

NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

7.1.3 Facilities in the Institution for the management of the following types of degradable and non-degradable waste

Solid waste management
Liquid waste management
Biomedical waste management
E-waste management
Waste recycling system
Hazardous chemicals and radioactive waste management

Relevant documents like agreements/MoUs with Government and other approved agencies

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KI 7.1	M 7.1.3	

1 RELEVANT DOCUMENTS LIKE AGREEMENTS/MOUS WITH GOVERNMENT AND OTHER APPROVED AGENCIES

1.1 E-WASTE RECYCLING





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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	IV&BP	

M 7.1.3

KI 7.1



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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

1.2 **BIO-WASTE DISPOSAL**



CERTIFICATE OF REGISTRATION DISTROMED BIO CLEAN PRIVATE LIMITED Common Bio Medical Waste Treatment Facility Office : 307-308, Century Center, Near Gujarat Samachar Press, Kanta Stri Vikas Gruh Road, Rajkot - 360002.

Facility: Plot No. 272, 273, 274, 169, 170, Kuvadwa G.I.D.C., Rajkot-Ahmedabad National High Way,

Kuvadwa · 360023, Ta. & Dist. Rajkot.

FACILITY PROVIDER FOR TREATMENT AND DISPOSAL OF BIO MEDICAL WASTE

Authorised by Gujarat Pollution Control Board

[Authorization No.: BMW-357302]

Is hereby Issued to:

Hosp./Dr. ATMIYA UNIVERSITY, YOGIDHAM GURUKUL

KALAWAD ROAD, RAJKOT

Registration No.:

Validity up to : 01/04/2024 TO 31/03/2025

Bio Medical Waste Collection, Transportation, Treatment and Disposal As per BMW Rules - 2016, Published by Ministry of Environment, Forest and Climate Change Government of India.

For, DISTROMED BIO CLEAN PRIVATE LIMITED

This is conditional certificate: On non payment of disposal charge, this certificate will be invalid

-Gujarat-India





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

CERTIFICATE OF REGISTRATION



DISTROMED BIO CLEAN PRIVATE LIMITED

Common Bio Medical Waste Treatment Facility

Facility: Plot No. 272, 273, 274, 169, 170, Kuvadwa G.I.D.C., Rajkot-Ahmedabad National High Way,

Kuvadwa - 360023, Ta. & Dist. Rajkot.

FACILITY PROVIDER FOR TREATMENT AND DISPOSAL OF BIO MEDICAL WASTE

Authorised by Gujarat Pollution Control Board

[Authorization No.: BMW-357302]

Is hereby Issued to:

Hosp./Dr. Atmiya university, yogidham gurukul

KALAWAD ROAD, RAJKOT

Registration No.:

RJT - 3721

Validity up to

01-04-2023 TO 31-03-2024

Bio Medical Waste Collection, Transportation, Treatment and Disposal As per BMW Rules - 2016, Published by Ministry of Environment, Forest and Climate Change Government of India.

For, DISTROMED BIO CLEAN PRIVATE LIMITED

(Boutherle

This is conditional certificate: On non payment of disposal charge, this certificate will be invalid

t-Gujarat-India





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

1.3 GREEN AUDIT REPORTS ON WATER CONSERVATION BY RECOGNISED BODIES

	Certificate
	Atmiya University, Rajkot
upholo	ds its dedication to environmental stewardship by actively committing to water
conse	rvation, significantly contributing to the advancement of sustainable practices.
	Issued on: 21 st April 2020
	The state of the s
	Mr. Hemantkumar Sonkusare
	Civil Engineer, GPCB recognized Schedule-I Environmental Auditor

Green audit reports on water conservation -2019-20





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

GREEN AUDIT REPORT FOR WATER CONSERVATION 2019-20

At Atmiya University, Rajkot

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	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

Atmiya University

The great scientist and former President, Dr. APJ Abdul Kalam, wrote in the preface of his autobiography: "Each individual creature on this beautiful planet is created by God to fulfil a particular role."

Atmiya Group of Institution holds history of more than 55 years. One of the oldest organization of Saurashtra region. AGI offers various courses under the various academic institutions Atmiya Institute of Technology and Science, Atmiya Institute of Pharmacy, Shri M. & N. Virani Science College etc.

ATMIYA University bestows wisdom and knowledge upon the learner to recognize this particular role. Established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "सुहदं सर्व भूतानम्" (Suhardam Sarva Bhootanam) is an expression of willingness to attain harmony with each creation of the Almighty!

His Divine Holiness Hariprasad Swamiji Maharaj, the present spiritual successor of Lord Swaminarayan is the mentor of ATMIYA University. With His blessings, His Divinity P.P.Tyagvallabh Swamiji has envisioned Atmiya University to be a global leader in showing the path to enshrine Jeevan Vidya into every domain area of higher education, in the pursuit of transformative outcomes of education for living life to the fullest. For this, over the years, He has invested His sweat and toil and that of His team, to create state-of-the-art learning facilities and spaces. The ultimate goal is to attain 'Atmiyata'.

The University status is in recognition of the appreciable learning facilities and qualities of the 'Atmiya Group of Institutions' (AGI), which have demonstrated many milestones of growth and development.

Page 1 of 9

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NAAC – Cycle – 1	
AISHE: U-0967	
Criterion 7	I V & B P
KI 7.1	M 7.1.3

Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The college stores the water in overhead tank.

Daily water requirement is 63 KLitre

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.

Page 2 of 9

Registrar





NAAC – Cycle – 1	
AISHE: U-0967	
IV&BP	
M 7.1.3	

Green Initiative:

The RO (reverse osmosis) water is being used for the irrigation purpose in the garden of university.



Reverse Osmosis Plant for Drinking Water

Rainwater Harvesting:

Capacity: 17 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing storm water runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	





Rainwater Harvesting Tank

Water Usage in the Campus

Basic use of water in campus	KL/Day
Drinking	9
Gardening	15
Kitchen and Toilets	12
Others	9
Hostel	18
Total	63 KL/Day

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Registrar





	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

Description of Water Storage Tank

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water (A Wing-2, B Wing-2, RO-3)	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	Ĭ	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
	12	Near Building- Underground	333746	2	667492
MPAB	13	Near Building- Underground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
İ	15	Below Temple- Underground	43718	1	43718
-	16	In Front of Store- Underground	123604	1	123604
	17	RO Water- at Terrace	2000	1	2000
	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Water- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	1500
	25	Raw Water- OTIS- Underground	32620	1	32620

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	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tank at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
September 50	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarvanaman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
Total Water	Storas	ve Capacity			28,41,060

Rain water harvesting for the year 2019-20

Month	Water Collected (litre)	Water Used (liters)
June	6,50,800	6,25,000
July	11,50,400	11,60,700
August	11,80,600	11,70,800
September	10,50,600	9,30,750
October	3,40,500	4,10,000
November	00	75,650

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Registrar





	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

Ground Water recharge Bore well

The excess rainwater beyond the capacity of rain water storage tank is channelized to borewell for ground water recharge.

Calculation of rainwater harvesting at Atmiya University

SN	Building	Roof Area (m²)	
1	AU Main Building	8225.00	
2	Multipurpose Academic Building	2050	
3	Workshop	1650	
4	Science Building	2400	
Total		14,325 m ²	

Rainfall in the Rajkot city: 1528 mm Runoff coefficient for concrete= 0.75

Total Water conserved = rainfall * runoff coefficient * roof area

= 1.528 * 0.75 * 14325

 $= 16416.45 \text{ m}^3$

= 16416450 litres

Note:-Rainfall data taken from Rajkot municipal corporation official website and Runoff coefficient taken 0-1 ranges rough to smooth surface.

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	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

Impact: Social and Institutional

1. Building Construction with harvested water:

 80 lack liter water was utilized from harvested source for the under-construction Multipurpose Building,

2. Social Impact:

- Water Conservation Awareness: Implementing rainwater harvesting raises awareness among students, faculty, and the community about sustainable water management. It serves as an educational tool, encouraging environmentally responsible behaviour.
- Enhanced Water Security: Rajkot, like many areas, faces water scarcity, particularly
 during dry seasons. Rainwater harvesting contributes to local water security, helping
 the university reduce its reliance on municipal or external water supplies. This leads
 to a more self-sufficient water supply system, directly benefiting the university
 community.
- Reduced Impact on Municipal Resources: Collecting and using rainwater on campus eases the demand on the city's water supply, which benefits the broader community. By harvesting rainwater, the university helps free up municipal water resources for other essential needs, supporting a more balanced distribution of water across Rajkot.
- Public Health Improvement: Rainwater harvesting contributes indirectly to public health. By reducing dependency on groundwater, it helps maintain groundwater levels, reducing the risk of water contamination. Access to cleaner, safer water reduces the prevalence of waterborne diseases in the surrounding community.

3. Institutional Impact:

- Cost Savings and Resource Efficiency: Rainwater harvesting can significantly
 reduce the university's water bills. This financial benefit allows for reallocating
 resources toward other green initiatives, research, and educational activities. The
 long-term savings contribute to the university's financial sustainability.
- Enhanced Institutional Reputation: By implementing rainwater harvesting, the
 university positions itself as an environmentally conscious institution. This
 commitment to sustainability can enhance the university's image, attracting students,
 faculty, and partners who value environmental responsibility.
- Educational Value and Research Opportunities: The system provides a hands-on learning opportunity for students, particularly those studying environmental science,

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	NAAC – Cycle – 1	
AISHE: U-0967		
	Criterion 7	I V & B P
	KI 7.1	M 7.1.3

engineering, and sustainability. Rainwater harvesting projects offer a real-life platform for research, workshops, and practical training, helping students gain valuable skills in sustainable practices.

- Compliance with Regulatory Standards: Adopting rainwater harvesting aligns with
 environmental regulations and standards, positioning the university as compliant with
 local and national environmental policies. This alignment can be beneficial during
 audits and assessments, potentially granting the institution access to incentives or
 recognition programs.
- Contribution to Green Campus Initiatives: Rainwater harvesting is a foundational
 element of a broader green campus initiative, supporting other sustainability goals like
 waste management, energy conservation, and sustainable landscaping. This holistic
 approach can also provide a model for other institutions in Rajkot and beyond.

Recommendations

- Rainwater Harvesting Expansion: Install additional collection units to maximize water capture during the monsoon season.
- Smart Metering: Implement digital meters for real-time monitoring of water usage.
- Awareness Campaigns: Conduct workshops for students and staff on water conservation.

Conclusion

Atmiya University has made significant strides in water conservation, with key initiatives like rainwater harvesting and wastewater reuse. However, there is scope for improvement in optimizing consumption and addressing inefficiencies. Implementing the recommendations will enhance sustainability and ensure compliance with GPCB standards.

H-G. Sontwern Schedule-1 Auditor

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Certificate

Atmiya University, Rajkot

is dedicated to environmental stewardship through its commitment to water conservation, contributing significantly to the promotion of sustainable practices.

Issued on: 17 May 2021

Mr. Hemantkumar Sonkusare Civil Engineer, GPCB recognized Schedule-I Environmental Auditor

Green audit reports on water conservation – 2020-21

Pagistras

Atmiya University, Raikot-Gujarat-India

Rajkot





NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

GREEN AUDIT REPORT FOR WATER CONSERVATION 2020-21

At Atmiya University, Rajkot





NAA(NAAC – Cycle – 1		
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Atmiya University

The great scientist and former President, Dr. APJ Abdul Kalam, wrote in the preface of his autobiography: "Each individual creature on this beautiful planet is created by God to fulfil a particular role."

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	IV&BP	
KI 7.1	M 7.1.3	

Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The college stores the water in overhead tank.

Daily water requirement is 32 KL

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Green Initiative: The RO (reverse osmosis) water is being used for the irrigation purpose in the garden of university.



Reverse Osmosis Plant for Drinking Water

Rainwater Harvesting:

Capacity: 17 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing storm water runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		





Rainwater Harvesting Tank

Water Usage in the Campus

Basic use of water in campus	KL/Day
Drinking	3
Gardening	15
Kitchen and Toilets	4
Others	6
Hostel	4
Total	32 KL/Day

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Description of Water Storage Tank

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
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Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
1	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
1	10	Raw Water- at Terrace	60000	1	60000
1	11	Raw Water- at Terrace	40000	7	280000
	12	Near Building- Undrground	333746	2	667492
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	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Warer- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	150
	25	Raw Water- OTIS- Underground	32620	1	32620

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	26	Wastewater- Outside the Building	2000	1	2000
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	33	Raw Water- inside building	600	1	600
Total Water S	Storag	e Capacity			28,41,060

Rain water harvesting for the year 2020-21

Month	Water Collected (liter)	Water Used (liters)
June	5,45,700	5,35,000
July	11,54,700	7,60,700
August	11,45,900	6,40,800
September	7,50,600	8,20,750
October	4,56,500	7,90,000
November	00	5,06,150

Ground Water recharge Borewell

The excess rainwater beyond the capacity of rain water storage tank is channelized to borewell for ground water recharge.

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Calculation of rainwater harvesting at Atmiya University

SN	Building	Roof Area (m2)		
1	AU Main Building	8225.00		
2	Multipurpose Academic Building	2050		
3	Workshop	1650		
4	Science Building	2400		
Total		14,325 m ²		

Rainfall in the Rajkot city: 1151.66 mm Runoff coefficient for concrete= 0.75

Total Water conserved = rainfall * runoff coefficient * roof area

= 1.1516 * 0.75 * 14325

 $= 12372.5025 \text{ m}^3$

= 12372502 litres

Note:-Rainfall data taken from Rajkot municipal corporation official website and Runoff coefficient taken 0-1 ranges rough to smooth surface.

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NAAC - Cycle - 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 71	M713		

Impact: Social and Institutional

1. Building Construction with harvested water:

 50 lack liter water was utilized from harvested source for the under-construction Multipurpose Building.

2. Social Impact:

- Water Conservation Awareness: Implementing rainwater harvesting raises awareness among students, faculty, and the community about sustainable water management. It serves as an educational tool, encouraging environmentally responsible behaviour.
- Enhanced Water Security: Rajkot, like many areas, faces water scarcity, particularly
 during dry seasons. Rainwater harvesting contributes to local water security, helping
 the university reduce its reliance on municipal or external water supplies. This leads
 to a more self-sufficient water supply system, directly benefiting the university
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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

engineering, and sustainability. Rainwater harvesting projects offer a real-life platform for research, workshops, and practical training, helping students gain valuable skills in sustainable practices.

- Compliance with Regulatory Standards: Adopting rainwater harvesting aligns with
 environmental regulations and standards, positioning the university as compliant with
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- Contribution to Green Campus Initiatives: Rainwater harvesting is a foundational
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Recommendations

- Rainwater Harvesting Expansion: Install additional collection units to maximize water capture during the monsoon season.
- Smart Metering: Implement digital meters for real-time monitoring of water usage.
- Awareness Campaigns: Conduct workshops for students and staff on water conservation.

Conclusion

Atmiya University has made significant strides in water conservation, with key initiatives like rainwater harvesting and wastewater reuse. However, there is scope for improvement in optimizing consumption and addressing various issues and campaigning through different stakeholders. Implementing the recommendations will enhance sustainability and ensure compliance with GPCB standards.

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Registrar
Atmiya University, Raikot-Gujarat-India
Raikot

M.G. Jonkwen Schedule-1 Auditon





NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Certificate

Atmiya University, Rajkot

demonstrates its dedication to environmental stewardship through a strong commitment to water conservation, playing a vital role in fostering sustainable practices.

Issued on: 24 May 2022

Mr. Hemantkumar Sonkusare Civil Engineer, GPCB recognized Schedule-I Environmental Auditor

Green audit reports on water conservation – 2021-22

Pagistras

Atmiya University, Raikot-Gujarat-India

Rajkot





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

GREEN AUDIT REPORT FOR WATER CONSERVATION 2021-22

At Atmiya University, Rajkot

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	NAAC – Cycle – 1				
AISHE: U-0967					
	Criterion 7	I V & B P			
	KI 7.1	M 7.1.3			

Atmiya University

The great scientist and former President, Dr. APJ Abdul Kalam, wrote in the preface of his autobiography: "Each individual creature on this beautiful planet is created by God to fulfil a particular role."

Atmiya Group of Institution holds history of more than 55 years. One of the oldest organization of Saurashtra region. AGI offers various courses under the various academic institutions Atmiya Institute of Technology and Science, Atmiya Institute of Pharmacy, Shri M. & N. Virani Science College etc.

ATMIYA University bestows wisdom and knowledge upon the learner to recognize this particular role. Established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto Suhardam Sarva Bhootanam is an expression of willingness to attain harmony with each creation of the Almighty!

His Divine Holiness Hariprasad Swamiji Maharaj, the present spiritual successor of Lord Swaminarayan is the mentor of ATMIYA University. With His blessings, His Divinity P.P.Tyagvallabh Swamiji has envisioned Atmiya University to be a global leader in showing the path to enshrine Jeevan Vidya into every domain area of higher education, in the pursuit of transformative outcomes of education for living life to the fullest. For this, over the years, He has invested His sweat and toil and that of His team, to create state-of-the-art learning facilities and spaces. The ultimate goal is to attain 'Atmiyata'.

The University status is in recognition of the appreciable learning facilities and qualities of the 'Atmiya Group of Institutions' (AGI), which have demonstrated many milestones of growth and development.

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AISHE: U-0967			
Criterion 7	I V & B P		
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Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The college stores the water in overhead tank.

Daily water requirement is 95 KL

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.

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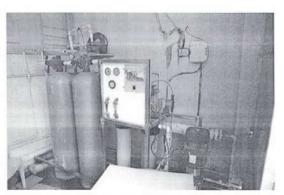
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Criterion 7	I V & B P			
KI 7.1	M 7.1.3			

Green Initiative: The RO (reverse osmosis) water is being used for the irrigation purpose in the garden of university.



Reverse Osmosis Plant for Drinking Water

Rainwater Harvesting:

Capacity: 17 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing storm water runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.

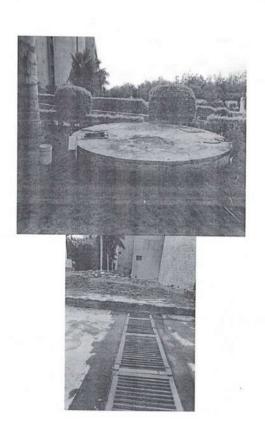
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Rainwater Harvesting Tank

Water Usage in the Campus

Basic use of water in campus	KL/Day	
Drinking	15	
Gardening	16	
Kitchen and Toilets	20	
Others	15	
Hostel	29	
Total	95 KL/Day	

Description of Water Storage Tank

Building	SN	Tank Description	Size (litre)	No. of Tank	Capacity (litre)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water (A Wing-2, B Wing-2, RO-3)	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
MPAB	11	Raw Water- at Terrace	40000	7	280000
	12	Near Building- Underground	333746	2	667492
	13	Near Building- Underground	336826	2	673652

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Building	SN	Tank Description	Size (litre)	No. of Tank	Capacity (litre)
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604
	17	RO Water- at Terrace	2000	1	2000
	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Water- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Science	24	CIF Lab	1500	1	1500
Building	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tank at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarvanaman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
Total Water	Stora	ge Capacity			28,41,06

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Rain water harvesting for the year 2021-22

Month	Water Collected (litre)	Water Used (litre)
June	4,47,500	3,21,000
July	9,40,800	8,90,700
August	11,70,100	11,20,800
September	10,50,600	9,30,750
October	9,40,500	8,10,000
November	00	4,76,250

Ground Water recharge Bore well

The excess rainwater beyond the capacity of rain water storage tank is channelized to borewell for ground water recharge.

Calculation of rainwater harvesting at Atmiya University

8225.00 ing 2050
ng 2050
1650
2400
14,325 m ²

Rainfall in the Rajkot city: 1312.33 mm Runoff coefficient for concrete= 0.75

Total Water conserved = rainfall * runoff coefficient * roof area

= 1.3123 * 0.75 * 14325

 $= 14099.023 \text{ m}^3$

= 1,40,99,023 litres

Note:-Rainfall data taken from Rajkot municipal corporation official website and Runoff coefficient taken 0-1 ranges rough to smooth surface.

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Impact: Social and Institutional

1. Building Construction with harvested water:

 120 lack liter water was utilized from harvested source for the under-construction Multipurpose Building.

2. Social Impact:

- Water Conservation Awareness: Implementing rainwater harvesting raises awareness among students, faculty, and the community about sustainable water management. It serves as an educational tool, encouraging environmentally responsible behaviour.
- Enhanced Water Security: Rajkot, like many areas, faces water scarcity, particularly
 during dry seasons. Rainwater harvesting contributes to local water security, helping
 the university reduce its reliance on municipal or external water supplies. This leads
 to a more self-sufficient water supply system, directly benefiting the university
 community.
- Reduced Impact on Municipal Resources: Collecting and using rainwater on campus eases the demand on the city's water supply, which benefits the broader community. By harvesting rainwater, the university helps free up municipal water resources for other essential needs, supporting a more balanced distribution of water across Rajkot.
- Public Health Improvement: Rainwater harvesting contributes indirectly to public health. By reducing dependency on groundwater, it helps maintain groundwater levels, reducing the risk of water contamination. Access to cleaner, safer water reduces the prevalence of waterborne diseases in the surrounding community.

3. Institutional Impact:

- Cost Savings and Resource Efficiency: Rainwater harvesting can significantly
 reduce the university's water bills. This financial benefit allows for reallocating
 resources toward other green initiatives, research, and educational activities. The
 long-term savings contribute to the university's financial sustainability.
- Enhanced Institutional Reputation: By implementing rainwater harvesting, the
 university positions itself as an environmentally conscious institution. This
 commitment to sustainability can enhance the university's image, attracting students,
 faculty, and partners who value environmental responsibility.
- Educational Value and Research Opportunities: The system provides a hands-on learning opportunity for students, particularly those studying environmental science,

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engineering, and sustainability. Rainwater harvesting projects offer a real-life platform for research, workshops, and practical training, helping students gain valuable skills in sustainable practices.

- Compliance with Regulatory Standards: Adopting rainwater harvesting aligns with
 environmental regulations and standards, positioning the university as compliant with
 local and national environmental policies. This alignment can be beneficial during
 audits and assessments, potentially granting the institution access to incentives or
 recognition programs.
- Contribution to Green Campus Initiatives: Rainwater harvesting is a foundational
 element of a broader green campus initiative, supporting other sustainability goals like
 waste management, energy conservation, and sustainable landscaping. This holistic
 approach can also provide a model for other institutions in Rajkot and beyond.

Recommendations

- Rainwater Harvesting Expansion: Install additional collection units to maximize water capture during the monsoon season.
- Smart Metering: Implement digital meters for real-time monitoring of water usage.
- Awareness Campaigns: Conduct workshops for students and staff on water conservation.

Conclusion

Atmiya University has made significant changes in water conservation, with key initiatives like rainwater harvesting and wastewater reuse. However, there is scope for improvement in utilisation and reuse the water through various points. Implementing the recommendations will enhance sustainability and ensure compliance with GPCB standards.

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Registrar
Atmiya University Raik of Gujarat-India
Raikot

H. G. Sonkwenn Schedule - I Auditur





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Certificate

Atmiya University, Rajkot

is committed to environmental stewardship by prioritizing water conservation and actively promoting sustainable practices.

Issued on: 03 May 2023

Mr. Hemantkumar Sonkusare Civil Engineer, GPCB recognized Schedule-I Environmental Auditor

Green audit reports on water conservation – 2022-23





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GREEN AUDIT REPORT FOR WATER CONSERVATION-2022-23 At Atmiya University, Rajkot





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Atmiya University

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Water Management

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

Sources of Water

- Rainwater Harvesting
- Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The college stores the water in overhead tank.

Daily water requirement is 91 KL

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.

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Rainwater Harvesting Tank

Water Usage in the Campus

Basic use of water in campus	KL/Day	
Drinking		
Gardening	16	
Kitchen and Toilets	19	
Others	14	
Hostel	28	
Total	91 KL/Day	

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Description of Water Storage Tank

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Total Water	Stora	ge Capacity			28,41,060

Rain water harvesting for the year 2022-23

Water Collected (litre)	Water Used (liters)
5,47,600	5,15,000
9,67,800	9,60,700
10,60,470	8,70,800
11,50,340	10,30,750
5,45,700	5,10,000
00	3,84,660
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Ground Water recharge Bore well

The excess rainwater beyond the capacity of rain water storage tank is channelized to borewell for ground water recharge.

Calculation of rainwater harvesting at Atmiya University

SN	Building	Roof Area (m²)	
1	AU Main Building	8225.00	
2	Multipurpose Academic Building	2050	
3	Workshop	1650	
4	Science Building	2400	
Total		14,325 m ²	

Rainfall in the Rajkot city: 966.33 mm

Runoff coefficient for concrete= 0.75

Total Water conserved = rainfall * runoff coefficient * roof area

= 0.9663 * 0.75 * 14325

 $= 10381.6856 \text{ m}^3$

= 1,03,81,686 liters

Note:-Rainfall data taken from Rajkot municipal corporation official website and Runoff coefficient taken 0-1 ranges rough to smooth surface.

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- Water Conservation Awareness: Implementing rainwater harvesting raises awareness among students, faculty, and the community about sustainable water management. It serves as an educational tool, encouraging environmentally responsible behaviour.
- Enhanced Water Security: Rajkot, like many areas, faces water scarcity, particularly
 during dry seasons. Rainwater harvesting contributes to local water security, helping
 the university reduce its reliance on municipal or external water supplies. This leads
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- Awareness Campaigns: Conduct workshops for students and staff on water conservation.

Conclusion

Atmiya University has made significant efforts in water conservation, with key initiatives like rainwater harvesting and wastewater reuse. However, there is scope for improvement in optimizing consumption and awareness. Implementing the recommendations will enhance sustainability as a whole.

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Green audit reports on water conservation – 2023-24

Atmiya University Raikot-Gujarat-India

Rajkot





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GREEN AUDIT REPORT FOR WATER CONSERVATION 2023-24

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Daily water requirement is 96 KL

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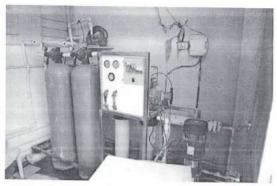
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Green Initiative: The RO (reverse osmosis) water is being used for the irrigation purpose in the garden of university.



Reverse Osmosis Plant for Drinking Water

Rainwater Harvesting: Capacity: 17 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing storm water runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

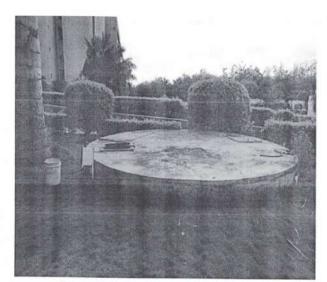
Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.

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KI 7.1	M 7.1.3	





Rainwater Harvesting Tank

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Water Usage in the Campus

Basic use of water in campus	KL/Day
Drinking	15
Gardening	17
Kitchen and Toilets	20
Others	15
Hostel	29
Total	96 KL/Day

Description of Water Storage Tank

Building	SN	Tank Description	Size (litre)	No. of Tank	Capacity (litre)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water (A Wing-2, B Wing-2, RO-3)	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1.	60000
	11	Raw Water- at Terrace	40000	7	280000
MPAB	12	Near Building- Underground	333746	2	667492
	13	Near Building- Underground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718

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Building	SN	Tank Description	Size (litre)	No. of Tank	Capacity (litre)
	16	In Front of Store- Underground	123604	1	123604
	17	RO Water- at Terrace	2000	1	2000
	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Water- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Science	24	CIF Lab	1500	1	1500
Building	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	iham 27 Raw Water Tank- Underground		48750	4	195000
	28	RO Water Tank at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarvanaman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
Total Water	Storag	ge Capacity			28,41,060

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Rain water harvesting for the year 2023-24

Month	Water Collected (liters)	Water Used (liters)
June	6,30,500	5,42,000
July	11,60,340	11,50,700
August	11,80,600	8,60,800
September	10,50,600	9,90,750
October	3,40,500	4,10,000
November	00	5,88,290
		CONTRACTOR OF THE PROPERTY OF

Ground Water recharge Bore well

The excess rainwater beyond the capacity of rain water storage tank is channelized to bore-well for ground water recharge.

Calculation of rainwater harvesting at Atmiya University

SN	Building	Roof Area (m²)	
1	AU Main Building	8225.00	
2	Multipurpose Academic Building	2050	
3	Workshop	1650	
4	Science Building	2400	
Total		14,325 m ²	

Rainfall in the Rajkot city: 651 mm

Runoff coefficient for concrete= 0.75

Total Water conserved = rainfall * runoff coefficient * roof area

= 0.658 * 0.75 * 14325

 $= 7069.3875 \text{ m}^3$

= 7069387 liters

Note:-Rainfall data taken from Rajkot municipal corporation official website and Runoff coefficient taken 0-1 ranges rough to smooth surface.

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Impact: Social and Institutional

1. Building Construction with harvested water:

 150 lack liter water was utilized from harvested source for the under-construction Multipurpose Building.

2. Social Impact:

- Water Conservation Awareness: Implementing rainwater harvesting raises awareness among students, faculty, and the community about sustainable water management. It serves as an educational tool, encouraging environmentally responsible behaviour.
- Enhanced Water Security: Rajkot, like many areas, faces water scarcity, particularly
 during dry seasons. Rainwater harvesting contributes to local water security, helping
 the university reduce its reliance on municipal or external water supplies. This leads
 to a more self-sufficient water supply system, directly benefiting the university
 community.
- Reduced Impact on Municipal Resources: Collecting and using rainwater on campus eases the demand on the city's water supply, which benefits the broader community. By harvesting rainwater, the university helps free up municipal water resources for other essential needs, supporting a more balanced distribution of water across Rajkot.
- Public Health Improvement: Rainwater harvesting contributes indirectly to public
 health. By reducing dependency on groundwater, it helps maintain groundwater
 levels, reducing the risk of water contamination. Access to cleaner, safer water
 reduces the prevalence of waterborne diseases in the surrounding community.

3. Institutional Impact:

- Cost Savings and Resource Efficiency: Rainwater harvesting can significantly
 reduce the university's water bills. This financial benefit allows for reallocating
 resources toward other green initiatives, research, and educational activities. The
 long-term savings contribute to the university's financial sustainability.
- Enhanced Institutional Reputation: By implementing rainwater harvesting, the
 university positions itself as an environmentally conscious institution. This
 commitment to sustainability can enhance the university's image, attracting students,
 faculty, and partners who value environmental responsibility.

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- Educational Value and Research Opportunities: The system provides a hands-on learning opportunity for students, particularly those studying environmental science, engineering, and sustainability. Rainwater harvesting projects offer a real-life platform for research, workshops, and practical training, helping students gain valuable skills in sustainable practices.
- Compliance with Regulatory Standards: Adopting rainwater harvesting aligns with
 environmental regulations and standards, positioning the university as compliant with
 local and national environmental policies. This alignment can be beneficial during
 audits and assessments, potentially granting the institution access to incentives or
 recognition programs.
- Contribution to Green Campus Initiatives: Rainwater harvesting is a foundational
 element of a broader green campus initiative, supporting other sustainability goals like
 waste management, energy conservation, and sustainable landscaping. This holistic
 approach can also provide a model for other institutions in Rajkot and beyond.

Recommendations

- Rainwater Harvesting Expansion: Install additional collection units to maximize water capture during the monsoon season.
- Smart Metering: Implement digital meters for real-time monitoring of water usage.
- Awareness Campaigns: Conduct workshops for students and staff on water conservation.

Conclusion

Atmiya University has made significant strides in water conservation, with key initiatives like rainwater harvesting and wastewater reuse. However, there is scope for improvement in optimizing consumption and addressing inefficiencies. Implementing the recommendations will enhance sustainability and ensure compliance with GPCB standards.

Dr. H. G. Sonkun genedule-I Auditur





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1.4 GREEN/ENVIRONMENT AUDIT 2019-20

CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2019 to May 2020)

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1) Executive Summary

Atmiya University established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "सुह्रदंसर्वभूतानम्" (Suhardam Sarva Bhootanam) is an expression of willingness to attain harmony with each creation of the Almighty! This environmental audit report provides a comprehensive overview of Atmiya University, located in the vibrant city of Rajkot, Gujarat. Atmiya University, a prominent educational institution in the region, serves as a dynamic center for higher education, offering a diverse range of undergraduate, postgraduate, and doctoral programs. Established with a vision 'To nurture creative thinkers and leaders through transformative learning' and committed to create a transformative learning experience by imbibing domain specific knowledge & wisdom and to focus on research based teaching learning with Industry relevant application knowledge. The university plays a crucial role in shaping the region's educational landscape.

Situated in an urban setting, Atmiya University benefits from excellent connectivity and accessibility within the Rajkot area. The campus spans approximately 23.5 acre and features modern infrastructure that includes state-of-the-art classrooms, research labs, libraries, recreational facilities, and green spaces that enhance the learning environment.

The university accommodates a diverse and vibrant community from various parts of India and beyond. This thriving student body is supported by a faculty dedicated to promoting sustainable practices on campus, aligning with Atmiya University's mission to minimize its environmental impact.

A satellite image of the campus highlights its strategic layout and showcases the integration of natural and built environments, offering a visual perspective on the university's physical footprint within the urban landscape. This audit aims to evaluate Atmiya University's environmental practices and suggest actionable steps to enhance sustainability, further aligning with global standards in environmental responsibility and conservation.

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2) Acknowledgment

On behalf of the Environmental Audit & Consultancy Cell at V.V.P. Engineering College, Rajkot, we would like to express our sincere gratitude to the management of Atmiya University, Rajkot for entrusting us with the important task of conducting their Environmental Audit/Green Audit.

We deeply appreciate the cooperation extended by your team throughout the assessment process. This cooperation was instrumental in the successful completion of the audit.

We would also like to extend our special thanks to **Dr. Ashish Kothari. Deputy Registrar**, **Atmiya University** for their unwavering support. Their dedication proved to be invaluable in ensuring the project's completion. Finally, we thank all other staff members who actively participated in data collection and field measurements. Their contributions were essential to the smooth execution of the audit.

We are also thankful to:

SN	Name	Designation		
1	Er. Ravi S. Tank	Chemical Engineer		
2 Dr.Hemantkumar G. Sonkusare		Civil Engineer		
3	Dr. Anilkumar S. Patel	Chemist		

In closing, we would like to express our gratitude to Dr.Santhanakrishnan Pillai, Vice Chancellor, Atmiya University for extending the opportunity to evaluate their esteemed campus's environmental performance.

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3) Disclaimer

This Green Audit report has been prepared by the Environmental Audit Cellat V.V.P. Engineering College, Rajkot for of Atmiya University, Rajkot. It incorporates data submitted by University officials/representatives along with expert analysis by the EA&CC Audit team.

