Green Audit Report

K. R. MANGALAM UNIVERSITY

Address –Sohna Road, Gurugram, Haryana 122103

Audit Date 22/23.05.2025

Auditor - Vinay Kumar Jham

Audit Conducted by

M/S Samarth Management Private Limited

212, Bhera Enclave, Paschim Vihar, New Delhi, Delhi, 110087

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ABOUT KRMU

K.R. Mangalam University is the fastest-growing higher education institute in Gurugram, India. Since its inception in 2013, the University has been striving to fulfil its prime objective of transforming young lives through ground-breaking pedagogy, global collaborations, and world-class infrastructure.

As we have stepped into the innovative world, we have gained exposure to unlimited learning and employment opportunities beyond the social and geographical boundaries. K.R. Mangalam University being a progressive learning platform is a host to knowledge-seekers from across the globe. KRMU has signed MOU with University of Portsmouth (London), University of Bialystok (Poland), Namangan Engineering Construction Institute (Uzbekistan), Houston University (Texas), Roehampton University (London), Delhi University (New Delhi), IIIT Manipur (Manipur) and many more under which many articulations are being designed for advanced learning programmes.

KR Mangalam University aspires to become an internationally recognized institution of higher learning through excellence in interdisciplinary education, research and innovation, preparing socially responsible life-long learners contributing to nation building.

- Foster employability and entrepreneurship through futuristic curriculum and progressive pedagogy with cutting-edge technology
- Install notion of lifelong learning through stimulating research, Outcomes-based education and innovative thinking
- Integrate global needs and expectations through collaborative programs with premier universities, research centres, industries and professional bodies
- Enhance leadership qualities among the youth having understanding of ethical values and environmental realities

K. R. Mangalam University education carries a strong emphasis on foundational knowledge, thorough academic research based on rigorous pedagogy and hands-on experience with real-world challenges. The synthesizing nature of the curriculum allows the student to learn by making connections between ideas and concepts across different disciplinary boundaries. The interdisciplinary structure at K. R. Mangalam University is designed to enable the integration of ideas & the characteristics from across disciplines. At the same time, it addresses students' individual differences and helps to develop important, transferable skills. K. R. Mangalam University, owned by K. R. Mangalam Group is developing 'K. R. Mangalam University ' with a motive of providing world class education in Indian Scenario and K. R. Mangalam University started to fulfil the same purpose. Provision of Higher Educational Services for Undergraduate, Post Graduate and Research Degrees

- BASIC AND APPLIED SCIENCES
- ENGINEERING AND TECHNOLOGY
- MEDICAL AND ALLIED SCIENCES

- MANAGEMENT AND COMMERCE
- LEGAL STUDIES
- HUMANITIES
- EDUCATION
- HOTEL MANAGEMENT & CATERING TECHNOLOGY
- AGRICULTURE SCIENCES
- ARCHITECTURE & DESIGN
- JOURNALISM & MASS COMMUNICATION
- PHYSIOTHERAPY & REHABILITATION SCIENCES

ABOUT SAMARTH MANAGEMENT PRIVATE LIMITED

M/s SAMARTH MANAGEMENT PRIVATE LIMITED is a Management and Environmental Consulting Organization working in the Environmental field since 2004. The organization has a team of Environment Experts with wide knowledge in the subject. SMPL is providing services for various sectors such as

- Preparing Environment Impact Assessment (for Building & Construction Projects, Small and big manufacturing units, Hospitals, Educational Institutions, Hotels etc.)
- Samarth Management Private Limited has prepared Green Audit reports for various institutes and organizations.
- Team involved in this auditing and report preparation is given below:
    - **Mr. Vinay Kumar Jham (Auditor)**

1. INTRODUCTION

The green audit aims to analyse environmental practices within and outside the university 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 the 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 to how to improve the structure of the environment and there are several factors that have determined the growth of carried out the green audit.

1.1.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 becoming 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 into a green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institutions towards an environment.

1.2.GOALS OF GREEN AUDIT

University has conducted a green audit with specific goals as:

- Identification and documentation of green practices followed by university.
- Identify strength and weakness in green practices.
- Analyse and suggest solutions for problems identified.
- Assess facility of different types of waste management.
- Increase environmental awareness throughout campus
- Identify and assess environmental risk.
- Motivates staff for optimized sustainable use of available resources.
- The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issues before they become a problem.

1.3.OBJECTIVES OF GREEN AUDIT

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

1.4.BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

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

- It would help to protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- Empower the organization to frame a better environmental performance.
- It portrays a good image of the institution through its clean and green campus.

Finally, it will help to build a positive impression for through green initiatives the upcoming NAAC visit.

