




# **JANKI DEVI MEMORIAL COLLEGE**

## **ENVIRONMENT AUDIT REPORT**

2024-2025



Prepared by  
**EHS ALLIANCE**



# TABLE OF CONTENT

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|   |           |
|---|-----------|
| <b>CERTIFICATE .....</b>  | <b>2</b>  |
| <b>ACKNOWLEDGEMENT .....</b>  | <b>3</b>  |
| <b>DISCLAIMER .....</b>   | <b>4</b>  |
| <b>CONCEPT AND CONTEXT .....</b>                                    | <b>5</b>  |
| <b>INTRODUCTION.....</b>  | <b>6</b>  |
| <b>OVERVIEW OF THE COLLEGE .....</b>                                | <b>7</b>  |
| <b>AUDIT PARTICIPANTS.....</b>                                      | <b>12</b> |
| <b>EXECUTIVE SUMMARY .....</b>                                      | <b>13</b> |
| <b>WASTE MANAGEMENT .....</b>                                       | <b>14</b> |
| <b>ENERGY CONSERVATION .....</b>                                    | <b>16</b> |
| <b>WATER &amp; WASTEWATER MANAGEMENT .....</b>                      | <b>18</b> |
| <b>AIR QUALITY MANAGEMENT .....</b>                                 | <b>21</b> |
| <b>ENVIRONMENT LEGISLATIVE COMPLIANCE .....</b>                     | <b>22</b> |
| <b>GENERAL INFORMATION.....</b>                                     | <b>23</b> |
| <b>RECOMMENDATIONS.....</b>   | <b>26</b> |
| <b>CONCLUSION.....</b>  | <b>27</b> |
| <b>REFERENCES.....</b>  | <b>27</b> |
| <b>ANNEXURE I – ENVIRONMENTAL RECOGNITION AND COMPLIANCE.....</b>   | <b>28</b> |
| <b>ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES .....</b> | <b>29</b> |



# CERTIFICATE



## CERTIFICATE

PRESENTED TO

### JANKI DEVI MEMORIAL COLLEGE

Sir Ganga Ram Hospital Marg, New Delhi - 110060

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

## ENVIRONMENT AUDIT

ACADEMIC YEAR 2024-25

The environment legal compliances and initiatives carried out by the institution have been verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

SIGNATURE



22.05.2025

DATE OF AUDIT

EHS ALLIANCE SERVICES, PLOT A-72, SURYA VIHAR, GURUGRAM, 122001  
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# ACKNOWLEDGEMENT

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EHS Alliance Services extends its sincere gratitude to the management of **Janki Devi Memorial College** for entrusting us with the important task of conducting the **Environmental Audit**. We deeply appreciate the cooperation and support extended by all members involved, which was instrumental in the successful completion of this assessment.

We would like to express our heartfelt thanks to **Professor Swati Pal**, Principal, JDMC, for providing us the opportunity to evaluate the college's environmental performance and sustainability initiatives.

Our special thanks go to **Dr. Deepak Rawat**, Department of Environmental Studies and Audit Coordinator, for his continuous support, valuable insights, and coordination throughout the course of the project. His commitment played a crucial role in the successful execution of the audit.

We are also grateful to the following individuals for their active participation, assistance in data collection, and support during fieldwork:

- **Ms. Vandana Madan** – Convener, AVANI – The Environment Club, JDMC
- **Dr. Sana Rehman** – Department of Environmental Studies, JDMC
- **Dr. Kaushal Kishore**, Administrative Officer, JDMC
- **Mr. Surendra Kumar**, Administrative Officer, JDMC
- **Mr. Avinash**, Assistant – Administration, JDMC
- **Mr. Vijay Pratap**, Assistant – Administration, JDMC

Their cooperation and dedication are deeply appreciated.



# DISCLAIMER

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This report has been prepared by the **EHS Alliance Services Audit Team** for **Janki Devi Memorial College** based on the data and information provided by designated representatives of the college. The findings and recommendations presented herein reflect the professional judgment and expertise of the audit team, combined with the input received.

While every reasonable effort has been made to ensure the accuracy and reliability of the information, the content has been compiled in good faith. The conclusions and assessments are based on best estimates and current understanding; however, no express or implied warranty, representation, or undertaking is made regarding the completeness, accuracy, or applicability of the contents. The audit team assumes no responsibility for any direct, indirect, or consequential loss or damage resulting from the use of the information, statements, or projections included in this report.

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Signature

**LEAD AUDITOR**

# CONCEPT AND CONTEXT

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In India, the concept of **environmental auditing** was first introduced under the **Environment (Protection) Act, 1986**, as notified by the **Ministry of Environment and Forests** on **13th March 1992**. According to this legislation, any individual or entity operating an industry or undertaking a process or activity must obtain legal consent and is required to submit an **environmental statement or report** on a regular basis.

In recent years, the importance of environmental responsibility in the education sector has also been emphasized. The **National Assessment and Accreditation Council (NAAC)**, New Delhi, has made it **mandatory from the academic year 2019–20** onwards for all **Higher Educational Institutions (HEIs)** to submit an annual **Green, Environment, and Energy Audit Report**. This initiative is not only regulatory but also aligns with the broader objectives of **Corporate Social Responsibility (CSR)**, encouraging institutions to contribute proactively toward sustainable development.

In compliance with NAAC directives and to uphold its environmental responsibilities, the management of **Janki Devi Memorial College** resolved to conduct a comprehensive **external environmental audit** through a qualified professional agency.

The term "**Environmental Audit**" can vary in meaning depending on the context. It is often used interchangeably with terms like **assessment, survey, or review**. While some organizations focus solely on environmental aspects, others broaden the scope to include **health, safety, and environmental (HSE)** considerations. Despite the absence of a universally accepted definition, many institutions follow the guiding principles set forth by the **International Chamber of Commerce (ICC)** in its 1989 publication on **Environmental Auditing**.

According to the ICC, **Environmental Auditing** is defined as:

"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

This audit primarily focuses on evaluating **compliance with environmental regulations**, particularly those laid out by the **Ministry of Environment, Forest and Climate Change (MoEFCC)** and the respective **State Pollution Control Boards (SPCBs)**. It assesses the institution's adherence to legal norms, effectiveness of implementation, and explores areas for improvement in environmental practices.