While all reasonable efforts have been made to ensure its accuracy, the report is based on information gathered in good faith. Conclusions are based on best estimates and do not constitute any express or implied warranty or undertaking. The EA&CC at Atmiya University, Rajkot assumes no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

The findings presented in this report are based entirely on data provided by Atmiya University and gathered by the audit team during their audit & monitoring visit. It assumes normal operating conditions within the institution throughout the audit period. The auditors are unable to comment on environmental audit parameters outside the scope of the on-site surveys. Consequently, the report's findings are strictly limited to the timeframe during which the audit team conducted its assessment.

The Environment Audit Cell at V.V.P. Engineering College, Rajkot, maintains strict confidentiality regarding all information pertaining to Atmiya University. No such information will be disclosed to any third party except public domain knowledge or when required by law or relevant accreditation bodies.

This certificate is valid solely for the current Environmental Audit/Green Audit report. It may be automatically revoked if any significant changes occur in the quantity or quality of waste generation at the aforementioned institute.

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4) Introduction

Since the 2019-20 academic year, the National Assessment and Accreditation Council (NAAC) requires all Higher Educational Institutions (HEIs) to submit an annual Environmental Audit/Green Audit report. This requirement falls under Criterion 7 of the NAAC accreditation process, which evaluates institutions for their environmental sustainability practices. NAAC, an autonomous body in India, assigns accreditation grades (A, B, or C) based on various criteria, including environmental stewardship.

Furthermore, conducting Environmental Audit/Green Audits aligns with the Corporate Social Responsibility (CSR) initiatives of HEIs. By implementing measures to reduce their carbon footprint, institutions contribute positively to mitigating global warming.

In response to the NAAC mandate, the University management opted for an external Environmental Audit/Green Audit conducted by a qualified professional auditor.

Environmental Audit/Green Audit entails a comprehensive environmental assessment, examining both on-campus and off-campus practices that directly or indirectly impact the environment. In essence, it is a systematic process of identifying, quantifying, recording, reporting, and analysing environmental aspects within the institute setting.

Environmental Audit/Green Audits originated as a tool to evaluate institutional activities that might pose risks to human health and the environment. It provides valuable insights for improvement, guiding institutions towards environmentally responsible practices and infrastructure.

The specific areas covered by this audit include Green Campus initiatives, Waste Management, Water Management, Air Pollution Control, Energy Management, and Carbon Footprint reduction strategies employed by the University.

The following sections delve deeper into the concept, structure, objectives, methodology, analytical tools, and overall goals of this Green Audit.

Educational institutions are increasingly prioritizing environmental concerns. As a result, innovative concepts are emerging to make campuses more sustainable and eco-friendly. Numerous institutions are adopting various approaches to address environmental challenges within their facilities, such as promoting

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energy conservation, waste recycling, water use reduction, and rainwater harvesting.

The activities of educational institutions can have both positive and negative environmental impacts. A Green Audit is a formal evaluation process that assesses the University's environmental footprint. It provides a comprehensive picture of the current environmental conditions on campus.

Green Audits are a valuable tool for University to identify areas of high energy, water, or resource consumption. This allows institutions to implement targeted changes and achieve cost savings. Additionally, Green Audits can analyse the nature and volume of waste generated, leading to improved recycling programs or waste minimization plans.

Green auditing and the implementation of mitigation measures offer a win-win scenario for institutions, students, and the environment. It can foster health and environmental awareness, promoting values and beliefs that benefit everyone. Green Audits also provide an opportunity for staff and students to gain a deeper understanding of the impact their institution has on the environment.

Furthermore, Green Audits can translate into financial savings by encouraging a reduction in resource usage. This process also empowers students and teachers to develop a sense of ownership for personal and social environmental responsibility.

The Green Audit process typically involves collecting primary data, conducting a site visit with University representatives, and reviewing relevant policies, activities, documents, and records.

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OBJECTIVE AND SCOPE

The broad aims/benefits of the Environmental Audit/Green Audit would be

- Environmental education through systematic environmental management approach
- · Improving environmental standards
- · Benchmarking for environmental protection initiatives
- · Sustainable use of natural resource in the campus.
- · Financial savings through a reduction in resource use
- · Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the University campus and its environment
- · Enhancement of University profile
- · Developing an environmental ethic and value systems in young people

Outcomes OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

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

- 1. Protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- ${\it 3. \ Empower the organization to frame a better environmental performance}.$
- 4. Portrays good image of institution through its clean and green campus.

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5) Environmental Policy



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by:

- . Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- · Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthier, sustainable future.
- Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- Addressing local and regional environmental challenges with sustainable solutions.
- · Ensuring sustainable resource use and minimizing wasteful practices.
- Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

 Clean Campus Initiatives: Regular cleaning drives, waste segregation, and beautification projects.

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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Biodiversity: Developing green spaces, planting neem trees, and conserving biodiversity.
- Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using minwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, e-waste, and bio-waste for recycling and composting.
- Transportation and Mubility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: Incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- Transition to energy-efficient devices and systems.
- Encourage behaviour changes for energy conservation.
- · Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parlvartan (Paper Recycling Unit) and Sarjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

 Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible wateredage to expice dependency on municipal water.

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nature, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmiya University Rajkot

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6) General Information

- a. Does any Green Audit conducted earlier? Yes
- b. Total Area of the University = 84455 m^2
- c. What is the total strength (people count) of the Institute?

AY	AY Students		Teaching Staff		Non-Teaching Staff		Total					
	M	F	Trans	M	F	Trans	M	F	Trans	M	F	Trans
2019- 2020	2477	1445	0	166	67	0	188	16	0	2831	1528	0

d. What is the total number of working days of your campus in a year?

Month (AY- 2019-2020)	No. of Working Days	
June	25	
July	27	
August	21	
September	24	
October	19	
November	21	
December	25	
January	26	
February	24	
March	19	
April	26	
May	26	
Total	283	

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e. Which of the following are found near your institute?

Municipal dump yard	No
Garbage heap	No
Public convenience	Yes
Sewer line	Yes
Stagnant water	No
Industry	No
Bus / Railway station	Yes
Market / Shopping complex	Yes
Play Ground	Yes

f. Does your institute generate any waste? If so, what are they?

		Type of waste Response		Quantity of Waste Generated (kg)	
		Yes	Gardening, Cow dung	175	
Solid	Non- biodegradable	Yes	Sweeping waste,	10	
	e-waste	Yes	Computer, Battery	00	
Liquid		Yes	Kitchen Waste	35	
Gas		No		(22)	

- g. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)
 - Composting: Gardening and cow dung waste used to make compost.
 - Non-recyclable and non-biodegradable waste disposal is managed by the Rajkot Municipal Corporation.

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- h. Do you use recycled paper in institute? Yes
- $\textbf{i.} \quad \text{How would you spread the message of recycling to others in the community?}$

Poster competition activities	Yes
Campaigns	Yes
Webinars and seminars	Yes

j. Is there a garden in your institute?

Garden	Yes	Area = 6732.26m ²
	1.07.000	

k. Total number of Plants in Campus?

SN	Named Species	Numbers
1	Neem Tree	211
2	Lemon cypress	1
3	FicusMicrocapra	100
4	Hedge Plant	01
5	Tajplantshub dracaena	01
6	Crown of Throns	01
7	Spanish Moss (TilandsiaUsneoides)	10
8	Ruellia simplex	51
9	FagusSylvatica plant	01
10	Euphorbia Tithymaloides	11
11	Weeping Fig	685
12	LysilomaWatsonil	01
13	Royal Palm	38
14	Bamboo	230
15	Moringa	01
16	Acalyphawilkesiana	300
17	Dracaena Angustifolia	11
18	Polysciasscutellaria	04
19	Cordylinefruticosa	40
20	Dracaena Reflexa	500

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KI 7.1	M 7.1.3	

21	Garden Croton	01
22	polysciasguilfoylei	10
23	Oyster Plant (tradescantiazebrina)	300
24	Lonicerapileata	50
25	Saribusrotundifolius	10
26	Ixora	10
27	Hyophorbelagenicaulis	20
28	Purple heart	150
29	Yellow cosmos (sulphur cosmos)	100
30	Canna discolor	15
31	Durantaerecta	1100
32	Pritchardiapacifica	11
33	Capparissandwichiana	50
34	Nerium Oleander	10
35	Casuarinaequisetifolia	20
36	Caryotaurens	2
37	Areca palm	20
38	Ravenala	10
39	Iresineherbstii	300
40	Sago Plam	22
41	Sphgniticolatrilobata	1500
42	Thuja	24
43	Dracaena trifasciata	62
44	Ponytail Palm	2
45	Asparagus densiflorus	50
46	Alocasiazebrina	02
47	Bismarck palm	8
4 9	Lotus	100
50	Catharanthus	50
51	Padavati Jasmin	50
52	Caryotamitis	04

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75	Coconut palm tree	8
74	Tulsi	50
73	Indian jujube	5
72	Casuarinaequisetifolia	1
71	Melicoccusbijugatus	1
70	Eucalyptus globulus.	1
69	MadhucaLongifolia	2
68	Yellow elder	2
67	Nettlespurges	2
66	Terminaliachebula plant	2
65	Dracaena angolensis	2
64	Barbary fig	5
63	Mulberry tree	10
62	Ficusaspera	5
61	Hibiscus	10
60	Diantherapectoralis	200
59	Crinum asiaticum	27
58	Sweet osmanthus	1
57	Century Plant	30
56	Alovera	100
55	PlumeriaObtusa	10
54	Breyniadisticha	50

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Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

I. List uses of water in your institute

Basic use of water in campus	KL/Day
Drinking	9K
Gardening	15K
Kitchen and Toilets	12K
Others	09 K
Hostel	18K
Total	63 KL/Day

m. Electricity Consumed

Month (Academic Year 2019-2020)	Electricity Consumed (kWh)
June	1,37,991
July	1,83,820
August	1,98,594
September	1,74,244
October	1,80,766
November	1,23,820
December	1,22,634
January	99,310
February	1,15,243
March	1,28,800
April	97,727
May	1,02,021
Total	16,64,970

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

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water Tank	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
MDAD	12	Near Building- Undrground	333746	2	667492
MPAB	13	Near Building- Undrground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604

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	17	RO Water- at Terrace	2000	1	2000
747 J. 1	18	Raw Water- at Terrace	2000	2	4000
Workshop 19		Raw Warer- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
2	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	1500
	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tanki at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarva naman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
		Total W	ater Storage	Capacity	28,41,060

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7) Green Initiatives By the Institute

Green Architecture

The incorporation of green architecture principles in academic institutions not only reduces environmental impact but also fosters a healthier and more inspiring learning environment for students and faculty alike. By integrating features such as passive solar design, natural ventilation, and green roofs, these institutions showcase a commitment to sustainability while promoting innovation and awareness of eco-friendly design practices within the academic community.



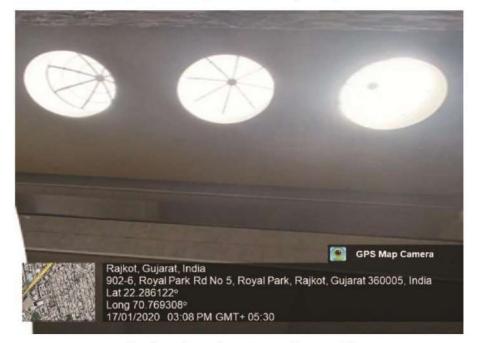








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KI 7.1	M 7.1.3	



Natural Light and Ventilation in Academic Building

Impact:

- · Low artificial lighting requirements
- · Energy consumption optimization
- · Low green house gas emission
- · Low level of strain to Eyes

Campus Biodiversity

A thriving campus biodiversity in academic institutions is not merely a reflection of ecological health but also serves as a testament to the institution's commitment to sustainability and environmental stewardship. It provides a living laboratory for students to engage with nature firsthand, fostering a deeper understanding of ecological systems and instilling a sense of responsibility towards conservation. Beyond its educational value, a biodiverse campus offers numerous benefits such as improved air and water quality, enhanced aesthetics, and increased resilience to environmental stressors. It becomes a sanctuary for wildlife, contributing to the preservation of local

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ecosystems and biodiversity at large. Atmiya University campus is a rich in the biodiversity with the full of greenery and in house terrace garden.



Glimpse of Flora at University Campus

Gaushala at Campus

- 8 Indian Breed Cow
- 01 Bull
- State of the art facilities
- · Value addition cow urine for herbal and fertilizer utilization
- · Decorative products are being made from the cow dung.
- · Jivamrut fertilizer being used in the campus is a product of gaushala.
- It contibutes to maintain the organic carbon content in the campus soil as it
 provides the raw material for the compost.



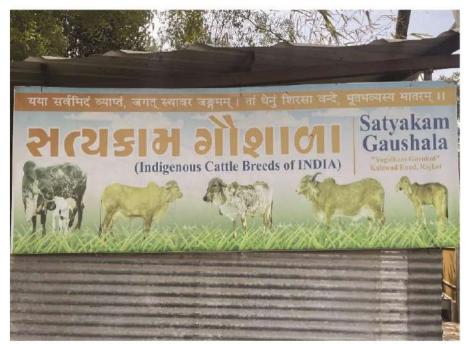
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Satyakam Gaushala



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It provides students with firsthand experience in animal care, veterinary science, and sustainable agriculture. They can learn about the importance of cows in Indian culture, their significance in agriculture, and sustainable farming practices.

Gaushalas contributes to the eco-friendly practices like composting cow dung for fertilizer, using biogas for cooking which can serve as models for sustainable living and agriculture.

In Indian cultures, cows are revered as sacred animals. Having a gaushala on campus can help preserve and promote this cultural heritage among students and the community.

Universities can conduct research on various aspects of cow rearing, including breeding, nutrition, and healthcare. This research can contribute to advancements in animal science and agriculture.

Cows play a crucial role in maintaining soil fertility through their dung, which is rich in nutrients. By managing cow waste effectively, gaushalas can contribute to soil health and environmental conservation.

Solid Waste Management Natural Fertilizer from Organic Waste Jivamrut (Natural Fertilizer)

Installation Detail:

- Year: 2008
- · Place: at boys parking
- Process: Collect neem leaves form campus and added with cow dung, cow urine and Earthworms

Amrut Soil

- Ingredients for AmrutMitti range from cow dung, cow urine, biomass like dry and decayed leaves, household kitchen waste like vegetable peels.
- AmrutSoil is full of all nutrients needed by plants, is very rich in variety of microbes, has the right pH, has high carbon content, has excellent water holding capacity.
- Mixing Cow dung, cow urine and jaggery
- Immersing dry biomass in AmrutJal kept in drums
- · Process take at least 1 month
- Use as garden fertilizer.

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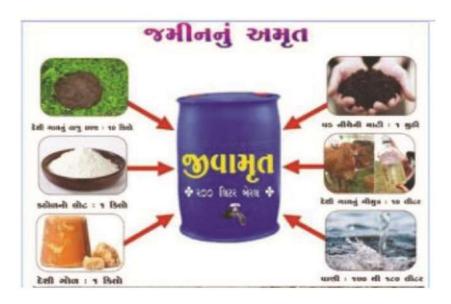


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KI 7.1 M 7.1.3			

Impact:

- · Applied in garden as fertilizer
- Improve soil micro-biota of campus soil
- · Less usages of chemical fertilizer





Amrut Soil and Jivamrut Plant

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Municipal Solid Waste Segregation Bin



Separate Dustbin for Recyclable and Non-Recyclable Waste

University campus having more the 100 solid waste collection dustbin design for the proper waste segregation. Waste paper is recycled at the in-house paper recycling facility and converted into the filter paper, envelope and other artistic and decorative products.

Having separate bins encourages people to sort their waste, making it easier to recycle materials such as paper, plastic, glass, and metal. This promotes a culture of recycling and reduces the amount of waste sent to landfills or incinerators.

Recycling materials reduces the need for raw materials, energy, and water required to manufacture new products. This conserves natural resources and reduces the environmental impact associated with extraction, processing, and transportation.

Implementing separate bins provides an opportunity for educational initiatives on waste management, recycling, and environmental stewardship. Students, faculty, and staff can learn about the importance of recycling and how their actions contribute to sustainability.



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Paper Recycling Unit

In embracing the principles of the circular economy, Atmiya university is pioneer in sustainable practices such as paper recycling, ensuring that resources are reused and regenerated rather than disposed of after single use. By implementing robust paper recycling programs, these institutes not only reduce waste and environmental impact but also cultivate a culture of resource efficiency and responsible consumption among students, faculty, and staff.

Recycling paper can lead to cost savings for the university by reducing waste disposal fees and the need to purchase new paper products. This can free up financial resources that can be allocated to other campus initiatives or projects.



arivartan-Paper Recycling Plant









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KI 7.1	M 7.1.3	

Plastic Water Bottle Recycling Plant

University have installed water bottle recycling plant at entrance for all stakeholders having capacity of $20\ kg/day$

A bottle crusher helps reduce the volume of plastic bottles, thereby decreasing the amount of plastic waste generated on campus. This contributes to waste reduction efforts and helps minimize the environmental impact of plastic pollution.

By providing a convenient way to crush plastic bottles, the crusher encourages recycling behavior among students, faculty, and staff. It reinforces the importance of recycling and helps divert plastic waste from landfills or incinerators.

Plastic pollution poses significant threats to ecosystems, wildlife, and human health. By reducing plastic waste through recycling, a bottle crusher helps protect the environment and minimize the adverse effects of plastic pollution on marine life, terrestrial habitats, and waterways.



Plastic Bottle Crusher Machine







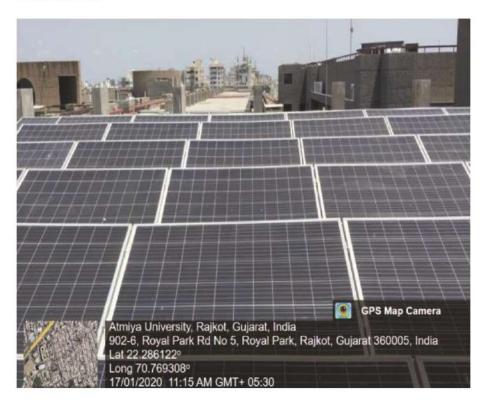


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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Energy Conservation Measures

Renewable Power Generation

The adoption of solar rooftop systems in Atmiya University significantly reduces carbon emissions, contributing to a cleaner and more sustainable environment while serving as a tangible demonstration of the institute's commitment to renewable energy and climate action. Additionally, the integration of solar rooftops enhances the educational experience by providing real-world examples of sustainable technology, inspiring students to explore and innovate in the field of renewable energy. Atmiya University having fully operational solar rooftop electricity generation capacity as per the vision of the government.





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Rooftop Solar Plant

Renewable Power Generation per Month

Month & Year	RE Cultivation in KWh
June-2019	23,711
July-2019	21,180
August-2019	15,144
September-2019	16,634
October-2019	17,936
November-2019	24,740
December-2019	22,309
January-2020	23,540
February-2020	26,538
March-2020	18,630
April-2020	38,737
May-2020	29,866
Total	2,78,965

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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Energy Efficient Electrical Appliances

Energy-efficient infrastructure in institutions not only lowers operational costs but also serves as a beacon of sustainable practices, showcasing the institution's dedication to environmental stewardship and responsible resource management. By implementing measures such as LED lighting, efficient HVAC systems, and smart building technologies, these institutions demonstrate leadership in sustainability while providing a conducive learning environment for students and faculty.





LED Lighting and 5 Star Rated Appliances









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KI 7.1	M 7.1.3

Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The University stores the water in overhead tank.

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.



Reverse Osmosis Plant for Drinking Water

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Rainwater Harvesting Capacity: 12 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing storm water runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.



Rainwater Harvesting Tank

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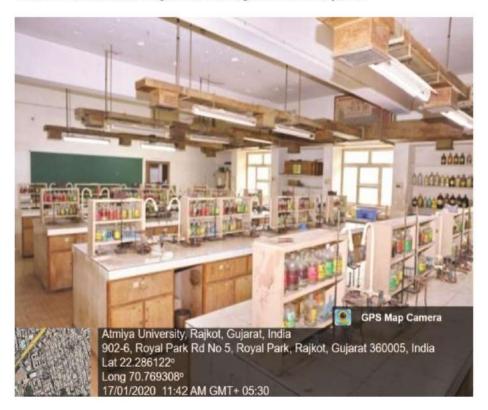


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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Air Pollution Control Measures

Acidic Fume Suction Panel

Laboratory of chemistry department is equipped with the vapour suction panel mounted on the platform. It collects the hazardous gas and channelizes it to the wet scrubber for the neutralizing before discharge into the atmosphere.



Acidic Fume Suction Panel

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Fume Hood at Chemistry laboratory

Fume hoods are designed to contain and exhaust potentially hazardous fumes, vapors, and gases generated during chemical experiments. They create a barrier between the experiment and the laboratory environment, preventing exposure to toxic or harmful substances. Fume hoods protect laboratory personnel from inhaling harmful chemicals or being exposed to hazardous substances.



Fumehood at Chemistry Laboratory









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KI 7.1	M 7.1.3

Wet Scrubber

- Reduction of Air Pollution: Scrubbers help remove harmful gases, such as hydrogen chloride (HCl) and hydrogen fluoride (HF), from the laboratory air. By capturing these pollutants before they are released into the atmosphere, scrubbers contribute to reducing air pollution and improving indoor and outdoor air quality.
- 2. Prevention of Acid Rain Formation: Hydrogen chloride and hydrogen fluoride emissions can contribute to the formation of acid rain when released into the atmosphere. Alkali gas scrubbers mitigate this environmental impact by removing these acidic gases from laboratory emissions before they can react with moisture in the air and contribute to acid rain formation.
- 3. Protection of Ecosystems: Acid rain resulting from air pollution can have detrimental effects on ecosystems, including damage to vegetation, soil, aquatic habitats, and wildlife. By reducing the emission of acidic gases, alkali gas scrubbers help protect sensitive ecosystems and promote biodiversity conservation.
- 4. Minimization of Health Risks: Hydrogen chloride and hydrogen fluoride are corrosive and toxic gases that can pose health risks to laboratory personnel and surrounding communities if released into the environment. Alkali gas scrubbers help minimize these risks by capturing and neutralizing these hazardous pollutants before they can be emitted.
- 5. Reduction of Odors: In addition to removing acidic gases, alkali gas scrubbers can also help eliminate unpleasant odors associated with certain chemical processes in the laboratory. This improvement in air quality enhances the comfort and well-being of laboratory personnel and visitors.
- 6. Conservation of Resources: Alkali gas scrubbers typically utilize alkaline solutions, such as sodium hydroxide (NaOH), to neutralize acidic gases. While the operation of scrubbers requires resources such as water and chemicals, their use

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contributes to the conservation of environmental resources by preventing the release of pollutants into the air and minimizing the need for remediation measures.



Wet Gas Scrubber









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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Tree Plantation

University campus is full of indigenous tree and medicinal plants produce positive impact on environment.

- Air Quality Improvement: Trees and plants act as natural air filters, absorbing
 carbon dioxide (CO2) and other pollutants from the air while releasing oxygen
 through the process of photosynthesis. This helps improve air quality on campus,
 reducing the concentration of harmful gases and particulate matter and
 promoting a healthier environment for students, faculty, and staff.
- Carbon Sequestration: Trees play a crucial role in mitigating climate change by sequestering carbon from the atmosphere and storing it in their biomass. By planting trees on campus, universities can contribute to carbon sequestration efforts and help offset their carbon footprint, supporting broader sustainability goals and initiatives.
- Temperature Regulation: Trees provide natural shade and evapotranspiration, helping to cool the surrounding environment and reduce the urban heat island effect. By creating shaded areas and lowering ambient temperatures, trees contribute to energy conservation efforts by reducing the need for air conditioning and mitigating heat-related stress during hot weather.
- Storm water Management: The roots of trees and plants help absorb rainwater
 and reduce runoff, preventing soil erosion and minimizing the risk of flooding
 and water pollution. By incorporating green infrastructure such as rain gardens
 and bio swales, university campuses can effectively manage storm water runoff,
 improve water quality, and enhance overall watershed health.
- Biodiversity Conservation: Trees and plants provide habitat and food sources for various species of birds, insects, and other wildlife, contributing to biodiversity conservation on campus. By creating green corridors and natural habitats, universities support local ecosystems and promote ecological resilience in urban environments.

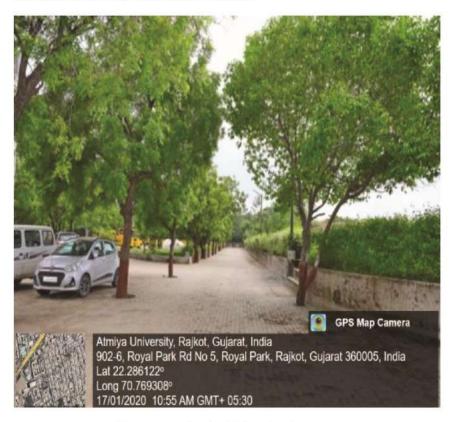
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KI 7.1	M 7.1.3

 Noise Reduction: Trees and vegetation help absorb and deflect sound waves, acting as natural buffers against noise pollution from nearby roads, buildings, and other sources. By planting trees strategically around campus buildings and outdoor spaces, universities can create quieter and more tranquil environments conducive to learning, research, and relaxation.



Greenery at Atmiya University Campus









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KI 7.1 M 7.1.3			

8) Audit Methodology

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

1. Data Collection – In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- 2. Data Analysis Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- **3. Recommendation –** On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University was evaluated through questionnaire circulated among the students for data collection.

The following data collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

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NAAC – Cycle – 1		
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Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

9) Monitoring, Observations& Recommendations Ambient Air Quality Monitoring

Date:17/01/2020

Location	PM ₁₀ (μg/m³)	PM _{2.5} (μg/m³)	SO ₂ (μg/m³)	NO ₂ (μg/m³)
AU Building Main Entrance	43.4	23.4	10.6	18.9
B/H Ashwad canteen	41.2	21.2	8.9	14.7
Nr. Bus parking	63.4	46.2	14.7	21.6
Nr. Haridarshanam Temple	67.8	49.4	16.8	22.5

Noise Monitoring
Date: 17/01/2020

Location	Observed Value (db (A))	Permissible Day Time Limit (db (A))	
AU Building Main Entrance	48		
B/H Ashwad canteen	45	50	
Nr. Bus parking	49	30	
Nr. Haridarshanam Temple	47		

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Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Borewell Water from VIP Parking Area
Sample collection Date	17/01/2020
Sample analysis date	17/01/2020
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	2 <u>4</u> 3	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.9	6 5	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	539.25	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	135.42	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	69.3	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 7 colonies)		
MacConkey Plates	TLTC (< 3 colonies)		
Single strength MPN broth	No Colour change, No Gas producti		
Double strength MPN broth	No Colour change, No Gas production		

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Borewell water from Yogidham Gate 3
Sample collection Date	17/01/2020
Sample analysis date	17/01/2020
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	2 <u>0</u> 7	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.8	(E)	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	342.9	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	11.92	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	58	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 5 colonies)		
MacConkey Plates	No Colonies Observed		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7 I V & B P		
KI 7.1 M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Borewell water near boy's Hostel
Sample collection Date	17/01/2020
Sample analysis date	17/01/2020
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	121	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable		Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.84	(FX	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	323.9	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	23.5	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	вор	5.67	mg/l	200 ± 37 mg/l	IS 3025 (part 44)
8	Total Hardness (as CaCO ₃)	70	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TMTC (> 100 colonies)		
MacConkey Plates	TMTC (> 100 colonies)		
Single strength MPN broth	No Colour change, No Gas producti		
Double strength MPN broth	No Colour change, No Gas production		

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7 I V & B P		
KI 7.1 M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Borewell Water near Temple
Sample collection Date	17/01/2020
Sample analysis date	17/01/2020
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable		Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.92	\$50	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	332.5	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	8.23	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	BOD	5.27	mg/l	200 ± 37 mg/l	IS 3025 (part 44)
8	Total Hardness (as CaCO ₃)	88	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Observation	
TLTC (< 5 colonies)	
TLTC (< 4 colonies)	
No Colour change, No Gas producti	
No Colour change, No Gas producti	

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AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Water Analysis Report TEST REPORT

Sample Description	Drinking Water- AU Main Building
Sample collection Date	17/01/2020
Sample analysis date	17/01/2020
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	28	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	1271	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.70	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	128.6	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	9.87	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	BOD	4.83	mg/l	200 ± 37 mg/l	IS 3025 (part 44)
8	Total Hardness (as CaCO3)	16	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	No Colonies Observed		
MacConkey Plates	No Colonies Observed		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		







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Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Drinking Water- Science Building	
Sample collection Date	17/01/2020	
Sample analysis date	17/01/2020	
Quantity of Sample	2.5 liters	

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	140	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	2	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.80	. 7 0	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	144.5	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	7.63	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	BOD	3.20	mg/l	200 ± 37 mg/l	IS 3025 (part 44)
8	Total Hardness (as CaCO ₃)	25	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	No Colonies Observed	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas productio	
Double strength MPN broth	No Colour change, No Gas production	

^{*}TLTC-Too Less To Count





^{*} TMTC-Too Much To Count



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Observations & Suggestions:

- University have installed the energy efficient LED lighting however it is recommended that university should install sensor based LED lights at critical movement areas.
- RO reject water is being utilized into the garden for the irrigation purpose. It is a very good initiative. To upgrade the water conservation one step ahead. It is recommended that university should go for the installation of sewage treatment plant.
- University is using the rainwater by storing it into the underground tank. It is recommended that create awareness in surrounding area about this good initiative
- Currently biodegradable waste is being disposed by the composting. It can be upgraded to the biogas plant. This will improve resource utilization factor of waste.
- 5. University is situated in the heart of Rajkot city. Majority student commute by the personal vehicle. It is suggested that university should start bus service.
- University have the state of the art laboratory facility for the environmental monitoring.
- 7. The botanical garden is located within the campus to preserve local plat species.
- 8. University has provided separate dustbin for the recyclable and non-recyclable waste is a positive step towards the sustainability.

-

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10) Certificate



V.V.P. ENGINEERING COLLEGE

ENVIRONMENTAL AUDIT CELL, Vajdi - Virda, Kalawad Road, Rajkot

Environmental Audit Certificate Atmiya University, Rajkot-360005-Gujarat-India For the AY (2019-20)

Environmental Audit for the period June 2019 to May 2020 has been conducted for the Atmiya University, Rajkot to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management. This Environmental Audit is also aimed to assess eco-friendly initiatives of the Institute towards sustainability.

It is believed that the institution has presented authentic data on various aspects of working of the institute before the audit team. The recommendations are based on the data presented before the team as they existed at the audit time. This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in prevailing green practice or misleading data. The findings reported in this audit report are entirely based on data furnished by the institute and data collected by the audit team during the audit. Thus, the findings reported in this audit report are strictly limited to the period when the audit was conducted.

The Environmental Quality in the campus is found adequate and efficacious.

Dr. Sushil Korgaokar

(Recognised Schedule-I Environmental Auditor, Gujarat Pollution Control Board-GPCB – Gandhinagar, Gujarat)

Environmental Audit Laboratory, V.V.P. Engineering College, Virda – Vajdi, Kalawad Road, Opp. Motel the Village, Rajkot-360005-Gujarat-India



I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Ashish M. Kothari, Dy. Registrar, Atmiya University, Rajkot-360005-Gujarat-India Deputy Registrar Atmiya University Rajkot

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Environmental Audit Cell, V.V.P. Engineering College, Rajkot





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1.5 GREEN/ ENVIRONMENT AUDIT 2020-21

CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot – 360 005 (Audit Period: June 2020 to May 2021)

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1) Executive Summary

Atmiya University established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "सुहदंसर्वभूतानम्" (Suhardam Sarva Bhootanam) is an

expression of willingness to attain harmony with each creation of the Almighty! This environmental audit report provides a comprehensive overview of Atmiya University, located in the vibrant city of Rajkot, Gujarat. Atmiya University, a prominent educational institution in the region, serves as a dynamic center for higher education, offering a diverse range of undergraduate, postgraduate, and doctoral programs. Established with a vision "To nurture creative thinkers and leaders through transformative learning" and committed to create a transformative learning experience by imbibing domain specific knowledge & wisdom and to focus on research based teaching learning with Industry relevant application knowledge. The university plays a crucial role in shaping the region's educational landscape.

Situated in an urban setting, Atmiya University benefits from excellent connectivity and accessibility within the Rajkot area. The campus spans approximately 23.5 acre and features modern infrastructure that includes state-of-the-art classrooms, research labs, libraries, recreational facilities, and green spaces that enhance the learning environment.

The university accommodates a diverse and vibrant community from various parts of India and beyond. This thriving student body is supported by a faculty dedicated to promoting sustainable practices on campus, aligning with Atmiya University's mission to minimize its environmental impact.

A satellite image of the campus highlights its strategic layout and showcases the integration of natural and built environments, offering a visual perspective on the university's physical footprint within the urban landscape. This audit aims to evaluate Atmiya University's environmental practices and suggest actionable steps to enhance sustainability, further aligning with global standards in environmental responsibility and conservation.

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2) Acknowledgment

On behalf of the Environmental Audit & Consultancy Cell at V.V.P. Engineering College, Rajkot, we would like to express our sincere gratitude to the management of Atmiya University, Rajkot for entrusting us with the important task of conducting their Environmental Audit/Green Audit.

We deeply appreciate the cooperation extended by your team throughout the assessment process. This cooperation was instrumental in the successful completion of the audit.

We would also like to extend our special thanks to **Dr. Ashish Kothari. Deputy Registrar**, for their unwavering support. Their dedication proved to be invaluable in ensuring the project's completion. Finally, we thank all other staff members who actively participated in data collection and field measurements. Their contributions were essential to the smooth execution of the audit.

We are also thankful to:

SN	Name	Designation		
1	Er. Ravi S. Tank	Chemical Engineer		
2	Dr. Hemantkumar G. Sonkusare	Civil Engineer		
3	Dr. Anilkumar S. Patel	Chemist		

In closing, we would like to express our gratitude to Dr. Santhanakrishnan Pillai, Vice Chancellor, Atmiya University for extending the opportunity to evaluate their esteemed campus's environmental performance.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot

Atmiya University Raikot-Gujarat-India

Rajkot





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3) Disclaimer

This Green Audit report has been prepared by the Environmental Audit Cell at V.V.P. Engineering College, Rajkot for of Atmiya University, Rajkot. It incorporates data submitted by University officials/representatives along with expert analysis by the EA&CC Audit team.

While all reasonable efforts have been made to ensure its accuracy, the report is based on information gathered in good faith. Conclusions are based on best estimates and do not constitute any express or implied warranty or undertaking. The EA&CC at Atmiya University, Rajkot assumes no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

The findings presented in this report are based entirely on data provided by Atmiya University and gathered by the audit team during their audit & monitoring visit. It assumes normal operating conditions within the institution throughout the audit period. The auditors are unable to comment on environmental audit parameters outside the scope of the on-site surveys. Consequently, the report's findings are strictly limited to the timeframe during which the audit team conducted its assessment.