2. ACTION TAKEN ON LAST AUDIT POINTS

- Water Meter are installed in KRMU Premises.
- **OBS: Calibration of water meters need to be evidenced.**
- University is investing in the development of green infrastructure projects that enhance the university's resilience to climate change, such as green roofs, permeable pavement, and rain gardens. These projects can help manage stormwater runoff, reduce urban heat island effects, and improve biodiversity on campus.

3. 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 resources 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 University profile
- Developing an environmental ethic and value systems in young people.

4. 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.

ENERGY USE

As part of its focus on energy management, KRMU will strive towards ensuring:

- Inspection of the campus facilities every semester to identify, maintain and repair faulty or broken equipment on campus, such as ICT equipment, electrical devices, electrical panels, etc.
- **OBS: Energy Audit needs to be done every Year.**
- **OBS: The targets and objectives need to be specific & measurable to monitor the performance of the process of saving Energy.**

WATER MANAGEMENT

As part of its focus on water management, KRMU will strive towards ensuring:

- Inspection of the campus facilities every semester to identify and repair any faulty installations such as pipes, taps, flushes, etc. which may lead to leaks and wastage of water.
- Adoption of rainwater harvesting techniques and proper utilization of the same.
- The exploration of water recycling mechanisms through collaborations with appropriate organizations.
- **Verified the Cleaning of Rainwater Desilting Tanks 17 last on 06/01/25. Frequency one year.**

WASTE MANAGEMENT

As part of its focus on waste management, KRMU will strive towards ensuring:

- Adoption of waste segregation methods such as appropriately placed dustbins for dry and wet waste.

- Appropriate e-waste management practices for collection, disposal or recycling of such waste.
- Minimal use of paper on campus in all aspects of administrative and academic functioning by utilizing ERP and emails to the extent possible. OFI
- Minimal use of plastic on campus to reduce non-recyclable waste.
- Adoption of appropriate practices to reduce/recycle/treat municipal waste within the campus premises such as collaborations with companies/NGOs for recycling.
- Minimize hazardous waste and appropriate management of such waste.

LANDSCAPING AND GARDENING

As part of its focus on building a green campus, KRMU will strive towards ensuring:

- Total area 94848 sq. m, Built up 48,400 excluding sports area. Rest is all Green. In a garden 35% of ground coverage is for miscellaneous activities like sport while 45% area is used as a lawn with grass and flowers.
- Students can use the lawn for meditation or reading books for relaxation Total 1409 plants are planted till 31.03.2022 e.g. Pipal, Ashok, La'tonia, Coro carpus. Pil khan - 37 nos.
- A Separate horticulture department headed by Mr. Pawan Kumar, Supervisor. Shows the commitment of top management. Students and staff are involved in this activity
- The trees and plants are planted by Students, Villagers, adaption by female villagers.
- Van Mahotsav in June 24. World environment day is celebrated in the adapted villages and campus.
- Expansion of green cover in the campus through investments in gardening and landscaping activities.
- Active engagement with the community for increasing green cover in the surrounding areas.

5. KRMU INFRASTRUCTURE

The KRMU campus is spread over 94848 Sq. Meters with state-of-the-art infrastructure with modern settings and cutting-edge apparatus that helps students on practical skills within the campus.

5.1.WATER MANAGEMENT

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

SOURCES OF WATER

- Water from Municipal
    - OBS: NOC needs from Ground Water Authority
- Water Bottles from Vendor – Now the water bottles are not used as a part of campaign of no plastic use in Campus. RO is installed.
- The source of wastewater is Domestic Wastewater i.e., Sewage water. The Sewage water mainly comes from Toilets of college, hostel, kitchen and canteen. One Sewage Treatment Plant was installed in the campus of 100 KLD. Total sewage treatment plant capacity is 100 KLD. The treated water is stored in tanks and further utilized for gardens. Low flush cistern and sensor-based water tapes have been installed in washrooms to minimize wastage of water.
- Now 300 KLD capacity STP is under installation.

5.1.1. RAINWATER HARVESTING PITS

Conserving and preserving water are a key issue that has been addressed by the University in the form of Rainwater harvesting. The campus has been practicing rainwater mechanisms in a site area of 26 acres approx. where there are 17 rainwater harvesting pits all over campus. All are in operation. The details of the rainwater harvesting system have been designed by a certified architect and have been implemented throughout the campus.

