

Previously Known as Arya Institute of Engineering & Technology (AIET)

Approved by AICTE, New Delhi)

 Main Campus, SP-40, RIICO Industrial Area, Delhi Road Kukas, Jaipur - 302028 | Tel Ph. 0141-2820700 www.aryacollegejpr.comToll Free: 1800 102 1044

Date: 18.07.2023

Ref. No. ACE/Principal/2023-2024/07.18

POLICY NOTIFICATION

This is to inform that the Arya College of Engineering (ACE) has revised the "Green Campus Policy" & "Environment and Energy Conservation Policy", which is approved by BOG in the 39th Meeting of BOG, Ref. No. ACE/BOG/M/2023/39 vide Agenda Item No. BOG/39/09 dated 15th July, 2023. This Policy will be effective from 18.07.2023. All the relevant departments are requested to find the enclosed policy document for their record.

Furthermore, IT Cell is request to upload the policy document on the institute's website for easy access.

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POLICY DOCUMENT

ENVIRONMENT AND ENERGY CONSERVATION

Energy conservation is a smart way of protecting environment to sustain life. The Institution takes various measures to contribute towards Energy Conservation. The Institution makes use of the latest technological advancements towards conserving energy. Right from using LED lights to servicing the electronic devices frequently the Institution strives hard to reduce the consumption of energy resources. Based on this the institution has postulated certain objectives,

Objectives:

- Practice energy saving methods in every way possible.
- Make the stakeholders be aware of the ill effects of energy depletion.
- Conscious purchase of power conserving devices.
- Frequent servicing of all the energy consuming objects.
- Immediate action on wastage of resources.

Measures taken:

- Instruction boards on energy conserving methods are posted wherever necessary.
- Biogas plant is used for cooking purposes.
- Solar Energy planes are installed in campus.
- LED lamps are used.
- Sensor based lamps are used to automatically switch off when not in use.
- Nano-valve pipes to water the plants minimize the water flow.
- Students are encouraged to commute by bicycles.
- Bus Service is provided to minimize vehicle usage.
- Water is conserved through rain water harvesting.
- LED/LCD monitors are introduced in the laboratories.
- Induction Cooktop and Rice Boiler are used instead of conventional cooking methods.
- Reconditioned and Refurbished toners are used.
- Five Star appliances are being purchased.
- Food waste is treated and is turned into compost.
- Auto-tripping Air Conditioners are used.



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Alternate Sources of Energy and Energy Conservation Measures:

The institution has provision for alternate sources of energy with the aid of generating solar energy along with sensor-based energy conservation / power efficient equipment's and facilities. Apart from this, the institution has installed the LED lights that ensure optimal utilization of energy.

S. No.	Energy Conservation Measures	Energy Conservation Facility
1	Solar Energy	Solar Power Plant
2	Sensor Based Energy Conservation	Automatic Water Level Sensor
3	LED Lights	LED Manufacturing Plant
4	Power Efficient Equipment	Induction Cooktop, Rice Boiler

1. Solar Energy:

A considerable proportion of the power requirement of the institution is quenched by the powergenerated through solar power cell. The institution is harnessing power with its sustainable non- polluting Solar cell being set up in <u>AIET Building (125.50 kW + 185.25 kW)</u> and Boys Hostel-NBH (150.75 kW). The Solar cell is capable of producing around 461.5 kWh of power through its resources.

2. Automatic Water Level Sensor:

The institution has the facility for sensor-based energy conservation using Automatic Water Level Sensor for water pumping. The sensor detects the water level in the underground tank and overhead tank and operates accordingly to fill the underground tank water to the overhead tank. The following are the facilities related to the automatic water level sensor facility in the campus.

3. LED Lights:

LED lights are installed in the campus at various locations like laboratories, classrooms, corridors and roads which saves up to 90% energy compared to a traditional bulb with the same light output.

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4. Power Efficient Equipment:

The institution has power efficient equipment for various needs such as Induction Cooktop, Rice Boiler.

About 84% Induction stovetops are about 84% efficient, compared to 74% for smooth-top radiant stoves, and 40% for gas stove tops. This energy efficiency not only helps you to save energy, but they also work faster than gas or electric stoves, so you'll be able to boil liquid or heat food more quickly.