The Environment Audit Cell at V.V.P. Engineering College, Rajkot, maintains strict confidentiality regarding all information pertaining to Atmiya University. No such information will be disclosed to any third party except public domain knowledge or when required by law or relevant accreditation bodies.

This certificate is valid solely for the current Environmental Audit/Green Audit report. It may be automatically revoked if any significant changes occur in the quantity or quality of waste generation at the aforementioned institute.

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4) Introduction

Since the 2019-20 academic year, the National Assessment and Accreditation Council (NAAC) requires all Higher Educational Institutions (HEIs) to submit an annual Environmental Audit/Green Audit report. This requirement falls under Criterion 7 of the NAAC accreditation process, which evaluates institutions for their environmental sustainability practices. NAAC, an autonomous body in India, assigns accreditation grades (A, B, or C) based on various criteria, including environmental stewardship.

Furthermore, conducting Environmental Audit/Green Audits aligns with the Corporate Social Responsibility (CSR) initiatives of HEIs. By implementing measures to reduce their carbon footprint, institutions contribute positively to mitigating global warming.

In response to the NAAC mandate, the University management opted for an external Environmental Audit/Green Audit conducted by a qualified professional auditor.

Environmental Audit/Green Audit entails a comprehensive environmental assessment, examining both on-campus and off-campus practices that directly or indirectly impact the environment. In essence, it is a systematic process of identifying, quantifying, recording, reporting, and analysing environmental aspects within the institute setting.

Environmental Audit/Green Audits originated as a tool to evaluate institutional activities that might pose risks to human health and the environment. It provides valuable insights for improvement, guiding institutions towards environmentally responsible practices and infrastructure.

The specific areas covered by this audit include Green Campus initiatives, Waste Management, Water Management, Air Pollution Control, Energy Management, and Carbon Footprint reduction strategies employed by the University.

The following sections delve deeper into the concept, structure, objectives, methodology, analytical tools, and overall goals of this Green Audit.

Educational institutions are increasingly prioritizing environmental concerns. As a result, innovative concepts are emerging to make campuses more sustainable and eco-friendly. Numerous institutions are adopting various approaches to address environmental challenges within their facilities, such as promoting

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energy conservation, waste recycling, water use reduction, and rainwater harvesting.

The activities of educational institutions can have both positive and negative environmental impacts. A Green Audit is a formal evaluation process that assesses the University's environmental footprint. It provides a comprehensive picture of the current environmental conditions on campus.

Green Audits are a valuable tool for universities to identify areas of high energy, water, or resource consumption. This allows institutions to implement targeted changes and achieve cost savings. Additionally, Green Audits can analyse the nature and volume of waste generated, leading to improved recycling programs or waste minimization plans.

Green auditing and the implementation of mitigation measures offer a win-win scenario for institutions, students, and the environment. It can foster health and environmental awareness, promoting values and beliefs that benefit everyone. Green Audits also provide an opportunity for staff and students to gain a deeper understanding of the impact their institution has on the environment.

Furthermore, Green Audits can translate into financial savings by encouraging a reduction in resource usage. This process also empowers students and teachers to develop a sense of ownership for personal and social environmental responsibility.

The Green Audit process typically involves collecting primary data, conducting a site visit with University representatives, and reviewing relevant policies, activities, documents, and records.

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OBJECTIVE AND SCOPE

The broad aims/benefits of the Environmental Audit/Green Audit would be

- Environmental education through systematic environmental management approach
- · Improving environmental standards
- · Benchmarking for environmental protection initiatives
- · Sustainable use of natural resource in the campus.
- · Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the University campus and its environment
- · Enhancement of University profile
- · Developing an environmental ethic and value systems in young people

Outcomes OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

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

- 1. Protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. Portrays good image of institution through its clean and green campus.

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5) Environmental Policy



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by:

- · Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- · Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthier, sustainable future.
- · Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- Addressing local and regional environmental challenges with sustainable solutions.
- Ensuring sustainable resource use and minimizing wasteful practices.
- · Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

 Clean Campus Initiatives: Regular cleaning drives, waste segregation, and beautification projects.



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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Biodiversity: Developing green spaces, planting neem trees, and conserving biodiversity.
- Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using rainwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, e-waste, and bio-waste for recycling and composting.
- Transportation and Mobility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: Incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- · Transition to energy-efficient devices and systems.
- Encourage behaviour changes for energy conservation.
- · Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- · Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parivartan (Paper Recycling Unit) and Surjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible water to age to expece dependency on municipal water

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

· Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nature, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmiya University Rajkot

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6) General Information

- a. Does any Green Audit conducted earlier? Yes
- b. Total Area of the University = 84455 m^2
- c. What is the total strength (people count) of the Institute?

AY	,	Student	ts	Tea	Teaching Staff		Non-Teaching Staff			Total		
A.I.	M	F	Trans	M	F	Trans	M	F	Trans	M	F	Trans
2020- 2021	3399	1984	0	166	79	0	188	19	0	3753	2082	0

d. What is the total number of working days of your campus in a year?

Month (AY- 2020-2021)	No. of Working Days				
June	26				
July	27				
August	18				
September	26				
October	26				
November	13				
December	27				
January	25				
February	24				
March	25				
April	23				
May	24				
Total	284				

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e. Which of the following are found near your institute?

Municipal dump yard	No	
Garbage heap	No	
Public convenience	Yes	
Sewer line	Yes	
Stagnant water	No	
Industry	No	
Bus / Railway station	Yes	
Market / Shopping complex	Yes	
Play Ground	Yes	

f. Does your institute generate any waste? If so, what are they?

Туј	pe of waste	Response	Detail(s) of Waste Generated	Quantity of Waste Generated (kg)
	Biodegradable	Yes	Gardening, Cow dung	175
Solid	Non- biodegradable	Yes	Sweeping waste,	10
	e-waste	Yes	Computer, Battery	1955
Liquid		Yes	Kitchen Waste	35
Gas		No	(22)	7227

- g. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)
 - · Composting: Gardening and cow dung waste used to make compost.
 - Non-recyclable and non biodegradable waste disposal is managed by the Rajkot Municipal Corporation.

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- $\boldsymbol{h.}\;\;$ Do you use recycled paper in institute? Yes
- $\textbf{i.} \quad \text{How would you spread the message of recycling to others in the community?}$

Poster competition activities	Yes
Campaigns	Yes
Webinars and seminars	Yes

j. Is there a garden in your institute?

Garden	Yes	Area = 6732.26m ²	
270770.000.000		52524100 - Addition -	

k. Total number of Plants in Campus?

SN	Namepd Species	Numbers
1	Neem Tree	211
2	Lemon cypress	1
3	FicusMicrocapra	100
4	Hedge Plant	01
5	Tajplantshub dracaena	01
6	Crown of Throns	01
7	Spanish Moss (TilandsiaUsneoides)	10
8	Ruellia simplex	51
9	FagusSylvatica plant	01
10	Euphorbia Tithymaloides	11
11	Weeping Fig	685
12	LysilomaWatsonil	01
13	Royal Palm	38
14	Bamboo	230



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15	Moringa	01
16	Acalyphawilkesiana	300
17	Dracaena Angustifolia	11
18	Polysciasscutellaria	04
19	<u>Cordylinefruticosa</u>	40
20	Dracaena Reflexa	500
21	Garden Croton	01
22	polysciasguilfoylei	10
23	Oyster Plant (tradescantiazebrina)	300
24	Lonicerapileata	50
25	Saribusrotundifolius	10
26	Ixora	10
27	Hyophorbelagenicaulis	20
28	Purple heart	150
29	Yellow cosmos (sulphur cosmos)	100
30	Canna discolor	15
31	Durantaerecta	1100
32	Pritchardiapacifica	11
33	Capparissandwichiana	50
34	Nerium Oleander	10
35	Casuarinaequisetifolia	20
36	Caryotaurens	2
37	Areca palm	20

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38	Ravenala	10
39	Iresineherbstii	300
40	Sago Plam	22
41	Sphgniticolatrilobata	1500
42	Thuja	24
43	Dracaena trifasciata	62
44	Ponytail Palm	2
45	Asparagus densiflorus	50
46	Alocasiazebrina	02
47	Bismarck palm	8
49	Lotus	100
50	Catharanthus	50
51	Padavati Jasmin	50
52	Caryotamitis	04
53	Monoonlongifolium	3
54	Breyniadisticha	50
55	PlumeriaObtusa	10
56	Alovera	100
57	Century Plant	30
58	Sweet osmanthus	1
59	Crinum asiaticum	27
60	Diantherapectoralis	200
61	Hibiscus	10

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NAAC – Cycle – 1		
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Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

62	Ficusaspera	5
63	Mulberry tree	10
64	Barbary fig	5
65	Dracaena angolensis	2
66	Terminaliachebula plant	2
67	Nettlespurges	2
68	Yellow elder	2
69	MadhucaLongifolia	2
70	Eucalyptus globulus.	1
71	Melicoccusbijugatus	
72	Casuarinaequisetifolia	1
73	Indian jujube	.5
74	Tulsi	50
75	Coconut palm tree	8
76	Calotropisgigantea	1
77	Persian Silk	5
78	Mango tree	1
79	Curry Tree	4
30	Punicagranatum	5
31	Pandanusveitchii	50
32	Streblusasper	5
	Total	6859

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I. List uses of water in your institute

Basic use of water in campus	KL/Day	
Drinking	3	
Gardening	15	
Kitchen and Toilets	4	
Others	6	
Hostel	4	
Total	32 KL/Day	

m. Electricity Consumed

Month (Academic Year 2020-2021)	Electricity Consumed (kWh) 1,37,230	
June		
July	1,36,957	
August	1,12,314	
September	1,08,832	
October	99,057	
November	90,189	
December	71,830	
January	75,191	
February	84,981	
March	1,17,450	
April	1,39,358	
May	1,01,102	
Total	12,74,491	

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NAAC – Cycle – 1				
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Criterion 7	I V & B P			
KI 7.1	M 7.1.3			

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

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water Tank	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
MBAB	12	Near Building- Undrground	333746	2	667492
MPAB	13	Near Building- Undrground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604

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	17	RO Water- at Terrace	2000	1	2000
	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Warer- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	1500
	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tanki at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarva naman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
32		Total W	ater Storag	e Capacity	28,41,060

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7) Green Initiatives By the Institute

Green Architecture

The incorporation of green architecture principles in academic institutions not only reduces environmental impact but also fosters a healthier and more inspiring learning environment for students and faculty alike. By integrating features such as passive solar design, natural ventilation, and green roofs, these institutions showcase a commitment to sustainability while promoting innovation and awareness of eco-friendly design practices within the academic community.





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Natural Light and Ventilation in Academic Building

Impact:

- · Low artificial lighting requirements
- · Energy consumption optimization
- · Low green house gas emission
- · Low level of strain to Eyes

Campus Biodiversity

A thriving campus biodiversity in academic institutions is not merely a reflection of ecological health but also serves as a testament to the institution's commitment to sustainability and environmental stewardship. It provides a living laboratory for students to engage with nature firsthand, fostering a deeper understanding of ecological systems and instilling a sense of responsibility towards conservation. Beyond its educational value, a biodiverse campus offers numerous benefits such as improved air and water quality, enhanced aesthetics, and increased resilience to environmental stressors. It becomes a sanctuary for wildlife, contributing to the preservation of local

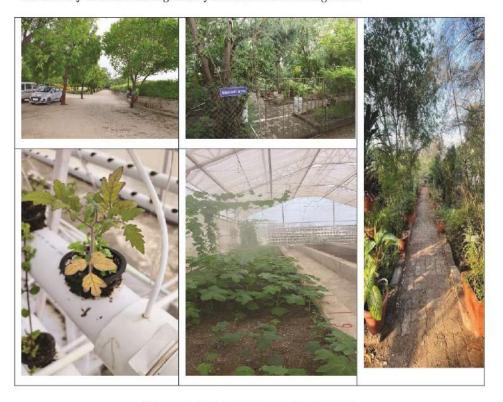
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ecosystems and biodiversity at large. Atmiya University campus is a rich in the biodiversity with the full of greenery and in house terrace garden.



Glimpse of Flora at University Campus

Gaushala at Campus

- · 12 Indian Breed Cow
- 01 Bull
- · State of the art facilities
- · Value addition cow urine for herbal and fertilizer utilization
- Decorative products are being made from the cow dung.
- · Jivamrut fertilizer being used in the campus is a product of gaushala.
- It contibutes to maintain the organic carbon content in the campus soil as it
 provides the raw material for the compost.



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Satyakam Gaushala

It provides students with firsthand experience in animal care, veterinary science, and sustainable agriculture. They can learn about the importance of cows in Indian culture, their significance in agriculture, and sustainable farming practices.

Gaushalas contributes to the eco-friendly practices like composting cow dung for fertilizer, using biogas for cooking which can serve as models for sustainable living and agriculture.



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In Indian cultures, cows are revered as sacred animals. Having a gaushala on campus can help preserve and promote this cultural heritage among students and the community.

Universities can conduct research on various aspects of cow rearing, including breeding, nutrition, and healthcare. This research can contribute to advancements in animal science and agriculture.

Cows play a crucial role in maintaining soil fertility through their dung, which is rich in nutrients. By managing cow waste effectively, gaushalas can contribute to soil health and environmental conservation.

Solid Waste Management Natural Fertilizer from Organic Waste

Jivamrut (Natural Fertilizer)

Installation Detail:

- Year: 2008
- Place: at boys parking
- Process: Collect neem leaves form campus and added with cow dung, cow urine and Earthworms

Amrut Soil

- Ingredients for AmrutMitti range from cow dung, cow urine, biomass like dry and decayed leaves, household kitchen waste like vegetable peels.
- AmrutSoil is full of all nutrients needed by plants, is very rich in variety of microbes, has the right pH, has high carbon content, has excellent water holding capacity.
- · Mixing Cow dung, cow urine and jaggery
- · Immersing dry biomass in AmrutJal kept in drums
- Process take at least 1 month
- Use as garden fertilizer.

Impact:

- Applied in garden as fertilizer
- · Improve soil micro-biota of campus soil
- · Less usages of chemical fertilizer



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Amrut Soil and Jivamrut Plant



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Municipal Solid Waste Segregation Bin



Separate Dustbin for Recyclable and Non-Recyclable Waste

University campus having more the 100 solid waste collection dustbin design for the proper waste segregation. Waste paper is recycled at the in-house paper recycling facility and converted into the filter paper, envelope and other artistic and decorative products.

Having separate bins encourages people to sort their waste, making it easier to recycle materials such as paper, plastic, glass, and metal. This promotes a culture of recycling and reduces the amount of waste sent to landfills or incinerators.

Recycling materials reduces the need for raw materials, energy, and water required to manufacture new products. This conserves natural resources and reduces the environmental impact associated with extraction, processing, and transportation.

Implementing separate bins provides an opportunity for educational initiatives on waste management, recycling, and environmental stewardship. Students, faculty, and staff can learn about the importance of recycling and how their actions contribute to sustainability.



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Paper Recycling Unit

In embracing the principles of the circular economy, Atmiya university is pioneer in sustainable practices such as paper recycling, ensuring that resources are reused and regenerated rather than disposed of after single use. By implementing robust paper recycling programs, these institutes not only reduce waste and environmental impact but also cultivate a culture of resource efficiency and responsible consumption among students, faculty, and staff.

Recycling paper can lead to cost savings for the university by reducing waste disposal fees and the need to purchase new paper products. This can free up financial resources that can be allocated to other campus initiatives or projects.



Parivartan-Paper Recycling Plant



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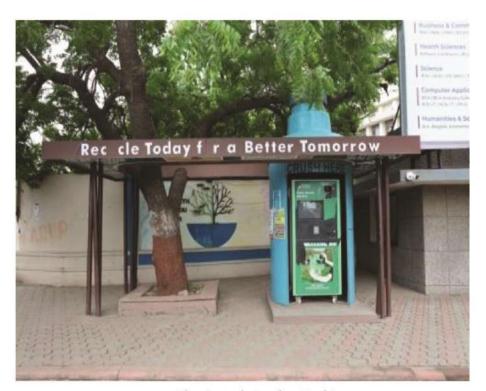
Plastic Water Bottle Recycling Plant

University have installed water bottle recycling plant at entrance for all stakeholders having capacity of $20\ kg/day$

A bottle crusher helps reduce the volume of plastic bottles, thereby decreasing the amount of plastic waste generated on campus. This contributes to waste reduction efforts and helps minimize the environmental impact of plastic pollution.

By providing a convenient way to crush plastic bottles, the crusher encourages recycling behavior among students, faculty, and staff. It reinforces the importance of recycling and helps divert plastic waste from landfills or incinerators.

Plastic pollution poses significant threats to ecosystems, wildlife, and human health. By reducing plastic waste through recycling, a bottle crusher helps protect the environment and minimize the adverse effects of plastic pollution on marine life, terrestrial habitats, and waterways.



Plastic Bottle Crusher Machine

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Energy Conservation Measures

Renewable Power Generation

The adoption of solar rooftop systems in Atmiya university significantly reduces carbon emissions, contributing to a cleaner and more sustainable environment while serving as a tangible demonstration of the institute's commitment to renewable energy and climate action. Additionally, the integration of solar rooftops enhances the educational experience by providing real-world examples of sustainable technology, inspiring students to explore and innovate in the field of renewable energy. Atmiya University having fully operational solar rooftop electricity generation capacity as per the vision of the government.





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Rooftop Solar Plant

Renewable Power Generation per Month

Month & Year	RE Cultivation in KWh
Jun-20	22,195
Jul-20	21,712
Aug-20	14,434
Sep-20	22,112
Oct-20	25,762
Nov-20	22,129
Dec-20	22,270
Jan-21	24,591
Feb-21	23,961
Mar-21	28,130
Apr-21	24,533
May-21	22,452
Tota	2,74,281

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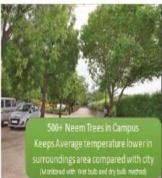
Energy Efficient Electrical Appliances

Energy-efficient infrastructure in institutions not only lowers operational costs but also serves as a beacon of sustainable practices, showcasing the institution's dedication to environmental stewardship and responsible resource management. By implementing measures such as LED lighting, efficient HVAC systems, and smart building technologies, these institutions demonstrate leadership in sustainability while providing a conducive learning environment for students and faculty.





Sensor-based energy conservation





Power Efficient Equipment – 5 Star Rated Appliances/ Equipment



Energy Efficient Computers With LED screen for power saving



LED lights for Power saving

LED Lighting and 5 Star Rated Appliances



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Water Management

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

Sources of Water

- · Rainwater Harvesting
- Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The University stores the water in overhead tank.

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and wellbeing. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.



Reverse Osmosis Plant for Drinking Water

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Rainwater Harvesting Capacity: 12 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing stormwater runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.





Rainwater Harvesting Tank

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Air Pollution Control Measures

Acidic Fume Suction Panel

Laboratory of chemistry department is equipped with the vapour suction panel mounted on the platform. It collects the hazardous gas and channelizes it to the wet scrubber for the neutralizing before discharge into the atmosphere.



Acidic Fume Suction Panel



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Fume Hood at Chemistry laboratory

Fume hoods are designed to contain and exhaust potentially hazardous fumes, vapors, and gases generated during chemical experiments. They create a barrier between the experiment and the laboratory environment, preventing exposure to toxic or harmful substances. Fume hoods protect laboratory personnel from inhaling harmful chemicals or being exposed to hazardous substances.



Fumehood at Chemistry Laboratory

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Wet Scrubber

- Reduction of Air Pollution: Scrubbers help remove harmful gases, such as hydrogen chloride (HCl) and hydrogen fluoride (HF), from the laboratory air. By capturing these pollutants before they are released into the atmosphere, scrubbers contribute to reducing air pollution and improving indoor and outdoor air quality.
- 2. Prevention of Acid Rain Formation: Hydrogen chloride and hydrogen fluoride emissions can contribute to the formation of acid rain when released into the atmosphere. Alkali gas scrubbers mitigate this environmental impact by removing these acidic gases from laboratory emissions before they can react with moisture in the air and contribute to acid rain formation.
- 3. Protection of Ecosystems: Acid rain resulting from air pollution can have detrimental effects on ecosystems, including damage to vegetation, soil, aquatic habitats, and wildlife. By reducing the emission of acidic gases, alkali gas scrubbers help protect sensitive ecosystems and promote biodiversity conservation.
- 4. Minimization of Health Risks: Hydrogen chloride and hydrogen fluoride are corrosive and toxic gases that can pose health risks to laboratory personnel and surrounding communities if released into the environment. Alkali gas scrubbers help minimize these risks by capturing and neutralizing these hazardous pollutants before they can be emitted.
- 5. Reduction of Odors: In addition to removing acidic gases, alkali gas scrubbers can also help eliminate unpleasant odors associated with certain chemical processes in the laboratory. This improvement in air quality enhances the comfort and well-being of laboratory personnel and visitors.
- Conservation of Resources: Alkali gas scrubbers typically utilize alkaline solutions, such as sodium hydroxide (NaOH), to neutralize acidic gases. While the operation of scrubbers requires resources such as water and chemicals, their use

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contributes to the conservation of environmental resources by preventing the release of pollutants into the air and minimizing the need for remediation measures.



Wet Gas Scrubber



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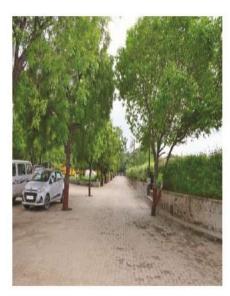
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Tree Plantation





University campus is full of indigenous tree and medicinal plants produce positive impact on environment.

- Air Quality Improvement: Trees and plants act as natural air filters, absorbing
 carbon dioxide (CO2) and other pollutants from the air while releasing oxygen
 through the process of photosynthesis. This helps improve air quality on campus,
 reducing the concentration of harmful gases and particulate matter and
 promoting a healthier environment for students, faculty, and staff.
- Carbon Sequestration: Trees play a crucial role in mitigating climate change by sequestering carbon from the atmosphere and storing it in their biomass. By planting trees on campus, universities can contribute to carbon sequestration efforts and help offset their carbon footprint, supporting broader sustainability goals and initiatives.
- Temperature Regulation: Trees provide natural shade and evapotranspiration, helping to cool the surrounding environment and reduce the urban heat island effect. By creating shaded areas and lowering ambient temperatures, trees

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contribute to energy conservation efforts by reducing the need for air conditioning and mitigating heat-related stress during hot weather.

- Storm water Management: The roots of trees and plants help absorb rainwater
 and reduce runoff, preventing soil erosion and minimizing the risk of flooding
 and water pollution. By incorporating green infrastructure such as rain gardens
 and bio swales, university campuses can effectively manage storm water runoff,
 improve water quality, and enhance overall watershed health.
- Biodiversity Conservation: Trees and plants provide habitat and food sources for various species of birds, insects, and other wildlife, contributing to biodiversity conservation on campus. By creating green corridors and natural habitats, universities support local ecosystems and promote ecological resilience in urban environments.
- Noise Reduction: Trees and vegetation help absorb and deflect sound waves, acting as natural buffers against noise pollution from nearby roads, buildings, and other sources. By planting trees strategically around campus buildings and outdoor spaces, universities can create quieter and more tranquil environments conducive to learning, research, and relaxation.



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8) Audit Methodology

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

1. Data Collection – In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- 2. Data Analysis Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- **3. Recommendation** On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University was evaluated through questionnaire circulated among the students for data collection.

The following data collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

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9) Monitoring, Observations & Recommendations

Ambient Air Quality Monitoring

Date: 12/01/2021

Location	PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m³)	SO ₂ (μg/m³)	NO ₂ (μg/m³)
AU Building Main Entrance	33.4	21.4	13.6	19.4
B/H Ashwad canteen	31.2	19.2	10.5	16.7
Nr. Bus parking	53.4	36.2	15.2	23.6
Nr. Haridarshanam Temple	57.8	39.4	19.8	25.8

Noise Monitoring
Date: 12/01/2021

Location	Observed Value (db (A))	Permissible Day Time Limit (db (A))
AU Building Main Entrance	45	
B/H Ashwad canteen	43	50
Nr. Bus parking	47	
Nr. Haridarshanam Temple	46	







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Water Analysis Report

TEST REPORT

Sample Description	Borewell Water from VIP parking Area
Sample collection Date	12/01/2021
Sample analysis date	12/01/2021
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	-	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.7	G)	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	335	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	10.4	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	35.6	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	TLTC (< 7 colonies)
MacConkey Plates	TLTC (< 3 colonies)
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production

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Water Analysis Report

TEST REPORT

Sample Description	Borewell Water near Yogidham Gate 3
Sample collection Date	12/01/2021
Sample analysis date	12/01/2021
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	20	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.7	57	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	223.6	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	11.08	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	35.0	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 5 colonies)	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	







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Water Analysis Report

TEST REPORT

Sample Description	Borewell Water near Boy's Hostel	
Sample collection Date	12/01/2021	
Sample analysis date	12/01/2021	
Quantity of Sample	2.5 liters	

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	*	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	##(Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.68	27	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	323.5	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	24.5	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	32.5	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	TMTC (> 100 colonies)
MacConkey Plates	TMTC (> 100 colonies)
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production

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KI 7.1 M 7.1.3	

Water Analysis Report TEST REPORT

Sample Description Borewell Water near Temple Sample collection Date 12/01/2021 Sample analysis date 12/01/2021 Quantity of Sample 2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	220	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.7	æ	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	330	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	8.10	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	54.3	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 5 colonies)	
MacConkey Plates	TLTC (< 4 colonies)	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	







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Water Analysis Report

TEST REPORT

Sample Description	Drinking Water- AU Main Building
Sample collection Date	12/01/2021
Sample analysis date	12/01/2021
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	20	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5)
3	рН	7.70	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	145,5	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	9.6	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	12.5	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	No Colonies Observed
MacConkey Plates	No Colonies Observed
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production







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Water Analysis Report TEST REPORT

Sample Description	Drinking Water- Science Building
Sample collection Date	12/01/2021
Sample analysis date	12/01/2021
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	20	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.7	8	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	135.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	7.8	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	15.6	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	No Colonies Observed
MacConkey Plates	No Colonies Observed
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production

^{*}TLTC-Too Less To Count

^{*} TMTC-Too Much To Count









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Observations & Suggestions:

- University is situated in the heart of Rajkot city. Majority student commute by the personal vehicle. It is suggested that university should have more number of buses to promote pool commuting.
- University have the state of the art laboratory facility for the environmental monitoring.
- RO reject water is being utilized into the garden for the irrigation purpose. It is a very good initiative. To upgrade the water conservation one step ahead. It is recommended that university should go for the installation of sewage treatment plant.
- University has provided separate dustbin for the recyclable and non-recyclable waste is a positive step towards the sustainability.
- University is using the rainwater by storing it into the underground tank. It is recommended that create awareness in surrounding area about this good initiative
- Currently biodegradable waste is being disposed by the composting. It can be upgraded to the biogas plant. This will improve resource utilization factor of waste.
- 7. The botanical garden is located within the campus to preserve local plat species.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2020 to May 2021)

10) Certificate



V.V.P. ENGINEERING COLLEGE

ENVIRONMENTAL AUDIT CELL, Vajdi - Virda, Kalawad Road, Rajkot

Environmental Audit Certificate Atmiya University, Rajkot-360005-Gujarat-India For the AY (2020-21)

Environmental Audit for the period June 2020 to May 2021 has been conducted for the Atmiya University, Rajkot to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management. This Environmental Audit is also aimed to assess eco-friendly initiatives of the Institute towards sustainability.

It is believed that the institution has presented authentic data on various aspects of working of the institute before the audit team. The recommendations are based on the data presented before the team as they existed at the audit time. This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in prevailing green practice or misleading data. The findings reported in this audit report are entirely based on data furnished by the institute and data collected by the audit team during the audit. Thus, the findings reported in this audit report are strictly limited to the period when the audit was conducted.

The Environmental Quality in the campus is found adequate and efficacious.

Dr. Sushil Korgaokar

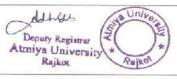
(Recognised Schedule-I Environmental Auditor, Gujarat Pollution Control Board-GPCB – Gandhinagar, Gujarat)

Environmental Audit Laboratory, V.V.P. Engineering College, Virda – Vajdi, Kalawad Road, Opp. Motel the Village, Rajkot-360005-Gujarat-India



I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Ashish M. Kothari, Dy. Registrar, Atmiya University, Rajkot-360005-Gujarat-India



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Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





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1.6 GREEN/ENVIRONMENT AUDIT 2021-22

CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2021 to May 2022)

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Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot -1-







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1) Executive Summary

Atmiya University established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "स्हदंसर्वभूतानम्" (Suhardam Sarva Bhootanam) is an

expression of willingness to attain harmony with each creation of the Almighty! This environmental audit report provides a comprehensive overview of Atmiya University, located in the vibrant city of Rajkot, Gujarat. Atmiya University, a prominent educational institution in the region, serves as a dynamic center for higher education, offering a diverse range of undergraduate, postgraduate, and doctoral programs. Established with a vision 'To nurture creative thinkers and leaders through transformative learning' and committed to create a transformative learning experience by imbibing domain specific knowledge & wisdom and to focus on research based teaching learning with Industry relevant application knowledge. The university plays a crucial role in shaping the region's educational landscape.

Situated in an urban setting, Atmiya University benefits from excellent connectivity and accessibility within the Rajkot area. The campus spans approximately 23.5 acre and features modern infrastructure that includes state-of-the-art classrooms, research labs, libraries, recreational facilities, and green spaces that enhance the learning environment.

The university accommodates a diverse and vibrant community from various parts of India and beyond. This thriving student body is supported by a faculty dedicated to promoting sustainable practices on campus, aligning with Atmiya University's mission to minimize its environmental impact.

A satellite image of the campus highlights its strategic layout and showcases the integration of natural and built environments, offering a visual perspective on the university's physical footprint within the urban landscape. This audit aims to evaluate Atmiya University's environmental practices and suggest actionable steps to enhance sustainability, further aligning with global standards in environmental responsibility and conservation.

Environmental A V.V.P. Engine







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2) Acknowledgment

On behalf of the Environmental Audit & Consultancy Cell at V.V.P. Engineering College, Rajkot, we would like to express our sincere gratitude to the management of Atmiya University, Rajkot for entrusting us with the important task of conducting their Environmental Audit/Green Audit.

We deeply appreciate the cooperation extended by your team throughout the assessment process. This cooperation was instrumental in the successful completion of the audit.

We would also like to extend our special thanks to **Dr. Ashish Kothari. Deputy Registrar**, **Atmiya University** for their unwavering support. Their dedication proved to be invaluable in ensuring the project's completion. Finally, we thank all other staff members who actively participated in data collection and field measurements. Their contributions were essential to the smooth execution of the audit.

We are also thankful to:

SN	Name	Designation
1	Er. Ravi S. Tank	Chemical Engineer
2	Dr. Hemantkumar G. Sonkusare	Civil Engineer
3	Dr. Anilkumar S. Patel	Chemist

In closing, we would like to express our gratitude to **Dr. Shiv Tripathi, Vice Chancellor, Atmiya University** for extending the opportunity to evaluate their esteemed campus's environmental performance.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





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3) Disclaimer

This Green Audit report has been prepared by the Environmental Audit Cell at V.V.P. Engineering College, Rajkot for of Atmiya University, Rajkot. It incorporates data submitted by University officials/representatives along with expert analysis by the EA&CC Audit team.

While all reasonable efforts have been made to ensure its accuracy, the report is based on information gathered in good faith. Conclusions are based on best estimates and do not constitute any express or implied warranty or undertaking. The EA&CC at Atmiya University, Rajkot assumes no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

The findings presented in this report are based entirely on data provided by Atmiya University and gathered by the audit team during their audit & monitoring visit. It assumes normal operating conditions within the institution throughout the audit period. The auditors are unable to comment on environmental audit parameters outside the scope of the on-site surveys. Consequently, the report's findings are strictly limited to the timeframe during which the audit team conducted its assessment.

The Environment Audit Cell at V.V.P. Engineering College, Rajkot, maintains strict confidentiality regarding all information pertaining to Atmiya University. No such information will be disclosed to any third party except public domain knowledge or when required by law or relevant accreditation bodies.

This certificate is valid solely for the current Environmental Audit/Green Audit report. It may be automatically revoked if any significant changes occur in the quantity or quality of waste generation at the aforementioned institute.

Environment Audit Cell, V.V.P. Engineering College









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4) Introduction

Since the 2019-20 academic year, the National Assessment and Accreditation Council (NAAC) requires all Higher Educational Institutions (HEIs) to submit an annual Environmental Audit/Green Audit report. This requirement falls under Criterion 7 of the NAAC accreditation process, which evaluates institutions for their environmental sustainability practices. NAAC, an autonomous body in India, assigns accreditation grades (A, B, or C) based on various criteria, including environmental stewardship.

Furthermore, conducting Environmental Audit/Green Audits aligns with the Corporate Social Responsibility (CSR) initiatives of HEIs. By implementing measures to reduce their carbon footprint, institutions contribute positively to mitigating global warming.

In response to the NAAC mandate, the University management opted for an external Environmental Audit/Green Audit conducted by a qualified professional auditor.

Environmental Audit/Green Audit entails a comprehensive environmental assessment, examining both on-campus and off-campus practices that directly or indirectly impact the environment. In essence, it is a systematic process of identifying, quantifying, recording, reporting, and analysing environmental aspects within the institute setting.

Environmental Audit/Green Audits originated as a tool to evaluate institutional activities that might pose risks to human health and the environment. It provides valuable insights for improvement, guiding institutions towards environmentally responsible practices and infrastructure.

The specific areas covered by this audit include Green Campus initiatives, Waste Management, Water Management, Air Pollution Control, Energy Management, and Carbon Footprint reduction strategies employed by the University.

The following sections delve deeper into the concept, structure, objectives, methodology, analytical tools, and overall goals of this Green Audit.

Educational institutions are increasingly prioritizing environmental concerns. As a result, innovative concepts are emerging to make campuses more sustainable and eco-friendly. Numerous institutions are adopting various approaches to address environmental challenges within their facilities, such as promoting







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energy conservation, waste recycling, water use reduction, and rainwater harvesting.

The activities of educational institutions can have both positive and negative environmental impacts. A Green Audit is a formal evaluation process that assesses the University's environmental footprint. It provides a comprehensive picture of the current environmental conditions on campus.

Green Audits are a valuable tool for Universities to identify areas of high energy, water, or resource consumption. This allows institutions to implement targeted changes and achieve cost savings. Additionally, Green Audits can analyse the nature and volume of waste generated, leading to improved recycling programs or waste minimization plans.

Green auditing and the implementation of mitigation measures offer a win-win scenario for institutions, students, and the environment. It can foster health and environmental awareness, promoting values and beliefs that benefit everyone. Green Audits also provide an opportunity for staff and students to gain a deeper understanding of the impact their institution has on the environment.

