

(An Autonomous Institute of Government of Gujarat)

(ISO 9001:2015, 14001:2015 & 45001:2018 Certified Institute)

"We Provide Environmental Solutions"



#### **HEAD OFFICE**

GEMI Bhavan", Plot No. B: 246-247, Electronic Estate, GIDC, Sector 25, Gandhinagar - 382024 (Gujarat),

## **LABORATORY**

Plot No. B-64, Electronic Estate GIDC, Sector-25, Gandhinagar-382025

Phone: 079 23240964, Fax: 079 23240965
e-mail: info-gemi@gujarat.gov.in, web site: www.gemi.gujarat.gov.in





## Forests & Environment Department Government of Gujarat

# Final Report on GREEN AUDIT of Dhirubhai Ambani Institute of Information and Communication Technology (DAIICT)

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### **Gujarat Environment Management Institute (GEMI)**

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# **Table of Contents**

Chapter 1	Introduct	tion of Green Audit	1
1.1 1.2 1.3 1.4 1.5 <b>Chapter 2</b>	Green Au Benefits of Education The Goal	reen Audit udit for Educational Organizations of Green Audit for Educational Organizations onal Organization Management Strategies for Green Audit Is of Green Audit udit by GEMI	1 1 2 2 3 <b>5</b>
2.1 2.2 <b>Chapter 3</b>	Categori About Dr	e of Green Audit ies for Green Audit nirubhai Ambani Institute of Information and	5
	Commun	nication Technology (DAIICT)	9
	Commun Institute N Institute N Quality P Methodo		9 10 10 10 11 17
5.1	General	Assessment	17
			18
5.2	Water Au	Jdit	
5.2		Vater Assessment	18
5.2	5.2.1 W		
5.2	5.2.1 W 5.2.2 C	Vater Assessment	18
5.2	5.2.1 W 5.2.2 C 5.2.3 A	Vater Assessment Observations	18 19
	5.2.1 W 5.2.2 C 5.2.3 A <b>Waste Di</b> : 5.3.1 W	Vater Assessment Disservations Actions sposal Audit Vaste Disposal Assessment	18 19 22 <b>23</b> 23
	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C	Vater Assessment Disservations Actions sposal Audit Vaste Disposal Assessment Disservations	18 19 22 <b>23</b> 23 23
5.3	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C 5.3.3 A	Vater Assessment Observations Actions sposal Audit Vaste Disposal Assessment Observations Actions	18 19 22 <b>23</b> 23 23 27
	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C 5.3.3 A Energy A	Vater Assessment Disservations Actions sposal Audit Vaste Disposal Assessment Disservations Actions Audit	18 19 22 <b>23</b> 23 23 27 <b>28</b>
5.3	5.2.1 W 5.2.2 C 5.2.3 A Waste Di: 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 Ei	Vater Assessment Disservations Actions sposal Audit Vaste Disposal Assessment Disservations Actions Actions Audit nergy Assessment	18 19 22 <b>23</b> 23 23 27 <b>28</b> 28
5.3	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 E 5.4.2 C	Vater Assessment Observations Actions sposal Audit Vaste Disposal Assessment Observations Actions Audit nergy Assessment Observations	18 19 22 <b>23</b> 23 23 27 <b>28</b> 28 29
5.3 5.4	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 E 5.4.2 C 5.4.3 A	Vater Assessment Observations Actions sposal Audit Vaste Disposal Assessment Observations Actions Audit nergy Assessment Observations Actions Actions	18 19 22 23 23 27 28 28 29 30
5.3	5.2.1 W 5.2.2 C 5.2.3 A Waste Dis 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 E 5.4.2 C 5.4.3 A Environm	Vater Assessment Observations Actions sposal Audit Vaste Disposal Assessment Observations Actions Audit nergy Assessment Observations Actions	18 19 22 23 23 27 28 28 29 30 31
5.3 5.4	5.2.1 W 5.2.2 C 5.2.3 A Waste Di 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 E 5.4.2 C 5.4.3 A Environm 5.5.1 A	Vater Assessment Disservations Actions sposal Audit Vaste Disposal Assessment Disservations Actions Audit Intergy Assessment Disservations Actions Act	18 19 22 23 23 27 28 28 29 30 31
5.3 5.4	5.2.1 W 5.2.2 C 5.2.3 A Waste Dis 5.3.1 W 5.3.2 C 5.3.3 A Energy A 5.4.1 E 5.4.2 C 5.4.3 A Environm 5.5.1 A 5.5.2 C	Vater Assessment Observations Actions sposal Audit Vaste Disposal Assessment Observations Actions Audit nergy Assessment Observations Actions	18 19 22 23 23 27 28 28 29 30 31

