GREEN AUDIT REPORT

2021-22

AT

Dr. K. N. Modi Institute of Engineering and Technology

Modi Nagar, Ghaziabad (Uttar Pradesh)

By: -

ENERGY CONSULTANCY SERVICES
GD-024, AVANTIKA EXTN.GHAZIABAD-201002, (U.P)
Mob: +919818263979
E-mail: art_ecs@yahoo.co.in
Website:www.energyconsultancyservices.com

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INTRODUCTION:

Green audit **a**ims at evaluating environmental practices within and outside of the concerned institution, college and organization, which will caste an impact on the eco-friendly ambience. Green audit is a helpful tool for an institution to establish energy or water resources. It may also be used to determine the volume and type of waste, which may be used for a recycling project or to develop waste minimization plan. It may promote health consciousness and spread environmental awareness. It gives better understanding to staff and students about Green impact in campus. It becomes necessary to accept the system of the Green Campus for an institution which will direct for sustainable development. The National Assessment and Accreditation Council, (NAAC), New Delhi has made Green audit compulsory that all Higher Academic Institutions must present an annual Green Audit Report. It is allocated to Criteria 7 of NAAC.

OBJECTIVES:

In present scenario, the Green Audit of an institution has become important for self assessment of an institution which diminishes the present ecological tribulations. The Institution is making efforts to keep the environment green since its beginning. Hence, the main aim of the green audit is to describe framework of Environment Sustainability in fulfillment with the applicable policies, and regulations. The key points of carrying out Green Audit are as follows:

- To map the Geographical Location of the Institution
- To document the floral and faunal diversity of the Institution
- To secure environment
- To document the rain water harvesting system of the Institution
- To document solid waste treatment, liquid waste treatment and E- waste treatment
- To make aware students to real concerns of environment and its sustainability through Awareness Program
- To document Energy Conservation Measures

1. ABOUT THE INSTITUTION:

Dr. K. N. Modi Institute of Engineering and Technology, Modinagar is a co-educational Institute established in 1995 under the aegis of Dr. Kedar Nath Modi Institute of Pharmaceutical Education and Research Trust. The Institute was started with the approval of AICTE, New Delhi as an affiliated college of C.C.S. University, Meerut with undergraduate programme in B.Tech. In the year 2002, Uttar Pradesh Technical University, Lucknow came into existence and this Institute got affiliated with this in the year 2002. Presently, this Institute is running with M.B.A. and B.Tech. (Civil, Mechanical, Chemical, Computer Science, Electrical, Information Technology and Electronics & Communication Engineering) programmes affiliated to Dr APJ Abdul Kalam Technical University, Lucknow (Formerly UPTU, Lucknow) The college has undergone assessment & accreditation by NBA in 2005 and three branches of B.Tech -Electrical Engg, Chemical Engg and Electronics & Communication Engg. were Accreditated for 3 years. Subsequently, this Institute has undergone assessment & accreditation by NBA in 2016 and its one branch Mechanical Engg was accreditated for 3 years.

Institution Website: http://www.knmiet.edu

The founder Dr.Kedar Nath Modi was contributing to the cause of the Society and a pioneer establishing educationalist to offer quality and value based professional education primary to higher levels.

Fig:- Arial View of DKNMIET

2. Land Distribution: Dr. K. N. Modi Institute of Engineering & Technology covers around 10.1 acre area from which 29000 square meter area goes under construction of buildings and remaining area used for plantation and cropping purpose.

Sr. No.	Particulars	Land Area (Sqr mtr)
1.	Main Building/Hostels/ Residential Quarters	29000
2.	Playground & other amenities	8159
	Total	

3. Green Measure: A green campus is healthy and safe place to work. Green Measure helps to reduce health problems, water & soil erosion. It gives shelter to animals & birds and saves rain water. Through Green measure human being gets fresh air, healthy food & fruits. To maintain eco-friendly environment in the campus, the following green measures are adopted to save environment for coming generations:

3.1 Lawn& Open Air Stadium: There is a lawn in front of workshop at Dr. KNMIET. The boundary of lawn is marked with green hedge which is well maintained and enhances the beauty of campus. It has an open air stadium where students play outdoor games.

Fig:-Lawn in front of DR KNMIET

Fig:-Open air stadium of DR KNMIET

3.2 Trees: There are various types of trees and plants which make the whole campus airy, free from carbon dioxide, soothing as well campus seems decorated. Plantation is also done every year in campus. These plants are 388 which maintain the biodiversity and healthy surroundings.