Furthermore, Green Audits can translate into financial savings by encouraging a reduction in resource usage. This process also empowers students and teachers to develop a sense of ownership for personal and social environmental responsibility.

The Green Audit process typically involves collecting primary data, conducting a site visit with University representatives, and reviewing relevant policies, activities, documents, and records.

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OBJECTIVE AND SCOPE

The broad aims/benefits of the Environmental Audit/Green Audit would be

- Environmental education through systematic environmental management approach
- · Improving environmental standards
- · Benchmarking for environmental protection initiatives
- · Sustainable use of natural resource in the campus.
- · Financial savings through a reduction in resource use
- · Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the University campus and its environment
- · Enhancement of University profile
- · Developing an environmental ethic and value systems in young people

Outcomes OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

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

- 1. Protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. Portrays good image of institution through its clean and green campus.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2021 to May 2022)

5) Environmental Policy



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by

- · Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- · Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthier, sustainable future.
- Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- · Addressing local and regional environmental challenges with sustainable solutions.
- · Ensuring sustainable resource use and minimizing wasteful practices.
- Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

Clean Campus Initiatives: Regular cleaning drives, waste segregation, and beautification projects.

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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Biodiversity: Developing green spaces, planting neem trees, and conserving hiodiversity.
- Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using rainwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, c-waste, and bio-waste for recycling and composting.
- Transportation and Mobility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: Incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- · Transition to energy-efficient devices and systems.
- Encourage behaviour changes for energy conservation.
- Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parivartan (Puper Recycling Unit) and Sarjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

 Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible waters age to efface dependency on municipal water.

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nature, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmiya University Rajkot

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6) General Information

- a. Does any Green Audit conducted earlier? Yes
- b. Total Area of the University = 84455 m^2
- c. What is the total strength (people count) of the Institute?

AY		Student	ts	Tea	aching	g Staff	Nor	ı-Tea Sta	iching ff		Total	
	M	F	Trans	M	F	Trans	M	F	Trans	M	F	Trans
2021- 2022	3952	2307	0	180	101	0	203	24	0	4308	2432	0

d. What is the total number of working days of your campus in a year?

Month (AY- 2021-2022)	No. of Working Days
June	26
July	25
August	21
September	25
October	24
November	14
December	26
January	24
February	24
March	24
April	25
May	25
Total	283

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e. Which of the following are found near your institute?

Municipal dump yard	No	
Garbage heap	No	
Public convenience	Yes	
Sewer line	Yes	
Stagnant water	No	
Industry	No	
Bus / Railway station	Yes	
Market / Shopping complex	Yes	
Play Ground	Yes	

f. Does your institute generate any waste? If so, what are they?

Type of waste		Response	Detail(s) of Waste Generated	Quantity of Waste Generated (kg)
	Biodegradable	Yes	Gardening, Cow dung	175
Solid	Non- biodegradable	Yes	Sweeping waste,	10
	e-waste	Yes	Computer, Battery	498
Liquid		Yes	Kitchen Waste	35
Gas		No	1 73 5	11.50

- g. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)
 - Composting: Gardening and cow dung waste used to make compost.
 - Non-recyclable and non biodegradable waste disposal is managed by the Rajkot Municipal Corporation.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





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- $\boldsymbol{h.}\;$ Do you use recycled paper in institute? Yes
- $\textbf{i.} \quad \text{How would you spread the message of recycling to others in the community?}$

Poster competition activities	Yes
Campaigns	Yes
Webinars and seminars	Yes

j. Is there a garden in your institute?

C	X /	A (722.262
Garden	Yes	Area = 6732.26 m ²

k. Total number of Plants in Campus?

SN	Namepd Species	Numbers
1	Neem Tree	211
2	Lemon cypress	1
3	FicusMicrocapra	100
4	Hedge Plant	01
5	Tajplantshub dracaena	01
6	Crown of Throns	01
7	Spanish Moss (TilandsiaUsneoides)	10
8	Ruellia simplex	51
9	FagusSylvatica plant	01
10	Euphorbia Tithymaloides	11
11	Weeping Fig	685
12	LysilomaWatsonil	01
13	Royal Palm	38
14	Bamboo	230









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15	Moringa	01
16	Acalyphawilkesiana	300
17	Dracaena Angustifolia	11
18	Polysciasscutellaria	04
19	<u>Cordylinefruticosa</u>	40
20	Dracaena Reflexa	500
21	Garden Croton	01
22	polysciasguilfoylei	10
23	Oyster Plant (tradescantiazebrina)	300
24	Lonicerapileata	50
25	Saribusrotundifolius	10
26	Ixora	10
27	Hyophorbelagenicaulis	20
28	Purple heart	150
29	Yellow cosmos (sulphur cosmos)	100
30	Canna discolor	15
31	Durantaerecta	1100
32	Pritchardiapacifica	11
33	Capparissandwichiana	50
34	Nerium Oleander	10
35	Casuarinaequisetifolia	20
36	Caryotaurens	2
37	Areca palm	20

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38	Ravenala	10
39	Iresineherbstii	300
40	Sago Plam	22
41	Sphgniticolatrilobata	1500
42	Thuja	24
43	Dracaena trifasciata	62
44	Ponytail Palm	2
45	Asparagus densiflorus	50
46	Alocasiazebrina	02
47	Bismarck palm	8
49	Lotus	100
50	Catharanthus	50
51	Padavati Jasmin	50
52	Caryotamitis	04
53	Monoonlongifolium	3
54	Breyniadisticha	50
55	PlumeriaObtusa	10
56	Alovera	100
57	Century Plant	30
58	Sweet osmanthus	1
59	Crinum asiaticum	27
60	Diantherapectoralis	200
61	Hibiscus	10

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





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62	Ficusaspera	5
63	Mulberry tree	10
64	Barbary fig	5
65	Dracaena angolensis	2
66	Terminaliachebula plant	2
67	Nettlespurges	2
68	Yellow elder	2
69	MadhucaLongifolia	2
70	Eucalyptus globulus.	1
71	Melicoccusbijugatus	1
72	Casuarinaequisetifolia	1
73	Indian jujube	5
74	Tulsi	50
75	Coconut palm tree	8
76	Calotropisgigantea	1
77	Persian Silk	5
78	Mango tree	1
79	Curry Tree	4
80	Punicagranatum	5
81	Pandanusveitchii	50
82	Streblusasper	5
	Total	6859

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I. List uses of water in your institute

Basic use of water in campus	KL/Day
Drinking	15
Gardening	16
Kitchen and Toilets	20
Others	15
Hostel	29
Total	95 KL/Day

m. Electricity Consumed

Month (Academic Year 2021-2022)	Electricity Consumed (kWh)
June	1,27,441
July	1,23,038
August	1,37,624
September	1,30,520
October	2,05,468
November	1,31,539
December	1,23,882
January	1,19,806
February	1,08,850
March	1,26,729
April	1,67,857
May	1,73,992
Total	16,76,746

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

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
AU Building	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
	4	RO Water Tank	2500	7	17500
	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
MDAD	12	Near Building- Undrground	333746	2	667492
MPAB	13	Near Building- Undrground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604

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KI 7.1	M 7.1.3	

	17	RO Water- at Terrace	2000	1	2000
Workshop	18	Raw Water- at Terrace	2000	2	4000
	19	Raw Warer- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	1500
	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tanki at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarva naman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
77		Total W	ater Storag	e Capacity	28,41,060

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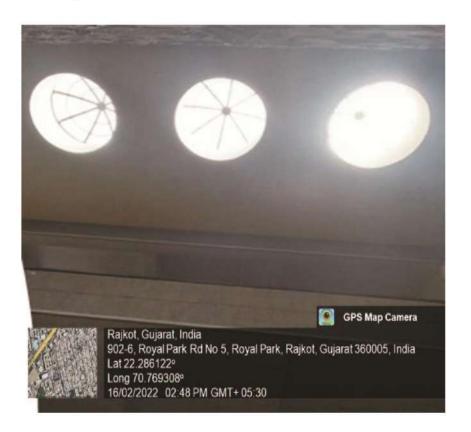


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7) Green Initiatives By the Institute

Green Architecture

The incorporation of green architecture principles in academic institutions not only reduces environmental impact but also fosters a healthier and more inspiring learning environment for students and faculty alike. By integrating features such as passive solar design, natural ventilation, and green roofs, these institutions showcase a commitment to sustainability while promoting innovation and awareness of eco-friendly design practices within the academic community.











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Natural Light and Ventilation in Academic Building

Impact:

- Low artificial lighting requirements
- · Energy consumption optimization
- · Low green house gas emission
- · Low level of strain to Eyes

Campus Biodiversity

A thriving campus biodiversity in academic institutions is not merely a reflection of ecological health but also serves as a testament to the institution's commitment to sustainability and environmental stewardship. It provides a living laboratory for students to engage with nature firsthand, fostering a deeper understanding of ecological systems and instilling a sense of responsibility towards conservation. Beyond its educational value, a biodiverse campus offers numerous benefits such as improved air and water quality, enhanced aesthetics, and increased resilience to environmental stressors. It becomes a sanctuary for wildlife, contributing to the preservation of local ecosystems and biodiversity at large. Atmiya University campus is a rich in the biodiversity with the full of greenery and in house terrace garden.

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Glimpse of Flora at University Campus

Gaushala at Campus

- 14 Indian Breed Cow
- 01 Bull
- · State of the art facilities
- · Value addition cow urine for herbal and fertilizer utilization
- · Decorative products are being made from the cow dung.
- Jivamrut fertilizer being used in the campus is a product of gaushala.
- It contibutes to maintain the organic carbon content in the campus soil as it
 provides the raw material for the compost.



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Satyakam Gaushala

It provides students with firsthand experience in animal care, veterinary science, and sustainable agriculture. They can learn about the importance of cows in Indian culture, their significance in agriculture, and sustainable farming practices.

Gaushalas contributes to the eco-friendly practices like composting cow dung for fertilizer, using biogas for cooking which can serve as models for sustainable living and agriculture.

In Indian cultures, cows are revered as sacred animals. Having a gaushala on campus can help preserve and promote this cultural heritage among students and the community.

Universities can conduct research on various aspects of cow rearing, including breeding, nutrition, and healthcare. This research can contribute to advancements in animal science and agriculture.

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Cows play a crucial role in maintaining soil fertility through their dung, which is rich in nutrients. By managing cow waste effectively, gaushalas can contribute to soil health and environmental conservation.

Solid Waste Management Natural Fertilizer from Organic Waste Jivamrut (Natural Fertilizer)

Installation Detail:

- Year: 2008
- · Place: at boys parking
- Process: Collect neem leaves form campus and added with cow dung, cow urine and Earthworms

Amrut Soil

- Ingredients for AmrutMitti range from cow dung, cow urine, biomass like dry and decayed leaves, household kitchen waste like vegetable peels.
- AmrutSoil is full of all nutrients needed by plants, is very rich in variety of microbes, has the right pH, has high carbon content, has excellent water holding capacity.
- Mixing Cow dung, cow urine and jaggery
- · Immersing dry biomass in AmrutJal kept in drums
- · Process take at least 1 month
- · Use as garden fertilizer.

Impact:

- · Applied in garden as fertilizer
- · Improve soil micro-biota of campus soil
- · Less usages of chemical fertilizer

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Amrut Soil and Jivamrut Plant









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KI 7.1	M 7.1.3

Municipal Solid Waste Segregation Bin



Separate Dustbin for Recyclable and Non-Recyclable Waste

University campus having more the 100 solid waste collection dustbin design for the proper waste segregation. Waste paper is recycled at the in-house paper recycling facility and converted into the filter paper, envelope and other artistic and decorative products.

Having separate bins encourages people to sort their waste, making it easier to recycle materials such as paper, plastic, glass, and metal. This promotes a culture of recycling and reduces the amount of waste sent to landfills or incinerators.

Recycling materials reduces the need for raw materials, energy, and water required to manufacture new products. This conserves natural resources and reduces the environmental impact associated with extraction, processing, and transportation.

Implementing separate bins provides an opportunity for educational initiatives on waste management, recycling, and environmental stewardship. Students, faculty, and staff can learn about the importance of recycling and how their actions contribute to sustainability.



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Paper Recycling Unit

In embracing the principles of the circular economy, Atmiya university is pioneer in sustainable practices such as paper recycling, ensuring that resources are reused and regenerated rather than disposed of after single use. By implementing robust paper recycling programs, these institutes not only reduce waste and environmental impact but also cultivate a culture of resource efficiency and responsible consumption among students, faculty, and staff.

Recycling paper can lead to cost savings for the university by reducing waste disposal fees and the need to purchase new paper products. This can free up financial resources that can be allocated to other campus initiatives or projects.



Parivartan-Paper Recycling Plant









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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Food Waste Management

The food waste generated inside the campus is diverted to a composting Plant on a daily basis. An average of 25 kilos of food waste is generated per day. The compost generated from the organic waste composter machine is being used for gardening purpose within the campus. The excess waste is being collected by nearby farmer to make the compost.



ORCO Organic Waste Composter Machine

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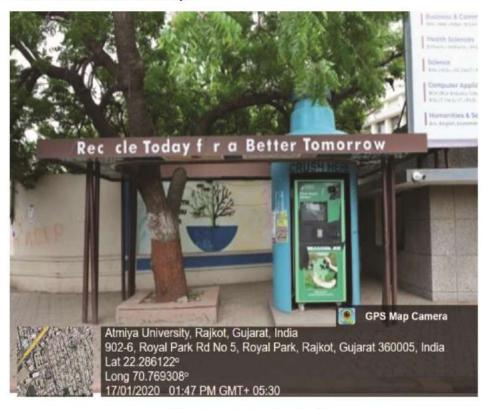
Plastic Water Bottle Recycling Plant

University have installed water bottle recycling plant at entrance for all stakeholders having capacity of $20\ kg/day$

A bottle crusher helps reduce the volume of plastic bottles, thereby decreasing the amount of plastic waste generated on campus. This contributes to waste reduction efforts and helps minimize the environmental impact of plastic pollution.

By providing a convenient way to crush plastic bottles, the crusher encourages recycling behavior among students, faculty, and staff. It reinforces the importance of recycling and helps divert plastic waste from landfills or incinerators.

Plastic pollution poses significant threats to ecosystems, wildlife, and human health. By reducing plastic waste through recycling, a bottle crusher helps protect the environment and minimize the adverse effects of plastic pollution on marine life, terrestrial habitats, and waterways.



Plastic Bottle Crusher Machine









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Energy Conservation Measures

Renewable Power Generation

The adoption of solar rooftop systems in Atmiya university significantly reduces carbon emissions, contributing to a cleaner and more sustainable environment while serving as a tangible demonstration of the institute's commitment to renewable energy and climate action. Additionally, the integration of solar rooftops enhances the educational experience by providing real-world examples of sustainable technology, inspiring students to explore and innovate in the field of renewable energy. Atmiya University having fully operational solar rooftop electricity generation capacity as per the vision of the government.





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Rooftop Solar Plant

Renewable Power Generation per Month

Month & Year	RE Cultivation in KWh
Jun-21	20,781
Jul-21	9,458
Aug-21	8,619
Sep-21	C
Oct-21	37,696
Nov-21	43,792
Dec-21	39,408
Jan-22	48,137
Feb-22	55,776
Mar-22	47,232
Apr-22	36,176
May-22	35,568
Total	3,82,643 WKh

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Energy Efficient Electrical Appliances

Energy-efficient infrastructure in institutions not only lowers operational costs but also serves as a beacon of sustainable practices, showcasing the institution's dedication to environmental stewardship and responsible resource management. By implementing measures such as LED lighting, efficient HVAC systems, and smart building technologies, these institutions demonstrate leadership in sustainability while providing a conducive learning environment for students and faculty.

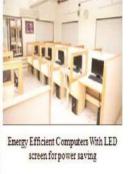


Use of LED bulbs in Entire Campus area for Power Saving

Sensor-based energy conservation



Power Efficient Equipment -5 Star Rated Appliances/ Equipment





LED lights for Power saving

LED Lighting and 5 Star Rated Appliances









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Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The University stores the water in overhead tank.

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and wellbeing. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.



Reverse Osmosis Plant for Drinking Water

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Rainwater Harvesting Capacity: 12 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing stormwater runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.





Rainwater Harvesting Tank

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Air Pollution Control Measures

Acidic Fume Suction Panel

Laboratory of chemistry department is equipped with the vapour suction panel mounted on the platform. It collects the hazardous gas and channelizes it to the wet scrubber for the neutralizing before discharge into the atmosphere.



Acidic Fume Suction Panel









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Fume Hood at Chemistry laboratory

Fume hoods are designed to contain and exhaust potentially hazardous fumes, vapors, and gases generated during chemical experiments. They create a barrier between the experiment and the laboratory environment, preventing exposure to toxic or harmful substances. Fume hoods protect laboratory personnel from inhaling harmful chemicals or being exposed to hazardous substances.



Fumehood at Chemistry Laboratory



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Wet Scrubber

- Reduction of Air Pollution: Scrubbers help remove harmful gases, such as hydrogen chloride (HCl) and hydrogen fluoride (HF), from the laboratory air. By capturing these pollutants before they are released into the atmosphere, scrubbers contribute to reducing air pollution and improving indoor and outdoor air quality.
- 2. Prevention of Acid Rain Formation: Hydrogen chloride and hydrogen fluoride emissions can contribute to the formation of acid rain when released into the atmosphere. Alkali gas scrubbers mitigate this environmental impact by removing these acidic gases from laboratory emissions before they can react with moisture in the air and contribute to acid rain formation.
- 3. Protection of Ecosystems: Acid rain resulting from air pollution can have detrimental effects on ecosystems, including damage to vegetation, soil, aquatic habitats, and wildlife. By reducing the emission of acidic gases, alkali gas scrubbers help protect sensitive ecosystems and promote biodiversity conservation.
- 4. Minimization of Health Risks: Hydrogen chloride and hydrogen fluoride are corrosive and toxic gases that can pose health risks to laboratory personnel and surrounding communities if released into the environment. Alkali gas scrubbers help minimize these risks by capturing and neutralizing these hazardous pollutants before they can be emitted.
- 5. Reduction of Odors: In addition to removing acidic gases, alkali gas scrubbers can also help eliminate unpleasant odors associated with certain chemical processes in the laboratory. This improvement in air quality enhances the comfort and well-being of laboratory personnel and visitors.
- Conservation of Resources: Alkali gas scrubbers typically utilize alkaline solutions, such as sodium hydroxide (NaOH), to neutralize acidic gases. While the

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operation of scrubbers requires resources such as water and chemicals, their use contributes to the conservation of environmental resources by preventing the release of pollutants into the air and minimizing the need for remediation measures.



Wet Gas Scrubber



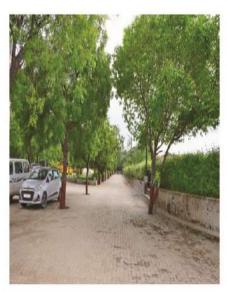






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Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Tree Plantation





Greenery at Atmiya University Campus

University campus is full of indigenous tree and medicinal plants produce positive impact on environment.

- Air Quality Improvement: Trees and plants act as natural air filters, absorbing
 carbon dioxide (CO2) and other pollutants from the air while releasing oxygen
 through the process of photosynthesis. This helps improve air quality on campus,
 reducing the concentration of harmful gases and particulate matter and
 promoting a healthier environment for students, faculty, and staff.
- Carbon Sequestration: Trees play a crucial role in mitigating climate change by sequestering carbon from the atmosphere and storing it in their biomass. By planting trees on campus, universities can contribute to carbon sequestration efforts and help offset their carbon footprint, supporting broader sustainability goals and initiatives.
- Temperature Regulation: Trees provide natural shade and evapotranspiration, helping to cool the surrounding environment and reduce the urban heat island effect. By creating shaded areas and lowering ambient temperatures, trees

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contribute to energy conservation efforts by reducing the need for air conditioning and mitigating heat-related stress during hot weather.

- Storm water Management: The roots of trees and plants help absorb rainwater
 and reduce runoff, preventing soil erosion and minimizing the risk of flooding
 and water pollution. By incorporating green infrastructure such as rain gardens
 and bio swales, university campuses can effectively manage storm water runoff,
 improve water quality, and enhance overall watershed health.
- Biodiversity Conservation: Trees and plants provide habitat and food sources for various species of birds, insects, and other wildlife, contributing to biodiversity conservation on campus. By creating green corridors and natural habitats, universities support local ecosystems and promote ecological resilience in urban environments.
- Noise Reduction: Trees and vegetation help absorb and deflect sound waves, acting as natural buffers against noise pollution from nearby roads, buildings, and other sources. By planting trees strategically around campus buildings and outdoor spaces, universities can create quieter and more tranquil environments conducive to learning, research, and relaxation.



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KI 7.1	M 7.1.3		

8) Audit Methodology

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

1. Data Collection – In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- 2. Data Analysis Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- 3. Recommendation On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University was evaluated through questionnaire circulated among the students for data collection.

The following data collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

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9) Monitoring, Observations& Recommendations

Ambient Air Quality Monitoring

Date: 16/02/2022

Location	PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m³)	SO ₂ (μg/m³)	NO ₂ (μg/m³)
AU Building Main Entrance	43.4	23.4	14.1	23.1
B/H Ashwad canteen	46.3	26.2	13.2	20.3
Nr. Bus parking	63.5	39.2	17.7	26.1
Nr. Haridarshanam Temple	61.7	41.3	20.5	28.6

Noise Monitoring
Date: 16/02/2022

Location	Observed Value (db (A))	Permissible Day Time Limit (db (A))
AU Building Main Entrance	48	
B/H Ashwad canteen	47	50
Nr. Bus parking	49	
Nr. Haridarshanam Temple	45	

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Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Water Analysis Report TEST REPORT

Sample Description	Borewell Water- VIP Parking Area
Sample collection Date	16/02/2022
Sample analysis date	16/02/2022
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	2	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	<u> 72</u> 5)	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.7	7 <u>5</u> 7	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	334	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	10.5	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	88.0	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 7 colonies)	
MacConkey Plates	TLTC (< 3 colonies)	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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NAAC – Cycle – 1			
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Criterion 7 I V & B P			
KI 7.1 M 7.1.3			

Water Analysis Report TEST REPORT

Sample Description	Borewell Water - NearYogidham Gate 3		
Sample collection Date	16/02/2022		
Sample analysis date	16/02/2022		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	-	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.7	70	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	320.0	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	11.8	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	68.5	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 5 colonies)	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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NAAC – Cycle – 1			
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Criterion 7 I V & B P			
KI 7.1 M 7.1.3			

Water Analysis Report TEST REPORT

Sample Description	Borewell Water near Boy's Hostel		
Sample collection Date	16/02/2022		
Sample analysis date	16/02/2022		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	2	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.7	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	318.8	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	23.2	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	36.5	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TMTC (> 100 colonies)		
MacConkey Plates	TMTC (> 100 colonies)		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7 I V & B P			
KI 7.1 M 7.1.3			

Water Analysis Report TEST REPORT

Sample Description	Borewell Water near Temple		
Sample collection Date	16/02/2022		
Sample analysis date	16/02/2022		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	(20)	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.8	÷	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	330	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	8.1	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	32.5	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 5 colonies)		
MacConkey Plates	TLTC (< 4 colonies)		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		







NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7	I V & B P		
KI 7.1	M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Drinking Water- AU Main Building		
Sample collection Date	16/02/2022		
Sample analysis date	16/02/2022		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	-	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	4	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.6	140	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	126	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	19.77	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO3)	26.8	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	No Colonies Observed	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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Water Analysis Report TEST REPORT

Sample Description	Drinking Water- Science Building		
Sample collection Date	16/02/2022		
Sample analysis date	16/02/2022		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	20	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	. 5 8	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.7		6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	117	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	17.30	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	23.9	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	No Colonies Observed	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

^{*}TLTC-Too Less To Count

^{*} TMTC-Too Much To Count



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Observations & Suggestions:

- The University is having good Green belt including 500+ neem tree plantations inside the campus.
- · The University building has very good ventilation for natural light.
- Numbers of Incinerators should be increased to manage sanitary waste.
- Increase the awareness activities regarding energy saving & environmental sustainability.
- As far as possible, avoid use of personal vehicles, single use plastics, water wastage, energy wastage, burning of bio-mass inside the University campus.
- Sensor lights to be installed in and around the premises of the University campus.

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Atmiya University Raikot-Gujarat-India

Raikot





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10) Certificate



V.V.P. ENGINEERING COLLEGE

ENVIRONMENTAL AUDIT CELL, Vajdi - Virda, Kalawad Road, Rajkot

Environmental Audit Certificate Atmiya University, Rajkot-360005-Gujarat-India For the AY (2021-22)

Environmental Audit for the period June 2021 to May 2022 has been conducted for the Atmiya University, Rajkot to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management. This Environmental Audit is also aimed to assess eco-friendly initiatives of the Institute towards sustainability.

It is believed that the institution has presented authentic data on various aspects of working of the institute before the audit team. The recommendations are based on the data presented before the team as they existed at the audit time. This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in prevailing green practice or misleading data. The findings reported in this audit report are entirely based on data furnished by the institute and data collected by the audit team during the audit. Thus, the findings reported in this audit report are strictly limited to the period when the audit was conducted.

The Environmental Quality in the campus is found adequate and efficacious.

Dr. Sushil Korgaokar

(Recognised Schedule-I Environmental Auditor, Gujarat Pollution Control Board-GPCB – Gandhinagar, Gujarat)

Environmental Audit Laboratory, V.V.P. Engineering College, Virda – Vajdi, Kalawad Road, Opp. Motel the Village, Rajkot-360005-Gujarat-India



I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Ashish M. Kothari,

Dy. Registrar, Atmiya University, Rajkot-360005-Gujarat-India Deputy Registrar Atmiya University Rajkot



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1.7 GREEN/ENVIRONMENT AUDIT 2022-23

CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2022 to May 2023)

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1) Executive Summary

Atmiya University established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "स्हदंसर्वभूतानम्" (Suhardam Sarva Bhootanam) is an

expression of willingness to attain harmony with each creation of the Almighty! This environmental audit report provides a comprehensive overview of Atmiya University, located in the vibrant city of Rajkot, Gujarat. Atmiya University, a prominent educational institution in the region, serves as a dynamic center for higher education, offering a diverse range of undergraduate, postgraduate, and doctoral programs. Established with a vision 'To nurture creative thinkers and leaders through transformative learning' and committed to create a transformative learning experience by imbibing domain specific knowledge & wisdom and to focus on research based teaching learning with Industry relevant application knowledge. The university plays a crucial role in shaping the region's educational landscape.

Situated in an urban setting, Atmiya University benefits from excellent connectivity and accessibility within the Rajkot area. The campus spans approximately 23.5 acre and features modern infrastructure that includes state-of-the-art classrooms, research labs, libraries, recreational facilities, and green spaces that enhance the learning environment.

The university accommodates a diverse and vibrant community from various parts of India and beyond. This thriving student body is supported by a faculty dedicated to promoting sustainable practices on campus, aligning with Atmiya University's mission to minimize its environmental impact.

A satellite image of the campus highlights its strategic layout and showcases the integration of natural and built environments, offering a visual perspective on the university's physical footprint within the urban landscape. This audit aims to evaluate Atmiya University's environmental practices and suggest actionable steps to enhance sustainability, further aligning with global standards in environmental responsibility and conservation.

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2) Acknowledgment

On behalf of the Environmental Audit & Consultancy Cell at V.V.P. Engineering College, Rajkot, we would like to express our sincere gratitude to the management of Atmiya University, Rajkot for entrusting us with the important task of conducting their Environmental Audit/Green Audit.

We deeply appreciate the cooperation extended by your team throughout the assessment process. This cooperation was instrumental in the successful completion of the audit.

We would also like to extend our special thanks to **Dr. Ashish Kothari. Deputy Registrar**, **Atmiya University** for their unwavering support. Their dedication proved to be invaluable in ensuring the project's completion. Finally, we thank all other staff members who actively participated in data collection and field measurements. Their contributions were essential to the smooth execution of the audit.

We are also thankful to:

SN	Name	Designation
1	Er. Ravi S. Tank	Chemical Engineer
2	Dr. Hemantkumar G. Sonkusare	Civil Engineer
3	Dr. Anilkumar S. Patel	Chemist

In closing, we would like to express our gratitude to **Dr. Shiv Tripathi, Vice Chancellor, Atmiya University** for extending the opportunity to evaluate their esteemed campus's environmental performance.

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3) Disclaimer

This Green Audit report has been prepared by the Environmental Audit Cell at V.V.P. Engineering College, Rajkot for of Atmiya University, Rajkot. It incorporates data submitted by University officials/representatives along with expert analysis by the EA&CC Audit team.

While all reasonable efforts have been made to ensure its accuracy, the report is based on information gathered in good faith. Conclusions are based on best estimates and do not constitute any express or implied warranty or undertaking. The EA&CC at Atmiya University, Rajkot assumes no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

The findings presented in this report are based entirely on data provided by Atmiya University and gathered by the audit team during their audit & monitoring visit. It assumes normal operating conditions within the institution throughout the audit period. The auditors are unable to comment on environmental audit parameters outside the scope of the on-site surveys. Consequently, the report's findings are strictly limited to the timeframe during which the audit team conducted its assessment.

The Environment Audit Cell at V.V.P. Engineering College, Rajkot, maintains strict confidentiality regarding all information pertaining to Atmiya University. No such information will be disclosed to any third party except public domain knowledge or when required by law or relevant accreditation bodies.

This certificate is valid solely for the current Environmental Audit/Green Audit report. It may be automatically revoked if any significant changes occur in the quantity or quality of waste generation at the aforementioned institute.

Environment Audit Cell, V.V.P. Engineering College









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4) Introduction

Since the 2019-20 academic year, the National Assessment and Accreditation Council (NAAC) requires all Higher Educational Institutions (HEIs) to submit an annual Environmental Audit/Green Audit report. This requirement falls under Criterion 7 of the NAAC accreditation process, which evaluates institutions for their environmental sustainability practices. NAAC, an autonomous body in India, assigns accreditation grades (A, B, or C) based on various criteria, including environmental stewardship.

Furthermore, conducting Environmental Audit/Green Audits aligns with the Corporate Social Responsibility (CSR) initiatives of HEIs. By implementing measures to reduce their carbon footprint, institutions contribute positively to mitigating global warming.

In response to the NAAC mandate, the University management opted for an external Environmental Audit/Green Audit conducted by a qualified professional auditor.

Environmental Audit/Green Audit entails a comprehensive environmental assessment, examining both on-campus and off-campus practices that directly or indirectly impact the environment. In essence, it is a systematic process of identifying, quantifying, recording, reporting, and analysing environmental aspects within the institute setting.

Environmental Audit/Green Audits originated as a tool to evaluate institutional activities that might pose risks to human health and the environment. It provides valuable insights for improvement, guiding institutions towards environmentally responsible practices and infrastructure.

The specific areas covered by this audit include Green Campus initiatives, Waste Management, Water Management, Air Pollution Control, Energy Management, and Carbon Footprint reduction strategies employed by the University.

The following sections delve deeper into the concept, structure, objectives, methodology, analytical tools, and overall goals of this Green Audit.

Educational institutions are increasingly prioritizing environmental concerns. As a result, innovative concepts are emerging to make campuses more sustainable and eco-friendly. Numerous institutions are adopting various approaches to address environmental challenges within their facilities, such as promoting

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energy conservation, waste recycling, water use reduction, and rainwater harvesting.

The activities of educational institutions can have both positive and negative environmental impacts. A Green Audit is a formal evaluation process that assesses the University's environmental footprint. It provides a comprehensive picture of the current environmental conditions on campus.

Green Audits are a valuable tool for Universities to identify areas of high energy, water, or resource consumption. This allows institutions to implement targeted changes and achieve cost savings. Additionally, Green Audits can analyse the nature and volume of waste generated, leading to improved recycling programs or waste minimization plans.

Green auditing and the implementation of mitigation measures offer a win-win scenario for institutions, students, and the environment. It can foster health and environmental awareness, promoting values and beliefs that benefit everyone. Green Audits also provide an opportunity for staff and students to gain a deeper understanding of the impact their institution has on the environment.

Furthermore, Green Audits can translate into financial savings by encouraging a reduction in resource usage. This process also empowers students and teachers to develop a sense of ownership for personal and social environmental responsibility.

The Green Audit process typically involves collecting primary data, conducting a site visit with University representatives, and reviewing relevant policies, activities, documents, and records.

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OBJECTIVE AND SCOPE

The broad aims/benefits of the Environmental Audit/Green Audit would be

- Environmental education through systematic environmental management approach
- · Improving environmental standards
- · Benchmarking for environmental protection initiatives
- · Sustainable use of natural resource in the campus.
- · Financial savings through a reduction in resource use
- · Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the University campus and its environment
- · Enhancement of University profile
- · Developing an environmental ethic and value systems in young people

Outcomes OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

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

- 1. Protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. Portrays good image of institution through its clean and green campus.

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CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2022 to May 2023)

5) Environmental Policy



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by

- · Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- · Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthier, sustainable future.
- · Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- · Addressing local and regional environmental challenges with sustainable solutions.
- · Ensuring sustainable resource use and minimizing wasteful practices.
- · Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

 Clean Campus Initiatives: Regular cleaning drives, waste sagregation, and beautification projects.

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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Bindiversity: Developing green spaces, planting neem trees, and conserving bindiversity.
- Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using rainwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, c-waste, and bio-waste for recycling and composting.
- Transportation and Mobility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- · Transition to energy-efficient devices and systems.
- Encourage behaviour changes for energy conservation.
- Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parivartan (Paper Recycling Unit) and Sarjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

 Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible waterstage to space dependency on municipal water.

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nature, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmiya University Rajkot

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6) General Information

- a. Does any Green Audit conducted earlier? Yes
- b. Total Area of the University = 84455 m^2
- c. What is the total strength (people count) of the Institute?

AY		Student	ts	Tea	Teaching Staff		Non-Teaching Staff			Total		
AI	M	F	Trans	M	F	Trans	М	F	Trans	M	F	Trans
2022- 2023	3776	2204	0	168	134	0	190	32	0	4134	2370	0

d. What is the total number of working days of your campus in a year?

Month (AY- 2022-2023)	No. of Working Days
June	26
July	25
August	18
September	26
October	17
November	21
December	26
January	23
February	23
March	24
April	22
May	26
Total	277

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e. Which of the following are found near your institute?

Municipal dump yard	No
Garbage heap	No
Public convenience	Yes
Sewer line	Yes
Stagnant water	No
Industry	No
Bus / Railway station	Yes
Market / Shopping complex	Yes
Play Ground	Yes

f. Does your institute generate any waste? If so, what are they?

