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7.1.3 CERTIFICATE FROM THE AUDITING AGENCY

GREEN AUDIT REPORT

TRANSPORT, ELECTRICITY & WATER AUDIT CONDUCTED IN SHRI SHIKSHAYATAN COLLEGE, 2020-2021

"Development around the world is putting pressure on our environment with flora and fauna diminishing, carbon emissions not sufficiently constrained, and freshwater vital to our health, security, and economy under increasing pressure- our future prosperity is dependent upon addressing these impacts.

WWF has welcomed the Government's commitment to the environment by recognizing prosperity including health and well-being as well as vital environment services and resources, and to unlock the potential for a sustainable and prosperous future for all."

The rapid urbanization and economic development at the local, regional and global levels have led to several environmental and ecological crises. On this level, it becomes essential to adopt the system of the Green Campus for the Institute which will lead to sustainable development.

Green Audit defines the systematic identification, quantification, recording, reporting, and analysis of components of environmental diversity. The 'Green Audit' aims to analyse environmental practices within and outside the college campus which will have an impact on the eco-friendly ambiance. Through Green Audit one gets a direction as to how to improve the condition of the environment and various factors have determined the growth of carrying out Green Audit.

Green Audit is assigned to the criteria 7 of NAAC.

ENERGY USED AND CONSERVATION

The indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliances, natural gas, and vehicles. Energy use is an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

Electricity being one of the basic requirements in the day-to-day activities, it is seen that the energy source utilized by all the departments and common facility centres is electricity only.

Total Energy Consumption by major consuming Equipment - 100 KWH/Year

Average Cost Audit of Total Energy Consumption - (100 X 7.03) + 42 = Rs. 745

Daily Carbon Footprint – 100 KWH X 0.98 Kg CO_2= 98 Kg CO_2

Per Capita Emission of CO_2 - 7.28 Kg CO_2

One of the main sources of Carbon emission is from the combustion of fossil fuels by vehicles while commuting between different places. With the increased rate of use of personal vehicles this value is growing continuously. Thus, to keep in check the carbon footprint of the college due to commutation by the students, an audit was performed.

TRANSPORT AUDIT

Sample Size - 30

Mode of Transportation - Two-wheeler, Auto-rickshaw, Car (Diesel), Car (Petrol), Pool Car (Diesel), Bus, Metro, Electric-Train.

Per Capita Emission of CO_2 /Day by Two-wheeler – 1.043 Kg CO_2

Per Capita Emission of CO_2 annually by Two-wheeler (30 working days in college) – 31.29 Kg CO_2

Per Capita Emission of CO_2 / Day by Auto-rickshaw – 0.345 Kg CO_2

Per Capita Emission of CO_2 annually by Auto-rickshaw (30 working days in college) – 10.35 Kg CO_2

Per Capita Emission of CO_2/ Day by Car (Diesel) – 2.4 Kg CO_2

Per Capita Emission of CO_2 annually by Car (Diesel) (30 working days in college) – 72 Kg CO_2

Per Capita Emission of CO_2/ Day by Car (Petrol) – 1.91 Kg CO_2

Per Capita Emission of CO_2 annually by Car (Petrol) (30 working days in college) – 57.3 Kg CO_2

Per Capita Emission of CO_2/Day by Pool Car (Diesel) – 0.92 Kg CO_2

Per Capita Emission of CO_2 annually by Pool Car (Diesel) (30 working days in college) – 27.6 Kg CO_2

Per Capita Emission of CO_2/ Day by Bus – 1.74 Kg CO_2

Per Capita Emission of CO_2 annually by Bus (30 working days in college) – 52.2 Kg CO_2

Per Capita Emission of CO_2 / Day by Metro, Electric Train – 2.73 Kg CO_2

Per Capita Emission of CO_2 annually by Metro, Electric Train (30 working days in college) – 81.9 Kg CO_2

The above obtained value is well below the present per capita CO_2 emission in India (i.e., 1700Kg).

WATER AUDIT

Water is the most essential natural resource required for human survival and carrying out a diverse set of activities from the domestic to the manufacturing sector. Thus, it is absolutely essential to increase the awareness about water conservation and prevention of freshwater wastage wherever possible. The main source of water wastage in domestic environments like homes and colleges is through leakage of taps and other water sources. The following audit represents the usage of water without wastage.

No. of buildings – 4

Water Devices Inspected – Toilets, Laboratories, and Water Purifying System.

No Leakage was found anywhere; therefore, no wastage of water was recorded.

Saswati Sen

WORLD WIDE FUND FOR NATURE-INDIA

ENERGY AUDIT REPORT

Shri Shikshayatan College

11 Lord Sinha Road,Kolkata - 700071

November, 2021

Auditor :

ADAS India

48A Charu Avenue , Kolkata – 700033

E-mail: adasindia@yahoo.com

ACKNOWLEDGEMENT

We, ADAS India , express our sincere gratitude to the Principal and all IQAC team members of Shri Shikshayatan College , 11 Lord Sinha Road , Kolkata - 700071 for awarding us the assignment of **Energy Audit of the College Building.**

We are thankful to all house members for rendering co-operation and assistance to ADAS team during the entire period of the Audit.