Desilting Pits

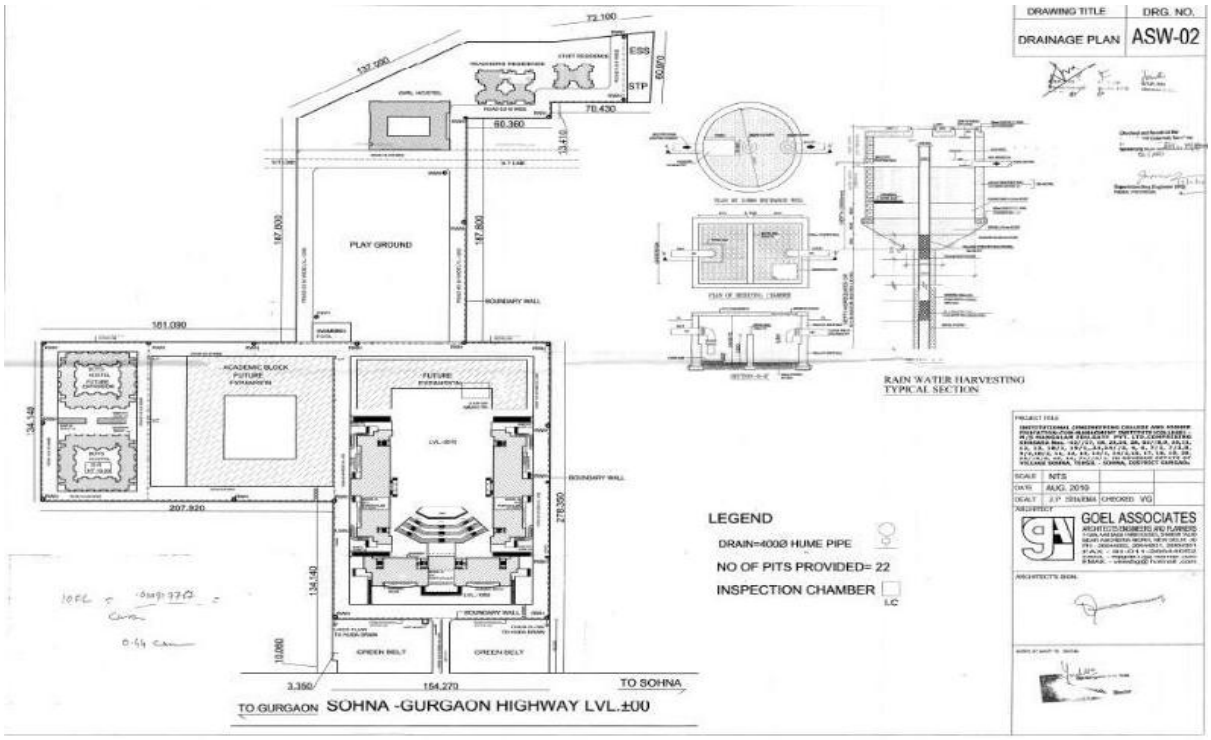
- Depth - 3 Meter

- Area - 3x3 Meter

5.1.2. SEWAGE TREATMENT PLAN

The University has a Sewage Treatment Plant of 100 KLD capacity, which is utilized for treating wastewater of the hostel and all other blocks. There is utilization of liquid waste within the campus. The treated water is stored in tanks and further utilized for gardens. Low flush cistern and sensor-based water tapes have been installed in washrooms to minimize wastage of water.

- Now 300 KLD capacity STP is under installation.



5.1.3. SENSORED WATER TAPS

Energy efficiency is a key strategy for the sustainable growth of the planet. The University with this objective has sensor-based water conservation system installed in all the washrooms. - -135 at present Further, the optimization of energy resources is ensured with the installation of sensor-based entry gates at every building within the University premises.

There are two circuits: sensor module and controller module. PIR sensor module is used here to detect the Human body movement, whenever there is any body movement the voltage at output pin changes. Basically, it detects the change in Heat and produce output whenever such detection occurs. In controller module Relay is an electromagnetic switch,

which is controlled by small current, and used to switch ON and OFF relatively much larger current. By applying small current we can switch ON the relay which allow much larger current to flow.

5.1.4. REUSE OF WASTEWATER

KRMU is committed to sustainability and environmental stewardship. In line with this commitment, the university has embarked on a comprehensive wastewater reuse program to conserve water resources, reduce environmental impact, and demonstrate responsible water management practices. This initiative not only aligns with our sustainability goals but also serves as a model for the community and educational institutions.

- Wastewater is reused for the purpose of gardening and washing buses in the campus.
- Treated wastewater can be used for watering lawns, gardens, and other green spaces on campus, reducing the demand for freshwater.

5.2.WASTE MANAGEMENT

Management of the various types of Degradable and Non-Degradable waste at the campus

There are different types of waste that are produce

- Biodegradable Waste
- Non-Biodegradable waste.

Biodegradable materials are those, which degrade or break down in a natural manner. In other words, their decomposition happens with the help of natural agents like sunlight, microorganisms, water, ozone and more which turns it into organic manure.