The subsequent sections of this report will elaborate on the **concept, structure, methodology, tools of analysis, and objectives** used in the environmental audit process.



# INTRODUCTION

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## A Step Toward Sustainable Development

Nature is an invaluable gift to all living beings. However, disturbances in natural systems have led to a rise in environmental challenges, largely driven by rapid urbanization and industrialization. Unplanned and excessive exploitation of natural resources is placing immense strain on the planet, contributing to rising global temperatures and environmental degradation.

To ensure the well-being of future generations, it is crucial to adopt a **sustainable approach to resource utilization**. Globally, **sustainable development** is emerging as a key strategy to safeguard the environment. Wise and judicious use of resources not only preserves their value but also ensures their availability for the future.

One of the most effective methods to monitor and protect our natural resources is through **environmental auditing**. Originating in the early 1970s, environmental audits were introduced in response to legal mandates requiring compliance with environmental regulations. These audits typically involve **on-site inspections, sample collection, data analysis**, and comprehensive reporting to regulatory authorities.

While industries and corporations have increasingly adopted environmental audits as a tool for sustainability, **academic institutions** also play a vital role. By implementing sustainable practices and conducting internal audits, they can significantly contribute to the conservation of resources within their campuses.

This **Environmental Audit Report** aims to inspire awareness and action by encouraging individuals and institutions to reflect on their environmental impact, recognize the importance of conservation, and commit to reducing resource consumption. By setting an example through **eco-friendly initiatives**, we can collectively work towards the broader goal of **sustainable development**.

Effective implementation of environmental audits can significantly minimize environmental risks at a **reasonable cost**, ultimately helping to build a greener, healthier, and more responsible society.



## OVERVIEW OF THE COLLEGE

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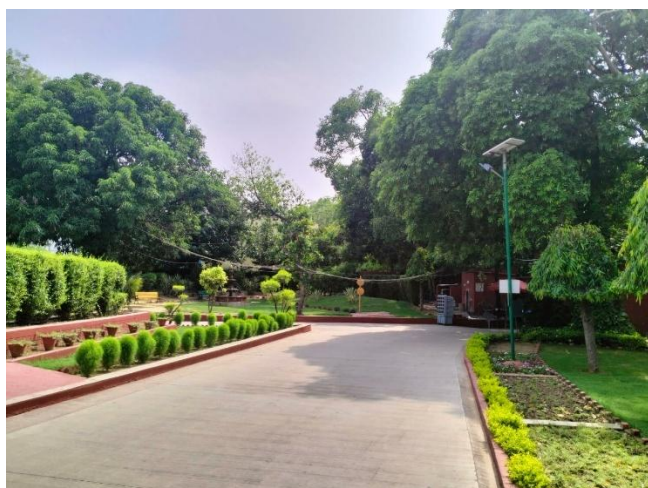
Janki Devi Memorial College, a premier women's college of University of Delhi was founded in 1959 by the famous Gandhian Shri Brij Krishan Chandiwala in memory of his mother Smt. Janki Devi. JDMC aims to provide quality education to young women and empower them to become economically self-reliant, have the confidence to face the vicissitudes of a challenging society, contribute meaningfully to the society at large and acquire the capability to think, lead and change the world.

Situated in New Delhi Ridge in idyllic surroundings with its lush green lawns and imposing building, the college offers twelve under-graduate courses in Liberal Arts, Social Sciences, Mathematics and Commerce and eight post graduate courses. JDMC is the Centre for Non-Collegiate Women's Education Board (NCWEB) as well as School of Open Learning (SOL), University of Delhi. The college runs several Add-on courses/Certificate courses for students to enhance their skills. JDMC has MOUs with national and international agencies to provide the much-needed real world exposure to its students. It has more than thirty Societies/Clubs/Cells to give its students sufficient platforms to excel in various domains. The college has an extremely dedicated, committed and motivated faculty and staff.



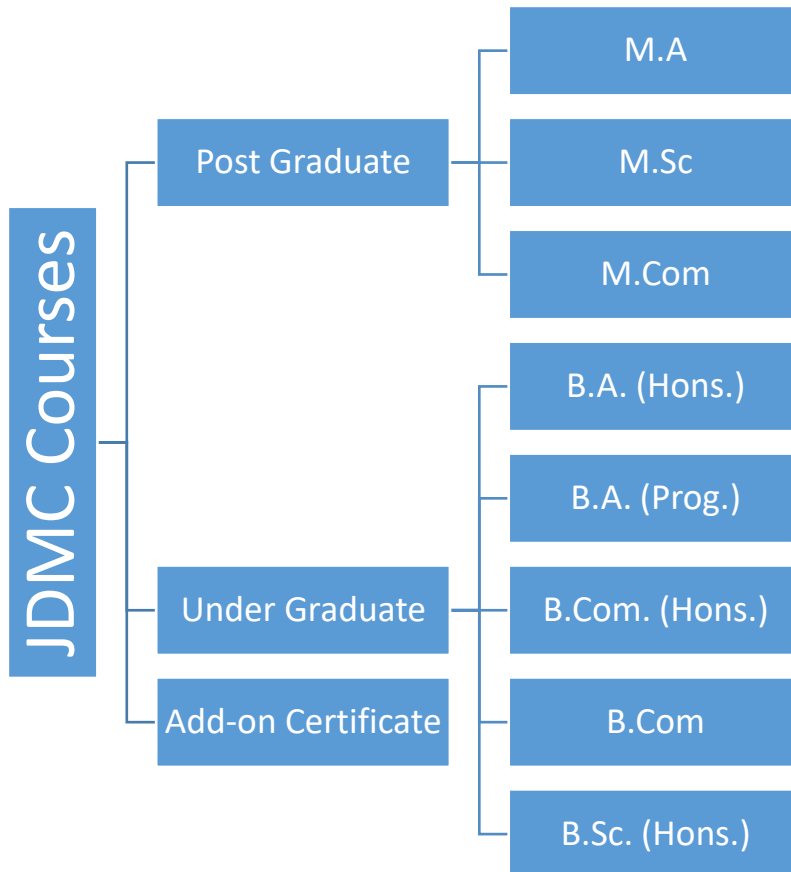
The college offers facilities and infrastructure to create a holistic atmosphere for the pursuit of academic and extracurricular activities. JDMC has recently completed its 60-year journey in pursuit of excellence. The college has provided a nurturing environment to students from all parts of India. It has the distinction of having a disabled-friendly infrastructure along with a strong assistance system in place for the students and faculty with visual disability.