Type of waste		Response	Detail(s) of Waste Generated	Quantity of Waste Generated (kg)	
	Biodegradable	Yes	Gardening, Cow dung	175	
Solid	Non- biodegradable	Yes	Sweeping waste,	10	
	e-waste	Yes	Computer, Battery	00	
Liquid		Yes	Kitchen Waste	35	
Gas		No	(55)	11.550	

- g. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)
 - Composting: Gardening and cow dung waste used to make compost.
 - Non-recyclable and non biodegradable waste disposal is managed by the Rajkot Municipal Corporation.

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- $\boldsymbol{h.}\;$ Do you use recycled paper in institute? Yes
- $\textbf{i.} \quad \text{How would you spread the message of recycling to others in the community?}$

Poster competition activities	Yes
Campaigns	Yes
Webinars and seminars	Yes

j. Is there a garden in your institute?

	Garden	Yes	Area = <u>6732.26</u> m ²
- 1		140000000	5-551M-7-65-7: Assessment (1994)

k. Total number of Plants in Campus?

SN	Namepd Species	Numbers
1	Neem Tree	211
2	Lemon cypress	1
3	FicusMicrocapra	100
4	Hedge Plant	01
5	Tajplantshub dracaena	01
6	Crown of Throns	01
7	Spanish Moss (TilandsiaUsneoides)	10
8	Ruellia simplex	51
9	FagusSylvatica plant	01
10	Euphorbia Tithymaloides	11
11	Weeping Fig	685
12	LysilomaWatsonil	01
13	Royal Palm	38
14	Bamboo	230



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15	Moringa	01
16	Acalyphawilkesiana	300
17	Dracaena Angustifolia	11
18	Polysciasscutellaria	04
19	Cordylinefruticosa	40
20	Dracaena Reflexa	500
21	Garden Croton	01
22	polysciasguilfoylei	10
23	Oyster Plant (tradescantiazebrina)	300
24	Lonicerapileata	50
25	Saribusrotundifolius	10
26	Ixora	10
27	Hyophorbelagenicaulis	20
28	Purple heart	150
29	Yellow cosmos (sulphur cosmos)	100
30	Canna discolor	15
31	Durantaerecta	1100
32	Pritchardiapacifica	11
33	Capparissandwichiana	50
34	Nerium Oleander	10
35	Casuarinaequisetifolia	20
36	Caryotaurens	2
37	Areca palm	20

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Criterion 7 I V & B P		
KI 7.1 M 7.1.3		

38	Ravenala	10		
39	Iresineherbstii	300		
40	Sago Plam	22		
41	Sphgniticolatrilobata	1500		
42	Thuja	24		
43	Dracaena trifasciata	62		
44	Ponytail Palm	2		
45	Asparagus densiflorus	50		
46	Alocasiazebrina	02		
47	Bismarck palm	8		
49	Lotus	100		
50	Catharanthus	50		
51	Padavati Jasmin	50		
52	Caryotamitis	04		
53	Monoonlongifolium	3		
54	Breyniadisticha	50		
55	PlumeriaObtusa	10		
56	Alovera	100		
57	Century Plant	30		
58	Sweet osmanthus	1		
59	Crinum asiaticum	27		
60	Diantherapectoralis	200		
61	Hibiscus	10		

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NAAC – Cycle – 1		
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Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

62	Ficusaspera	5
63	Mulberry tree	10
64	Barbary fig	5
65	Dracaena angolensis	2
66	Terminaliachebula plant	2
67	Nettlespurges	2
68	Yellow elder	2
69	MadhucaLongifolia	2
70	Eucalyptus globulus.	1
71	Melicoccusbijugatus	1
72	Casuarinaequisetifolia	1
73	Indian jujube	5
74	Tulsi	50
75	Coconut palm tree	8
76	Calotropisgigantea	1
77	Persian Silk	5
78	Mango tree	1
79	Curry Tree	4
80	Punicagranatum	5
81	Pandanusveitchii	50
82	Streblusasper	5
	Tota	al 6859

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I. List uses of water in your institute

Basic use of water in campus	KL/Day	
Drinking	14	
Gardening	16	
Kitchen and Toilets	19	
Others	14	
Hostel	28	
Total	91 KL/Day	

m. Electricity Consumed

Month (Academic Year 2022-2023)	Electricity Consumed (kWh) 1,73,425	
June		
July	1,75,107	
August	1,70,233	
September	1,75,633	
October	1,89,039	
November	1,20,528	
December	1,21,489	
January	1,06,395	
February	1,04,507	
March	1,41,223	
April	1,71,150	
May	1,88,347	
Total	18,37,076	

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

Building	SN	Tank Description	Size (liter)	No. of Tank	Capacity (liter)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
AU	4	RO Water Tank	2500	7	17500
Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
MBAB	12	Near Building- Undrground	333746	2	667492
MPAB	13	Near Building- Undrground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604

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Criterion 7	I V & B P	
KI 7.1 M 7.1.3		

	17	RO Water- at Terrace	2000	1	2000
	18	Raw Water- at Terrace	2000	2	4000
Workshop	19	Raw Warer- at Terrace	5000	1	5000
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
	21	RO Water- at Terrace	2500	1	2500
	22	Raw Water Tank- at Terrace	23300	2	46600
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
Building	24	CIF Lab	1500	1	1500
	25	Raw Water- OTIS- Underground	32620	1	32620
	26	Wastewater- Outside the Building	2000	1	2000
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	28	RO Water Tanki at Terrace	2500	1	2500
Niramay	29	Raw Water Tank- at Terrace	11650	1	11650
	30	Raw Water Tank- Near Office	5000	2	10000
	31	Raw Water Tank- at Terrace	2000	1	2000
Sarva naman	32	Raw Water Tank- at Terrace	8550	1	8550
	33	Raw Water- inside building	600	1	600
107		Total W	ater Storage	e Capacity	28,41,060

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Criterion 7	I V & B P		
KI 7.1 M 7.1.3			

7) Green Initiatives By the Institute

Green Architecture

The incorporation of green architecture principles in academic institutions not only reduces environmental impact but also fosters a healthier and more inspiring learning environment for students and faculty alike. By integrating features such as passive solar design, natural ventilation, and green roofs, these institutions showcase a commitment to sustainability while promoting innovation and awareness of eco-friendly design practices within the academic community.



Natural Light and Ventilation in Academic Building

Impact:

- Low artificial lighting requirements
- Energy consumption optimization
- · Low green house gas emission
- · Low level of strain to Eyes

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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Campus Biodiversity

A thriving campus biodiversity in academic institutions is not merely a reflection of ecological health but also serves as a testament to the institution's commitment to sustainability and environmental stewardship. It provides a living laboratory for students to engage with nature firsthand, fostering a deeper understanding of ecological systems and instilling a sense of responsibility towards conservation. Beyond its educational value, a biodiverse campus offers numerous benefits such as improved air and water quality, enhanced aesthetics, and increased resilience to environmental stressors. It becomes a sanctuary for wildlife, contributing to the preservation of local ecosystems and biodiversity at large. Atmiya University campus is a rich in the biodiversity with the full of greenery and in house terrace garden.



Glimpse of Flora at University Campus

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Atmiya University Raikot-Gujarat-India

Rajkot





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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Terrace Farming Capacity (Niramaya)

Installation Detail

- · Total Area: 800 Square meter
- Three different farming: Hydroponics, Vertical and Terrace

Hydroponic farming

- method of growing plants without soil, using a nutrient-rich water solution to deliver essential nutrients directly to the plants' roots
- · Tomato, Basil and mint grown by using this method.

Vertical farming

- · vertical farming utilizes vertical space
- · growing crops in vertically stacked layers
- · Vertical farming reduces the need for extensive land use.

Terrace garden

- The following are grown in the terrace garden
- · Grapes, Calabash and asparagus bean are grown using this method.

Impact of terrace farming

- Controlled environments can reduce the need for pesticides, as pests and diseases are less likely to affect crops grown indoors
- Terrace gardens act as natural insulators, reducing the need for artificial heating and cooling within the building. This can lead to energy savings and lower electricity bills.
- Students get the practical knowledge of terrace farming in the urban environment that can be replicated and implemented at their home and society.

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KI 7.1	M 7.1.3



Terrace Garden (Niramay) at University Campus









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KI 7.1	M 7.1.3

Gaushala at Campus

- 24 Indian Breed Cow
- 01 Bull
- · State of the art facilities
- · Value addition cow urine for herbal and fertilizer utilization
- Decorative products are being made from the cow dung.
- · Jivamrut fertilizer being used in the campus is a product of gaushala.
- It contibutes to maintain the organic carbon content in the campus soil as it
 provides the raw material for the compost.



Satyakam Gaushala

It provides students with firsthand experience in animal care, veterinary science, and sustainable agriculture. They can learn about the importance of cows in Indian culture, their significance in agriculture, and sustainable farming practices.

Gaushalas contributes to the eco-friendly practices like composting cow dung for fertilizer, using biogas for cooking which can serve as models for sustainable living and agriculture.

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KI 7.1	M 7.1.3

In Indian cultures, cows are revered as sacred animals. Having a gaushala on campus can help preserve and promote this cultural heritage among students and the community.

Universities can conduct research on various aspects of cow rearing, including breeding, nutrition, and healthcare. This research can contribute to advancements in animal science and agriculture.

Cows play a crucial role in maintaining soil fertility through their dung, which is rich in nutrients. By managing cow waste effectively, gaushalas can contribute to soil health and environmental conservation.

Solid Waste Management Natural Fertilizer from Organic Waste Jivamrut (Natural Fertilizer)

Installation Detail:

- Year: 2008
- Place: at boys parking
- Process: Collect neem leaves form campus and added with cow dung, cow urine and Earthworms

Amrut Soil

- Ingredients for AmrutMitti range from cow dung, cow urine, biomass like dry and decayed leaves, household kitchen waste like vegetable peels.
- AmrutSoil is full of all nutrients needed by plants, is very rich in variety of microbes, has the right pH, has high carbon content, has excellent water holding capacity.
- Mixing Cow dung, cow urine and jaggery
- · Immersing dry biomass in AmrutJal kept in drums
- Process take at least 1 month
- Use as garden fertilizer.

Impact:

- · Applied in garden as fertilizer
- · Improve soil micro-biota of campus soil
- · Less usages of chemical fertilizer



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KI 7.1	M 7.1.3





Figure 6: Amrut Soil and Jivamrut Plant



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KI 7.1	M 7.1.3

Municipal Solid Waste Segregation Bin

University campus having more the 100 solid waste collection dustbin design for the proper waste segregation. Waste paper is recycled at the in-house paper recycling facility and converted into the filter paper, envelope and other artistic and decorative products.

Having separate bins encourages people to sort their waste, making it easier to recycle materials such as paper, plastic, glass, and metal. This promotes a culture of recycling and reduces the amount of waste sent to landfills or incinerators.

Recycling materials reduces the need for raw materials, energy, and water required to manufacture new products. This conserves natural resources and reduces the environmental impact associated with extraction, processing, and transportation.

Implementing separate bins provides an opportunity for educational initiatives on waste management, recycling, and environmental stewardship. Students, faculty, and staff can learn about the importance of recycling and how their actions contribute to sustainability.



Separate Dustbin for Recyclable and Non-Recyclable Waste

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Rajkot





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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Paper Recycling Unit

In embracing the principles of the circular economy, Atmiya university is pioneer in sustainable practices such as paper recycling, ensuring that resources are reused and regenerated rather than disposed of after single use. By implementing robust paper recycling programs, these institutes not only reduce waste and environmental impact but also cultivate a culture of resource efficiency and responsible consumption among students, faculty, and staff.

Recycling paper can lead to cost savings for the university by reducing waste disposal fees and the need to purchase new paper products. This can free up financial resources that can be allocated to other campus initiatives or projects.



Parivartan-Paper Recycling Plant









NAAC – Cycle – 1	
AISHE: U-0967	
Criterion 7 I V & B P	
KI 7.1	M 7.1.3

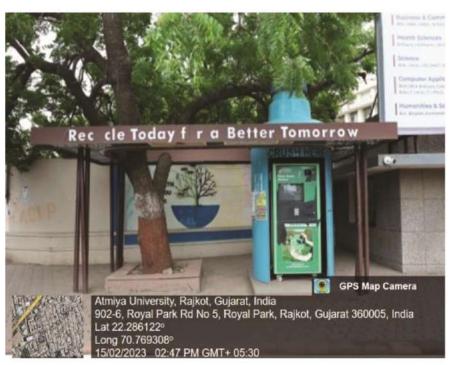
Plastic Water Bottle Recycling Plant

University have installed water bottle recycling plant at entrance for all stakeholders having capacity of $20\ kg/day$

A bottle crusher helps reduce the volume of plastic bottles, thereby decreasing the amount of plastic waste generated on campus. This contributes to waste reduction efforts and helps minimize the environmental impact of plastic pollution.

By providing a convenient way to crush plastic bottles, the crusher encourages recycling behavior among students, faculty, and staff. It reinforces the importance of recycling and helps divert plastic waste from landfills or incinerators.

Plastic pollution poses significant threats to ecosystems, wildlife, and human health. By reducing plastic waste through recycling, a bottle crusher helps protect the environment and minimize the adverse effects of plastic pollution on marine life, terrestrial habitats, and waterways.



Plastic Bottle Crusher Machine









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Criterion 7	I V & B P
KI 7.1	M 7.1.3

Energy Conservation Measures

Renewable Power Generation

The adoption of solar rooftop systems in Atmiya university significantly reduces carbon emissions, contributing to a cleaner and more sustainable environment while serving as a tangible demonstration of the institute's commitment to renewable energy and climate action. Additionally, the integration of solar rooftops enhances the educational experience by providing real-world examples of sustainable technology, inspiring students to explore and innovate in the field of renewable energy. Atmiya University having fully operational solar rooftop electricity generation capacity as per the vision of the government.





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Rooftop Solar Plant

Renewable Power Generation per Month

Month & Year	RE Cultivation in KWh
Jun-22	33,642
Jul-22	20,784
Aug-22	23,264
Sep-22	29,568
0ct-22	33,664
Nov-22	28,864
Dec-22	26,432
Jan-23	30,064
Feb-23	32,576
Mar-23	41,648
Apr-23	57,504
May-23	66,992
Total	4,25,002 KWh

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Energy Efficient Electrical Appliances

Energy-efficient infrastructure in institutions not only lowers operational costs but also serves as a beacon of sustainable practices, showcasing the institution's dedication to environmental stewardship and responsible resource management. By implementing measures such as LED lighting, efficient HVAC systems, and smart building technologies, these institutions demonstrate leadership in sustainability while providing a conducive learning environment for students and faculty.





LED Lighting and 5 Star Rated Appliances









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Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The University stores the water in overhead tank.

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and wellbeing. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.



Reverse Osmosis Plant for Drinking Water

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KI 7.1 M 7.1.3					

Rainwater Harvesting Capacity: 12 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing stormwater runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.



Rainwater Harvesting Tank







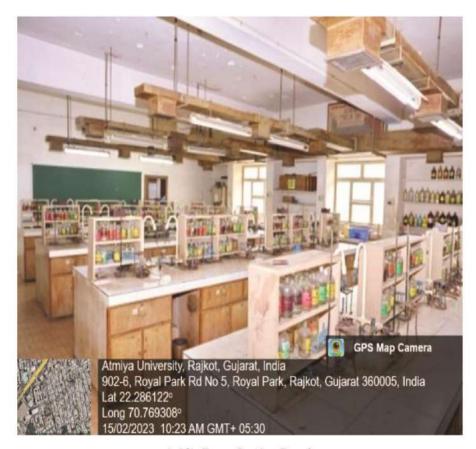


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Criterion 7 I V & B P					
KI 7.1 M 7.1.3					

Air Pollution Control Measures

Acidic Fume Suction Panel

Laboratory of chemistry department is equipped with the vapour suction panel mounted on the platform. It collects the hazardous gas and channelizes it to the wet scrubber for the neutralizing before discharge into the atmosphere.



Acidic Fume Suction Panel









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Fume Hood at Chemistry laboratory

Fume hoods are designed to contain and exhaust potentially hazardous fumes, vapors, and gases generated during chemical experiments. They create a barrier between the experiment and the laboratory environment, preventing exposure to toxic or harmful substances. Fume hoods protect laboratory personnel from inhaling harmful chemicals or being exposed to hazardous substances.



Fumehood at Chemistry Laboratory









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KI 7.1 M 7.1.3					

Wet Scrubber

- Reduction of Air Pollution: Scrubbers help remove harmful gases, such as hydrogen chloride (HCl) and hydrogen fluoride (HF), from the laboratory air. By capturing these pollutants before they are released into the atmosphere, scrubbers contribute to reducing air pollution and improving indoor and outdoor air quality.
- 2. Prevention of Acid Rain Formation: Hydrogen chloride and hydrogen fluoride emissions can contribute to the formation of acid rain when released into the atmosphere. Alkali gas scrubbers mitigate this environmental impact by removing these acidic gases from laboratory emissions before they can react with moisture in the air and contribute to acid rain formation.
- 3. Protection of Ecosystems: Acid rain resulting from air pollution can have detrimental effects on ecosystems, including damage to vegetation, soil, aquatic habitats, and wildlife. By reducing the emission of acidic gases, alkali gas scrubbers help protect sensitive ecosystems and promote biodiversity conservation.
- 4. Minimization of Health Risks: Hydrogen chloride and hydrogen fluoride are corrosive and toxic gases that can pose health risks to laboratory personnel and surrounding communities if released into the environment. Alkali gas scrubbers help minimize these risks by capturing and neutralizing these hazardous pollutants before they can be emitted.
- 5. Reduction of Odors: In addition to removing acidic gases, alkali gas scrubbers can also help eliminate unpleasant odors associated with certain chemical processes in the laboratory. This improvement in air quality enhances the comfort and well-being of laboratory personnel and visitors.

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6. Conservation of Resources: Alkali gas scrubbers typically utilize alkaline solutions, such as sodium hydroxide (NaOH), to neutralize acidic gases. While the operation of scrubbers requires resources such as water and chemicals, their use contributes to the conservation of environmental resources by preventing the release of pollutants into the air and minimizing the need for remediation measures.



Wet Gas Scrubber



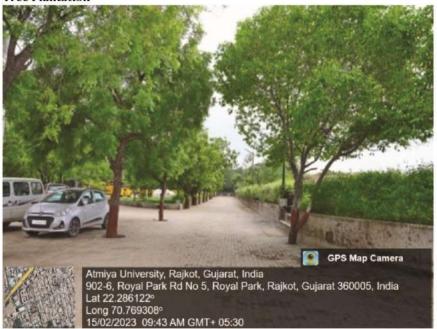






NAAC – Cycle – 1					
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Criterion 7 I V & B P					
KI 7.1 M 7.1.3					





Greenery at Atmiya University Campus

University campus is full of indigenous tree and medicinal plants produce positive impact on environment.

- Air Quality Improvement: Trees and plants act as natural air filters, absorbing
 carbon dioxide (CO2) and other pollutants from the air while releasing oxygen
 through the process of photosynthesis. This helps improve air quality on campus,
 reducing the concentration of harmful gases and particulate matter and
 promoting a healthier environment for students, faculty, and staff.
- Carbon Sequestration: Trees play a crucial role in mitigating climate change by sequestering carbon from the atmosphere and storing it in their biomass. By planting trees on campus, universities can contribute to carbon sequestration efforts and help offset their carbon footprint, supporting broader sustainability goals and initiatives.

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- Temperature Regulation: Trees provide natural shade and evapotranspiration, helping to cool the surrounding environment and reduce the urban heat island effect. By creating shaded areas and lowering ambient temperatures, trees contribute to energy conservation efforts by reducing the need for air conditioning and mitigating heat-related stress during hot weather.
- Storm water Management: The roots of trees and plants help absorb rainwater
 and reduce runoff, preventing soil erosion and minimizing the risk of flooding
 and water pollution. By incorporating green infrastructure such as rain gardens
 and bio swales, university campuses can effectively manage storm water runoff,
 improve water quality, and enhance overall watershed health.
- Biodiversity Conservation: Trees and plants provide habitat and food sources for various species of birds, insects, and other wildlife, contributing to biodiversity conservation on campus. By creating green corridors and natural habitats, universities support local ecosystems and promote ecological resilience in urban environments.
- Noise Reduction: Trees and vegetation help absorb and deflect sound waves, acting as natural buffers against noise pollution from nearby roads, buildings, and other sources. By planting trees strategically around campus buildings and outdoor spaces, universities can create quieter and more tranquil environments conducive to learning, research, and relaxation.

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Criterion 7 I V & B P				
KI 7.1 M 7.1.3				

8) Audit Methodology

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

 Data Collection - In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- 2. Data Analysis Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- 3. Recommendation On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University was evaluated through questionnaire circulated among the students for data collection.

The following data collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

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Criterion 7 I V & B P					
KI 7.1 M 7.1.3					

9) Monitoring, Observations& Recommendations

Ambient Air Quality Monitoring

Date: 15/02/2023

Location	PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m³)	SO_2 (µg/m ³)	NO ₂ (μg/m³)
AU Building Main Entrance	49	31.4	16.1	26.3
B/H Ashwad canteen	43.3	29.2	12.3	19.7
Nr. Bus parking	51.5	36.2	14.6	27.1
Nr. Haridarshanam Temple	57.7	31.3	15.7	26.4

Noise Monitoring

Date: 15/02/2023

Location	Observed Value (db (A))	Permissible Day Time Limit (db (A))	
AU Building Main Entrance	47		
B/H Ashwad canteen	46	50	
Nr. Bus parking	48	50	
Nr. Haridarshanam Temple	45		

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NAAC – Cycle – 1				
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Criterion 7 I V & B P				
KI 7.1 M 7.1.3				

Water Analysis Report TEST REPORT

Sample Description	Borewell Water from VIP parking Area	
Sample collection Date	15/02/2023	
Sample analysis date	15/02/2023	
Quantity of Sample	2.5 liters	

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	(<u>*</u>)	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.8	50	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	234	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	9.32	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	25.2	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 7 colonies)	
MacConkey Plates	TLTC (< 3 colonies)	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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NAAC – Cycle – 1				
AISHE: U-0967				
Criterion 7 I V & B P				
KI 7.1 M 7.1.3				

Water Analysis Report TEST REPORT

Sample Description	Borewell Water from Yogidham Gate 3	
Sample collection Date	15/02/2023	
Sample analysis date	15/02/2023	
Quantity of Sample	2.5 liters	

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	(<u>*</u>)	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.9	50	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	222	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	11.68	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	18.2	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 5 colonies)	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7 I V & B P			
KI 7.1 M 7.1.3			

Water Analysis Report TEST REPORT

Sample Description	Borewell Water Near Boy's Hostel
Sample collection Date	15/02/2023
Sample analysis date	15/02/2023
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	-	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.78	÷	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	322	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	22.5	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	88.2	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TMTC (> 100 colonies)		
MacConkey Plates	TMTC (> 100 colonies)		
Single strength MPN broth	No Colour change, No Gas productio		
Double strength MPN broth	No Colour change, No Gas production		

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NAAC – Cycle – 1			
AISHE: U-0967			
Criterion 7 I V & B P			
KI 7.1	M 7.1.3		

Water Analysis Report TEST REPORT

Sample Description	Borewell Water near Temple
Sample collection Date	15/02/2023
Sample analysis date	15/02/2023
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	2 0	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.68	÷	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	318.8	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	8.02	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	80.2	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	TLTC (< 5 colonies)	
MacConkey Plates	TLTC (< 4 colonies)	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	

Water Analysis Report TEST REPORT

Sample Description	Drinking Water- AU Main Building
Sample collection Date	15/02/2023
Sample analysis date	15/02/2023
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	-	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	4	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.6	127	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	118.8	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	9.78	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO3)	38.9	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	No Colonies Observed		
MacConkey Plates	No Colonies Observed		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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KI 7.1	M 7.1.3	

Water Analysis Report TEST REPORT

Sample Description	Drinking Water- Science Building
Sample collection Date	15/02/2023
Sample analysis date	15/02/2023
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	*	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	4	Unobjectionable	IS 3025 (Part 5) 1983
3	pН	7.80	27	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	130.1	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	7.7	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	8.1	Mg/l	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	No Colonies Observed
MacConkey Plates	No Colonies Observed
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production

^{*}TLTC-Too Less To Count

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^{*} TMTC-Too Much To Count



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Observations & Suggestions:

- The University has modern infrastructure, including smart classrooms, a computer lab, and a library, which may indirectly impact the environment through energy consumption and waste generation.
- The presence of a functional borewell suggests potential for implementing rainwater harvesting systems to further conserve water resources.
- The University's adoption of rooftop solar power reflects a proactive approach towards utilizing renewable energy sources.
- University has actively participated in the Government/University programmes like Van Mahotsava, Environment day celebration, Gurupurnima day celebration etc..
- The well-designed University building maximizes natural light, promoting energy efficiency and a positive learning environment.
- Expand the display of informative posters and slogans promoting the benefits of a green and clean campus.
- Conduct drive to promote energy conservation, potentially including a designated "power saving day" each quarter.

Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





CLIENT: M/s. Atmiya University, Rajkot Yogidham Gurukul, Kalawad Road, Rajkot - 360 005 (Audit Period: June 2022 to May 2023)

10) Certificate



V.V.P. ENGINEERING COLLEGE

ENVIRONMENTAL AUDIT CELL, Vajdi - Virda, Kalawad Road, Rajkot

Environmental Audit Certificate Atmiya University, Rajkot-360005-Gujarat-India For the AY (2022-23)

Environmental Audit for the period June 2022 to May 2023 has been conducted for the Atmiya University, Rajkot to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management. This Environmental Audit is also aimed to assess eco-friendly initiatives of the Institute towards sustainability.

It is believed that the institution has presented authentic data on various aspects of working of the institute before the audit team. The recommendations are based on the data presented before the team as they existed at the audit time. This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in prevailing green practice or misleading data. The findings reported in this audit report are entirely based on data furnished by the institute and data collected by the audit team during the audit. Thus, the findings reported in this audit report are strictly limited to the period when the audit was conducted.

The Environmental Quality in the campus is found adequate and efficacious.

Dr. Sushil Korgaokar

(Recognised Schedule-I Environmental Auditor, Gujarat Pollution Control Board-GPCB – Gandhinagar, Gujarat)

Environmental Audit Laboratory, V.V.P. Engineering College, Virda – Vajdi, Kalawad Road, Opp. Motel the Village, Rajkot-360005-Gujarat-India



I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Ashish M. Kothari, Dy. Registrar, Atmiya University, Rajkot-360005-Gujarat-India Deputy Registrar Atmiya University Rajkot



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Environmental Audit & Consultancy Cell, V.V.P. Engineering College, Rajkot





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V.V.P. ENGINEERING COLLEGE

ENVIRONMENTAL AUDIT CELL, Vajdi - Virda, Kalawad Road, Rajkot

Environmental Audit Certificate Atmiya University, Rajkot-360005-Gujarat-India For the AY (2022-23)

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I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Ashish M. Kothari, Dy. Registrar, Aumiya University, Rajkot-360005-Gujarat-India

Deputy Registrar Atmiya University Rajkot



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1.8 GREEN/ENVIRONMENT AUDIT 2023-24

Environmental Audit Report - Atmiya University, Rajkot (June 2023 to May 2024)

1) EXECUTIVE SUMMARY

Atmiya University established on April 13, 2018, under the Gujarat Private University Act 11, 2018, ATMIYA University emphasizes to train young minds in consonance with the doctrines of higher education and human values. The aim of this University is to spread eternal happiness and to create a happy society in letter and spirit. The motto "सुहदंसर्वभूतानम्" (Suhardam Sarva Bhootanam) is an expression of willingness to attain harmony with each creation of the Almighty!

This environmental audit report provides a comprehensive overview of Atmiya University, located in the vibrant city of Rajkot, Gujarat. Atmiya University, a prominent educational institution in the region, serves as a dynamic center for higher education, offering a diverse range of undergraduate, postgraduate, and doctoral programs. Established with a vision 'To nurture creative thinkers and leaders through transformative learning' and committed to create a transformative learning experience by imbibing domain specific knowledge & wisdom and to focus on research based teaching learning with Industry relevant application knowledge. The university plays a crucial role in shaping the region's educational landscape.

Situated in an urban setting, Atmiya University benefits from excellent connectivity and accessibility within the Rajkot area. The campus spans approximately 23.5 acre and features modern infrastructure that includes state-of-the-art classrooms, research labs, libraries, recreational facilities, and green spaces that enhance the learning environment.

The university accommodates a diverse and vibrant community from various parts of India and beyond. This thriving student body is supported by a faculty dedicated to promoting sustainable practices on campus, aligning with Atmiya University's mission to minimize its environmental impact.

A satellite image of the campus highlights its strategic layout and showcases the integration of natural and built environments, offering a visual perspective on the university's physical footprint within the urban landscape. This audit aims to evaluate Atmiya University's environmental practices and suggest actionable steps to enhance sustainability, further aligning with global standards in environmental responsibility and conservation.

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2) ACKNOWLEDGMENT

On behalf of the Environmental Audit & Consultancy Cell at **Shree M. & N. Virani Science College**, we would like to express our sincere gratitude to the management of **Atmiya University**, **Rajkot** for entrusting us with the important task of conducting their Environmental Audit/Green Audit.

We deeply appreciate the cooperation extended by your team throughout the assessment process. This cooperation was instrumental in the successful completion of the audit.

We would also like to extend our special thanks to **Dr. Ashish Kothari. Deputy Registrar, Atmiya University** for their unwavering support. Their dedication proved to be invaluable in ensuring the project's completion. Finally, we thank all other staff members who actively participated in data collection and field measurements. Their contributions were essential to the smooth execution of the audit.

We are also thankful to:

SN	Name	Designation	
1	Er. Ravi S. Tank	Chemical Engineer	
2	Er. Jagniyant Lunagariya	Civil Engineer	
3	Dr. Mahesh Savant	Chemist	
4	Dr. Abhijeet Joshi	Microbiologist	
5	Er. Hemil Chavda	Chemical Engieer	

In closing, we would like to express our gratitude to Dr. Shiv Tripathi, Vice Chancellor, Atmiya University for extending the opportunity to evaluate their esteemed campus's environmental performance.

Environment Shree M. & N.

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3) DISCLAIMER

This Green Audit report has been prepared by the Environmental Audit Cell at Shree M. & N. Virani Science College for of Atmiya University, Rajkot. It incorporates data submitted by University officials/representatives along with expert analysis by the EA&CC Audit team.

While all reasonable efforts have been made to ensure its accuracy, the report is based on information gathered in good faith. Conclusions are based on best estimates and do not constitute any express or implied warranty or undertaking. The EA&CC at Atmiya University, Rajkot assumes no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

The findings presented in this report are based entirely on data provided by Atmiya University and gathered by the audit team during their audit & monitoring visit. It assumes normal operating conditions within the institution throughout the audit period. The auditors are unable to comment on environmental audit parameters outside the scope of the on-site surveys. Consequently, the report's findings are strictly limited to the timeframe during which the audit team conducted its assessment.

The Environment Audit Cell at Shree M. & N. Virani Science College, maintains strict confidentiality regarding all information pertaining to Atmiya University. No such information will be disclosed to any third party except public domain knowledge or when required by law or relevant accreditation bodies.

This certificate is valid solely for the current Environmental Audit/Green Audit report. It may be automatically revoked if any significant changes occur in the quantity or quality of waste generation at the aforementioned institute.

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Shree M.

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4) INTRODUCTION

Since the 2019-20 academic year, the National Assessment and Accreditation Council (NAAC) requires all Higher Educational Institutions (HEIs) to submit an annual Environmental Audit/Green Audit report. This requirement falls under Criterion 7 of the NAAC accreditation process, which evaluates institutions for their environmental sustainability practices. NAAC, an autonomous body in India, assigns accreditation grades (A, B, or C) based on various criteria, including environmental stewardship.

Furthermore, conducting Environmental Audit/Green Audits aligns with the Corporate Social Responsibility (CSR) initiatives of HEIs. By implementing measures to reduce their carbon footprint, institutions contribute positively to mitigating global warming.

In response to the NAAC mandate, the University management opted for an external Environmental Audit/Green Audit conducted by a qualified professional auditor.

Environmental Audit/Green Audit entails a comprehensive environmental assessment, examining both on-campus and off-campus practices that directly or indirectly impact the environment. In essence, it is a systematic process of identifying, quantifying, recording, reporting, and analysing environmental aspects within the institute setting.

Environmental Audit/Green Audits originated as a tool to evaluate institutional activities that might pose risks to human health and the environment. It provides valuable insights for improvement, guiding institutions towards environmentally responsible practices and infrastructure.

The specific areas covered by this audit include Green Campus initiatives, Waste Management, Water Management, Air Pollution Control, Energy Management, and Carbon Footprint reduction strategies employed by the University.

The following sections delve deeper into the concept, structure, objectives, methodology, analytical tools, and overall goals of this Green Audit.

Educational institutions are increasingly prioritizing environmental concerns. As a result, innovative concepts are emerging to make campuses more sustainable and eco-friendly. Numerous institutions are adopting various approaches to address environmental challenges within their facilities, such

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as promoting energy conservation, waste recycling, water use reduction, and rainwater harvesting.

The activities of educational institutions can have both positive and negative environmental impacts. A Green Audit is a formal evaluation process that assesses the University's environmental footprint. It provides a comprehensive picture of the current environmental conditions on campus.

Green Audits are a valuable tool for Universities to identify areas of high energy, water, or resource consumption. This allows institutions to implement targeted changes and achieve cost savings. Additionally, Green Audits can analyse the nature and volume of waste generated, leading to improved recycling programs or waste minimization plans.

Green auditing and the implementation of mitigation measures offer a win-win scenario for institutions, students, and the environment. It can foster health and environmental awareness, promoting values and beliefs that benefit everyone. Green Audits also provide an opportunity for staff and students to gain a deeper understanding of the impact their institution has on the environment.

Furthermore, Green Audits can translate into financial savings by encouraging a reduction in resource usage. This process also empowers students and teachers to develop a sense of ownership for personal and social environmental responsibility.

The Green Audit process typically involves collecting primary data, conducting a site visit with University representatives, and reviewing relevant policies, activities, documents, and records.

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OBJECTIVE AND SCOPE

The broad aims/benefits of the Environmental Audit/Green Audit would be

- Environmental education through systematic environmental management approach
- · Improving environmental standards
- · Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- · Financial savings through a reduction in resource use
- · Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the University campus and its environment
- · Enhancement of University profile
- · Developing an environmental ethic and value systems in young people

Outcomes OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS

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

- 1. Protect the environment in and around the campus.
- 2. Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. Portrays good image of institution through its clean and green campus.

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5) ENVIRONMENTAL POLICY



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by:

- · Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthler, sustainable future.
- Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- Addressing local and regional environmental challenges with sustainable solutions.
- Ensuring sustainable resource use and minimizing wasteful practices.
- · Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

 Clean Campus Initiatives: Regular cleaning drives, waste segregation, and beautification projects.