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The Green Campus & Environmental Policy





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Scope of the Policy

The Green Campus and Environment Policy will develop exciting new co-curricular and extracurricular practices that encourage students and staff to take the lead in creating positive change. These initiatives call for a thorough review of all infrastructural, administrative functions from the standpoints of energy efficiency, sustainability and the environment.

The focus areas of this policy are:

- Clean Campus Initiatives
- Landscaping Initiatives
- Clean Air Initiatives
- Infrastructure
 - ➤ Solar Power Plant
 - ➤ Installation of Energy Efficient Equipment
 - ➤ Water Conservation through Rainwater Harvesting System
- Waste Management processes
 - Solid Waste Management
 - Liquid Waste Management
 - ➤ E-Waste Management
- **Awareness Initiatives**
- Environment-centric Student Societies and Department Activities
- Green Audit
- Energy Audit
- Plastic-Free Campus



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Objectives of the Policy

- To protect and conserve ecological systems and resources within the campus.
- To ensure judicious use of environmental resources to meet the needs and aspirations of the present and future generations.
- To integrate environmental concerns into policies, plans and programmes for social development and outreach activities.
- To work with all stakeholders and the local community to raise awareness and seek the
 adoption of environmental good practice and the reduction of any adverse effects on the
 environment.
- To continuously improve our contribution to climate protection and adaptation to climate change and to the conservation of global resources.
- To continuously improve the efficient use of all resources, including energy and water, and to reduce consumption and the amount of waste produced, recovering and recycling waste where possible.
- To make the campus plastic free by banning single use plastic.
- To conduct environmental and energy audits from time to time.
- To minimize the use of paper in administration through having policy for E-governance.





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The Policy

Clean Campus Initiatives

Arya Institute of Engineering & Technology had pledged to actively coordinate cleanliness activities in the college and beyond the campus in accordance with the vision of Swachh Bharat Abhiyan. It commits to continue with this Program.

The broad vision is as follows:

- Generating mass awareness on cleanliness and hygiene amongst students and staff
 members by holding regular cleanliness drives. The idea is to motivate them to
 contribute in a proactive manner.
- 2. Activities under 'Swachh Bharat Abhiyan' will be a key component of all the community work being done by NSS and volunteers of the college.
- 3. Staff Members will be encouraged to participate in the cleanliness drive in the college campus.
- 4. Remove all kinds of waste material like broken furniture, unusable equipment etc.
- 5. Administer of the pledge by students and staff members to maintain cleanliness of the college campus and its surrounding areas on an annual basis.
- 6. Conduct workshops on the 3Rs: Reduce, Reusing and Recycling of waste.
- 7. Commit to manage waste and maintain clean campus especially during college events.



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Landscaping Initiatives

It is a vital part of the life of a campus, providing space for study, play, outdoor events, relaxation and aesthetic appreciation. Green campus landscapes also manage runoff, help recharge groundwater, and clean and cool the air on campus. The landscape serves as a visual representation of the campus community's commitment to sustainability. As campus landscapes are so visible and accessible, landscaping initiatives are a great way to build awareness around the environment.

There are more than 100 trees and more than 250 shrubs on campus. The landscape of trees and plants provide the 800+ students and staff with clean and cool air and is a soothing environment.

The diverse green cover of Arya Institute of Engineering & Technology is also home to a number of animals and rare birds across at least 24 species, creating a campus rich in biodiversity. The college commits to enriching this healthy habitat and maintaining the symbiotic relation of the institution with nature by

- Organizing annual tree plantation drives.
- Encouraging student clubs to hold tree planting events.

Clean Air Initiatives

We encourage our students and staff to use public transportation. Our campus is also located in the outskirts of Jaipur. For this reason, we feel responsible to maintain our green cover. The abundant natural landscape cleans the air on campus.



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Infrastructural Initiatives

Renewable Sources of Energy:

Arya Institute of Engineering & Technology is dedicated to minimize and sustainably manage its use of electricity. The college believes in reducing the consumption of electricity produced by non-renewable resources by switching to clean energy sources like solar energy for purposes like lighting the campus. Hence solar panels were installed on top roof of the college building.

Energy Saving and Energy Efficient Equipment:

We commit to install environment- friendly electrical appliances that save energy and reduce wasteful inefficiencies. The college believes in using cleaner energy such as LED lighting.