5.6	Gree	en Cover and Carbon Accounting Audit	36
	5.6.1	Green Cover and Carbon Accounting Assessment	36
	5.6.2	Observations	37
	5.6.3	Actions	38
5.7	Heal	th, Hygiene and Food Audit	38
	5.7.1	, ,	38
	5.7.2		39
	5.7.3		39
5.8		onmental Awareness Audit	41
	5.8.1		41
	5.8.2		42
	5.8.3		44
Chapter 6	Cond	clusion	45
		Annexures	
Annexures I		Estimation of Water Requirement	50
Annexures I		Analysis Report of Raw Water	51
Annexures I		Analysis Report of Drinking Water	53
Annexures I		Analysis Report of Treated Sewage	57
Annexures \		Log book of daily water consumption	59
Annexures \	√l	Details of Organic Waste Conversion into Compost	60
Annexures \	VII	Details of Vermicomposting Plant Site	61
Annexures \	VIII	List of Scrap Material	62
Annexures I	Χ	Month wise Electricity Consumption	63
Annexures >	Χ	List of Electricity Consuming Equipment and Appliances	64
Annexures >	ΧI	Analysis Reports of Noise Monitoring	73
Annexures >	ΧII	Analysis Reports of Soil Quality	77
Annexures >	XIII	Analysis Reports of Air Quality	81
Annexures >	ΧIV	Health Register	84
Annexures >	ΧV	Housekeeping Checklist Report	85
Annexures >	ΧVΙ	List of Fire Extinguishers & Firefighting Equipment	86
Annexures >	XVII	Fire Safety Certificate	90
Annexures >	XVIII	Supporting documents of other campus activities	91



# **List of Figures**

Figure I	Quality Policy of DAIICI	10
Figure 2	Preliminary Visit to Campus of DAIICT	12
Figure 3	Monitoring Locations in DAIICT campus	13
Figure 4	Water Sampling	14
Figure 5	Wastewater Sampling	14
Figure 6	Ambient Air Monitoring	14
Figure 7	Soil Sampling	15
Figure 8	Noise Monitoring carried out at Resource Centre	15
Figure 9	Drinking Water	19
Figure 10	Water Cooler	19
Figure 11	Raw Water Storage Tank	20
Figure 12	RO Water plant	20
Figure 13	Rainwater Drain	21
Figure 14	Waste observed near Sewage Treatment Plant	24
Figure 15	Vermicomposting site near RO water plant	25
Figure 16	Allocated area for Solid Waste Collection	25
Figure 17	Sewage Treatment Plant	26
Figure 18	Sprinkler System used for Gardening	26
Figure 19	DG set of 250 KVA	29
Figure 20	Solar Panels	30
Figure 21	Birds observed in the Campus	32
Figure 22	Trees and Green Cover of the Campus	33
Figure 23	Signboard for Maintaining Silence	33
Figure 24	Display of Poster for Prohibition on Smoking	36
Figure 25	Green Cover of the Campus	38
Figure 26	Medical Centre of DAIICT	39
Figure 27	First-aid Kit observed in Girls Hostel	40
Figure 28	Hygiene of Washroom in Girls Hostel	40
Figure 29	Hygiene of Washroom in Boys Hostel	41
Figure 30	Plantation Activity by Students on World Environment Day	42
Figure 31	Fire Extinguishers in New Boys Hostel	43
Figure 32	Fire Extinguishers in Girls Hostel	43
Figure 33	Fire Extinguishers in Boys Hostel	43
Fiaure 34	Display of Procedure for Use of Fire Extinguishers	44



# List of Tables

Table 1	Quality of Raw Water and RO Water	18
Table 2	Quality of Treated Sewage	27
Table 3	Analysis results of Ambient Air monitoring	33
Table 4	Analysis results of Noise monitoring	34
Table 5	Analysis Results of Soil Quality	35
Table 6	List of Plants with their Scientific Name	37

#### 5.2.2 Observations

During the field visit, no leakage/dropping was observed in pipeline/taps. The Institute has provided non-concussive taps for drinking water for conservation of water. For any problem related to plumbing and sanitary works, an in-house maintenance team is kept available for 24X7 hours.



Figure 9 Drinking Water

**Figure 10 Water Cooler** 

- → The Institute extracts raw water from bore well and stores in raw water storage tank, for which a log book (Annexure-V) for consumption of water is maintained.
- → The Institute has total water storage capacity of 400 KLD (4 Storage tank, each of 1 Lakh Litres Capacity).
- → The storage is adequate in accordance to the water requirement of 230.4 KLD.



Figure 11 Raw Water Storage Tank



Figure 12 RO Water plant

⇒ Reverse Osmosis (RO) of 6,000 LPH capacity has been provided for treatment of raw water wherein removal of contaminants takes place. The RO system removes contaminants mainly in the form of Total Dissolved Solids (TDS) that includes bacteria, fungi, cysts, virus etc. and also removes some minerals from raw water.

- ⇒ The RO water is supplied to all the buildings of the campus through central pipeline system and RO reject water is utilized for flushing purpose through double piping system.
- ⇒ The quality of raw water and RO water is given in Table 1 that shows RO system removes about 95% TDS from the water. Moreover, the quality of drinking water shows that values of all parameters are well within the acceptable limits of Indian Standards for Drinking Water (IS 10500:2012) except coliforms.
- ⇒ Presence of coliform bacteria has been found with 80 Colony Forming Unit in 100 mL sample of RO water, which is not acceptable in accordance with the drinking water standards. The bacteriological contamination due to growth of bacteria inside the R.O. outlet pipe may be the reason for the presence of coliform.
- ⇒ The students have formed a committee for periodical assessment of drinking water quality, for which the Institute send the samples to the Laboratory of Gujarat Engineering Research Institute (GERI), Gandhinagar for analysis.
- ⇒ The Institute has a designed drainage system for storm water management but no system for harvesting of rainwater.



Figure 13 Rainwater Drain

⇒ The Institute has sealed all the water coolers to prevent any direct/indirect contamination of drinking water.