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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Biodiversity: Developing green spaces, planting neem trees, and conserving biodiversity.
- Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using rainwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, e-waste, and bio-waste for recycling and composting.
- Transportation and Mobility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: Incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- · Transition to energy-efficient devices and systems.
- Encourage behaviour changes for energy conservation.
- · Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parivartan (Paper Recycling Unit) and Sarjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

 Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible way so age to capee dependency on municipal water.

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nuture, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- · Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmlya University Rajkot

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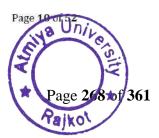
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6) GENERAL INFORMATION

- a. Does any Green Audit conducted earlier? Yes
- b. Total Area of the University = 84455 m²
- c. What is the total strength (people count) of the Institute?

AY		Studen	tudents Teaching Staff Non-Teaching Staff			Teaching Staff		Total				
AI	M	F	Trans	M	F	Trans	М	F	Trans	M	F	Trans
2023- 24	3964	2315	0	184	154	0	208	37	0	4356	2506	0

d. What is the total number of working days of your campus in a year?

Month (AY- 2023-2024)	No. of Working Days
June	21
July	24
August	25
September	17
October	22
November	26
December	24
January	25
February	24
March	23
April	24
May	26
Total	281

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e. Which of the following are found near your institute?

Municipal dump yard	No	
Garbage heap	No	
Public convenience	Yes	
Sewer line	Yes	
Stagnant water	No	
Industry	No	
Bus / Railway station	Yes	
Market / Shopping complex	Yes	
Play Ground	Yes	

f. Does your institute generate any waste? If so, what are they?

Type of waste		Response	Detail(s) of Waste Generated	Quantity of Waste Generated (kg)
	Biodegradable	Yes	Gardening, Cow dung	175
Solid	Non- biodegradable	Yes	Sweeping waste,	10
	e-waste	Yes	Computer, Battery	00
Liquid		Yes	Kitchen Waste	35
Gas		No		

- g. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)
 - Composting: Gardening and cow dung waste used to make compost.
 - Non-recyclable and non biodegradable waste disposal is managed by the Rajkot Municipal Corporation.

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- h. Do you use recycled paper in institute? Yes
- i. How would you spread the message of recycling to others in the community?

Poster competition activities	Yes	
Campaigns	Yes	
Webinars and seminars	Yes	

j. Is there a garden in your institute?

Yes	Area = 6732.26m ²
103	Alea Olozizom
	Yes

k. Total number of Plants in Campus?

SN	Namepd Species	Numbers
1	Neem Tree	211
2	Lemon cypress	1
3	FicusMicrocapra	100
4	Hedge Plant	01
5	Tajplantshub dracaena	01
6	Crown of Throns	01
7	Spanish Moss (TilandsiaUsneoides)	10
8	Ruellia simplex	51
9	FagusSylvatica plant	01
10	Euphorbia Tithymaloides	11
11	Weeping Fig 685	
12	LysilomaWatsonil	01

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13	Royal Palm	38
14	Bamboo	230
15	Moringa	01
16	Acalyphawilkesiana	300
17	Dracaena Angustifolia	11
18	Polysciasscutellaria	04
19	<u>Cordylinefruticosa</u>	40
20	Dracaena Reflexa	500
21	Garden Croton	01
22	polysciasguilfoylei	10
23	Oyster Plant (tradescantiazebrina)	300
24	Lonicerapileata	50
25	Saribusrotundifolius	10
26	Ixora	10
27	Hyophorbelagenicaulis	20
28	Purple heart	150
29	Yellow cosmos (sulphur cosmos)	100
30	Canna discolor	15
31	Durantaerecta	1100
32	Pritchardiapacifica	11
33	Capparissandwichiana	50
34	Nerium Oleander	10
35	Casuarinaequisetifolia	20

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36	Caryotaurens	2		
37	Areca palm	20		
38	Ravenala	10		
39	Iresineherbstii	300		
40	Sago Plam	22		
41	Sphgniticolatrilobata	1500		
42	Thuja	24		
43	Dracaena trifasciata	62		
44	Ponytail Palm	2		
45	Asparagus densiflorus	50		
46	Alocasiazebrina	02		
47	Bismarck palm	8		
49	Lotus	100		
50	Catharanthus	50		
51	Padavati Jasmin	50		
52	Caryotamitis	04		
53	Monoonlongifolium	3		
54	Breyniadisticha	50		
55	PlumeriaObtusa	10		
56	Alovera	100		
57	Century Plant	30		
58	Sweet osmanthus	1		
59	Crinum asiaticum	27		

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60	Diantherapectoralis	200		
61	Hibiscus	10		
62	Ficusaspera	5		
63	Mulberry tree	10		
64	Barbary fig	5		
65	Dracaena angolensis	2		
66	Terminaliachebula plant	2		
67	Nettlespurges	2		
68	Yellow elder	2		
69	MadhucaLongifolia	2		
70	Eucalyptus globulus.	1		
71	Melicoccusbijugatus	1		
72	Casuarinaequisetifolia	1		
73	Indian jujube	5		
74	Tulsi	50		
75	Coconut palm tree	8		
76	Calotropisgigantea	1		
77	Persian Silk	5		
78	Mango tree	1		
79	Curry Tree	4		
80	Punicagranatum	5		
81	Pandanusveitchii	50		
82	Streblusasper	5		

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KI 7.1 M 7.1.3			

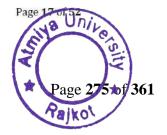
I. List uses of water in your institute

Basic use of water in campus	KL/Day		
Drinking	15		
Gardening	17		
Kitchen and Toilets	20		
Others	15		
Hostel	29		
Total	96 KL/Day		

m. Electricity Consumed

Month (Academic Year 2023-2024)	Electricity Consumed (kWh)		
June	1,88,249		
July	1,89,466		
August	2,10,645		
September	1,68,646		
October	1,74,560		
November	1,70,390		
December	1,30,250		
January	1,33,775		
February	1,44,080		
March	1,69,550		
April	2,02,600		
May	2,26,740		
Total	21,08,951		

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

Building	SN	Tank Description	Size (litre)	No. of Tank	Capacity (litre)
	1	Raw Water- A Wing	2500	4	10000
	2	Raw Water- B Wing	2500	4	10000
	3	Master RO - Raw Water	5000	3	15000
	4	RO Water Tank	2500	7	17500
AU Building	5	Pharmacy and Mechanical Lab	2000	1	2000
	6	Faculty Block (A& B Wing)	2500	2	5000
	7	Library Terrace	2000	1	2000
	8	Raw Water Near AU Building- Underground	275000	1	275000
	9	RO Water - at Terrace	2000	2	4000
	10	Raw Water- at Terrace	60000	1	60000
	11	Raw Water- at Terrace	40000	7	280000
MBAB	12	Near Building- Undrground	333746	2	667492
MPAB	13	Near Building- Undrground	336826	2	673652
	14	Below Temple- Underground	189924	1	189924
	15	Below Temple- Underground	43718	1	43718
	16	In Front of Store- Underground	123604	1	123604

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		Total Wa	ter Storage	Capacity	28,41,060
	33	Raw Water- inside building	600	1	600
Sarvanaman	32	Raw Water Tank- at Terrace	8550	1	8550
	31	Raw Water Tank- at Terrace	2000	1	2000
	30	Raw Water Tank- Near Office	5000	2	10000
Niramay	29	Raw Water Tank- at Terrace	11650	1	1 16 50
	28	RO Water Tanki at Terrace	2500	1	2500
Yogidham Gate	27	Raw Water Tank- Underground	48750	4	195000
	26	Wastewater- Outside the Building	2000	1	2000
	25	Raw Water- OTIS- Underground	32620	1	32620
Building	24	CIF Lab	1500	1	1500
Science	23	Raw Water Tank- Ladies Toilet	30000	3	90000
	22	Raw Water Tank- at Terrace	23300	2	46600
	21	RO Water- at Terrace	2500	1	2500
	20	Behind Workshop- Round Tank- Underground	45650	1	45650
vvorksnop	19	Raw Warer- at Terrace	5000	1	5000
18 Workshop	18	Raw Water- at Terrace	2000	2	4000
	17	RO Water- at Terrace	2000	1	2000

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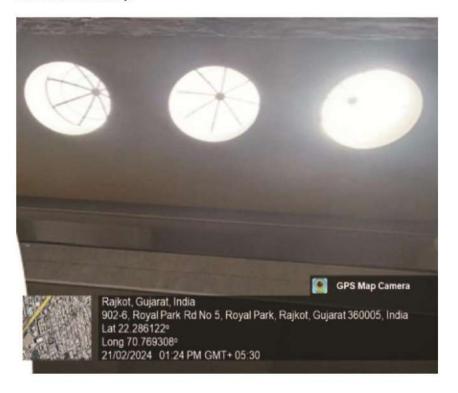


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7) GREEN INITIATIVES BY THE INSTITUTE

Green Architecture

The incorporation of green architecture principles in academic institutions not only reduces environmental impact but also fosters a healthier and more inspiring learning environment for students and faculty alike. By integrating features such as passive solar design, natural ventilation, and green roofs, these institutions showcase a commitment to sustainability while promoting innovation and awareness of eco-friendly design practices within the academic community.



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Natural Light and Ventilation in Academic Building

Impact:

- · Low artificial lighting requirements
- · Energy consumption optimization
- · Low green house gas emission
- Low level of strain to Eyes



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Campus Biodiversity

A thriving campus biodiversity in academic institutions is not merely a reflection of ecological health but also serves as a testament to the institution's commitment to sustainability and environmental stewardship. It provides a living laboratory for students to engage with nature firsthand, fostering a deeper understanding of ecological systems and instilling a sense of responsibility towards conservation. Beyond its educational value, a biodiverse campus offers numerous benefits such as improved air and water quality, enhanced aesthetics, and increased resilience to environmental stressors. It becomes a sanctuary for wildlife, contributing to the preservation of local ecosystems and biodiversity at large. Atmiya University campus is a rich in the biodiversity with the full of greenery and in house terrace garden.

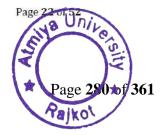


Glimpse of Flora at University Campus

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Terrace Farming Capacity (Niramaya)

Installation Detail

- Total Area: 800 Square meter
- · Three different farming: Hydroponics, Vertical and Terrace

Hydroponic farming

- method of growing plants without soil, using a nutrient-rich water solution to deliver essential nutrients directly to the plants' roots
- · Tomato, Basil and mint grown by using this method.

Vertical farming

- · vertical farming utilizes vertical space
- · growing crops in vertically stacked layers
- · Vertical farming reduces the need for extensive land use.

Terrace garden

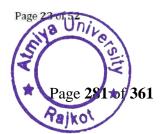
- · The following are grown in the terrace garden
- · Grapes, Calabash and asparagus bean are grown using this method.

Impact of terrace farming

- Controlled environments can reduce the need for pesticides, as pests and diseases are less likely to affect crops grown indoors
- Terrace gardens act as natural insulators, reducing the need for artificial heating and cooling within the building. This can lead to energy savings and lower electricity bills.
- Students get the practical knowledge of terrace farming in the urban environment that can be replicated and implemented at their home and society.

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Terrace Garden (Niramay) at University Campus

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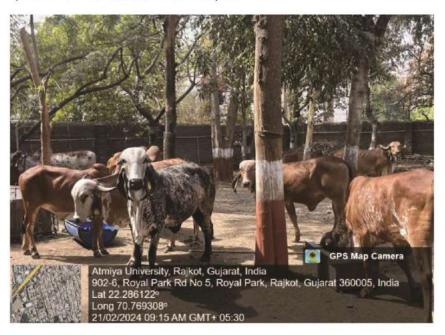




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Gaushala at Campus

- 24 Indian Breed Cow
- 01 Bull
- · State of the art facilities
- · Value addition cow urine for herbal and fertilizer utilization
- · Decorative products are being made from the cow dung.
- · Jivamrut fertilizer being used in the campus is a product of gaushala.
- It contibutes to maintain the organic carbon content in the campus soil as it
 provides the raw material for the compost.



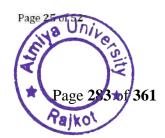
SatyakamGaushala

It provides students with firsthand experience in animal care, veterinary science, and sustainable agriculture. They can learn about the importance of cows in Indian culture, their significance in agriculture, and sustainable farming practices.

Gaushalas contributes to the eco-friendly practices like composting cow dung for fertilizer, using biogas for cooking which can serve as models for sustainable living and agriculture.



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In Indian cultures, cows are revered as sacred animals. Having a gaushala on campus can help preserve and promote this cultural heritage among students and the community.

Universities can conduct research on various aspects of cow rearing, including breeding, nutrition, and healthcare. This research can contribute to advancements in animal science and agriculture.

Cows play a crucial role in maintaining soil fertility through their dung, which is rich in nutrients. By managing cow waste effectively, gaushalas can contribute to soil health and environmental conservation.

Solid Waste Management

Natural Fertilizer from Organic Waste

Jivamrut (Natural Fertilizer)

Installation Detail:

- Year: 2008
- · Place: at boys parking
- Process: Collect neem leaves form campus and added with cow dung, cow urine and Earthworms

Amrut Soil

- Ingredients for AmrutMitti range from cow dung, cow urine, biomass like dry and decayed leaves, household kitchen waste like vegetable peels.
- AmrutSoil is full of all nutrients needed by plants, is very rich in variety of microbes, has the right pH, has high carbon content, has excellent water holding capacity.
- · Mixing Cow dung, cow urine and jaggery
- · Immersing dry biomass in AmrutJal kept in drums
- · Process take at least 1 month
- · Use as garden fertilizer.

Impact:

- Applied in garden as fertilizer
- · Improve soil micro-biota of campus soil
- · Less usages of chemical fertilizer



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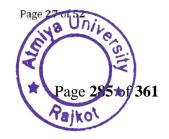




Figure 6: Amrut Soil and Jivamrut Plant



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Municipal Solid Waste Segregation Bin

University campus having more the 100 solid waste collection dustbin design for the proper waste segregation. Waste paper is recycled at the in-house paper recycling facility and converted into the filter paper, envelope and other artistic and decorative products.

Having separate bins encourages people to sort their waste, making it easier to recycle materials such as paper, plastic, glass, and metal. This promotes a culture of recycling and reduces the amount of waste sent to landfills or incinerators.

Recycling materials reduces the need for raw materials, energy, and water required to manufacture new products. This conserves natural resources and reduces the environmental impact associated with extraction, processing, and transportation.

Implementing separate bins provides an opportunity for educational initiatives on waste management, recycling, and environmental stewardship. Students, faculty, and staff can learn about the importance of recycling and how their actions contribute to sustainability.



Separate Dustbin for Recyclable and Non-Recyclable Waste

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Paper Recycling Unit

In embracing the principles of the circular economy, Atmiya university is pioneer in sustainable practices such as paper recycling, ensuring that resources are reused and regenerated rather than disposed of after single use. By implementing robust paper recycling programs, these institutes not only reduce waste and environmental impact but also cultivate a culture of resource efficiency and responsible consumption among students, faculty, and staff.

Recycling paper can lead to cost savings for the university by reducing waste disposal fees and the need to purchase new paper products. This can free up financial resources that can be allocated to other campus initiatives or projects.



Parivartan- Paper Recycling Plant

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Plastic Water Bottle Recycling Plant

University have installed water bottle recycling plant at entrance for all stakeholders having capacity of 20 kg/day

A bottle crusher helps reduce the volume of plastic bottles, thereby decreasing the amount of plastic waste generated on campus. This contributes to waste reduction efforts and helps minimize the environmental impact of plastic pollution.

By providing a convenient way to crush plastic bottles, the crusher encourages recycling behavior among students, faculty, and staff. It reinforces the importance of recycling and helps divert plastic waste from landfills or incinerators.

Plastic pollution poses significant threats to ecosystems, wildlife, and human health. By reducing plastic waste through recycling, a bottle crusher helps protect the environment and minimize the adverse effects of plastic pollution on marine life, terrestrial habitats, and waterways.

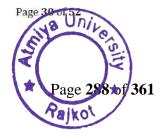


Plastic Bottle Crusher Machine



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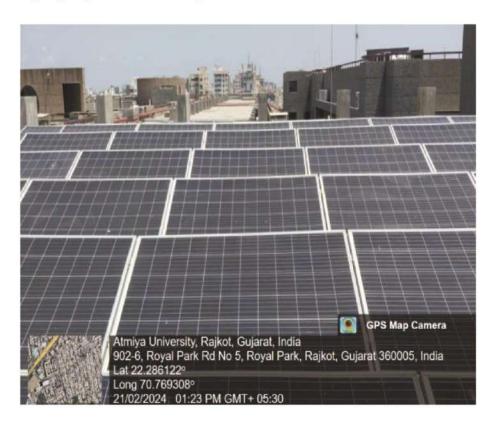


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Energy Conservation Measures

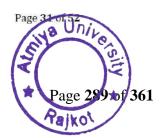
Renewable Power Generation

The adoption of solar rooftop systems in Atmiya university significantly reduces carbon emissions, contributing to a cleaner and more sustainable environment while serving as a tangible demonstration of the institute's commitment to renewable energy and climate action. Additionally, the integration of solar rooftops enhances the educational experience by providing real-world examples of sustainable technology, inspiring students to explore and innovate in the field of renewable energy. Atmiya University having fully operational solar rooftop electricity generation capacity as per the vision of the government.



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Rooftop Solar Plant Renewable Power Generation per Month

Month & Year	RE Cultivation in KWh
Jun-23	50,144
Jul-23	38,736
Aug-23	41,520
Sep-23	25,616
Oct-23	18,080
Nov-23	41,280
Dec-23	42,400
Jan-24	44,640
Feb-24	47,840
Mar-24	62,720
Apr-24	67,040
May-24	67,200
Total	547,216 KWh

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Energy Efficient Electrical Appliances

Energy-efficient infrastructure in institutions not only lowers operational costs but also serves as a beacon of sustainable practices, showcasing the institution's dedication to environmental stewardship and responsible resource management. By implementing measures such as LED lighting, efficient HVAC systems, and smart building technologies, these institutions demonstrate leadership in sustainability while providing a conducive learning environment for students and faculty.



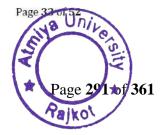


LED Lighting and 5 Star Rated Appliances



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Electrical Vehicle Charging Station

The installation of electrical charging stations at university campus demonstrates a proactive approach towards supporting sustainable transportation options for students, faculty, and visitors, thereby reducing reliance on fossil fuels and promoting the adoption of electric vehicles. These stations not only facilitate the transition towards cleaner modes of transportation but also serve as educational tools, raising awareness about the benefits of electric vehicles and contributing to a culture of environmental responsibility within the campus community.



IEC 61851-1 Compliance

Electronic Vehicle Charging Station

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Water Management

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

Sources of Water

- · Rainwater Harvesting
- · Bore water
- A Main source of water is RMC connection and Ground water is extracted to fulfill the requirement. The University stores the water in overhead tank.

Sewage Disposal Facility

Atmiya University is situated in the municipal area of Rajkot. RMC (Rajkot Municipal Corporation) provides municipal facilities to the university. Sewage is being disposed in the sewerage network of Rajkot city.

RO Plant

RO plants provide clean and safe drinking water by removing contaminants, such as bacteria, viruses, and dissolved solids, from the water. This ensures that students, faculty, and staff have access to safe drinking water, promoting better health and well-being. With access to clean drinking water on campus, there is less reliance on bottled water. This can lead to a significant reduction in plastic waste generated by the university, contributing to environmental sustainability efforts.



Reverse Osmosis Plant for Drinking Water Rainwater Harvesting



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Capacity: 12 Lac Liters

Environmental Benefits: By reducing the demand for potable water and minimizing stormwater runoff, rainwater harvesting contributes to environmental conservation efforts. It helps preserve freshwater resources, protects aquatic ecosystems, and mitigates the impacts of urbanization on natural hydrological cycles.

Water Conservation: Rainwater harvesting reduces reliance on traditional water sources by collecting and storing rainwater for various uses, such as irrigation, flushing toilets, and landscape maintenance. This helps conserve freshwater resources and reduces the strain on municipal water supplies, especially during periods of drought or water scarcity.



Rainwater Harvesting Tank

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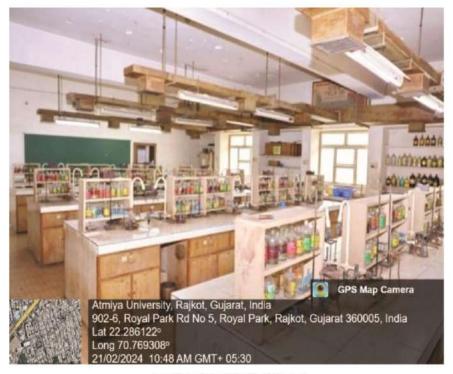


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Air Pollution Control Measures

Acidic Fume Suction Panel

Laboratory of chemistry department is equipped with the vapour suction panel mounted on the platform. It collects the hazardous gas and channelizes it to the wet scrubber for the neutralizing before discharge into the atmosphere.

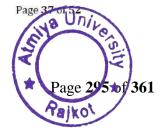


Acidic Fume Suction Panel



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Fume Hood at Chemistry laboratory

Fume hoods are designed to contain and exhaust potentially hazardous fumes, vapors, and gases generated during chemical experiments. They create a barrier between the experiment and the laboratory environment, preventing exposure to toxic or harmful substances. Fume hoods protect laboratory personnel from inhaling harmful chemicals or being exposed to hazardous substances.



Fumehood at Chemistry Laboratory



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Wet Scrubber

- Reduction of Air Pollution: Scrubbers help remove harmful gases, such as
 hydrogen chloride (HCl) and hydrogen fluoride (HF), from the laboratory air.
 By capturing these pollutants before they are released into the atmosphere,
 scrubbers contribute to reducing air pollution and improving indoor and
 outdoor air quality.
- 2. Prevention of Acid Rain Formation: Hydrogen chloride and hydrogen fluoride emissions can contribute to the formation of acid rain when released into the atmosphere. Alkali gas scrubbers mitigate this environmental impact by removing these acidic gases from laboratory emissions before they can react with moisture in the air and contribute to acid rain formation.
- 3. Protection of Ecosystems: Acid rain resulting from air pollution can have detrimental effects on ecosystems, including damage to vegetation, soil, aquatic habitats, and wildlife. By reducing the emission of acidic gases, alkali gas scrubbers help protect sensitive ecosystems and promote biodiversity conservation.
- 4. Minimization of Health Risks: Hydrogen chloride and hydrogen fluoride are corrosive and toxic gases that can pose health risks to laboratory personnel and surrounding communities if released into the environment. Alkali gas scrubbers help minimize these risks by capturing and neutralizing these hazardous pollutants before they can be emitted.
- 5. Reduction of Odors: In addition to removing acidic gases, alkali gas scrubbers can also help eliminate unpleasant odors associated with certain chemical processes in the laboratory. This improvement in air quality enhances the comfort and well-being of laboratory personnel and visitors.

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6. Conservation of Resources: Alkali gas scrubbers typically utilize alkaline solutions, such as sodium hydroxide (NaOH), to neutralize acidic gases. While the operation of scrubbers requires resources such as water and chemicals, their use contributes to the conservation of environmental resources by preventing the release of pollutants into the air and minimizing the need for remediation measures.



Wet Gas Scrubber



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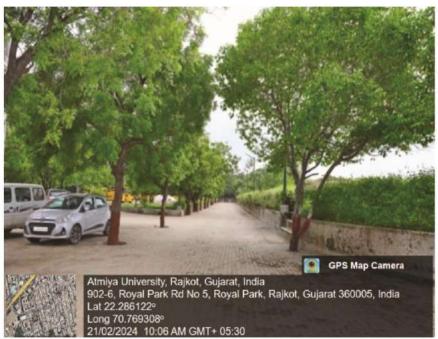






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Tree Plantation



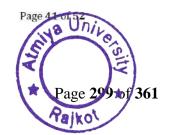
Greenery at Atmiya University Campus

University campus is full of indigenous tree and medicinal plants produce positive impact on environment.

- Air Quality Improvement: Trees and plants act as natural air filters, absorbing carbon dioxide (CO2) and other pollutants from the air while releasing oxygen through the process of photosynthesis. This helps improve air quality on campus, reducing the concentration of harmful gases and particulate matter and promoting a healthier environment for students, faculty, and staff.
- Carbon Sequestration: Trees play a crucial role in mitigating climate change by sequestering carbon from the atmosphere and storing it in their biomass.
 By planting trees on campus, universities can contribute to carbon sequestration efforts and help offset their carbon footprint, supporting broader sustainability goals and initiatives.

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- Temperature Regulation: Trees provide natural shade and evapotranspiration, helping to cool the surrounding environment and reduce the urban heat island effect. By creating shaded areas and lowering ambient temperatures, trees contribute to energy conservation efforts by reducing the need for air conditioning and mitigating heat-related stress during hot weather.
- Storm water Management: The roots of trees and plants help absorb
 rainwater and reduce runoff, preventing soil erosion and minimizing the risk of
 flooding and water pollution. By incorporating green infrastructure such as rain
 gardens and bio swales, university campuses can effectively manage storm
 water runoff, improve water quality, and enhance overall watershed health.
- Biodiversity Conservation: Trees and plants provide habitat and food sources for various species of birds, insects, and other wildlife, contributing to biodiversity conservation on campus. By creating green corridors and natural habitats, universities support local ecosystems and promote ecological resilience in urban environments.
- Noise Reduction: Trees and vegetation help absorb and deflect sound waves, acting as natural buffers against noise pollution from nearby roads, buildings, and other sources. By planting trees strategically around campus buildings and outdoor spaces, universities can create quieter and more tranquil environments conducive to learning, research, and relaxation.

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8) AUDIT METHODOLOGY

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

1. Data Collection – In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- 2. Data Analysis Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- 3. Recommendation On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University was evaluated through questionnaire circulated among the students for data collection.

The following data collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

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9) MONITORING, OBSERVATIONS & RECOMMENDATIONS

Ambient Air Quality Monitoring

Date: 21/02/2024

Location	PM ₁₀ (μg/m³)	PM _{2.5} (μg/m³)	SO ₂ (μg/m³)	NO ₂ (μg/m³)
AU Building Main Entrance	43.7	29.4	17.1	21.3
B/H Ashwad canteen	45.6	26.2	13.3	18.4
Nr. Bus parking	59.4	31.2	15.6	23.2
Nr. Haridarshanam Temple	51.8	36.3	17.4	24.6

Noise Monitoring

Date: 21/02/2024

Location	Observed Value (db (A))	Permissible Day Time Limit (db (A))
AU Building Main Entrance	48	
B/H Ashwad canteen	45	
Nr. Bus parking	47	50
Nr. Haridarshanam Temple	46	

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KI 7.1 M 7.1.3				

Water Analysis Report TEST REPORT

Sample Description	Borewell Water from VIP Parking Area		
Sample collection Date	21/02/2024		
Sample analysis date	21/02/2024 to 25/02/2024		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	æ	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	-	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.9	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	353.925	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	50.42	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	88.2	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 7 colonies)		
MacConkey Plates	TLTC (< 3 colonies)		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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Water Analysis Report

TEST REPORT

Sample Description	Borewell Water from Yogidham Gate 3		
Sample collection Date	21/02/2024		
Sample analysis date	21/02/2024 to 21/02/2024		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	15T	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	ā	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.8	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	211.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	15.92	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	52.0	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 5 colonies)		
MacConkey Plates	No Colonies Observed		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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Water Analysis Report TEST REPORT

Sample Description	Borewell Water Near Boy's Hostel		
Sample collection Date	21/02/2024		
Sample analysis date	21/02/2024 to 21/02/2024		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	>	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	æ	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.84	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	321.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	23.5	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	48.2	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TMTC (> 100 colonies)		
MacConkey Plates	TMTC (> 100 colonies)		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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Water Analysis Report TEST REPORT

Sample Description	Borewell Water near Temple		
Sample collection Date	21/02/2024		
Sample analysis date	21/02/2024 to 25/02/2024		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable) -	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	æ	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.92	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	421.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	35.23	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	68.2	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation		
EMB plates	TLTC (< 5 colonies)		
MacConkey Plates	TLTC (< 4 colonies)		
Single strength MPN broth	No Colour change, No Gas production		
Double strength MPN broth	No Colour change, No Gas production		

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Water Analysis Report TEST REPORT

Sample Description	Drinking Water- AU Main Building 21/02/2024		
Sample collection Date			
Sample analysis date	21/02/2024 to 21/02/2024		
Quantity of Sample	2.5 liters		

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	>	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	æ	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.70	-	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	121.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	19.87	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	38.2	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation	
EMB plates	No Colonies Observed	
MacConkey Plates	No Colonies Observed	
Single strength MPN broth	No Colour change, No Gas production	
Double strength MPN broth	No Colour change, No Gas production	

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Water Analysis Report TEST REPORT

Sample Description	Drinking Water- Science Building
Sample collection Date	21/02/2024
Sample analysis date	21/02/2024 to 25/02/2024
Quantity of Sample	2.5 liters

Test Result

Sr. No.	Test Parameter	Results	Units	Desirable limit As per IS 10500:2012	Test method
1	Taste	Agreeable	<u>92</u>	Agreeable	IS 3025 (Part 7&8)
2	Odour	Unobjectionable	184 	Unobjectionable	IS 3025 (Part 5) 1983
3	рН	7.80	<u> </u>	6.5 to 8.5	IS 3025 (Part 11)
4	Total Dissolved Solids (TDS)	184.2	mg/l	500 max	IS 3025 (Part 16)
5	Chloride	17.63	mg/l	250 max	IS 3025 (part 32)
6	Turbidity	<1	NTU	1.0 Max	IS 3025 (part 10)
7	Total Hardness (as CaCO ₃)	28.2	Mg/I	200 max	IS 3025 (part 21)

Microbial Analysis

Test	Observation
EMB plates	No Colonies Observed
MacConkey Plates	No Colonies Observed
Single strength MPN broth	No Colour change, No Gas production
Double strength MPN broth	No Colour change, No Gas production

^{*}TLTC-Too Less To Count

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^{*} TMTC-Too Much To Count



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OBSERVATIONS:

- 1. Land Use: The University campus spread over 23.5 Acres of land.
- 2. Green Initiatives: The University supports efforts to eliminate plastic from campus. Students are advised to avoid using plastic on campus. The University organizes regular cleanliness drive to collect biodegradable and non-biodegradable waste. e-waste are cleaned periodically by recognised & authorised recyclers. Biodegradable waste is self-composting.
- 3. Fire & Safety: The University building is also safe through state of the art housed Fire safety system.
- 4. Energy Consumption: While the University has a solar energy generation facility, the overall energy consumption patterns, including electricity, water, and other resources, should be assessed to identify potential environmental impacts and energy efficiency opportunities.
- Potential for Water Harvesting: The presence of a functional borewell suggests potential for implementing rainwater harvesting systems to further conserve water resources.
- Community Engagement Potential: The University's environmental efforts be extended to engage the local community in sustainability practices.
- Beautiful Campus Greenery: The presence of over 5,00+ neem trees on campus creates a pleasant and environmentally friendly atmosphere.
- 8. Abundant Natural Light: The well-designed University building maximizes natural light, promoting energy efficiency and a positive learning environment.

RECOMMENDATIONS:

- Install sensor-based faucets in washrooms and urinals to minimize water waste.
- Develop a dense plantation area using the Miyawaki method to become a role model & leading example for other state & private universities to demonstrate creation of oxygen bank and enhance campus greenery.
- Conduct drive to promote energy conservation, potentially including a designated "power saving day" each quarter.
- Establish a regular cleaning and maintenance schedule for the rooftop solar panels to ensure optimal energy production.

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Environmental Audit Report - Atmiya University, Rajkot (June 2023 to May 2024)

10) CERTIFICATE



SWAMI SHREED SARVODAY KELAVANI SAMAJ MANAGED

Shri Manibhai Virani & Smt. Navalben Virani Science College (An Autonomous College affiliated to Saurashtra University, Rajkot)

NAAC Assessment & Accreditation Cycle - III: 'A++' grade with CGPA 3.65 on 4 point scale

Environmental Audit Certificate For the Period: June 2023 to May 2024

This certificate confirms that an Environmental/Green Audit was conducted at Atmiya University, Rajkot, to assess the implementation of green initiatives and eco-friendly practices, particularly in the area of Green Campus Management.

The audit assessed the authenticity of the data provided by the institution and the effectiveness of its sustainability efforts. The recommendations outlined in the audit report are based on the information available at the time of the audit.

I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal

Dr. Divyang D. Vyas, Registrar, Atmiya University. Rajkot-360005-Gujarat-India



EA&CC

Atmiya University Rajkot

The audit concluded that the environmental quality on campus is found adequate and efficacious and meets the required standards.

(Recognised Schedule-I Environmental Auditor, Guiarat Pollution Control Board- GPCB Gandhinagar, Gujarat)

I/c Director,

Environmental Audit & Consultancy Cell, Shri Manibhai Virani & Smt. Navalber Virani Science College,

Yogidham Gurukul, Kalawad Road, Rajkot-360005-Gujarat-India

I/C Director,

Environmental Audit & Consultancy Cell, Shri Manibhai Virani & Smt. Navalben Virani Science College, Rajkot

Please note:

- This certificate is valid only for the specified audit period.
- The certificate may be revoked if there are changes to the institution's green practices or if the provided data is found to be misleading.

 The audit findings are solely based on the data submitted by the institution and the
- observations made by the audit team during the audit.

ATMIYA Group of Institutions, Yogidham Gurukul, Kalawad Road, Rajkot - 360 005, (GUJARAT) INDIA. Ph.: +91 - 281 - 2562681 E-mail: admin@vsc.edu.in | principal@vsc.edu.in | Website: www.vsc.edu.in

Environmental Audit & Consultancy Cell. Shree M. & N. Virani Science College, Rajkot

ot-Gujarat-India





SWAMI SHREELI



SARVODAY KELAVANI SAMAJ MANAGED

Shri Manibhai Virani & Smt. Navalben Virani Science College

(An Autonomous College affiliated to Saurashtra University, Rajkot)

NAAC Assessment & Accreditation Cycle - III: 'A++' grade with CGPA 3.65 on 4 point scale

Environmental Audit Certificate For the Period: June 2023 to May 2024

This certificate confirms that an Environmental/Green Audit was conducted at Atmiya University, Rajkot, to assess the implementation of green initiatives and eco-friendly practices, particularly in the area of Green Campus Management.

The audit assessed the authenticity of the data provided by the institution and the effectiveness of its sustainability efforts. The recommendations outlined in the audit report are based on the information available at the time of the audit.

I assure that the data presented is authentic to the best of my knowledge & I agree to comply with the recommendations received this report within a year at maximum after the internal review.