ADAS India

November 2021

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CHAPTER # 1
ABBREVIATION

CFL - Compact Fluorescent Lamp

LED - Light Emitting Diode

CESC - Calcutta Electric Supply Corporation Limited

V - Voltage

I - Current

kW - Kilo-Watt

kVA - Active Power

kVAr - Reactive Power

P F - Power Factor

CHAPTER # 2
ABOUT THE COLLEGE

Shri Shikshayatan College was conceived by its founding father, Late Sitaram Seksaria as extension of Gandhiji's nationwide Constructive Programme, embracing the welfare of the Women. It began its journey with the blessings of Pandit Vidhu Shekhar Shastri, the internationally famed scholar of Indian thought and culture. Since then, it has traversed a long path keeping pace with the growing needs of a fast changing society

Shri Shikshayatan College was founded on 8th July, 1955 for girls under affiliation of the University of Calcutta. Established by the Marwaris, a linguistic minority , it is administered and managed by Shikshayatan Foundation – (Formerly known as Marwari Balika Vidyalaya Society -registered under the Societies Registration Act) which runs it solely for educational and not for commercial purposes.

As a linguistic minority, it enjoys protection under Article 30(1) of the Constitution of India. Originally meant for imparting and promoting education among the girls of the Marwari community, it has over the years, opened its doors in response to pressures for admission , to all eligible girl students of caste creed , religion or language.

The College aims at imparting liberal education which helps in developing the total personality of students and in bringing about all-round growth of their personality and making them self reliant The college is committed to maintain a good academic standard in a non politicized environment.

The outstanding feature of the college is the harmonious and integrated co-existence of girls hailing from different parts of the country , speaking different languages and having different cultural backgrounds The spirit of tolerance and understanding creates an ambience of cultural blending between diverse groups.

CHAPTER # 3
INTRODUCTION

3.1 Introduction

Energy Audit can be considered as the first step towards understanding how energy is being used in a given facility. It indicates the ways in which different forms of energy are being used and quantifies energy-use according to discrete functions. Energy Audit does not provide the final answer to the problem. It identifies where the potential of improvement lies and, therefore, where energy management efforts must be concentrated. In a preliminary Audit , the entire audit exercise can be divided into three steps. Step-1 identifies the quantity and cost of the various energy forms used in the plant. Step-2 identifies energy consumption at the department / process level. Step-3 relates energy input to production, thereby highlighting energy wastage in major equipment / processes. The Detailed Energy Audit goes much beyond the quantitative estimate of cost & savings. The study involves detail mass & energy balance of major energy consuming equipment. The system efficiencies are evaluated and measures are identified for improving the end- use energy- efficiency. The study proposes specific projects / feasibility studies for major retrofitting / replacement proposals, providing a cost benefit analysis of the recommended measure.

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ADAS India was contracted by **Shri Shikshayatan College , 11 Lord Sinha Road , Kolkata – 700071** to conduct an electrical energy audit of the college.

3.2 Study Team

Dr. Shivaji Biswas - Accredited Energy Auditor(BEE)
Atanu Guha - Certified Energy Auditor(BEE)

3.3 Building details

The Audited building is located at **11 Lord Sinha Road , Kolkata – 700071**. This is College Building constructed with a very decent and attractive decor. Approximate area is 3000 m2..

FIG 3.1 Shri Shikshayatan College Building

3.4 Consumer details

The building is having G+3 Structure with 4 Sets of 3 phase meters. Energy Consuming items are mainly Split ACs, Pumps, Lighting , computers etc .

Power Supply is received from CESC.
The meter details are tabulated below:

Table 3.1 Meter Details

Sl No	Meter Tag No	Meter No	Sanctioned Load (KVA)
1.	MTR-1	4385839 10,4385836 09,4159892 08	123.2
2.	MTR-2	4159896 01	52.9
3.	MTR-3	4159888 01	56.4
4.	MTR-4	3819495 01	53

Fig 3.2 Meter in the Panel Room

3.5 Scope of work

ADAS India was contracted by **Shri Shikshayatan College , 11 Lord Sinha Road , Kolkata – 700071** to conduct an Electrical energy audit vide their PO no **SSC/WO/Energyaudit/050/2021** dated **24 Sep 2021.**.

The objective of the exercise was to :

- Determine the energy conservation potential for the Building based on technological interventions
- Determine the electrical energy cost reduction potential based on operational process changes
- Establish the comparative financial feasibility of proposed alternatives.