S.N.	COMMON NAME	BOTANICAL NAME	FAMILY	No. of Name Plate
1.	False ashoka	*Polyalthialongifolia*	Annonaceae	20
2.	Lipstick	*Bixa orellana*	Bixaceae	25
3.	Mango	*Mangifera indica*	Anacardiaceae	05
4.	fiekas	*Ficus racemosa*	Moraceae	20
5.	sagwan	*Tectona grandis*	Lamiaceae	50
6.	jamun	*Syzygium cumini L*	Myrtaceae	03
7.	gular	*Ficus racemosa*	Moraceae	05
8.	Pepal	*Ficusreligiosa*	Moraceae	10
9.	Ashoka tree (ashapal)	*Saracaasoca*	Fabaceae	50
10.	Neem	*Azadirachtaindica*	Meliaceae	04
11.	Bottlebrush	*Callistemon spp.*	Myrtaceae	05
12.	common guava	*Psidium guajava*	Myrtaceae	10
13.	White Mulberry	*Morus alba*	Moraceae (Mulberry family)	04
14.	tulsi	*Ocimum sanctum L.*	Lamiaceae	15
15.	Carandas	*Carissa carandas*	Apocynaceae	50
16.	Flower Plants	Magnoliophyta	Plantae	112
17.	Bakayan	Melia azedarach	Melia	15
18.	Tun	Meliaceae	Mohogany	13
			Total	**416**

3.3Fruit Trees:

SR. NO.	PLANT NAME	BOTANICAL NAME	VARIETY	TOTAL NO. OF PLANTS
1.	Mango	*Mangifera indica*	Anacardiaceae	05
2.	jamun	*Syzygium cumini L*	Myrtaceae	03
3.	common guava	*Psidium guajava*	Myrtaceae	10
4.	White Mulberry	*Morus alba*	Moraceae (Mulberry family)	04
			Total plants	**22**

3.4: FLOWER PLANTS

Sr. No.	Plant Name	Botanical Name	Family
1.	Gudhal Red	Hibiscus acetosella	Malvaceae
2.	Gudhal White	Hibiscus rosa-sinensis	Malvaceae
3.	Rose	Rosa	Rosaceae
4.	Marigold	Tagetes	Asteraceae
5.	yellow oleander	Cascabela thevetia	Apocynaceae
6.	Nerium oleander	Nerium	Apocynaceae
7.	marigolds	Calendula	Asteraceae
8.	Harshringar	Nyctanthes arbortristis	Oleaceae
9.	crape jasmine	Tabernaemontana divaricata	Apocynaceae
10.	night-scented jessamine	Cestrum nocturnum	Solanaceae
11.	Mongra	Jasminum sambac	Oleaceae
12.	Kena	Commelina bengalensis	Commelinaceae

13.	Guldavari yellow	Hibiscus rosa-sinensis	Malvaceae
14.	Jasmine	Jasmine	Oleaceae
15.	Common chicory	(Cichorium intybus)	Asteraceae
16	S plant		
17	Jafri	Tagetes Marigolds	Asteraceae
18	Bogan beliya	Bougainvillea	Nyctaginaceae
19	Cactus	Cactus	Cactaceae

4. Water conservation:

Water is the most important element for life. The ground water level is being depleted day by day therefore it is essential to save water and recharge the ground water. Dr. K. N. Modi Institute of Engineering & Technology adopts several ways to reuse water and recharge the ground water.

4.1 Rain Water Harvesting System

Rain water harvesting is the storage of water of rain. Rainwater is accumulated and sent to a tank, well or borehole. It is used for watering the plants, agriculture and domestic use. Rainwater harvesting is the simplest method to collect the water. In last years rainfall is decreasing which created huge pressure on other water resources in different regions. Several water resources are speedily utilized without recharging them causing shortage of water. Therefore there is a great need to remove this hazard through ground water resource management. To increase ground water level, the Institution has started Artificial Recharge Project with Parle Agro Private Limited.

4.1.1 Artificial Recharge Project:

- College campus has 8 pits for water recharge.
- In campus first of all when rain falls, water goes in well constructed drains from where water is sent to the deeper part of ground with the help of borewell in pits. By which water level is being increased.