Dr. Divyang D. Vyas, Registrar, Atmiya University, Rajkot-360005-Gujarat-India



Mayalb

EA&CC

Registral
Atmiya University
Rajkot

The audit concluded that the environmental quality on campus is found adequate and efficacious and meets the required standards.

Ravi S. Tank

(Recognised Schedule-I Environmental Auditor, Gujarat Pollution Control Board- GPCB Gandhinagar, Gujarat)

Le Director.

Environmental Audit & Consultancy Cell, Shri Manibhai Virani & Smt. Navalben Virani Science College,

Yogidham Gurukul, Kalawad Road, Rajkot-360005-Gujarat-India I/C Director,
Environmental Audit & Consultancy Cell,
Shri Manibhai Virani & Smt. Navalten
Virani Science College, Rajkot

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ATMIYA Group of Institutions, Yogidham Gurukal, Kalawad Road, Rajkot - 360 005, (GUJARAT) INDIA.

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1.9 CO-CURRICULAR COURSE ENTITLED "TREATMENT OF ENVIRONMENTAL WASTE"



Name of the program me	Semeste r	Name of the Course	Course Code	Course Type (Theory / Practica l)	Type (Compulsor y/ Elective)	Total No of Students Benefitt ed
All UG Programs	All UG	SEC 2: CoC - Treatment of Environmen tal Waste	21AECO012	Theory	Elective	108

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1.10 DEDICATED SUPPORT STAFF & FACILITIES FOR WASTE COLLECTION, SEGREGATION & DISPOSAL





વર્ક ઓર્ડર

પ્રતિ,

No. AU/HouseKeeping/WO/50-2024-25

Date:-14-05-2024

ઈ-ફોનીટી સર્વીસીસ ત્રીજા માળે, ૩૦૧ અવની પેલેસ, ગોળ હાઈટસ સ્ટ્રીટ પાછળ, ગોવાસી છાત્રાલય સામે, રાજકોટ.

> વિષય :- હાઉસ-કીપીંગ વર્ક અંતર્ગત અલગ-અલગ જગ્યાએ સફાઈ તથા સ્વચ્છતા જાળવવાના કામ બાબત..

સંદર્ભ :- આપના તરફથી મળેલ ભાવ પત્રક તા.૧૦–૦૫–૨૦૨૪

સાયન્સ બિલ્ડીંગ સ્થિત જજ્ઞાવેલ બીલ્ડીંગ તથા આજુબાજુની પેરીકરીમાં આવેલ તમામ એરીધામાં સ્વીપર તથા મશીનરીના ઉપયોગ દારા સંસ્થા જણાવે તે પ્રમાણેના ક્લીનીંગ શેડયુલ મુજબ નિયમીત સજ્ઞઈ કરાવી, સ્વાક્તા જળવાય રહે તેનું એજન્સીએ રોજબરોજ સુપરવીઝન કરી, તેમને સોંપવામાં આવેલ એરીયાનું ધ્યાન રાખવાનું રહેશે.

કરારની સામાન્ય શરતો:-

- સાયન્સ બિલ્હીંગમાં આવેલ Basement to 3nd Floor લોબી, ટોઈલેટ બ્લોક, અગાસી તથા આજુબાજુની પૈરીકરીમાં આવેલ રોડ વિગરેની તેમજ આ સિવાયના સંસ્થા જણાવે તે ભાગોની નિયમીત સફાઈ કરવાની રહેશે અને તે સફાઈ અંગેના રજીસ્ટર નિભાવવાના રહેશે.
- સ્વીપર તથા મુપરવાઈઝર સારી ચાલચલગતવાળા પુરા પાડવાના રહેશે તેમજ તેઓના નામ, કાયમી સરનામા, કોટા, ઓળખપત્રો રેકર્ડ કોન્ટ્રાક્ટરે મેઈન્ટેઈન કરવાનો રહેશે. તેમજ સંસ્થા

જયારે રેકર્ડ માંગે ત્યારે સુપ્રત કરવાનો રહેશે.

INFINITY SERVICES

PROPRIETO

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M 7.1.3



- સાયન્સ બ્રિલ્ડીંગના સંકુલમાં પાન, તમાકું, ગુટકા કે અન્ય કોઈપણ માદક દ્રવ્યોનું સેવન પ્રતિબંધીત 3. છે આ નિયમનો ભંગ થયેથી જે તે વ્યક્તિ અને કોન્ટ્રાક્ટર સામે નિયમાનુસાર કાર્યવાહી કરી કોન્ટ્રાક્ટ ૨૬ કરવા સુધીનાં પગલો લેવામાં આવશે અને ડીપોઝીટની ૨કમ જપ્ત થશે.
- કોન્ટ્રાક્ટરશ્રી તેમજ તેમના દ્વારા કામ પર રાખવામાં આવેલ કોઈપજ્ઞ વ્યક્તિ, બદારથી કોઈપજ્ઞ ખાદ્ય પદાર્થ મંગાવી શકશે નહી.
- કોન્દ્રાક્ટરના સુપરવાઈઝરે સંસ્થાના પ્રતિનિધિના સહયોગમાં રહીને તમામ કર્મચારીની હાજરી નિયત પ્રફોર્મામાં લખાવી સહી કરવાની રહેશે.
- સ્વીપર તથા સુપરવાઈઝર નિયત ડ્રેસ કોડમાં જ કરજ બજાવવાની રહેશે.
- કોન્ટ્રાક્ટર દ્વારા રાખવામાં આવેલ કોઈપણ કર્મચારીએ વિદ્યાર્થી તથા સંસ્થાના કોઈપણ વ્યક્તિસાથે અંગત વ્યવહારો રાખવા નહિ. આવા વ્યવહારો રાખવાને કારકો ઉપસ્થિત થતા પ્રશ્નોની જવાબદારી જે તે વ્યકિતની પોતાની તથા કોન્ટ્રાક્ટરની રહેશે.
- સાક્ષ્યુકી દરમ્યાન મળી આવેલ વસ્તુ અથવા રોકડ રકમ સંસ્થાના અધિકૃત કરેલ વ્યક્તિને સુપ્રત કરી આપવાની રહેશે.
- **કરજ બજવવા કોઈપણ કર્મચારી સંસ્થાની માલ**—મિલ્કતને નુકશાન કરે નહીં તેની જવાબદારી કોન્ટ્રાક્ટરની રહેશે.
- ૧૦. કેમ્પસની મુલાકાતે આવતા વ્યક્તિઓ સાથે વિવેક પૂર્ણ વ્યવહાર જાળવવાનો રહેશે.
- ૧૧. સ્વીપરને કોઈપણ પ્રકારની મુશ્કેલી માટે, સંસ્થાને સીધી રજુઆત ન કરતાં, કોન્ટ્રાક્ટરના સુપરવાઈઝર મારકતે સંસ્થાના અધિકૃત વ્યક્તિ સાથે સંક્લન સાધી, જરૂરીયાત જજ્ઞાય તો જ જાણ
- સંસ્થાએ નિમેલા વ્યક્તિઓની સુચનાઓનું પાલન કરવાનું રહેશે.

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- કોન્ટ્રાકટરે નિયત થયેલ ભાવે સંસ્થા. જણાવે તે સંખ્યામાં સ્વીપીંગ સ્ટાક પુરો પાડવાનો રહેશે. કરજ 93. બજાવતા કર્મચારીઓની સંખ્યા ૧૦% કરતા ઓછી જણાશે તો ગેરહાજર સ્ટાફની રકમ માસીક બીલમાંથી વસુલ કરવામાં આવશે જેની ખાસ નોંધ લેવી. તેમજ નિયત કરતા વધારે હશે તો કોઈપણ પ્રકારનું અલગથી વેતન આપવામાં આવશે નહીં...
- કોન્ટ્રાક્ટરે ફરજ પર મુકેલ સ્ટાફ માટે તેઓના કામકાજના સમયગાળા દરમ્યાન સમય–પાલન જાળવી રાખે તે અંગેનો ખાસ ખ્યાલ રાખવાનો રહેશે.
- હાઉસ–કીપીંગ માટેનો કોન્ટ્રાક્ટ પ્રથમ તબક્કે ૧૨ માસના ગાળાનો રહેશે અને ત્યારબાદ કામગીરીની સમીકા થયે આખરી નિર્ણય લેવામાં આવશે. આમ છતાં બીજી સ્ચના ન મળે ત્યા સુધી કોન્ટ્રાક્ટ ચાલું રહેશે.
- ૧૮ વર્ષથી નીચેની ઉમરનીવ્યક્તિને કામ પર રાખી શકાશે નહિ.
- કોન્ટ્રાક્ટર દ્વારા રોકવામાં આવતાં સ્ટાફનું **પોલીસ ક્લીયરન્સ** સર્ટિફિકેટ મેળવી લેવાનું રહેશે. 9.9. તેમજ સંસ્થા જયારે રેકર્ડ માંગે ત્યારે સુપ્રત કરવાનો રહેશે.
- કોન્ટ્રાક્ટર દ્વારા હાઉસ–કીપીંગ માટે રોકવામાં આવતાં સ્ટાફનો ઈન્સ્યોરન્સ કોવાનો રહેશે તેમજ સંસ્થા જયારે રેકર્ડ માંગે ત્યારે સુપત કરવાનો રહેશે.
- સંસ્થાને તરફથી કોન્ટ્રાકટ રદ કરવા માટે ૩૦ દિવસ અગાઉ લેખીતમાં નોટીસ અપાશે તેમજ એજન્સી કોન્ટ્રાક્ટ રદ કરવા માગતી હોય તો ૩૦ દિવસ પહેલા સંસ્થાને લેખીતમાં જાણ કરવાની રહેશે. અન્યથા શરતભંગ પેટે બાકી ચુકવવાની થતી તમામ રકમ ડીપોઝીટ સાથે જપ્ત કરવામાં આવશે. જ્યારે સંસ્થા તરફથી કોન્દ્રાક્ટ રદ થયા મેટે કોઈપણ પ્રકારના વળતરની માગણી કોન્ટ્રાક્ટર દ્વારા કરી શકાશે નહી.

લઘુતમ વેતન અધિનિયમઅન્વયે કોન્ટ્રાક્ટ પર ૨ખાતા કામદારને વેતન ભથ્થા અંગે વખતો–વખત લાગું પડતી જોગવાઈઓને અમલ કરવાની જવાબદારી કોન્દ્રાક્ટરશ્રીની રહેશે તથા દરેક મજુર કાયદાઓનું પાલન કરવાનું રહેશે. તેમજ પોવિડન્ડ ફંડ, ગ્રેચ્યુઈટી વગેરે બાબતોની સઘળી

કાયદાકીય જવાબદારી કોન્ટ્રાકટરશ્રીની રહેશે.

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- એજન્સીને કોન્ટ્રાક્ટ દરમ્યાન કોઈપણ વ્યક્તિ સાથે વ્યક્તિગત વાંધા કે તકરાર થાય તો તે અંગેની કોઈપણ જવાબદારી સંસ્થાની રહેશે નહિ. અને તેની સથળી કાયદાકીય જવાબદારી કોન્ટ્રાક્ટરની રહેશે.
- ૨૨. કોઈપણ વિવાદ અંગેનું ન્યાય ક્ષેત્ર રાજકોટ રહેશે.

કરારની નામ્રાકીય જોગવાઈ:-

- એજન્સીને આપવામાં આવના ૨ રકમમાંથી નિયત ટેક્ષ તથા આવકવેરો વગેરેની વસુલાત ચુકવન્ની વખતે જ કરી લેવામાં આવશે.
- સંસ્થાને કોઈપણ જાતનું નુકશાન થયે, સંસ્થા નક્કી કરે તે રકમની વસુલાત કોન્દ્રાક્ટરને દર ત્રાસે ચુકવવાની થતી ફીમાંથી વસુલ કરવામાં આવશે.
- બીલ દર માસની પ તારીખ સુધીમાં નિયત પક્ષેમાં સાથે સંસ્થાએ અધિકૃત કરેલ વ્યક્તિને ચેક કરાવવા માટે રજુ કરવાનું રહેશે.
- ૪. તમામ ૨જીસ્ટ્રેશન જેમ કે પાન નં., જી.એસ.ટી.નં., પી.એફ.કોડ નં., ઈએસઆઈ નં., તથા ડબલ્યુ.સી.પોલીસી નં. વિગેરે ૨જીસ્ટ્રેશનની પ્રમાક્ષિત નકલ ૨જી કરવાની રહેશે.
- ગુજરાત સરકાર, કેન્દ્ર સરકાર કે મ્યુનિસિપલ કોર્પોરેશન કારા લાગું પડતા વખતોવખતના તમામ પ્રકારના ટેશ (સિવાય કે જી.એસ.ટી ટેલ) તેમજ લેબર—લોઝ મુજબની નિયત રકમ ભરપાઈ કરવાની જવાબદારી કોન્ટ્રાક્ટરશ્રીની રહેશે. સંસ્થા તરફથી બીલની રકમ ઉપરાંત નિયત જી.એસ.ટી. ચુકવવામાં આવશે.
- દ. દરેક બીલમાંથી લાગું પડતા પ્રોવિડન્ડ કંડ તથા જી.એસ.ટી. ભરપાઈ કર્યા અંગેના ચલણો રજુ કરવાના રહેશે. તેમજ સંસ્થા જયારે રેકર્ડ માંગે ત્યારે સુપત કરવાનો રહેશે.
- માસ દરમ્યાન કોઈપણ જાતનું પાર્ટ–પેમેન્ટ કરવામાં આવશે નહિ.

માલસામાનનો ખોટી બગાડ થયે માર્કેટ રેઈટ મુજબની ૨કમ બીલમાંથી વસુલાત કરવામાં આવશે.

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તમામ શરતો મુજબની કપાત કર્યા બાદ દર માસની એકંદર ૧૦ તારીખ સુધીમાં કરવામાં આવશે. આમ છતાં સંજોગોવસાત વિલંબ પણ થઈ શકે છે.

સફાઈ કામ માટેના સ્ટાફના શિસ્તવિષયકનિયમો:–

- ચાલું ૧૨૪ દરમ્યાન મોબાઇલ ફોનનો ઉપયોગ કરનાર કર્મચારીનો મોબાઈલ. ફોન જપ્ત કરી રૂ.૧૦૦/– પેનલ્ટી ચાર્જ કરવામાં આવશે.
- બીડી, સીગારેટ, તમાકું, ગુટકાનું સેવન કર્યાનું માલુમ પડયાથી રૂા.પ૦૦/− પ્રતિ વ્યક્તિના પેનલ્ટી ચાર્જ કરવામાં આવશે.
- એજન્સીનો સ્ટાફ કોઈપણ જગ્યાએ યુંકતા અથવા તો પાન/ગુટકાની પીચકારી મારતા જણાયે 3ા.૧૦૦૦/– પ્રતિ વખતની પેનલ્ટી ચાર્જ કરવામાં આવશે.
- આ કેમ્પસ ખાતે અગાઉ કરજ બજાવી ગયેલ અન્ય એજન્સીના કે સંસ્થાના સ્ટાફમાંથી છુટા કરવામાં આવેલ કોઈ વ્યક્તિને સંસ્થાની મંજુરી વગર કરજ પર રાખી શકાશે નહિ.
- ચાલું કરજ દરમ્યાન માદક દ્રવ્યોનું સેવન કર્યાનું માલુમ પડયાથી રૂા.૧૦,૦૦૦/– પ્રતિ વ્યક્તિના પતિ દિવસ પેનલ્ટી ચાર્જ કરવામાં આવશે. ઉપરાંત આવા શખ્સની સામે કાયદેસરની કાર્યવાહી એજન્સીના ખર્ચે ને જોખમે કરવામાં આવશે. તેમજ સંસ્થા દ્વારાકોન્ટ્રાક્ટ રદ કરવા સુધીના પગલા
- એજન્સીના સ્ટાફ દારા સંસ્થાની કોઈપણ માલ મિલકતને નુકશાન પહોંચાડ્યાનું માલુમ પડ્યે, નુકશાનની રકમ બીલમાંથી વસૂલ કરવામાં આવશે.

ઉપરોક્ત નિયમોનું ઉલ્લંઘન કરતાં માલુમ પડશે અથવા તો અનૈતિક પ્રવૃતિ કરતાં શખ્શોને સંસ્થા કાયમી ધોરણે કેમ્પસમાંથી દુર કરવામાં આવશે.

ઉપરોક્ત પેનલ્ટી ક્લોઝઅન્વયે દંડની ૨ક્રમની વિગત મેં વાંચી, સમજી છે અને તે મને મંજુર છે તેમજ આ સાથે કોન્ટ્રાક્ટ સાથે મુકેલ ડીપોઝીટ પેટેની ૨કમ **રા.૭૫,૦૦૦**/–(રા.અંકે રૂપિયા પંચોતેર હજાર પુરા) ચેકથી જમા કરાવું છું. જેના ઉપર કોઈ વ્યાજ મળશે નહિ. તેમાંથી સંસ્થા પેનલ્ટી ક્લોઝઅન્વયે મજરે

ર્ફાઈ શકશે તેવી આથી બાંહેધરી લખી આપું છું.

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હાઉસ-કીપીંગ વર્ક કામ માટેના કરાર મુજબ નક્કી થયેલ ભાવ

અનુ. નં.	કામની વિગત	રક્ય
1	હાઉસ–કીપીંગ વર્ક અંતર્ગત અલગ–અલગ જગ્યાએ સફાઈ	94,000/- + GST
	તથા સ્વચ્છતા જાળવવાના કામ બાબત અંગે એક માસના પતિ	અંકે રૂપીયા પંદર હજાર
	વ્યક્તિ દિઠના ભાવ	પુરા

ઉપરોક્ત કરારની તમામ શરતો મેં વાંચી, સમજી છે અને તે મને મંજુર છે તેમજ પેનલ્ટી ક્લોઝના પત્રકમાં દર્શાવેલ જુદા જુદા" વિયમોના ઉલ્લંઘનપેટે ભરપાઈ કરવાની થતી દંડની રકંમ પણ મને માન્ય છે. આ ઉપરાંત શિસ્તવિષયક તમામ નિયમોનું પાલન કરવા આથી હું બાંહેધરી અપું છું આમ કરવામાં નિષ્કળ ગયે સંસ્થા મારો કોન્ટ્રાકટ ડીપોઝીટ જખ કરી રદ કરી શકશે. જે મને માન્ય છે. મારા ભાવો ઉપર મુજબ હોય, તે ભાવે કામ કરવા આથી હું મારી સહમતી આપુ છું.

રજીસ્ટ્રાર

આત્મીય યુનિવર્સિટી

રાજકોટ

કોન્ટ્રાકટરની સહી :

IN: BHACARA PARTH

SIEL - PROPRIETOR

milly: 14/05/2024

સ્ટેમ્પ :--

INFINITY SERVICES

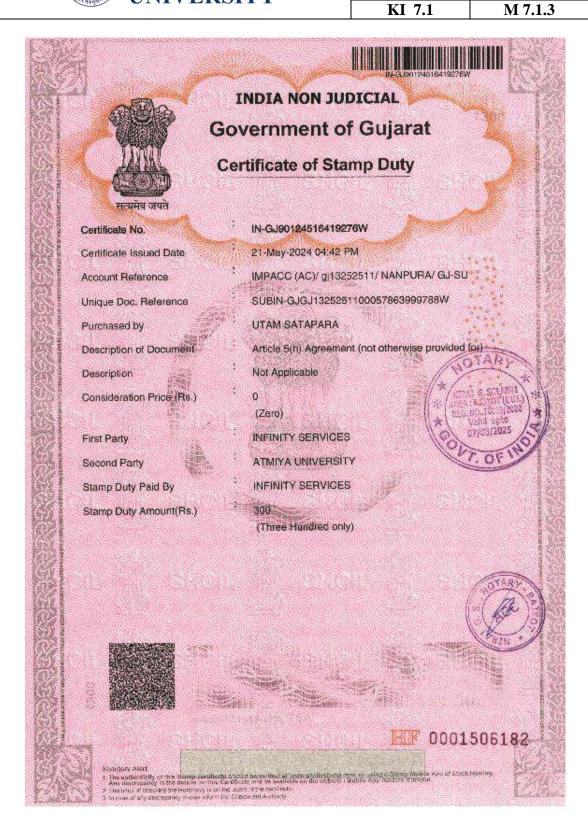
Page 6 of 6

(s) +91 281 2563445 (a) +91 281 2563952 (e) admin@atmiyauni.ac.in (f) www.atmiyauni.ac.in

ikot-Gujarat-India Rajkot







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Registrar
Atmiya University, Raikot-Gujarat-India
Rajkot





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	



બાબત :- આપના તરફથી આપવામાં આવેલ ફાઉસ-ક્રીપીંગ વર્ક અંતર્ગત અલગ અલગ જગ્યાએ સફાઈની સ્વછતા જાળવવા અંગે.

આપના તરફથી અમોને આપવામાં આવેલ ફાઉસકીપીંગની સેવા પુરી પાડવા અંગેના વર્ક ઓર્કર અનુસાર તા. 01-06-2024 થી તા. 31-05-2025 ની મુદત માટે કામગીરી આપેલી છે. તે સંદર્ભમાં અમો નીચે પ્રમાણે બાદેંધરી આપીએ છીએ.

- 1. આપના વર્ક ઓર્ડર ન. AU/HouseKeeping/WO/50-2024-25 તા. 14-05-2024 માં દર્શાવેલી શરતો અનુસાર અમોએ ફાઉસકીપીંગ કામગીરી કરી આપવાની રફશે.
- 2. આ કામગીરી માટે રોકવામાં આવેલાને આમોએ કર્મચારીઓ ઠંગામી ધોરણે રાખેલા છે તથા આ કર્મચારીઓ દરરોજ બદલાતા રહે છે. આથી મજુર કાયદા અંગેની જોગવાઈઓ તેમને લાગુ પડતી નથી. તેમ છતાં ભવિષ્યમાં આવી કોઈ જવાબદારી જેવી કે પ્રોવિડંડ ફંડ-ગ્રેચ્યુટી-જીવન વીમો કે અકસ્માત વીમા અંગેનું વળતર ચુકવવા જેવી બાબતો ઉભી થશે તો તે અંગેની સંપૂર્ણ જવાબદારી અમારી રહેશે. તેની આ સાથે ખાતરી આપવામાં આવે છે. અમો આ માટે કેન્દ્ર સરકાર, રાજ્ય સરકાર તેમજ સ્થાનીક સ્વરાજયની સંસ્થા દ્વારા ઠાલમાં પ્રવર્તમાન તેમજ ભવિષ્યમાં લાગુ પડનારા તમામ નિતી-નિયમોનું સંપૂર્ણપણે પાલન કરીશું જેની અથી બાર્ઠેધરી આપીએ છીએ.
- 3. તમામ વાદ-વિવાદ અને કાયદાકીય પરિસ્થિતીઓનું ન્યાય ક્ષેત્ર રાજકોટ (ગુજરાત) રહેશે.
 ઉપરોક્ત તમામ ખાતરી અમોએ સંપૂર્ણ પણે, સભાન પણે તેમજ કોઈ ધાક-ધમકી અને પ્રલોભન-લાલય સિવાય રાજીખુશીથી આપેલ છે અને આ ખાતરીનું પાલન કરવા અમે સંપૂર્ણ પણે પ્રતિબધ્ધતા જાહેર કરીએ છીએ.

मेह्रOPRIETOR डोन्ट्राड्टरनी सही तथा सिझ्डो

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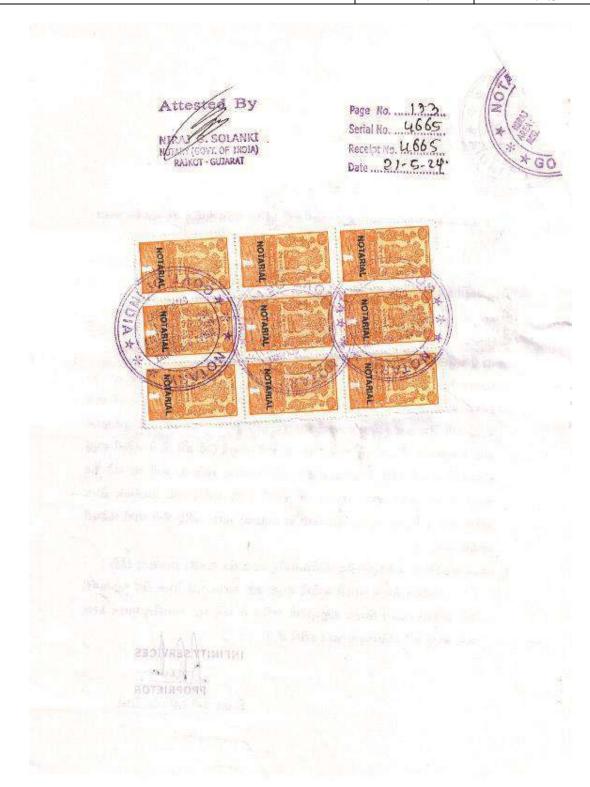
Atmiya University Raikot-Gujarat-India

Rajkot





NAAC – Cycle – 1		
AISHE: U-0967		
Criterion 7	I V & B P	
KI 7.1	M 7.1.3	



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Registrar
Atmiya University, Rajkot-Gujarat-India
Rajkot





infinity services

Third Floor, 301, Avani Palaca, Behind Gol Heights Street. Opp. Govani Chhotrolaya, Rojkot - 360005

91 91578 77200

theinfinityservices9@gmail.com

Ret. IS/AU/2024-25/01

Date: 10 05 2024

પ્રતિ, માનનીય સાહેબશ્રી, HR ડિપાર્ટમેન્ટ, આત્મીય યુનિવર્સીટી, રાજકીટ.

વિષય : હાઉસ કીપિંગના કોન્ટ્રાકટના માસિક ભાવ કોટેશન બાબત...

ઉપરોક્ત વિષય પરત્વે જણાવીએ છીએ કે આપની સંસ્થામાં સાફ-સફાઇ તેમજ સુપરવાઇઝર નું માસિક ભાવ નીચે મુજબ છે.

ક્રમ	વિગત	કુલ માસિક રુ.
٩	એક કામદારનું માસિક વેતન (પી.એફ.ઇ એસ.આઇ.સી.,એનસ વગેરે સહીત)	૧૫,૦૦૦/-
ર	જવાબદાર સુપરવાઇઝરનું માસિક વેતન(પી એફ.,ઇ એસ.આઈ.સી.,બોનસ વગેરે સહીત)	1 U,000/-

આપની સંસ્થામાં અમોને જગાવેલ સાફ સફાઇ કરવાના વિસ્તાર મુજબ કુલ ૮ સફાઈ કામદાર અને ૧ જવાબદાર સુપરવાઈઝરની જરુરિયાત જણાય છે.આમ કુલ મળી ૯ કર્મચારીઓનો સમાવેશ થાય છે.

કુલ ૯ કર્મચારીનું માસિક વેતન ૧૫૦૦૦*૯= ૧,૩૫,૦૦૦/- (GST રહિત) થાય તેમ છે.

એજન્સી દ્વારા ધ્યાને લેવામાં આવતા મુદ્દા :

- દરેક કામદારોનું પ્રોપટ સુપરવિઝન કરી ઉત્તમથી સર્વોત્તમ કામગીરી કરવામાં આવશે.
- દરેક કામદારોને સમયસર પગાર યુકવવામાં આવશે.
- દરેક કામદારોને એજન્સી નો ડ્રેશ કોંડ આપવામાં આવશે.
- યુનિવર્સીટીની સાફ સફાઇ બાબતની અપેક્ષાથી પણ સારું કામ કરવાના પ્રયત્નો કરવામાં આવશે.
- સમયાંતરે દરેક કામદારોને કામગીરી બાબતે યોગ્ય માર્ગદર્શન તેમજ સારી કામગીરી કરનાર કામદારને એજન્સી દ્વારા પ્રોત્સાહિત કરી તેમનો ઉત્સાહ વધારવાના પ્રયત્નો કરવામાં આવશે.

અમોના આ ભાવ કોટેશનને ધ્યાને લઇ આપશ્રી યોગ્ય કરશો એવી નમ્ન વિનંતી કરીએ છીએ

INFINITY SERVICES

PROPRIETOR

Approved Govt. Housekeeping, Security Service, Cleaning, Labour & Outsourcing of Manpawer Supply Contractor

7

Registrar Atmiya University Raikot-Gujarat-India Raikot





NAAC - Cycle - 1 **AISHE: U-0967 Criterion 7** IV&BP KI 7.1 M 7.1.3

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Government of India Form GST REG-06 (See Rule 10(1))

Registration Certificate

Registration Number: 24C1EPB8409A1ZW

Ž.	Legal Name		BHALARA PARTH PARESHKUMAR				
2.	Trade Name, if any		INFINITY SERVICES				
3.	Additional trade names, if any			1	C.		
4.	Constitution of Business		Proprietorship				
5	Address of Principal Place of Business		THIRD FLOOR, 301, AVANI PALACE, BEHIND GOL HEIGHTS STREET, OPPC, GOVANI CHHATRALAYA, Rajkot, Rajkot, Gujarat, 380005				
6.	Date of Liability						
7.	Period of Validity	- 9	From:	23/05/2023	To	Not Applicable	
8.	Type of Registration	A	Regular				
9 Particulars of Approving			Centre				
Sign	ature	Signatu Digitally s SERVICE Date: 20	re valid streety 2 Gr 5 (A Sp 1 WC	CODS AND RR 07 17 IST			
Name Mehtab			b M Khan				
Designation Supr		Superin	erintendent				
Jurisdictional Office Ghat		Ghatak	tak 93 (Rajkot)				
Date of issue of Certificate 23/05/2		2023					
Note State	The registration certificate is i.	requires	i to be prom	inently displayed	i at all place	es of business in the	

This is a system generated digitally signed Registration Certificate issued based on the approval of application granted on 23/05/2023 by the jurisdictional authority.

Registrar Atmiya University, Raikot-Gujarat-India Rajkot





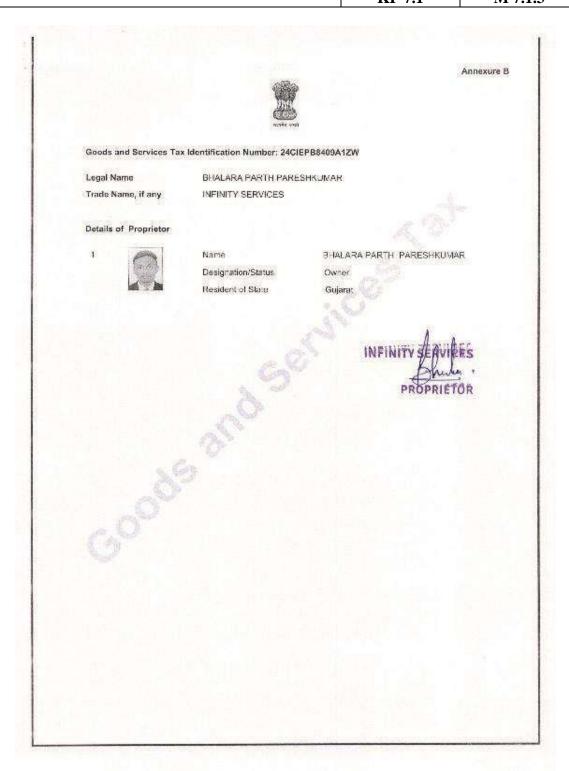
		Annexure A
	Park Control of the C	
Goods and Services Ta	x Identification Number: 24CIEPB8409A1ZW	
Details of Additional Pl	ace of Business(s)	
Legal Name	BHALARA PARTH PARESHKUMAR	
Trade Name, If any	INFINITY SERVICES	
Total Number of Addition	onal Places of Business in the State 0	
	0.7	
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Registrar
Atmiya University, Rajkot-Gujarat-India
Rajkot







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NAAC – Cycle – 1 AISHE: U-0967

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IV&BP

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EMPLOYEES' PROVIDENT FUND

(A statutory Body under the Ministry of Labour and Employment, www.epfindia.gov.in

PROVIDENT FUND CODE NUMBER INTIMATION

No: 10001324859RAJ

Date : 13/09/2023

To

PARTH PARESHKUMAR BHALARA

Proprietor

NFINITY SERVICES

301 Avani Palace 3rd Floor B/h Gol Heights Street, Opp. Govani

Chhairalaya Rajkot RAJKOT

GUJARAT - 360005

Sub. Allotment of Code Number to establishment M/s INFINITY SERVICES under Employees' Provident Fund and Miscellaneous Provisions Act, 1952-regarding.

Sir/Madam .

Basad on the information submitted online by you, your establishment is registered with Employees' Provident Fund Organisation with the following code number :

Code Number: GJRAJ3071093000

This code number is allotted based on the following declarations by you:

1. Name of Establishment

: INFINITY SERVICES

2. FAN of Establishment

: CIEPB8409A

3. Date on which employment

: 13/09/2023

strength crossed 19 4. Section under which

: 0000001(4)

5. Primary Activity

6. Ownership Type

: EXPERT SERVICES

γ. The address proof of the

: Proprietorship Firm

establishment is

- Any license/certificate/number lesued by any Govt.

INFINITY SERVICES

Page 1 of 2

Application Number : 10001324869

Code Number : GJRAJ3071393000

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8. The proof of date of set up 23/05/2023 is Others

9. As at the time of application, your establishment is having the following licenses and registrations:

S.No.	License Under	License Number	Date	Issued By	Place of Issue
91	GOODS AND SERVICE TAX IDENTIFICATION NUMBER	24CIEPB8409A1ZW	23/05/2023	Government Of Inida	Rajkot

10. As on date of your application, your establishment is not registered with ESIC.

11. As on date of your application, your establishment is not having LIN.

SUB REGIONAL OFFICE

RAJKOT

301 Avani Palace 3rd Floor B/h Gol Heights Street, Opp. Govani 350005

theinfinityservices9@gmail.com

Please note that this intimation latter is generated with the Owners' Datails in Form 5A and the intimated latter will be valid only if the Form 5A is enclosed.

Important information:

- 1. By virtue of this registration, you are required to comply with the provision of the EPF & MP Act 1952. The obligations/duties/responsibilities cast upon you as an employer of this establishment and penalties, on account of non-compliance with the same, are explained on our website www.epfindia.gov.in. You are required to go through them carefully.
- Remillance of dues under the provisions of the Act is to be made only through a Challen generated through the Unified portal. (The process for registration on the portal, preparation of the ECR bit file and related information is available on the website and the portal).
- 3. In case this letter is produced as a proof of the code number of the establishment, before any person including any Inspector from EPFO, the Form 5A generated through the portal at the time of registration should be a part of this letter. The remittance details of the establishment will be available on the EPFO website through the link "Establishment Search" where all payments from December 2016 onwards with the names of employees are available.
- 4. Please quote the Code Number GJRAJ3071093000 for all the future correspondence with EPFO.

This is a system generated letter and needs no signature.