Non-biodegradable substances are materials which do not degrade easily. As they are synthesized and do not occur naturally, degradation is impossible with these products. Therefore, when they stay in the ecosystem for a long period and do not decompose, they harm our environment.

The Institution adopts several measures for management of the various types of degradable and non-degradable waste at the campus.

Some of them are -

- The Institution provides small dustbins in every classroom and faculty rooms and encourages students and faculties to throw their waste specifically in the dustbins.

- KRMU has ensured installation of big dustbins near the Canteen area to promote amongst students the habit of disposing waste in bins.
- The Institution also encourages the use of 2 different dustbins i.e., Green Dustbin and Blue Dustbin. The same is done to segregate the waste.
- At each floor of the institute, near the washrooms big dustbins have been kept.
- Incinerators are used for waste management.

They Generate Dry Waste from Paper, Leaves from Horticulture. Wet waste from Food served in Hostels and Canteens. Additionally Biomedical waste from Animal house, Medical Room and E waste from hard wares, computers, LED's etc. is generated which is disposed after the inspection and recommendation of IT Department

- Verified the disposal of Bio waste given to Biotic Waste Limited, Gurugram as per MOU 25/04/25 validity 31/03/26.generated in Practical's.
- Verified the Ecofriendly events done for Cleanliness, Wastewater Utilizations, Hygiene for the five villages adopted around 6 Kms area. These are Lakhuwas, Daulah, Garhi wazidpur, Alipur, Ghamroj, Berka as per DM advice.
- Protection and Conservation of Species in aravali.
- Awareness program me is done for Swachh Campain, Health impact of wastewater Utilization. Cleanliness Drive on 2nd Oct. for clean environment.
- Events at village for Recycling Waste and conservation water is held on 22/03/25 at Govt Higher, Secondary School Ghangola.

5.2.1. DEGRADABLE WASTE

Due to the canteen in the college premises itself; there is a lot of degradable waste generated. This includes, vegetable peels, leftover food etc. All this waste is collected and used in the compost pit dug in the college itself. This not only helps in proper management of waste but also aids in the growth of other plants as the compost is later used as Organic Compost or Organic Natural Fertilizer.

Table 1 Type of Waste in the University

Sr. No.	Type/ Name of waste material	Approx. Qty per day	Method of Disposable
(a)	Paper Glass/ Paper Plates/ papers	Nil now	Handed over to Contractor if generated to Rajmurty Cooperative Labor and construction society Limited. MOU validity 11/10/25
(b)	Plastic spoons/Polythene bags/ plastic bottles	0.5 kg now	Handed over to Contractor Rajmurty Cooperative Labor and

			construction society Limited. MOU validity 11/10/25
(c)	Waste food	10 kgs increased 16Kg/day due to increase of Hostlers and strength of students	Biogas Plant operational is now in full swing as observed during site visit.
(d)	Grass/ Tree leaves	Now 65 kg	Disposed in field earmarked /Compose Pit as observed during site visit
(e)	News papers	1.5 Kg/day	Sold to scrap vendors Naresh & Pawan Kumar
(f)	Card Boards/Wrapper	04 Kg/day	Sold to scrap vendors Naresh & Pawan Kumar
(g)	Papers/Projects	2Kg/day now reduced than last year	Sold to scrap vendors Naresh & Pawan Kumar
(h)	Empty paint drums	250 Nos	Sold to scrap vendors Naresh & Pawan Kumar

- Dry waste to Municipality as party authorized Rajmurti Cooperative Labor & Construction Society Limited. Nuh. Agreement validity 11/11/25.
- Other waste material disposal dated 27/03/25 and 23/09/24 comprises of Newspaper, Wastepaper from Projects, Cardboard valued 17707/- and 14375/- respectively.

5.2.2. LIQUID

Water

- On an average 115000 Liter water per day is used in hostels. Water meter is not installed in A, B & C block, therefore actual consumption of water cannot be ascertained, however approx. 50, 000 Liters water is consumed in A, B & C block.
- Now water meters are installed.
- **OFI: To set KPI for resource saving.**
- **Evidence needed for Quantum of water from readings**

STP

- A STP has been installed in campus which is capable of treating 100000 Liters of water per 24 hrs. The STP is being run 24 hours per day as per contract, therefore on an average per day 50000 Liters of water is being treated. The treated water is used of irrigation of plants. – New under installation

- **Verified the Wastewater Inlet Report VEL/WW/2009241006 dated 09/05/25 for colour, BOD 7.4 COD 39.20 mg/l, pH 8.16. For Outlet pH 7.75, BOD 2.3 and COD 19.60 Ni 5.0 ng/m3, Alpha Benzo 0.5 ng/m3 all the parameters within limits.**