The JDMC-IQAC works in its mandated direction of internalizing and institutionalizing the quality enhancement initiatives. These initiatives encompass various stakeholders, namely students (with the aim of their integrated development), teaching staff and non-teaching staff (enhancing their capabilities and empowering them) and students' parents and Alumnae (strengthening mutually beneficial relationships).

JDMC offers wide range of under graduate, post graduate and Add-on certificate courses.



## MISSION & VISION

The college is committed to providing an educational journey for young women undergraduates which culminates in their ability to be self-reliant and to appreciate as well as negotiate with the complex socio-economic-political-cultural world that they inhabit. It is envisioned that the college will hone leadership qualities and a spirit of selfless service in its students through its academic programmes, the pedagogical methods employed by faculty members as well as through a vast spectrum of extra/co-curricular and outreach activities. The achievement and maintenance of excellence in all domains is embedded in the policies that frame the governance and the teaching-learning processes of the institution.

The Gandhian principles of simplicity, tolerance, dignity of labour, harmony and inclusivity, compassion and service to the marginalized sections of society as propounded by the founding father of the college, Shri Brij Krishan Chandiwalla, are an integral part of the vision of the college. To that end, the college is dedicated to creating an educational atmosphere that includes students from diverse economic, social and ethnic backgrounds. It pledges to be empathetic to young women from deprived sections of society and provide them the same opportunities as those who are privileged. Furthermore, the college is devoted to the task of facilitating cultural understanding as also the implications of change in society, politics, economy and technology through opportunities to study literatures, languages, commerce, cultures and the arts in a modern and conducive educational environment. It is also committed to encourage research and provide job and service opportunities to its students on and off campus. The college recognizes that education can transform individuals and communities and aspires to furnish students with all the elements that can use their full potential. Thus the motto of the college, Vidya hi paramam jyoti or Knowledge is eternal light reflects in totality the vision of the college.

### *MISSION STATEMENT AND CORE VALUES*

The egalitarian approach of the institution promotes the inclusion of all sections of the society. The institution is equally inclusive of all its constituencies, with their respective duties, responsibilities and achievements. The students and staff, belonging to diverse classes, castes, ethnic and religious groups cooperate in a democratic environment to take the college to newer heights of excellence. The institution besides providing education, also serves as a platform for cultural expression and excellence, constantly reminding students of the primary importance of cultural diversity, national integration and tolerance, along with the need to be in harmony with the environment

Janki Devi Memorial College is committed to the following core values:

- The foundational ideal is enshrined in the upanishadic motto of the college itself, 'Vidyahi paramam Jyoti'- Knowledge is Eternal Light
- Gandhian philosophy of responsible citizenship and empowerment of women through education

- Imparting knowledge based on traditional values, yet with modern and global significance in an evolving academic world
- Education, in combination with technological skills, empowers the students both academically and economically, and proactively contributes to their brighter future.

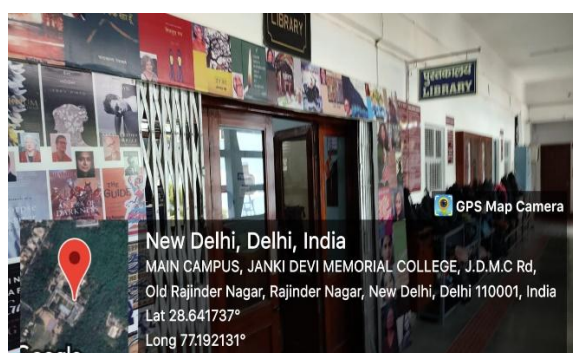
Therefore, the college creates a motivational environment to provide holistic education and personality development of the students, resulting in a synthesis of their career growth and ethical and responsible citizenship

## Facilities in the campus

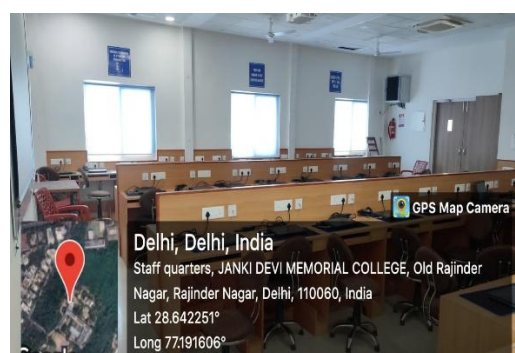
The college has an impressive building with lush green lawns, an eco-friendly campus with solar lighting and a rain-water harvesting system. The classrooms are clean, comfortable and well ventilated; the premises contain a common room and a medical room with a sanitary napkin vending machine, an open-air auditorium; a bank, a multi-cuisine and attractive cafeteria, computer laboratories; an audio-visual room; a photocopying centre as well as a Mother Dairy booth.

**LIBRARY:** JDMC library is a repository of over 1 lakh books and over 100 journals, both academic and general. It is among the first fully automated libraries in Delhi University and provides photocopying and free internet access facilities.

**WELL EQUIPPED LABS:** JDMC has 4 computer labs, 2 Research Rooms, and an A/V room. With 200+ systems and ICT facilities, these rooms provide a state-of-the-art teaching/learning environment to the students and faculty.



**Library**



**Computer Lab**

**CANTEEN:** The college has a spacious cafeteria that offers a wide variety of snacks to students and staff at reasonable rates.





**Canteen**



**Sports ground**



**Lush green campus**

**GARDEN:** The college Gardens are a source of pride for JDMC. The gardens have won many awards in different categories in the university flower show.

**SMART CLASSES:** The college has 20 smart Classrooms which are ICT enabled with interactive smart boards to facilitate the teaching-learning process.