Employees' Provident Fund Organisation

Dated: 13/09/2023

INFINITY SERVICES

PROPRIETOR

Application Number: 10001324869

Code Number: GJRAJ3071093000

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NAAC – Cycle – 1 AISHE: U-0967

Criterion 7

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Regional Office
EMPLOYEES STATE INSURANCE CORPORATION
ESI Corporation, Ashram Road, Ahmodabad-380014, Telephone
NO. 079-32400503/08 Fax No.079-27540488

C-11 Repd. with a.d.

70

M/s.IAFINITY SERVICES

Dated: 13/9/20

30: Avan Palace 3rd Floor B/h Gal Heights Street, Opp. Governi Chnatralava Rajkot,360005

Subject: - Implementation of the E.S.J. Act, 1948 and Registration of Employees of the Factories and Establishments under Section 1(5) of the Act, as amended.

Dear Sir(s).

- It is informed that under section 1(3) of the est act, 1948 is applicable to all factories/establishments covered under the act within the area where your factory/establishment is smarted.
- 2. It is further informed that the appropriate government has extended the provisoris of the act to other establishments under section 1(5) of the act in this area.
- Under section 2 a of the act such a factory/establishment is required to require itself under the act and chapter in thereof costs a responsibility on the principal employer thereof to get his employees registered and psy contributions in respect of those employees covered under the act.
- 4. On the basis of the particulars in respect of your factory/establishment submitted by you, the report of the inspection conducted by the Social Security Officer, who inspected your establishment on HAV, your establishment falls within the purview of Section 1(5) of the Act with officer from 12.09.2023. In case, however, subsequent facts reveal that your establishment was owerable from a date prior to the date mentioned above, you shall make yourself liable to comply with the provisions of the Act from such earlier date.
- 5. It is impliested to take immediate steps for registration of your employeas by submitting distination forms unline, payment of contribution, maintenance of records etc. from the date of coverage of your factory/distablishment under the act "You are also requested to submit enablyer's registration form (from III) as required (inder the provisions of sec.2-e of the es act ; 1949 read with regulation 10-b of the os (general), regulations, 1950.
- 6. For the sake of convenience your establishment has been allotted tode No 37001531080001099 which may kindly be used in all communications sent to this office and an all forms at the place indicated for the purpose. The Branch Office of the Consoration smalled at D-1 Dispensary Compound, Opp. Ambika School, 80 Feet Road, Near Natashwar Mahadev Temple, Rajket 360002 has been instructed to resider recessary assistance to your ompletion with registration of your employers. In case you find any difficulty or for any other purpose which may be necessary in connection with the Schome you are requested to contact the Paragre of the above Branch Office who will remore necessary hats in the matter.
- 7. A State vise list of LSL Discussions is available on our viscosite <u>visus exclusions</u> under the link Directories which can be disvisionable. It is requested that publicity may be given about the Employees' State Insurence Dispensaries to onable your employees to choose their 6.5.1 Dispensaries

INFINITY SERVICES

PROPRIETOR

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NAAC - Cycle - 1 **AISHE: U-0967 Criterion 7** IV&BP

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8. The corporation orthogic would be pleased to give all necessary and possible guidance to you in discharging your duties and obligations under the est act, 1946 and 1 am confident of prompt and timely compliance under the provisions of the ESI act and regulations on your part.

9. All the Branches of State Bank of India are authorized to accept the ESI Contribution .

10. The prochures/pariets containing benefits available under the scheme and obligation of the employer etc are available on our website available under the link Publications which may be downloaded for wide publicity for the smooth functioning of the scheme.

11. Please indicate your gode no, on all correspondences to avoid dalay

Yours faithfully,

End. : As state above

Assit/Dy. Director

Copy for information and necessary action to:

Name of the principal employer: PARTH PARESHKUMAR BHALARA

No. of employees 19

ENSURE - TO INSURE ALL ILLIGIBLE WORKERS WITH ESLFOR TOTAL SOCIAL SECURITY





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RAJKOT MUNICIPAL CORPORATION PROFESSION TAX DEPARTMENT CERTIFICATE OF REGISTRATION

UNDER SUB - SECTION (1) and (ii) OF SECTIONS OF THE GUIARAT STATE TAX ON PROFESSIONS, TRADES, CALLINGS AND EMPLOYMENT ACT, 1976

This is to certify that BHALARA PARTH PARESHBHAI engaged in the rolession/trade/calling/employer known as INFINITY SERVICES own/ operates is manager/ proprietor/director/partner/trustee etc. and has been enrolled with Certificate No PEC04189858 Registration Certificate No PRC04024595 under the Gujarat state tax no 1976. at profession/trade/calling and employer act. M, SER, NO. 197 AVANI.PALACE, TF. 301 SHRINATH JIPARK, ST. NO. 1 OPP.POLICE,HEAD.QWA MAVDI VISHAT engaged in business of Contractor/Man Power Supplier at Inception Date 01-04-2023

The holder of this certificate shall pay the tax at the rate of Rs. 2000.00 per annum on or before the 30th Soptember of every year, in the manner prescribed in rule 20 of the Gujarat

Return in prescribed form shall be furnished by the employer registered with Registration Cortificate No PRC04024595 in respect of each Month/Quarter separately.

The tax shall be payable Monthly/Quarterly with the return and receipt of payment in token payment of tax shall be attached to the return.

Property No : 0696/0024/000 Profession Tax Enrollment Certificate No PEC04189858 PRC04024595 Profession Tax Registration Certificate No.

Place : Rajkot

Date: 27-09-2023

Signature :

Assistant Manager Designation:





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IV&BP

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	Rajkot Muni Gujarat Shops and Establishments(Regulati REGISTRATION	on of Em	ployment and Condition	ns of Services) Act, 2011					
1	Registration Number	300	2023-2024/SR/000157						
2	Name of the Establishment	(des	INDINITY SERVICES						
3	This certificate is issued based on the application and the uplosted Self - Certified documents and declaration given by the applicant, without physical verification of the existence of establishment, like instore of business carried out and the details mentioned in the application. This is just a certificate of registration and does not give any right to properly or cossession of the rights of the premises or properly.								
4	Oate of commencement of business 9 23/05/2023								
5	Period for which registration is obtained 2. From 27/09/2023								
6	Name of the Employer	15	BHALARA PARTH PARE	RESHBI (A)					
7	a) Nature of Business.		private - Labour Confractor/Man Power Supplier						
	b) Calegory	18	Establishments						
	c; Organization Type	- 38	Proprinter						
6	Postal Address of the Establishment	Ģ.	AVANI PALACE, 1F.3015H 1 M.SER, NO. 197 OFP, PO MAYDEVISHAT						
9	Details of Manpower/Employee		Mon	Women					
	No. of Persons working in Managerial/Supervisory/confidential capacity	30							
	No. of workers other than above	3+		WILMS					
	No. of apprentices under the Apprentices Act, 1961 (52 of 1961)								
	No. of confract labour	36	j j						
	No. of part time workers	1	10						
	Total	16	41	j					

It is horeby certified that the above establishment has been registered under the Gujeret Shops and Establishment. (Regulations of Employment and Conditions of Service) Apr. 2019 (Guj. 4 of 2019) on this idday of September, 2023 as shoptomatishment.

Date 27/09/2023

Place Rajket

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Flat/Door/Block No.	301	Name of Premises/ Building	AVANE PALACE
Village/Town	RAJKOT	Block	OPP, GOVANI CHHATRALAYA
Rnad/Street/Lane	B/H GOL HEIGHT STREET	City	RAJKOT
State	GUARAT	District	RAJKOT , Pin : 360005
Mobile	9157877200	Kmail:	theinfinityservices900gmail.com
Latitude	22,294249374433264	Longitude:	70.76458658425793

National Industry Classification Code(S)

SNo.	Nic 2 Digit	Nic 4 Digit	Nic 5 Digit	Activity
i	55 - Accommodation S510 - Short term accommodation activities		55102 - Provision of short feet lodging facilities to members of a particular organisation such as govt, guest houses, company guest louses, circuit houses and similar extablishments	Services
ž	74 - Other professional, scientific and (celuical activities	7490 - Other professional, scientific and sectional scriptifies n.e.c.	74904 - Security consulting	Services
3	78 - Employment activities	7810 - Activities of employment placement agencies	7810b - Activities of employment placement agencies	Sorvina
4	78 - Employment activities	7820 - Temporary employment agency activities	78200 - Temporary employment agency activities	Service
5	78 - Foundayment activities	7830 - Human resources provision and management of human resources functions	78360 - Human resources provision and management of human resources functions	Service
ō	80 - Security and investigation activities	8010 - Private security activities	80100 - Private security activities	Service
7	80 - Security and investigation activities	8020 - Security systems service activities	80200 - Security systems service activities	Service
8	80 - Security and investigation activities	8630 - Investigation activities	80300 - Investigation activities	Service
9	81 - Services to buildings and land-cape activities.	8: 10 - Combined facilities support activities	81100 - Combined facilities support activities	Service
10	81 - Services to buildings and landscape activities	8121 - General cleaning of buildings	81210 - General cleaning of buildings	Service
tt	81 - Services to buildings and landscape scriptifies	8129 - Other building and industrial cleaning activities	81291 - Clearing of trains buses, planes etc.	Sarviu
12	81 - Services to buildings and landscape activities	8129 - Other building and industrial cleaning activities	81299 - Other building and industrial abouting activities	Service
13	81 - Services to buildings and landscape activities	8130 - Landscape care and maintenance service activities	813(0) - Landscape core and maintenance service activities	Servio
14	82 - Office administrative, office support and other pusiness support activities	8299 - Other business support service activities me.c.	\$2950 - Other pusiness support service activities a.e.c.	Servic
15	85 - Education	R550 - Edicational support services	#5500 - Educational support services	Service
16	86 - Human health activities	8610 - Hospital activities	86100 - Hospital activities	Servic

INFINITY SERVICES

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13	86 - Human health activities	8690 - Other human houlfs activities	86904 - Activities of physiotherapists or o practitioners	Services		
18	96 - Other personal service activities	9905 - Other personal service activities n.e.c.	96098 - General hou activities like groom eleaning of ulcusits	Services		
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	you interested to get registe			No.		
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	you interested in availing F	No				
-	rict Industries Centro			RAJKOT (GUJARAT)		
MSN	ие-DFO	AHMEDABAD (GUJARA)				
Date	of Udyam Registration			23/05/2023		
Date	of Printing	16/04/2024				
UEC	Details					
	Number	(()))		- COM		
IEC	Status	Inactive				
IEC	Registration Date					
IEC	Medifification Date					
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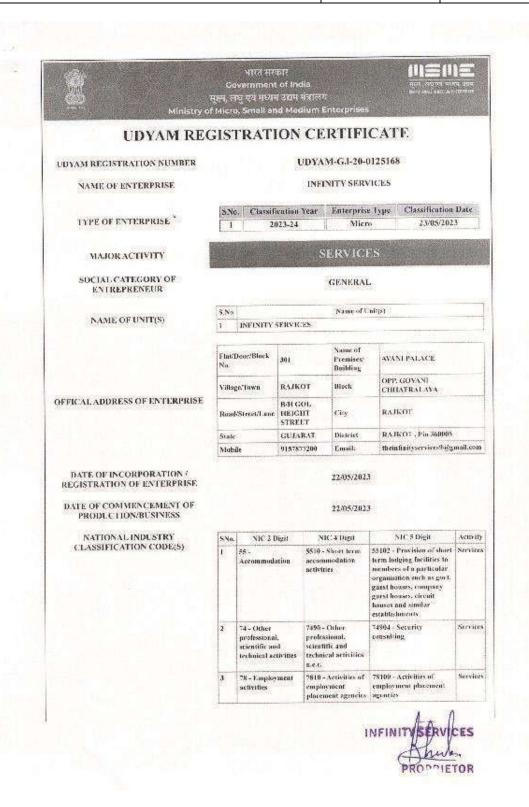
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4	78 - Employment setivities	1820 - Temporary employment ogeney activities	78200 - Temporary employment agency activities	Services
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16	81 - Services to buildings and landscape activities	\$129 - Other building and industrial desiring activities	81291 - Cleaning of trains buses, planes etc.	Services
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13	81 - Services to buildings and landscape activities	8130 - Landsrape care and maintenance service activities	81300 - Landscape care and maintenance service activities	Service
14 SZ Office nd ministrative, office support and other business support activities		8299 - Other business support service activities n.e.c	\$2990. Other business support service activities n.v.c.	Service
15	85 - Education	8550 - Educational support services	85500 - Educational support services	Service
16	\$6 - Homan bealth activities	8610 - Hospital activities	86100 - Hospital activities	Service
17 S6 - Human health activities		8590 Other human health activities	86904 - Activates of nurses, masseures, physiotherapists or other parsemedical practitioners	Service
18	56 - Other personal service activities	9609 - Other personal service activities n.e.c.	96098 - General household mainlenance activities like grooming of the floor, dusting, rienning of atensits etc.	Service

DATE OF UDYAM REGISTRATION

23/05/2023

In case of graduation inproved reviewed of status of an enterprise, the benefit of the Government Schemes will be availed as per the provisions of Notification No. S.O. 2119(E) dated 26.06.2626 issued by the M/o MSME.

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For any assistance, you may contact:

1. District Industries Centre: RAJKOT (GUJARAT)





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AISHE: U-0967					
Criterion 7	I V & B P				
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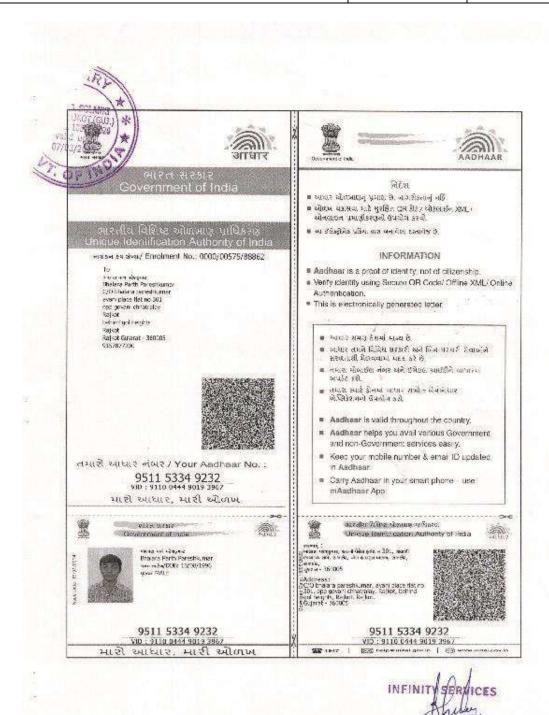


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Housekeeping personnel

Registrar Atmiya University, Raikot-Gujarat-India

Rajkot



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1.10.1 Dedicated Support staff for waste collection, segregation & disposal





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1.11 Environment and sustainability policy for green campus



Environment and Sustainability Policy for Green Campus

Atmiya University recognizes the critical importance of environmental sustainability and its role in minimizing ecological footprints. Guided by its commitment to the principles of conservation and harmony with nature, the university adopts this Policy to integrate environmental awareness and sustainable practices into its daily academic and administrative operations, education, and community engagement. This policy reflects the university's dedication to fostering a sustainable future.

Objective

Atmiya University strives to establish a clean, green, and sustainable campus by:

- · Developing, monitoring, and evaluating a policy to guide green campus initiatives.
- · Reducing the ecological footprint through sustainable practices.
- Educating students and staff on environmental issues and on building harmony with nature & mother earth to create a healthier, sustainable future.
- Promoting innovative environmental practices to enhance sustainability performance.
- Strengthening an environmentally responsible culture across curricular and extracurricular activities.
- Addressing local and regional environmental challenges with sustainable solutions.
- Ensuring sustainable resource use and minimizing wasteful practices.
- · Protecting biodiversity and reducing environmental pollution.

Environmental Goals and Targets

The university sets specific goals such as reducing energy consumption, minimizing waste generation, conserving water, managing/recycling/disposal of waste, and promoting biodiversity to enhance its sustainability initiatives.

Key Focus Areas

 Clean Campus Initiatives: Regular cleaning drives, waste segregation, and beautification projects.

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+91 281 2563445

admin@atmiyauni.ac.in

mww.atmiyauni.ac.in

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- Green Energy: Installing renewable energy sources to reduce dependency on nonrenewable energy sources.
- Landscaping and Biodiversity: Developing green spaces, planting neem trees, and conserving biodiversity.
- 4. Energy Efficiency: Installing energy-efficient appliances, natural lighting, and ventilation.
- Water Conservation: Using rainwater harvesting systems, low-flow fixtures, and RO wastewater recycling.
- Waste Management: Segregating solid, liquid, e-waste, and bio-waste for recycling and composting.
- Transportation and Mobility: Promoting biking, carpooling, e-vehicles, and public transit.
- Green Building Standards: Incorporating eco-friendly designs in construction and renovation projects.
- Curriculum Integration: Courses on SDG awareness and environmental science across all disciplines.
- Community Engagement: Conducting workshops, seminars, and outreach programs on environmental topics.

Key Practices

1. Energy Efficiency

- · Transition to energy-efficient devices and systems.
- · Encourage behaviour changes for energy conservation.
- Promote renewable energy solutions like solar and biogas.

2. Waste Management and Recycling

- Comprehensive waste management with dedicated recycling and composting units.
- Initiatives like Parivartan (Paper Recycling Unit) and Sarjan (Agricultural Waste Recycling Unit) to create sustainable products.

3. Water Conservation

 Installation of rainwater harvesting systems and reservoirs with a 17 lakh-litre capacity.

Xeriscaping and responsible waters age to cauce dependency on municipal water.

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4. Biodiversity and Green Spaces

- Develop gardens, tree plantations, and outdoor educational spaces to promote biodiversity.
- Integrate sustainable farming practices using Panchgavya and Jivamrut fertilizers.

5. Transportation and Mobility

Establish e-vehicle charging stations, bike racks, and pedestrian-friendly paths.

6. Education and Awareness

- Organize campaigns like Use Solar-Save Nature, Save Energy-Water and tree plantation drives.
- Include sustainability topics in the curriculum to foster awareness and innovation.

Implementation and Monitoring

- Incentives and Recognition: Reward active participants in sustainability efforts.
- Budget and Funding: Allocate resources for projects and seek grants for sustainability initiatives.
- Compliance and Legal Adherence: Ensure alignment with relevant environmental laws and regulations.
- Periodic Review: Monitor the policy's impact and revise based on feedback and emerging challenges.

Conclusion

Adopting this Policy highlights Atmiya University's unwavering commitment to environmental stewardship and sustainable development. By fostering a culture of awareness and proactive participation, the university aspires to create a greener and healthier campus, setting a benchmark for future generations. Together, we will build a resilient and sustainable future.



Registrar Atmiya University Rajkot

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1.12 ORGANIC WASTE COMPOSTER MACHINE FOR SOLID WASTE DISPOSAL

REFUSE	REDUCE REUSE	RECYC	LE
A LINE	TAX INVOICE	SR NO. Date of Issue	: 182200100541 : 22-MAR-2019
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REGD. OFFICE OF THE SUPPLER: EXCEL INDUSTRIES LTD., 184-87, S.V. Road, Jogeshwari (W), Mumbel - 400102, Meharashtre, India. CIN: L24200MH1960PLC011807 GSTIN: 27AAACE2488F12O Tol, No.: 022-68646200 / 209/342 Fax No.: 022-26782409 E-mail: cwc@excelind.com Website; www.cxcelind.com	NAME & ADDRESS EXCEL INDUSTRIE EXCEL INDUSTRIE EXCEL INDUSTRIE GDIN, BLD, BP12, GAL ANJUR ROAD, VAL 421302 GSTIN: 27AAACE24	OF SUPPLIER: 5 LTD., 6 LIMITED.,C/O KA A No.9,PRITESH (VILAGE,BHIWAND	MLAKAR PATIL, BHIWANDI
Range : Division: Sub-Commissionerate :		xmmissionerste :	
NAME & ADDRESS OF THE CUSTOMER /RECIPIENT Customer Code No.: 30800 K K MEHTA HOSTEL	ADDRESS OF DELIVERY: YOGIDHAM GURUKUL CAMPUS,NEAR WATER TANK OPP CENTRAL SCHOOL(KALAWAD ROAD RAJKOT, GUJARAT, 35(0005, IN	S.O. No.: P.O. No. & Date: Vehicle No.: L.R. No.: Delivery ID	19041887 KKM/OWC/ORCO Min/PO/04-2018-19 DTD.0

State : GUJARAT GSTIN:

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16% interest on delayed payment. For Ex-Works, our responsibility ceases after the goods leave our works and are dispatched entirely at owner's responsibility. Complaint of weight shortage will be entertained if it is more than 0.5% of the consignment quantity. Subject to jurisdiction of Mumbai / Invoicing Location Received:

Above material in good condition, Duplicate for Transporter copy of Tax Invelog, Certificate of Analysis, Term Card, MSDS, Leaflet of Instructions to Drivers & Card

RECEIVER'S SIGNATURE

DESCRIPTION OF GOODS:

ivers a Closno's Training to Driver & Cleaner

AUTHORISED SIGNATORY

Freight Term

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Registrar
Atmiya University Rajkot-Gujarat-India
Rajkot

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1.13 WEALTH FROM WASTE VALUE ADDED PROGRAM



Registrar
Atmiya University Raikot-Gujarat-India

Rajkot





NAAC – Cycle – 1 AISHE: U-0967

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	ATMIYA UNIVERSIT Department of Biotechnology	
	Part III	
erme r		1.10 000
	ent Course (SEC) – I - Value Ad	
	tudents admitted from A.Y. 2021-20	
Offered by; Department of Biotechnology, Faculty	Offered to: (Please mark vi as appli	cable)
of Science	Students across the University department.	rsity other than the offering
		ersity including the offering tould not be a part of regula partment.)
Semester :	: II -V (3 year programs) / VII (4	year programs)
Course Code	Course Title	Course Credit and Hours
	Wealth from Waste	1 Credit - 4 hrs/wk
and Dignity in the si 2. To develop the abili 3. To sensitize the stud 4. To explore market	able Orderliness, Enhanced Ecologic ociety and nature. ty to critically think and creatively u lents regarding environmental conce opportunities for the recovered an	se the unused natural resources. rns and social responsibility
To develop Sustains and Dignity in the st To develop the ability To sensitize the stud To explore market students	ociety and nature. ty to critically think and creatively u lents regarding environmental conce	se the unused natural resources, rns and social responsibility d recycling materials among the
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Justification and references for the course (Mapping with NSDC/NSQF/Sector Skill Council/Regional needs/any other):

Our ATMIYA University is working with the mission of nurturing the creative thinkers and leaders through transformative learning and core value like Co-existential thinking and Green thinking. To fulfill the same, this course has been proposed since 2016. This course was designed to nurture our core value of "harmony with nature" and Sustainable development. The various discarded resources of the campus generated everyday are used as raw material to prepare variety of useful creative products.

Reference:

Course Description:

The course is skill based where students will learn to identify different unused natural resources and convert them into creative and useful products. The course also provides knowledge of marketing like product packaging, labelling, branding, costing etc.. The course addresses SDG-8,9,11,12 and 13: Decent Work and Economic Growth, Industry, Innovation and Infrastructure. Sustainable Cities and Communities, Responsible Production & Consumption and Climate Action.

Course Content	Hours
Module-I: Waste Material: Collection and Treatment	6 hrs
Survey of available/generated waste Collection of waste materials: Bio waste, Cloth waste, E-waste and Plastic waste Processing of waste material: Dying with natural color, painting, designing etc Hardening of material: drying/ironing	
Module-II : Product Preparation using waste materials	10 hrs
Procedure of flower preparation from different waste Procedure for the preparation of different decorative items from collected waste Procedure for the preparation of different household items from collected waste	
Module-III: Use of products for different purposes	13 hrs
Products from Bio waste: Different flower arrangements including small and large handy bouquet, table bouquet, Photo frames, Flower vase. Wall Hangings; Garlands and Ornaments Products from Cloth waste: Carpets, Doormat, Purses, Bags, Hangings, Decorative items etc Products from E-waste: Containers, Stationary items, Home decorative items and household items Products from Plastic waste: Containers for terrace gardening. Containers to hold different items. Home decorative items and household items	

Page 2 of

House a Policy in unitality to the both reports

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lodule-IV : Marketing	8 hrs
Need analysis, pricing and basic marketing strategies Preparation and designing of price list; Methods of advertisement Packaging of products; Exhibition cum sale Survey for the need of Product and its supply to the market	
lodule-V : Project: Innovative Creation through Reuse and Recycling of Waste	3 hrs

Suggested laboratory experiments / other activities:

- 1. Improving the Self-life of the product
- 2. Marketing through pamphlet designing
- 3. Exhibition cum sale

Pedagogic tools:

- 1. Videos
- 2. Oral Discussion
- 3. Live Demonstrations
- 4. Hands on training
- 5. Assignment

Reference Books:

- Susun Wasinger, Eco Craft: Recycle, Recraft, Restyle, Lark Books, 4 Division of Sterling Publishing co., 2009
- Maria Noble, How to make 100 Paper Flowers, Creative Publishing International, 2013

Suggested reading / E-resources

- https://books.google.co.in/books?id=RzJ59JWEBs0C&printsec=frontcover&dq=eco+eraf t&hl=en&sa=X&vcd=0ahUKEwjxufe76q7aAhXMrf8KHcuEAFwQ6AEIKDAA#v=one pagc&q=eco%20craft&f=false
- https://books.google.co.in/books?id=3Uv0AwAAQBAJ&printsec=frontcover&dq=DIY+ craft+for+flowers&hl=en&sa=X&vcd=0ahUKEwi4pf2Q6a7aAhVCqo8KHRPcAH8Q6w EIOzAD#v=onepage&q&f=false

Suggested MOOCs:

- 1. https://www.classcentral.com/course/from-waste-to-value-20611
- 2. https://www.classcentral.com/course/edx-solid-waste-management-18989
- http://www.basel.int/Implementation/TechnicalAssistance/MOOC/tabid/4966/Default.aspx

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Total No of Students Benefitted: 96

Registrar Atmiya University, Raikot-Gujarat-India

Rajkot



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Criterion 7	I V & B P					
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1.14 WASH INITIATIVE (WATER, SANITATION, HYGIENE) AT THE CAMPUS



Initiatives for

WaSH (Water, Sanitation, Hygiene) at the Campus

SDGAction39446

- · Water recycling plants
- Waste water monitoring equipment
- · Sanitary pad vending machine
- Sanitary pad incineration machine for hygiene







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1.15 WASTE MANAGEMENT AND DISPOSAL POLICY





Waste Management and Disposal Policy

Atmiya University is committed to sustainable development and environmental stewardship. The Waste Management and Disposal Policy aligns with the principles of Jeevan Vidya, emphasizing harmony with nature, and promotes practices to minimize, manage, and responsibly dispose of waste. The policy integrates the 3Rs (Reduce, Reuse, Recycle) with innovative waste management techniques to create a cleaner and healthier campus environment. This policy is aligned with UN-SDGs 6,11,12,13,14,15

Objectives

- 1. To minimize the generation of waste and promote resource conservation.
- To ensure proper segregation, handling, and disposal of waste in compliance with environmental regulations.
- To create awareness and encourage participation in sustainable waste management practices among stakeholders.
- 4. To foster research and innovation in waste management technologies.

Scope

This policy applies to all waste generated by the university, including solid, liquid, biomedical, and e-waste, across academic, administrative, and residential facilities.

Key Policy Provisions

1. Waste Collection and Segregation

- · Provisions of Segregated Bins
- Waste is segregated at the source to facilitate recycling, composting, and proper disposal.
- Campus-wide awareness campaigns promote waste segregation practices.

2. Solid Waste Management

- Organic Waste:
 - Row Food waste and Flower Waste to produce nutrient-rich compost for natural farming.

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NAAC - Cycle - 1 **AISHE: U-0967 Criterion 7**

IV&BP

KI 7.1

M 7.1.3



Paper Waste:

 Used paper is to be converted into multifunctional sheets, Filter Paper, File Folder, Envelops, Card Sheets etc.

Agricultural Waste:

 Creating sustainable products like Handy & table-top bouquets, photoframes, Garland, Pen-stand etc.

Plastic Waste:

Converting plastic into useful items such as bags, packaging materials etc.

3. Liquid Waste Management

• Effluent Treatment:

Treatment of Laboratory and chemical wastewater.

Wastewater Recycling:

Reuse of Treated wastewater for irrigation, landscaping, and cooling purposes.

Rainwater Harvesting:

Creating necessary infrastructure for harvesting the rainwater.

4. Biomedical Waste Management

- Segregating into leak-proof, color-coded containers as per guidelines.
- Providing Regular training to ensure safe handling and disposal of biomedical waste, minimizing environmental impact and health risks.

5. E-Waste Management

- · Repurposing Components from outdated equipment.
- Recycling and refurbishment programs for E-waste to extend the lifecycle of electronic devices, reducing landfill contributions.
- Disposing through authorised and registered recyclers
- · Providing Students opportunities to gain hands-on experience in handling and managing e-waste through workshops and practical sessions.

6. Air-waste Management

- Planting trees and implementing systems for controlling pollution and removes harmful
- · Implementing systems for Capturing and removing hazardous fumes, vapours and particles from labs

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Implementation Strategies

- Awareness Campaigns: Regular workshops and seminars to educate students, staff, and faculty on waste management best practices.
- Monitoring and Audits: Routine waste audits to track waste generation, segregation, and disposal efficiency.
- Collaboration with Experts: Partnerships with environmental agencies and NGOs to enhance waste management practices.
- Policy Compliance: Adherence to local and national environmental regulations for waste disposal.

Outcomes and Benefits

- · Creation of a cleaner, healthier, and more sustainable campus environment.
- Reduction in the ecological footprint of university operations.
- Financial savings through resource recovery and revenue from compost and recycled materials.
- Practical learning opportunities for students through active participation in waste management initiatives.

Review and Amendments

This policy will be reviewed annually by the Environmental and Sustainability Committee to incorporate advancements in waste management technologies and address evolving campus needs.

Conclusion

Atmiya University's Waste Management and Disposal Policy reflects its dedication to environmental responsibility and sustainable practices. By minimizing waste, maximizing resource recovery, and educating stakeholders, the university strives to lead by example, creating a culture of harmony with nature and responsible waste management.

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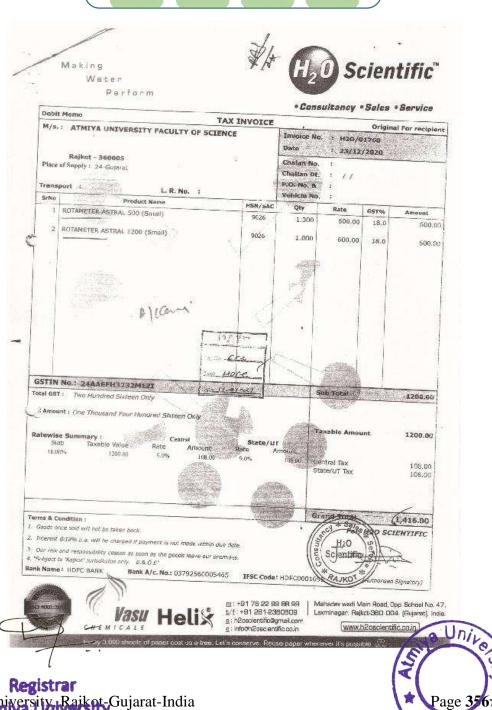


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1.16 WASTEWATER RECYCLING

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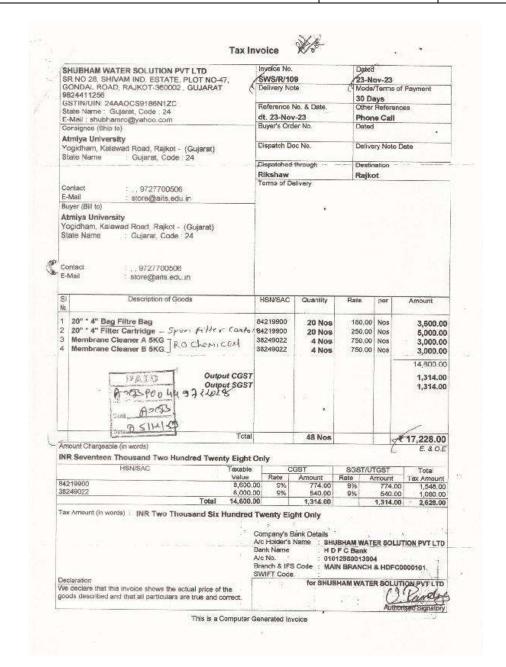
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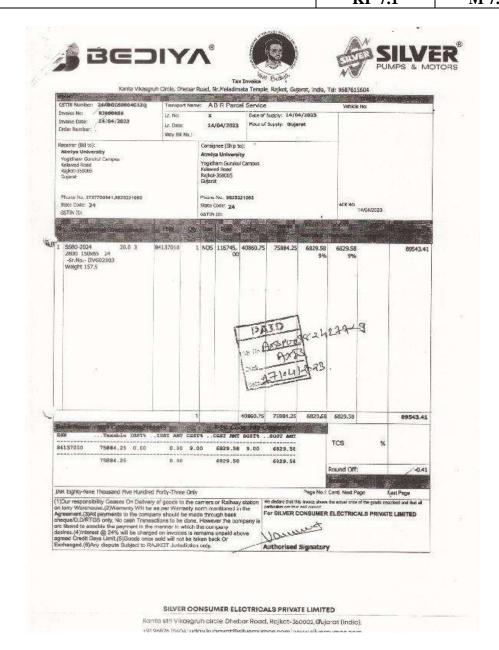
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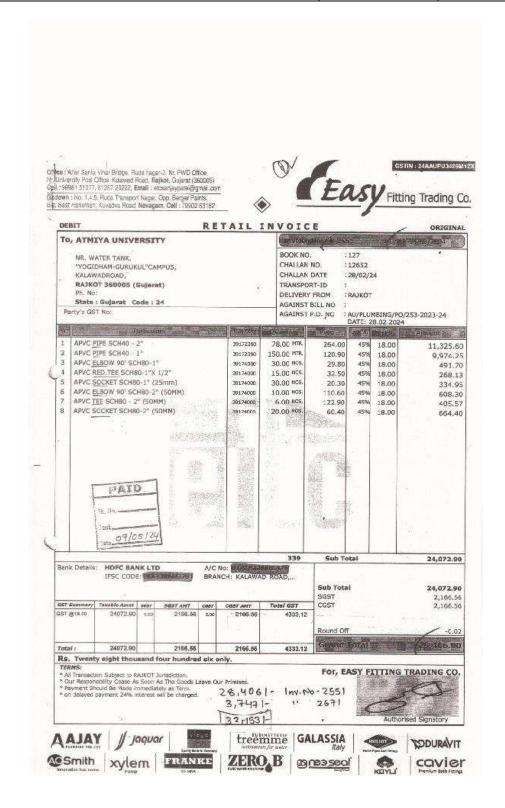
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