల కృష్ణమూర్తి, అడ్మినిస్ట్రేటివ్ అధికారి రంగా శ్రీనివాస్, అధ్యాపకులు సయ్యద్ షా, మూర్తి తదితరులు పాల్గొన్నారు.

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5. WASTE MANAGEMENT

The E-wastage generated inside the campus is diverted to a nearby farm on a Monthly basis. The farm owner takes the E-wastage waste and uses it to his needs. An average of 50 kilos of E-wastage waste is generated per Year.



E-WASTE MANAGEMENT

E-waste generated in the campus is disposed in scientific and eco-friendly manner. The below certificate represents the 423.45 kilograms of E-waste disposed in an eco-friendly manner.



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

- Open Well water
- Bore water

A Main source of water is Ground water is extracted to full the requirement. At present there are 5# wells out of which with 1# has open well structure whereas remaining 04 are bore wells. The college stores the water in overhead tank.

The source of wastewater is Domestic Waste Water i.e., Sewage water. The Sewage water mainly comes from Toilets of college, hostel, kitchen and canteen. 3# of Sewage Treatment Plant was installed in the campus of each 100 KLD. Total sewage treatment plant capacity is 300KLD.



7. ENERGY MANAGEMENT

DIESEL GENERATOR DETAILS

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

| S.No | Equipment Name | Make | Capacity in (KVA) |
|------|-----------------------|-----------|-------------------|
| 1 | Diesel Generator - 01 | Kirloskar | 83.5KVA |



TRANSFORMER DETAIL

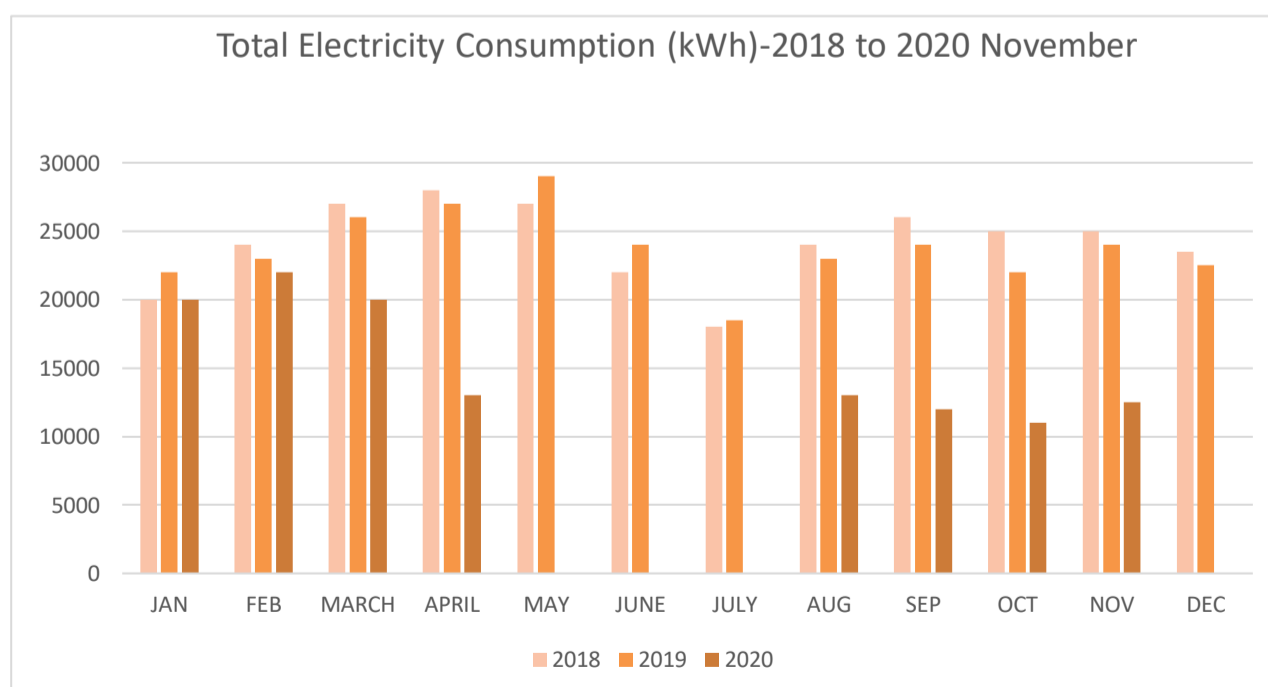
The Khammam Institute of Technology and Sciences has installed 1# of Transformer. The following table provides the transformer capacity in the college campus.

| S.No | Equipment Name | Capacity in (KVA) |
|------|--------------------------|-------------------|
| 1 | Transformer - 01 @0.9 PF | 100 |



ELECTRICITY TREND

The below graph represents the total electricity consumption trends for the year 2018 - 2020 of KITS.



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.

KHAMMAM Institute of Technology and Engineering 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 KITS and to conduct a well-defined audit report to understand whether the KITS is on the track of sustainable development.

9. CONCLUSION

From the green audit following are the conclusions, which can be taken for improvement in the campus.

- 1) All departments generate paper waste. Especially, AK block (Examinations online/offline) building is using more one paper for printing and writing is good practices.
- 2) Food waste generated in campus is mostly from is collected from dining areas. The food waste is diverted to nearby farm.

- 3) E- Waste are segregated, handled and disposed properly in an eco-friendly manner.
- 4) Reducing the use of one-time use plastic bottles, cups, folders, pens, bouquets, decorative items will be useful to solve the problem of plastic pollution to some extent.
- 5) Wear Mask Signages are provided in the facility.
- 6) Rainwater is collected from rooftop to recharge the ground water level table.

10. RECOMMENDATIONS

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

- 1) An environmental policy document has to be prepared with all the recommendations and current practice carried by KITS.
- 2) A frequent visit should be conducted to ensure that the generated waste is measured, monitored and recorded regularly and information should be made available to administration.
- 3) The solid waste should be reused or recycled at maximum possible places.
- 4) Install a water meter to record water usage in the college KITS premises.



11. ANNEXURE



.....END OF DOCUMENT.....


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