Oil

- There are five DG sets in the university as power back up during failure of the main electrical supply. On an average per year 275 Litre waste oil is generated. The waste oil is contained in a leak proof container and disposed to authorized vendor of Pollution Board.
- **MOU with Indian Petro & Chemicals, Ballabgarh for lifting hazardous used oil.**

5.2.3. LIQUID WASTE MANAGEMENT

The University has a Sewage Treatment Plant of one lakh liters capacity, which is utilized for gardening. There is utilization of liquid waste within the campus. Water from wash basins and hostel rooms are stored in tanks and further utilized for gardens. Low flush cistern has been installed in washrooms. Water squirting has been enabled in all taps. In view of the National Mission on Clean and Green Environment, we have taken steps for plantation inside as well as outside the campus. This activity is monitored by NSS every year. Tanks with the required storage capacity are available for rainwater harvesting.

5.2.4. SOLID WASTE

The University has tie ups with authorized vendors for the collection of garbage and paper waste from designated places. 100% usage of disposable products like paper glass helps to reduce solid waste in the campus. Students and staff members are encouraged to make the campus plastic free. The University has placed waste bins in every area as per requirement with colour coding for e.g. green, blue and yellow. We have compost pits to dump green waste, which is utilized for manure preparation and for maintaining a green campus. The wet waste is recycled along with cafeteria waste for soil manure/fertilizers after processing the same in a pit. Standard operating procedure for disposal of chemical as well as microbial waste is in practice. The University has banned the usage of plastic within campus.

5.2.5. BIOMEDICAL WASTE MANAGEMENT

Biomedical waste from university's animal house is collected in separate bins. The University has signed a contract with authorized bio-medical waste management contractor who collects the waste from the designated place and disposes it according to bio-medical waste management rules.

5.2.6. E-WASTE MANAGEMENT

A Standard Operating Procedure is being followed for the management of "The Hazardous Lab & other Waste Disposal". The e-waste generated from hardware which cannot be reused or recycled is disposed of centrally through the authorized vendors. Disposing of old, outdated and non-functioning electronic items such as monitors, computers, keyboards, mouse, power supplies, printers, batteries etc. is a major problem because such materials contain toxic chemicals and improper disposal of these items is injurious for living beings. The institute has tie up with the M/S Adinatha Cyclotronic Private Limited for the Waste Regarding LED Tubes, MCCB, RCCB, Computer, Laptop, CPU, Batteries, AC, Metallic Waste. The electronic equipment to be disposed is collected at a central store and then handed over to the concerned vendors.

- Last E-waste on 14/05/25 to M/S Adinatha Cyclotronic Private Limited
- Waste recycling system: = Discontinued Now as composite waste system and disposal is done as per Pollution Board/Municipality norms.

5.2.7. HAZARDOUS CHEMICALS WASTE MANAGEMENT

All kinds of hazardous chemicals like lead batteries, waste diesel from DG set and other chemical storage glass bottles are disposed of according to the standard disposal norm, taking special care that no harm is caused to any living beings. The University has signed a contract with authorized waste management contractor – M/S Indian Petro & Chemicals who collects the waste from the designated place and disposes it according to waste management rules.

5.3.ECOLOGY AND BIODIVERSITY MANAGEMENT

5.3.1. PLANTS IN THE UNIVERSITY

KRMU boasts a rich and diverse campus landscape, adorned with a wide variety of plant species that contribute to the overall aesthetic appeal and environmental sustainability of the university.

Two-tier plantations have been done along the campus boundary. Fruit bearing and shady plants like Ashok, Sondana, Kusum, Vismarkya, Kachnar, Pilkan, Sashut, Champa etc are planted. A nursery, and a well functional green house, composting unit to provide organic manure and trained manpower to carry out horticulture work is maintained. An organic orchard is created which harbours a large number of horticulture plant varieties. Due to natural vegetation patches, the university is ecologically sound and is home for a

large number of birds and butterflies. 120 birds and 40 butterflies are documented inside campus during biodiversity survey.

The diversity of plant species identified highlights the richness of the campus ecosystem. The presence of native and non-native species raises considerations for conservation efforts, habitat restoration, and invasive species management.

- Verified the List of Plants total 2121 includes Ficus Black Ficus Green, Kachnar Tota Palm Neem 10 Excluding the Medicinal. Plant.
- Verified the list of Herbal Plants total 33 detailing plant common name like Ajwain/Botanical Name like Trachyspermum ammi/Family Umbelliferae/Uses stimulant, carminative.
- Eco Club run by students participate in Debate competition, Nukkar Natak, Eco friendly Gardening, Fruit Plantation. Held from Jan to April 25.