- In the duration of one year these pits collect 3.456 crore ltr. water, out of which college uses 2.5 crore ltr. water and saves (+).956 crore ltr. water in a year.

5. Waste Management: In this institution waste is managed in the following ways:

5.1 Solid Waste Management:

- Garbage cart is arranged for transport of solid waste management.
- At various places dustbins are arranged to keep campus neat and clean.
- Green and Blue dustbins are used in campus for wet waste and dry garbage respectively.
- Waste food of hostel mess and canteen are converted into manure in compost pits to make fertilizer for saplings.

5.2 Liquid Waste Management:

- Waste water from hand wash tap and drinking water tap is utilized for gardening. Both type of water taps are fitted adjacent to plants.
- All the chemicals are diluted properly before discarding in to wash basin in Chemistry Practical laboratory.
- In the laboratory glass ware are washed with minimum quantity of water.
- Push taps are installed in place of moveable taps to save water.

5.3 E-Waste Management:

- Non-functioning compact disk is used by the students for embellishment of rooms at Fresher party, annual fest etc.
- The cartridge of laser printer is refilled from the vendor outside the college premises.
- Computers having low configuration are given to nearby schools.
- The non working equipments and computers, and its spare parts are safely discarded.
- UPS batteries, CPU, Key Boards and mouse are repaired by the mechanic.

6. Proper Arrangement of Transport:

6.1 Bicycles: Dr. KNMIET non-teaching staff and students, who live at nearby area of institution, use bicycles to commute. They are making efforts to reduce pollution and fuel expenditure.

6.2 **Pedestrian Friendly Campus:** There is a parking area in institution campus where every staff member and student has to stand their cars, bikes and bicycles which makes campus free from any kind of accident. Therefore students and staff can move safely in the campus.

7. Alternative of Plastic or No Plastic: Dr. KNMIET is a plastic free campus. Institute has organized several programs to spread awareness among staff and a student, like how plastic is harmful for everyone. Keeping hot edible in plastic boxes is injurious for health. Under UBA programme institution arranged a, Plastic Free India Campaign, in Paluata and Bhartsna village to ban plastic. Jute Bags should be used in place of polythene bags.

8. Energy Conservation Measures:

- Stickers are pasted at various places to spread awareness for energy saving on which '***Switch off light when you leave'*** is mentioned.
- Ac and fans are used when needed.
- LEDs are used in place of tube light.
- During daylight, lights are turned off.
- Computers, UPS and other appliances are disconnected from power supply at the time of college-closure.
- Solar water heater plants are fixed at the roof of hostel building. By which Girls and boys may get hot water during winter season. It is very easy and comfortable way to make water hot while stereotyped methods consume more electricity or LPG.

9. Awareness Program:

The main purpose of awareness program is to make Dr KNMIET greener, healthy and eco-friendly to spread awareness for safe environment where everyone may take fresh air, feel calm and soothing. Different activities were organised at institute campus to serve this purpose:

1. A Faculty Development Program was organised by Chemical Engineering Department of Dr. KNMIET on the topic ***Safety and Hazard Management in Chemical Laboratories & Industries*** from 21st May to 25th May 2018sponsored by APJ Abdul Kalam Technical University, Lucknow.

2. On 29th February 2020 an International Conference on ***Emerging Trends in Science & Engineering for Sustainable Development (ICETSESD-2020)*** was organized at KNGD auditorium by Dr. K N Modi Institute of Engg. & Tech., Modinagar with technical support Institution of Water & Environment (IWE), India.

3. Institution of Water and Environment, India has established its ***Student Chapter*** at Dr KNMIET, Modinagar on 29th February 2020. Through which IWE motivates students for water conservation. Students go to Delhi to visit IWE & its Set Up by which they learn how to save water in several ways like waste water of RO can be used in garden. IWE solicits different innovative ideas from the side of students.

4. A National seminar was organised by Dr. K N Modi Institute of Engg. & Tech., Modinagar with technical support from Institution of Water & Environment (IWE), India & AKTU, Lucknow on ***Zero Waste Discharge: Issues Challenges & Way Forward*** on 28th April 2019 at KNGD auditorium.

5. On 5 June World Environment Day was celebrated in campus. On this day Administrator, Director and other teachers planted different saplings.

6. Students of this institution go outside from the campus to motivate people for plantation and as well they themselves planted around 50 to 100 sapling nearby areas of institution.