Water Conservation through Rainwater Harvesting System:

Arya Institute of Engineering & Technology has committed itself to the effort to replenish the groundwater table by practicing rainwater harvesting. This practice helps in the replenishment and recharge of the groundwater.



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Waste Management Processes

Arya Institute of Engineering & Technology strives to have a minimal impact on the environment and is dedicated to reduce and manage the waste generated by the college campus. The following specific procedures will be undertaken to ensure Arya Institute of Engineering & Technology contribution in protecting the environment.

Solid Waste Management:

With its aim to provide holistic education that also has a positive impact on the environment, the college will adopt practices that will mitigate the generation, and manage solid waste through the following methods:

- > Systematically engage with the 3Rs of environment friendliness (Reduce, Reuse and Recycle).
- > Collect paper waste produced on campus and collaborate with scrap dealers for recycling.
- Reduce solid waste by developing a technology-centric teaching and administrative model.
- Reduce use of paper by supporting digitization of attendance and internal assessment records.
- Reduce requirement of printed books by updating the e-books and e-journals collection of the college library.
- Take initiatives to spread awareness amongst students about
 - ✓ Food wastage and ways of minimizing it
 - ✓ Minimizing the use of packaged food
 - ✓ The habit of reusing and recycling non-biodegradable products
 - ✓ Organizing workshops for students on solid waste management.



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Liquid Waste Management:

- ➤ Maintain leak proof water fixtures.
- Minimize the use of water by constructing more Indian style toilets instead of western style toilets.
- Continued employment of a caretaker to take immediate steps to stop any water leakage through taps, pipes, tanks, toilet flush etc.
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.

E-Waste Management: Arya Institute of Engineering & Technology ensures that its usage of technology and generation of e-waste does not impact the environment. For this purpose, the college plans to strive towards:

- More provisions for the disposal of the institutional e-waste.
- Awareness amongst students about reduction of e-waste and environment friendly disposal practices for e-waste.
- > Encouraging department and society level activities pertaining to e-waste management.



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Awareness Initiatives

Outreach and education are of utmost importance so that all members of the campus community may value the objectives of the policy and aid in its implementation. This is why Arya Institute of Engineering & Technology supports and encourages awareness campaigns, seminars, workshops, conferences and other interactive sessions to facilitate effective implementation of the Green Campus, Energy and Environment policies.

Environment-centric Student Clubs and Department Activities: Arya Institute of Engineering & Technology encourages all the departments and specific student societies like; NSS, and others to organize events, competitions and training sessions that will bring about positive environmental changes at the grass root level. The college supports departments and student clubs in moulding the students into active agents of environment protection and conservation.

Green Warriors: Institutional changes towards sustainability and eco-friendly practices have percolated down to the students which have led more and more students to join the initiative. Making the club a compulsory one will provide it a bigger platform to broadcast the institution's environmental values to raise awareness. This will aid the green initiatives and practices that are a part of this policy to grow exponentially.

Green Audit: The college aims to regularly conduct a Green Audit of our college campus to assess our strengths and weaknesses to further our goals of long-term sustainability. A green audit is a useful tool to determine how and where most energy or water or resources are being used. The college can then consider how to implement changes and make savings. It can determine the type and volume of waste. Recycling projects or waste minimization plans can be adopted. It will create health consciousness and promote environmental values and ethics.



REAP Code: 1011

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It provides a better understanding of the impact of ecofriendly practices on campus. Green auditing will promote financial savings through reduction of resource use. It is imperative that the college evaluate its own contributions toward a sustainable future.

Energy Audit: An Energy Audit to be conducted as and when required to further reduce its carbon footprint. The importance of reducing energy consumption cannot be overstated. The energy audit, with its specialized tools will identify wastage of energy. Such an inspection often reveals several different flaws which cause a loss of significant amounts of energy which the college will not be able to detect. These flaws often have easy and affordable solutions and provide significant savings.

Plastic-Free Campus: Arya Institute of Engineering & Technology has been observing most of its duties in terms of solid waste management since its inception. In view of the Government of India's resolution to ban all single use plastics due to the hazardous impact of plastic use and pollution, the college administration strictly bans the use of single use plastics in its premise to make it a 'Plastic Free Campus'.