5.3.2. SPECIAL GARDENS

The Medicinal Garden at KRMU is a unique and valuable resource that serves as an educational, research, and therapeutic hub within the university campus. This carefully curated garden is dedicated to cultivating a diverse array of medicinal plants and herbs, providing students, faculty, and the community with a living laboratory for the study of herbal medicine, sustainable gardening practices, and holistic health.

The Medicinal Garden at KRMU is a testament to the university's commitment to education, research, and the well-being of its community. It serves as an invaluable resource that not only enriches academic pursuits but also fosters a deeper appreciation for the healing potential of nature and the importance of sustainable living. This living laboratory continues to flourish, offering countless opportunities for learning, discovery, and personal growth.

The Herbal Garden at KRMU is a verdant sanctuary brimming with nature's remedies and therapeutic plants. Nestled within the heart of our community, this garden serves as a haven for those seeking to explore the boundless world of herbal medicine, reconnect with the healing power of plants, and experience the beauty of sustainable cultivation practices.

At KRMU, the Herbal Garden plays a pivotal role in cutting-edge research. It serves as a dynamic hub where scholars and researchers investigate the pharmacological properties, sustainable cultivation methods, and potential uses of these botanical wonders. This research contributes to the development of natural remedies, essential oils, and herbal-based products, fostering innovation and advancements in the field of herbal medicine.

5.3.3. CO-HABITATION OF BIRDS, REPTILES

The greenery of the area attracts the different species of avifauna such as Weaver Bird, Bank Manya, Shikara, Erget, Parakeet, Crow, Kingfisher, etc.

The presence of both birds and reptiles within the confines of a university campus may not be immediately evident, but it exemplifies a unique co-habitation between two diverse groups of wildlife. This coexistence offers a fascinating opportunity for students, faculty, and the broader community to observe, study, and appreciate the intricate dynamics of nature. At KRMU, we have created an environment where birds and reptiles share space, offering invaluable lessons in ecology, biodiversity, and cohabitation.

The co-habitation of birds and reptiles within the university environment is a testament to our commitment to ecological diversity and environmental education. It offers a living example of how urban areas can serve as havens for wildlife, while also providing opportunities for research, learning, and community engagement. As we continue to nurture this harmonious coexistence, we celebrate the richness of our campus ecosystem and the vital lessons it imparts about the interplay of life in our natural world.

Opportunities for Improvement

- More birds' houses can be placed on trees to attract them.
- As a long-term vision opening of a mini zoo or a fishpond can be thought of.
- A butterfly park may be developed.

5.4.ENERGY MANAGEMENT

5.4.1. DIESEL GENERATOR

The KRMU has installed 5no of Diesel Generator. The following table provides the Diesel generator capacity in the University.

Table 2 List of DGs

S. No	Equipment Name	Make	Capacity in (kVA)
1	Diesel Generator - 01	Cummins	625 kVA
2	Diesel Generator - 02		380 kVA
3	Diesel Generator - 03		750 kVA
4	Diesel Generator - 04	Cummins	625 KVA

S. No	Equipment Name	Make	Capacity in (kVA)
5	Diesel Generator - 05	Cummins	750 KVA

5.4.2. TRANSFORMER DETAIL

The KRMU has installed one more Transformer of 2000 kVA – Nos. 2. The following table provides the transformer capacity in the University.

1	**Transformer**	**2000 KVA Each**
2	**Transformer**	**2000 KVA Each**

5.4.3. ALTERNATE SOURCES OF ENERGY AND ENERGY CONSERVATION MEASURES AT THE CAMPUS

The Institution has facilities for alternate sources of energy and energy conservation measures

- Solar energy
- Use of LED bulbs/power efficient equipment
- Other measures

Solar energy

Institute has taken initiative to install solar lights in the garden and also intends to increase campus wide solar light usage. The University has a solar power generating system of 310 KW on the rooftop of the academic building A, B, C blocks, DG room and the hostel building. The solar system is wheeled to the grid.

Verified the Solar Invertor data of April 25 showing 35334 units and these are installed near DG set, A &C blocks, Hostel.

Use of LED bulbs/power efficient equipment

Light-emitting diodes (LED) are one of today's most energy-efficient and rapidly developing lighting technologies. Quality LED light bulbs last longer, are more durable, and offer comparable or better light quality than other types of lighting.

University has proper lighting system with LED Lights in the campus. Energy Savings with use of LED is a highly energy efficient lighting technology and has the potential to fundamentally change the future of lighting.

LED bulbs were used for newly constructed buildings and some of the incandescent and fluorescent tube lights were replaced with LED bulbs. Majority of the classrooms, laboratories, administrative blocks, computer centres, libraries, seminar halls and staff rooms were provided with LED lighting systems which are supposed to be energy efficient.