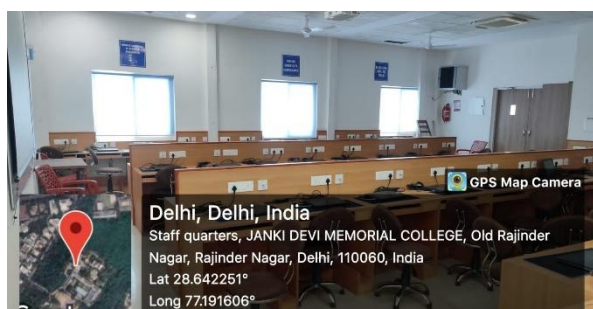
**SEMINAR ROOM:** The Seminar Room has a seating capacity of more than 200 with a state-of-the-art audio-visual system which is updated on a regular basis. The Seminar Room functions as a multi-purpose space used to hold conferences, seminars, workshops, meetings etc.



**Seminar room**



**Smart classrooms**



**Computer Lab**



**Solar PV**



**Geo Coordinates from Google maps: 28.640232, 77.188914**

## AUDIT PARTICIPANTS

| Name                | Designation  |
|---------------------|--|
| Professor Swati Pal | <i>Principal, JDMC</i>                             |
| Ms Vandana Madan    | <i>Convener, AVANI- The Environment Club, JDMC</i> |
| Dr Deepak Rawat     | <i>Department of Environmental Studies, JDMC</i>   |
| Dr Sana Rehman      | <i>Department of Environmental Studies, JDMC</i>   |
| Dr. Kaushal Kishor  | <i>Administrative Officer</i>                      |
| Mr. Surender Kumar  | <i>Administrative Officer</i>                      |
| Mr. Avinash Kumar   | <i>Assistant cum Caretaker</i>                     |
| Mr. Vijay Pratap    | <i>Assistant cum Caretaker</i>                     |

On behalf of EHS Alliance Services

| Name              | Position     | Qualifications  |
|-------------------|--------------|---|
| Dr. Uday Pratap   | Lead Auditor | <i>Ph.D., PDIS, QCI – WASH, Lead Auditor ISO 14001:2015</i> |
| Ms. Pooja Kaushik | Co-Auditor   | <i>M.Sc., Field Expert, PGCCC, QCI – WASH</i>               |





# EXECUTIVE SUMMARY

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An environmental audit provides a snapshot of an institution's current performance in complying with relevant environmental laws, regulations, and best practices. While it serves as a valuable baseline assessment, its long-term effectiveness depends on the presence of systems that ensure continuous monitoring and improvement of environmental compliance.

At Janki Devi Memorial College, our approach to building a green campus goes beyond compliance—we aim to **instill sustainable values in students**, empowering them to carry these principles forward into their personal and professional lives. This holistic approach helps embed environmental and sustainability consciousness across institutions and organizations nationwide.

A **Green Campus** integrates environmentally responsible practices with academic engagement to foster a culture of sustainability. It provides institutions an opportunity to lead by example, redefine their environmental ethos, and contribute innovative solutions to the social, environmental, and economic challenges of our time.

This report marks the **fourth environmental audit** of the college—an affirmation of its ongoing commitment to environmental protection and awareness, both locally and globally. The audit was conducted using a structured questionnaire, with criteria including:

- Environmental awareness and literacy
- Waste minimization and management
- Biodiversity conservation
- Water conservation
- Energy conservation
- Compliance with environmental legislation

This report presents **key observations**, as well as **recommendations** to strengthen environmental performance and consciousness across campus operations.

# WASTE MANAGEMENT

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## TYPE OF WASTE ON COLLEGE CAMPUS

To develop an effective waste management strategy, it is essential to first understand the types of waste generated within the college campus. Below is an overview of the various categories of waste commonly produced in an academic environment, along with the existing and recommended management practices at Janki Devi Memorial College:

### 1. Food Waste

The college campus, particularly the canteen and hostel mess, generates approximately **10 kg of food waste daily**. This typically results from over-purchasing supplies or students discarding uneaten food. The institution is actively working to minimize food waste through awareness campaigns and better inventory planning.

### 2. Recyclable Materials: Paper, Cardboard, Plastic, Glass & Cans

Despite the digital era, a large amount of **recyclable waste** is generated from handwritten notes, printed materials, and packaging. The college uses a **paper recycling unit** to process this waste efficiently and encourages recycling across all departments.

### 3. Clothing and Housewares

Students often discard usable clothes and dorm items at the end of academic sessions. To address this, the college—through **NSS, UBA, and AVANI**—organizes **regular clothing donation drives** in collaboration with NGOs such as **Goonj** and **WWF-India**, promoting a culture of reuse and social responsibility.

### 4. E-Waste

Obsolete electronics like computers, printers, phones, and other devices from staff and students contribute to **e-waste**. The college has formal **tie-ups with authorized recycling agencies** and has designated storage for safe handling and periodic disposal through auction processes.

### 5. Chemical Waste

Generated mainly in **science laboratories and cleaning services**, chemical waste is handled with strict adherence to the **Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989**. The Chemistry Department actively implements **waste minimization techniques** in all experiments.

### 6. Maintenance Waste

Waste from the maintenance department includes **paints, solvents, adhesives, lubricants**, and spent bulbs. Fluorescent lamps, which contain **mercury**, require **specialized handling and disposal**, while regular incandescent bulbs often become landfill waste.

### 7. Biological Waste





Biological waste typically requires disposal under the **Bio-Medical Waste Management Rules, 2016**. However, **Janki Devi Memorial College** does not generate biological waste as part of its regular operations.

#### **8. Furniture Waste**

Old and damaged furniture is periodically replaced during upgrades in classrooms, labs, and other facilities. These items are **annually sold to authorized scrap dealers**.

#### **9. Books, Magazines & Newspapers**

Outdated or unused books often contribute to solid waste. At JDMC, students are encouraged to **donate textbooks and notes** to juniors. Departments also organize **book donation drives** in collaboration with NGOs, and unsalvageable books are auctioned to resellers.

#### **10. Construction and Demolition (C&D) Waste**

Renovation and construction work generate **C&D waste**, which is responsibly **disposed of at authorized CPCB/SPCB dumping sites** or used for **backfilling** where appropriate.