- **Present = 3420 Nos LED**

OTHER MEASURES

- Energy efficient electronic gadgets are used and maintained regularly to achieve energy conservation. These include smart panels in lecture rooms, LED, Centralized AHU with Thermostat.
- Campaigns on awareness on energy conservation are made available in all relevant locations.
- Unwanted usage of power is discouraged in the Institute.
- Institute has conducted various awareness drives in campus to ensure saving water & electricity.
- Star rated refrigeration system in Hostel and Hotel Management School
- Investors In Gym.
- Use of induction in pantry of Hostel
- Awareness on how to conserve energy during the daytime
- Verified the installation of smart Panels as replacement of Projectors.

6. GREEN CAMPUS INITIATIVES BY KRMU

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. This metric focuses on reducing wasteful energy inefficiencies and using non- conventional sources of energy for daily power need along with effective waste disposal, handling and recycling system. The university should promote the use of digital technology and management to reduce consumption of natural resources - paper, gas, water, energy etc. The university should encourage the staff and students to use the university transport instead of their own vehicles for safety, security, fuel conservation and to reduce environmental pollution. The University is aware of its environment conservation responsibilities and embraces principle of sustainable development to ensure any adverse environmental impact. Infrastructural development is done to maximize usage of natural resources like native vegetation, water reserves, sun and wind resources. Passive green features i.e. sunken areas are developed to reduce temperature regime during summer.

Restricted Entry of Automobiles:

- The University implements no automobile policy in the campus. All the vehicles of employees and students are parked in the designated parking area. There are separate gates for entry and exit of vehicles. Inside the campus there is no entry of vehicles of any kind.

Use of Bicycles/battery powered vehicles:

- All the staff and students will use bicycles/battery powered vehicles as a part of Green Campus & Environmental Sustainability, the entry of automobiles inside the campus is strictly prohibited. Only eco- friendly vehicles (bicycle and battery-operated vehicles) are permitted inside the campus. Any student, staff or outsiders parking their vehicle inside the premises will face disciplinary action. Students & Staff are encouraged to use cycles on campus.
- Verified the Notice of entry of CNG buses 08/04/22 ref. 2902
- PUC verified for HR 55AR 0613 Validity 06/04/26.

Pedestrian Friendly Pathways:

- The university has pedestrian friendly pathways as a part of Green Campus & Environmental Sustainability where pedestrians can walk safely through the designated pathways. The building plan and architecture are planned in user friendly that promotes walkability. Proper footpaths are made along the roads

within the campus and are well maintained in terms of quality with lush green belts accompanying the roadsides. Campus is developed in walk friendly manner with network of pedestrian walkway across the campus and to discourage use of vehicles inside the campus.

Plastic free campus:

- The university is trying its best to minimize plastic usage.
- **Paperless office:** All official communication to staffs and students is done through email, data collection is carried out through Sero soft portal.

Public transport:

- **Carbon accounting:** All vehicles entering University have "Pollution Under Control" certificate University provides CNG buses and CNG cars for students, faculty and staff for daily commuting and also encourages carpooling to reduce carbon footprint.

7. 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.

K.R. Mangalam University has conducted a "Green Audit" in the academic year 2022-2023/ 2023-2025. The main objective to carry out a green audit is to check the green practices followed by KRMU and to conduct a well-defined audit report to understand whether the KRMU is on the track of sustainable development.

7.1.UTILITIES

- Two No Transformers 2000 KVA each. Annual inspection dated 11/11/24 by CEA regulations 2023 by Executive Engineer Gurugram
- WIFI enabled campus of Velocis Systems Pvt. Ltd. IBM enabled active Directory Server for students Password.
- CCTV installed 924 including 865 indoor others in periphery, recording retained for 45 days.
- 1765 computers in the university including classrooms with printers on need base.
- Seven numbers of lifts Make Kone, Schneider and OTIS inspected by OE periodically.
- STP present 100KLD upgraded 300KLD under installation. Test reports available for inlet and outlet water.
- There is adequate fire extinguishers installed and the Fire Hydrants with pumping station These are maintained as per the checklist.
- Verified Fire Exercise held on 16/04/25, training programme is given to Staff, Students, Housekeepers, Drivers, conductors, Security, MTC, AC operators total 258. Fire Officers from Sohna Fire House conducted the same. Fire Fighter Team constituted as per letter Fire/001 dated 10/11/24.

7.2.STATUTORY REQUIREMENTS

- Agreement with Rajmurti Cooperative Labor and Construction Society Ltd. Nuh Mewat Haryana for disposal Dry and Non-Hazardous waste Disposal 12/11/24 to

11/10.25. Registration of vendor by Asst Registrar Cooperative Societies ref 411 dated 04/12/2017.

- KONE lift S. No. S15090356 last third-party inspection on 02.07.24 validity 01.07.2025 from Executive Engineer Electrical Inspectorate Haryana Reg No. F43071/LP/2020 Faridabad.
- Similar third-party reports of other lifts 4 nos Schinder validity 20/03/26, 27/08/25,20.05.26 and 2 lifts OOTIS validity 01/07/25.
- Consent STP from HSPCB 13/08/19 to 31/03/29.
- Monitoring Ambient Noise near tennis garden last Report VEL/N/2009264006 dated 08/05/25 of Vardan Enviro Lab as per IS 9989 within limits. AAQ last tested vide report VEL/A/2009260001 dated 08/05/25 of Vardan Envirolab, Bhi wadi for parameters PM 10 Pm 2.2 Ozone, Pb, Arsenic all Ok.

7.3.POSITIVE POINTS

- Top Management is committed to effectively implement the requirements of green audit.
- The team of IQ to implement the green audit is competent and know their Roles &Responsibilities.
- The infrastructure of the university is very good, and the utilities are adequate. However, improvement is a continuous process.
- Certificate of Excellence Diamond A 30/03/2023 from R World institutional Ranking for Green Campus & environmental Sustainability.

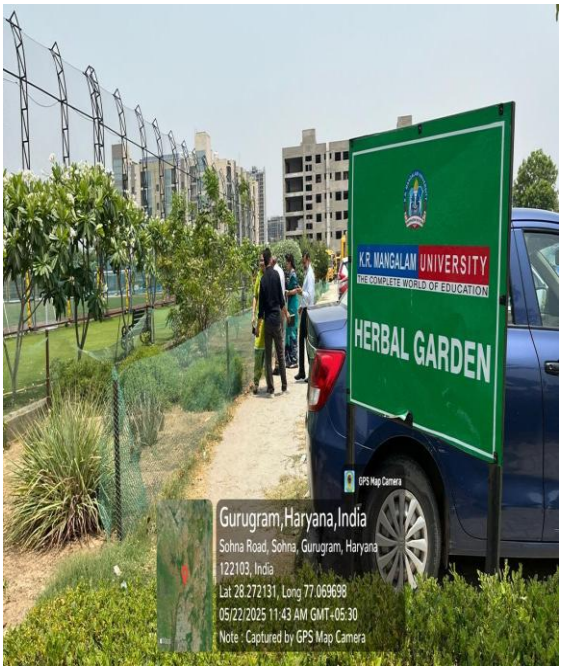
8. RECOMMENDATION

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

- Recommend establishing regular monitoring and reporting mechanisms to track progress towards sustainability goals. This can include collecting data on energy and water usage, waste generation, greenhouse gas emissions, and other key performance indicators to assess the effectiveness of sustainability initiatives over time. This is a continuous process.
- The institute needs to develop SOPs for each process with effective Roles Responsibility Including Mock Drills.
- The institute needs effective monitoring of all parameters on waste, water management and conservation of energy considering past trends. On this basis the objectives/KPI to be specified with monthly or quarterly status.
- Names of Fire Fighters to be displayed. Safety committee MOM to be documented
- Water Sprinklers to be installed in the Hostels and Administrative block for the safety

Conclusion: Based on green audit held in the campus It is recommended for the continuation of the certificate of Green Audit.

9. PHOTOGRAPH

Sewage Treatment Plant 300KLD	VERNICOMPOST UNIT
	
Herbal Plants	**Nursery**
	

Electric Cars	Solar Panel
	
Bio-Gas Plant	**Waste Management**
	

Greenery in Campus	Green House
	
Rainwater Harvesting Pits	**CNG Buses**
	

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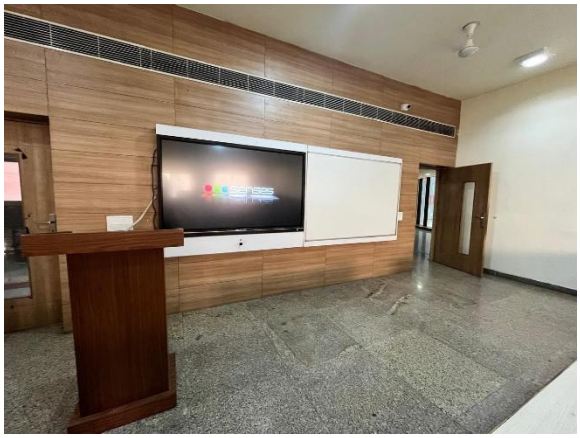
<td>  </td>
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