#### **11. Solid Waste**

The college has implemented **solid waste segregation** practices and ensures daily disposal through the **municipal corporation**. Compostable materials are processed through **in-house composting units**.

#### **12. Horticulture Waste**

With vast green areas and landscaping, the campus produces a substantial amount of **horticultural waste**. This is efficiently managed through an **on-campus composting system**, contributing to soil enrichment and zero-waste gardening practices.

# ENERGY CONSERVATION

List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.

## A. Electricity

- To meet the daily needs of conducting classes, operating computer labs, library, offices, staff room, canteen, hostel, etc.

## B. LPG

- Cafeteria and hostel mess

## C. Petrol & Diesel

- 2 Car runs on CNG and petrol
- Diesel in DG set

## Ways to use less energy

- Replacing the conventional bulbs to LEDs
- Using energy efficient appliances
- Solar PV installed on building roofs
- Solar lights and solar geysers are also used
- Use of natural light when possible
- Use large appliances together to reduce energy use.
- Cleaning of Filters on regular basis and replace them whenever needed.
- Sealing cracks and gaps and leaks and adding insulation which leads to saving energy up to 10% on heating and cooling.
- Insulate the room spaces
- Turn off the switch on the socket after use.

Are there any energy-saving methods employed in your institute? If yes, please specify. If no, suggest some

## JDMC has adopted several energy-saving techniques

- Renewable source of energy through 58.22 KW solar panel is operational
- Solar heaters are installed for hostels and mess
- LED lights have been installed on campus
- To switch off fans and lights when not in use
- To switch off bulbs/LEDs in the well-lighted rooms during sunny afternoons
- To organize various energy conservation awareness programs for students and staff
- To keep the computers and ACs on power saving mode.
- To buy energy-saving equipment
- To install green mats on corridors to reduce sunlight exposure

How many CFL/LED bulbs has your institute installed?

JDMC has replaced all conventional bulbs and tube lights with 20W LED Lights. The college has a total of 909 LED lights installed.



Do you run “switch off” drills at the institute?

Yes

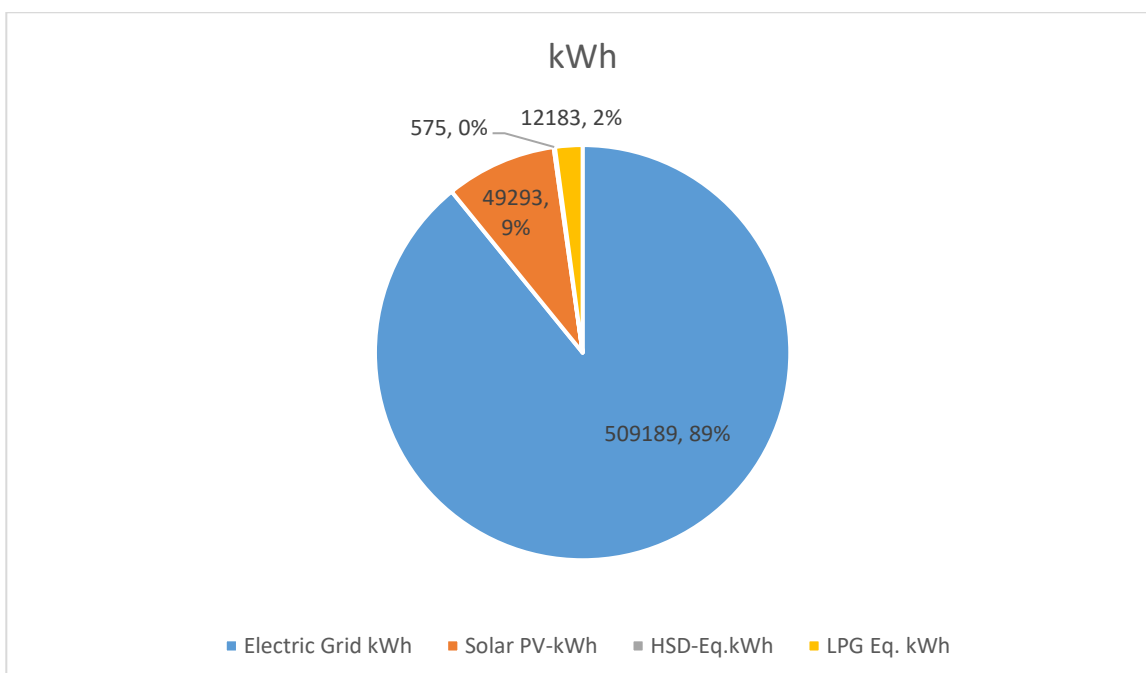
Are your computers and other equipment put in power-saving mode?

Yes approximately 5-6 hours

Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?

Yes, approx. 5-6 hours

|                          | <i>kWh</i>    | <i>Percentage</i> |
|--------------------------|---------------|-------------------|
| <i>Electric Grid kWh</i> | 509189        | 89.14%            |
| <i>Solar PV-kWh</i>      | 49293         | 8.63%             |
| <i>HSD-Eq. kWh</i>       | 575           | 0.10%             |
| <i>LPG Eq. kWh</i>       | 12183         | 2.13%             |
| <i>Total -kWh</i>        | <b>571240</b> | <b>100%</b>       |



# WATER & WASTEWATER MANAGEMENT

List uses of water in your institute

Basic use of water in campus:

**Drinking** – 135.87 KL/month

**Gardening** – 915.30 KL/month

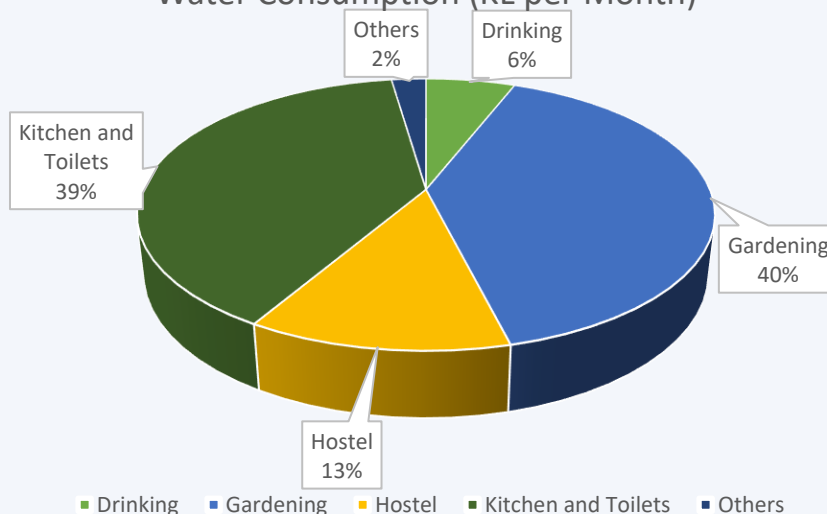
**Kitchen and Toilets** – 894.62 KL/month

**Others** – 52.48 KL/month

**Hostel** – 283.50 KL/Month

**Total = 2281.77 KL/Month**

Water Consumption (KL per Month)



How does your institute store water? Are there any water saving techniques followed in your institute?

JDM College relies on municipal water as a primary source for academic blocks and teachers' houses, and three bore wells as a secondary source. The campus has one main tank filled twice daily from the municipal supply, distributing water to 15 small overhead tanks in the academic block. The average time required to fill the tanks is 45-60 minutes. The main tank can store up to 20,000 litres, and 15 overhead tanks of 500-1000 litres capacity.

*Saving Techniques*

- JDMC ensures regular water tank maintenance and checks water quality standards on campus.
- The water tanks and water coolers are checked every three months, and RO systems are regularly changed.

Locate the point of entry of water and point of exit of wastewater

*Entry* - The primary source of water is the Delhi Jal Board (MCD). JDMC also has 3 bore wells which are used occasionally as secondary sources.

*Exit*- From Canteen, Toilets, Hostel, Bathrooms and Labs through covered drainage which is connected to municipal sewage

in your  
institute.  
(Entry and  
Exit)

Write down  
ways that  
could  
reduce the  
amount of  
water used  
in your  
institute

- The college ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages. The college checks the water flow in the taps. The college has initiated the installation of auto-push taps to reduce water wastage.
- The campus has 60+ double-level flush systems in the academic blocks to further reduce water usage.
- Janki Devi Memorial College has implemented several unique and unconventional approaches to sustainability that have yielded positive results. One example is implementing a campus-wide water conservation program with RO-reject water recycling and drought-resistant landscaping. The college-planted adusa, scientifically known as *Justicia adhatoda*, is a versatile and medicinal plant often used in traditional remedies. Also, the college planted *Sisymbrium*, Chamrod, and *Vajradanti*, which require less water. Habitat restoration projects like the biodiversity trail are undertaken to preserve and enhance local biodiversity, creating green spaces that support native wildlife.
- The RO reject water is used in the toilets. The college has initiated growing plants native to the semi-arid regions, requiring less water to survive. These initiatives have significantly reduced water usage on campus while promoting sustainable water management practices.

Does your  
institute  
harvest  
rainwater?

Yes, there are three unit for rain water harvesting Pits

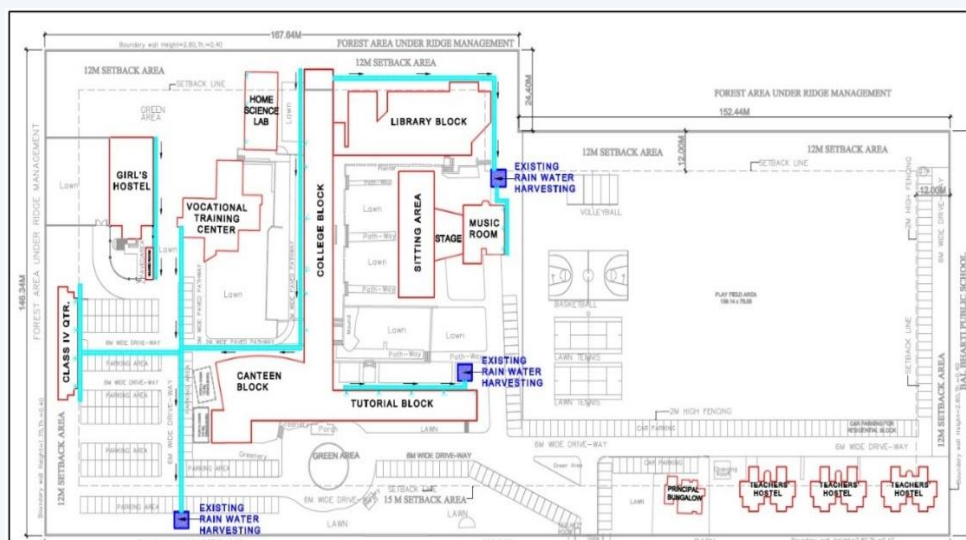


Rainwater drainage



Rainwater harvesting pit





Is there any water recycling System?

No



# AIR QUALITY MANAGEMENT

|  |  |
|--|--|
| Are the Rooms in Campus Well Ventilated?                   | <i>Yes, as per National Building Code, guidelines</i>  |
| Window Floor ratio of the Rooms?                           | <i>Very Good, ample daylight utilization because of big windows.</i>   |
| What is the ownership of the vehicles used by your campus? | <i>There are 2 college owned vehicles.</i>   |
| Provide details of Institute-owned vehicles?               | <i>2 Car – CNG (Petrol Engine)</i>   |
| PUC done?  | <i>Yes</i>   |
| Specify the type of fuel used by your campus's vehicles    | <i>2 Car – CNG (Petrol Engine)</i>   |
| Air Quality Monitoring Program (If, Any)                   | <i>The college does not monitor Air Quality on its own. However, the college uses the publicly available AQI index to monitor the air quality and sensitise students regarding the hazards of poor air quality. The college follows Delhi University notifications and participates in air pollution breaks.</i> |



# ENVIRONMENT LEGISLATIVE COMPLIANCE

Are you aware of any environmental Laws Pertaining to different aspects of environmental management?

Yes, to promote environment management on the campus, the JDMC follows these laws:

- 1) Protection of trees on campus (Delhi Preservation of Tree Act, 1994, National Green Tribunal Act, 2010)
- 2) De-concretisation of trees (National Green Tribunal Act, 2010)
- 3) Segregation and recycling of Waste (Solid Waste Management Rules 2016)
- 4) Reduce Noise on campus (Noise Pollution (regulation and control) Rule, 2000)
- 5) Reduce the single use of plastic, and recycling of plastic (Plastic Waste Management Rules, 2016)
- 6) Recycling of electronic waste (e-waste Management and Handling Rules 2011)

The college has several environmental Policies  
Environment Policy  
Plastic Free Campus  
Energy usage Policy

Name of the Environment Department: Department of Environmental Studies

Name of Environmental Club: AVANI-The Environment Club

Name of Garden Committee: Upavan

Does your institute have any rules to protect the environment? List possible rules you could include.

Yes, the eco club AVANI and the Department of Environmental Studies of JDMC are conscious of environmental protection and take proper measures in terms of awareness campaigns, activities, webinars, seminars, etc. We follow the ban on single-use plastic. We follow rules for the safe disposal of hazardous e-waste. We follow the rule on the de-concretisation of trees.

Does Environmental Ambient Air Quality Monitoring conducted by the Institute?

The college does not monitor Air Quality on its own. However, the college uses the publicly available AQI index to monitor the air quality and sensitize students regarding the hazards of poor air. The college follows Delhi University notifications and participates in air pollution breaks.

Does Environmental Water and

The college has recently bought pH and TDS meters to monitor drinking water quality.



Wastewater Quality monitoring conducted by the Institute?

Does stack monitoring of DG sets conducted by the Institute?

No

Is any warning notice, or letter issued by state government bodies?

No. CPCB asked the college to furnish details of the e-waste disposal in 2023. College has successfully disposed of 2662 kg of e-waste through a CBCB certified organization RLG systems Pvt. Ltd.

Does any Hazardous waste generated by the Institute?

No

## GENERAL INFORMATION

Does your institute have any rules to protect the environment? List possible rules you could include.

Yes, the eco club AVANI and the Department of Environmental Studies of JDMC are conscious of environmental protection and take proper measures in terms of awareness campaigns, activities, webinars, seminars, etc. We follow the ban on single-use plastic. We follow rules for the safe disposal of hazardous e-waste. We follow the rule on the de-concretisation of trees.

Are students and faculties aware of environmental cleanliness ways? If Yes Explain

Yes. Janki Devi Memorial College creates awareness through ECO Club activities, Webinars, and cleanliness drives in the community.

Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

To create sensitisation on environment and related issues among the student community and teaching and non-teaching staff, the College celebrates various events like the World Environment Day, Earth Day, Zero Emission Day, Wildlife Week, Swachhta Pakhwada, etc. Furthermore, JDMC organises its week-long Environment fest, 'EKATVAM' and organises activities like Create from Waste, Donation drive, Quiz sessions, webinars, and poster-making sessions.

Does Institute participate in National

Yes, JDMC actively participates in national-level programs like Swachhta Pakhwada, Clean India, Swachhta Shramdan, and also



and Local Environmental Protection Movement?

*celebrates various environmental protection days. The college also organised various activities in the surrounding localities and adopted the village of Nuna Majra..*

Does Institute have any Recognition or certification for environment friendliness?

*Janki Devi Memorial College and JDMC Avani has successfully got the certificate of District Environment Championship Award 2024.*

Does the Institution conduct a green or environmental audit of its campus?

*This is the fourth external audit carried out by the college.*

Does any Hazardous waste generated by the Institute?

*No*

## INITIATIVES CARRIED OUT BY COLLEGE

### 1. Renewable Energy Initiatives

- A 58.22 kW rooftop Solar Photovoltaic (PV) system has been installed to support the institution's renewable energy goals.
- Solar-powered Street lighting is operational across the campus.
- Solar geysers have been installed on the rooftop of Krishna Hostel for energy-efficient water heating.

### 2. Rainwater Harvesting

- Three rainwater harvesting pits have been developed on campus to support groundwater recharge.
- The harvested rainwater is primarily used for landscaping and gardening purposes.

### 3. Liquid Waste Management

- Leakproof water fixtures are installed and maintained routinely to prevent wastage.
- Water-saving measures include the construction of Indian-style toilets, which consume significantly less water compared to Western-style systems.
- A dedicated staff member is assigned to promptly address any water leakage issues in taps, pipelines, tanks, or flushing systems.
- Wastewater generated from the campus RO (Reverse Osmosis) system is reused for toilet flushing.



#### **4. Solid Waste Management**

- The college effectively manages horticultural waste through composting, promoting environmentally responsible disposal practices.
- Paper consumption is reduced by digitizing attendance records and internal assessment processes.
- The library encourages the use of digital resources by continuously updating its collection of e-books and e-journals.
- Awareness campaigns are conducted to educate students on food wastage and strategies for minimizing it.
- Students are motivated to adopt the habit of reusing and recycling non-biodegradable materials.
- The institution regularly hosts workshops on solid waste management for student engagement and learning.
- The use of single-use plastics and plastic crockery is strictly prohibited on campus.
- Through various initiatives and awareness drives, the college actively promotes the principles of Reduce, Reuse, and Recycle (3Rs) as part of its sustainability commitment.

#### **5. E-Waste Management**

- The college has allocated a secure storage facility specifically for the accumulation of electronic waste.
- E-waste is periodically disposed of through a certified auction process in collaboration with authorized waste management agencies.

#### **6. Air Pollution Control**

- To minimize vehicular emissions, student-owned personal vehicles are not permitted within the campus premises.

#### **7. Green Committee & NSS Environmental Initiatives**

- On June 5, 2024, JDMC NCC celebrated World Environment Day focusing on the theme of “Land Restoration, Desertification and Drought Resilience”.
- Cadets enthusiastically participated in the plantation drive conducted on this occasion encouraging awareness and action for the protection of the environment.
- Between July 4-10, 2024, the JDMC NCC celebrated Plastic Bag Free Week under Vasundhara-The Sustainability
- Campaign Series. Cadets participated in this event promoting a zero-tolerance approach to plastic waste through posts, infographics, and challenges encouraging people to switch to reusable bags.
- On October 1, 2024, the NCC team participated in the “SWABHAV SWACHHATA SANSKAR SWACHHATA” at India Gate.
- The event aimed at promoting cleanliness and environmental awareness among citizens. The NCC cadets, equipped with gloves, brooms, and garbage bags, worked diligently to clean the area around the India Gate. They collected litter and disposed of it in eco-friendly ways.

## 8. Environmental Club – AVANI Initiatives

- The Environmental Club, AVANI, collaborates with community-based organizations such as Edible Roots on initiatives like urban greening and habitat restoration.
- Faculty from the Environmental Studies department actively support AVANI's plantation drives and participate in related awareness activities.
- Aerobiology walks and specialized add-on courses on environmental allergies are offered to enhance student awareness of air quality and health.
- Under the "Aao Bag Banao" initiative, students repurpose old cloth into eco-friendly bags, which are sold during the annual Diwali Mela.
- The Environment Club of Janki Devi Memorial College (JDMC), under the aegis of IQAC, organised the inaugural of E(co)-Mart from October 23-25, 2024. This event, held at the JDMC Triangle, aimed to promote sustainable living by offering eco-friendly products that were produced or assembled on the college campus. The E(co)-Mart aligns with JDMC's commitment to environmental consciousness, encouraging students and faculty to adopt sustainable practices.
- Avani successfully organised a Handmade Paper Making Workshop on October 20, 2024. The workshop effectively combined education and artistry, guiding attendees through each step of the paper-making process, from sourcing materials to forming and drying their own sheets.
- Avani, the environment club of JDMC, organised a successful E-Waste Drive from 10th to 14th October 10-14, 2024 near the college reception. Open from 9 AM to 5 PM, the drive accepted items like electronic devices, computer accessories, home appliances, and broken Diwali lights while batteries and bulbs were excluded.

## RECOMMENDATIONS

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- **Eco-friendly criteria** should be incorporated into the procurement process for all goods and materials used on campus to promote sustainable consumption.
- The campus community is encouraged to adopt **carpooling practices** as a means to reduce vehicular emissions and contribute to cleaner air.
- A **regular maintenance schedule** should be implemented for key sustainability systems such as the **solar photovoltaic (PV) panels, solar geysers, and rainwater harvesting pits and drainage systems** to ensure optimal efficiency and longevity.
- Periodic maintenance of **air conditioning systems (ACs)** and **diesel generators (DGs)** is recommended to improve operational efficiency and reduce energy consumption.
- **Environmental monitoring**, including **stack emissions from DG sets and water quality assessments**, should be conducted regularly in accordance with guidelines from the **State Pollution Control Board (SPCB)**.
- Efforts should be made to **reduce carbon emissions** by limiting the consumption of **LPG and diesel fuel** wherever feasible.
- Implementation of **water metering systems** is recommended to support **water auditing and balance tracking**, enabling more responsible water usage.
- If a **borewell** is in use or proposed, the appropriate **permissions must be obtained from the Central Ground Water Authority (CGWA)** in compliance with regulatory standards.

## CONCLUSION

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This environmental audit was carried out through in-depth consultations and collaborative discussions with the campus team, including key stakeholders responsible for sustainability and infrastructure. The audit process covered a broad spectrum of environmental considerations and site observations.

Notably, approximately **75% of the college campus** is dedicated to **landscaping and green cover**, reflecting the institution's commitment to environmental preservation. **Janki Devi Memorial College** has demonstrated a strong intent to foster environmental stewardship both within the campus and in the broader community.

While the current practices are commendable and indicate that the site is generally well-maintained from an environmental standpoint, the audit has highlighted several **opportunities for enhancement**. The recommendations provided herein offer practical and actionable steps that can further support the college in becoming a more **sustainable and eco-conscious institution**.

By implementing these suggestions, the college can strengthen its environmental initiatives and set a benchmark.

## REFERENCES

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- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices



# ANNEXURE I – ENVIRONMENTAL RECOGNITION AND COMPLIANCE





## ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES



Well Maintained Campus



Well Ventilated Building



Lush Green Campus



Paved Pathways



Color Coded Dustbins



Nursery



Ornamental Plants In Campus



Indoor Plants In Campus



Smart Classrooms



Biodiversity



Kitchen Garden



Biodiversity Trail



Herbal Garden



Green Campus



Herbal Garden



Plantation Drive



Plantation Drive



Solar PV Installed





Tree Census



Paper Recycle Box



Composting Machine



Recycling Of RO Wastewater



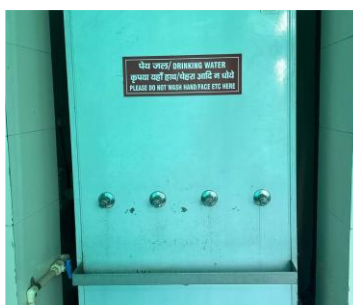
Rainforest Day Celebration



Rainwater Harvesting Drain



Dishwasher Machine For Water Conservation



Push Taps For Water Conservation



Water Cooler RO System



Solar Lights



GD Sets



Paper Recycle Box



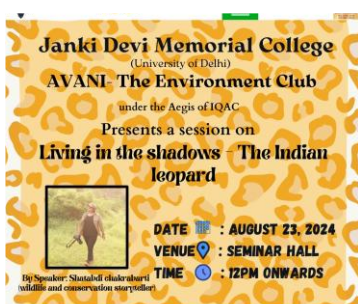
Centralized Temperature Control To Increase Energy Efficiency



Awareness Poster Display



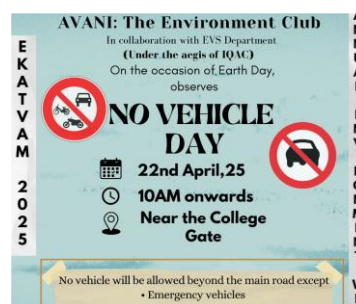
Aerobin Compost



Biodiversity Awareness Campaign



World Environment Day Celebration



No Vehicle Day Celebration

\*\*\*\*\* END OF THE REPORT \*\*\*\*\*