3.6 Methodology

The detailed audit methodology is as follows and the building audit has been carried out accordingly:

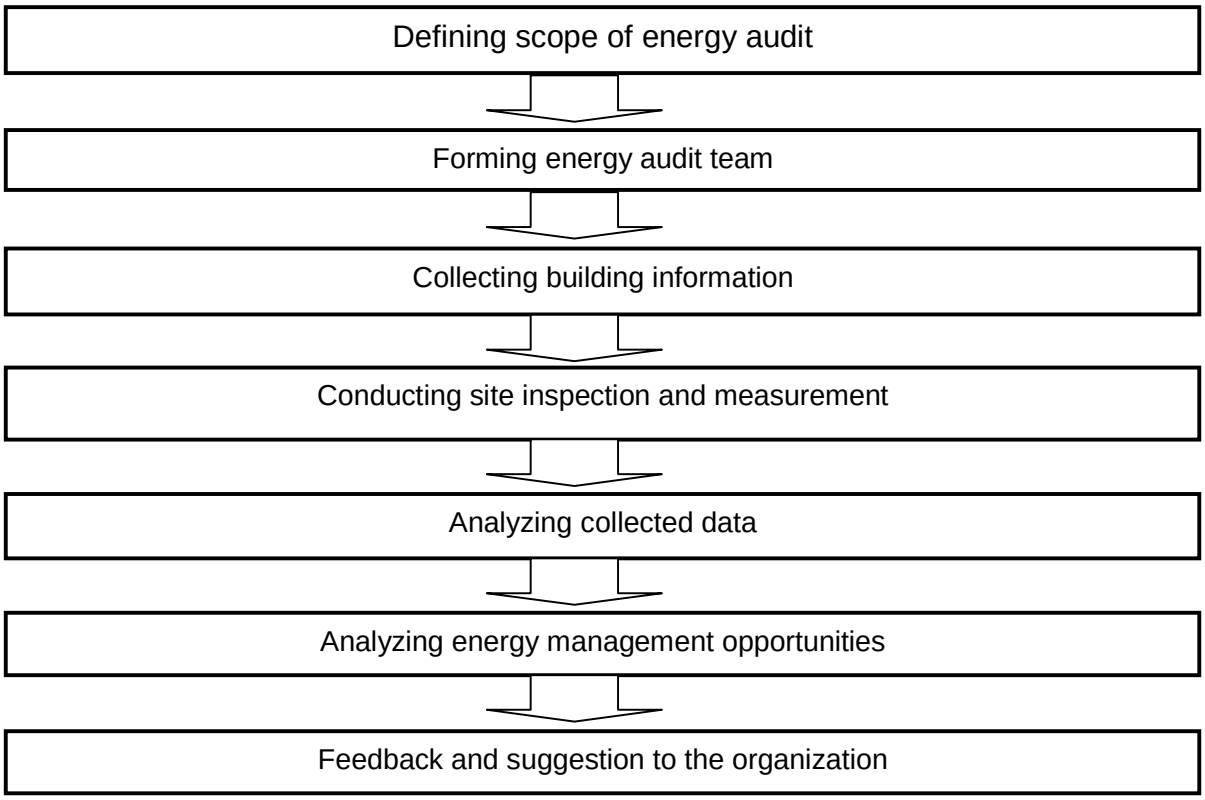
a. Initiating the audit
- Understanding client needs and expectation
- Gathering main data prior to site visit
- Defining audit criteria and scope of audit

b. Preparing the audit
- Planning resources for Audit
- Preparing audit checklist

c. Executing the audit
- Walk- through audit
- Interviewing key facility personnel
- Gathering on-site data
- Conducting on-site measurement
- Analyzing use of energy
- Identifying, developing and refining ECON opportunities

d. Reporting the audit
- Preparing a draft working report for presentation to client
- Submission of final report

AUDIT FLOW



Post audit implementation is out of the preview of this audit

The field measurement methodology adopted included the following equipments:

1. ***Clamp-On Meter*** *:* for measuring electrical parameters

2. ***Luxmeter*** *:* for measuring lux levels on the human occupancy areas.

3. ***Anemometer*** *:* for measuring flow rate (velocity) of cooling air to determine the heat rejected by the individual HVAC equipment .

4. ***Psychometer*** *:* for measuring the dry bulb temperature (DBT) and wet bulb temperature (WBT) of the ambient and cooling air to establish the enthalpy change..

5. ***Measuring Tape****:* to measure the dimensions of various units.

6. **3phase power analyzer :** To measure Voltage, current, power factor, and KW etc.

CHAPTER # 4
EXECUTIVE SUMMARY

4.1 Summary of observations

We have carried out **Energy Audit** during the month of **October – November , 2021**.

Our main observations are summarized below:

4.1.1 Energy is supplied by CESC and the category of metering is " Specified Institution P(M),Type P"

4.1.2 Phase Voltage found within specified limit.

4.1.3 Annual energy consumed were 2,39 Lac, 2.42 Lac, 2.36 Lac, 2.20 Lac Units in FY 2016-17, 2017-18, 2018-19 , 2019-20 amounting a sum total of Rs 18.15 Lac , 18.33 Lac, 17.94 and 16 Lac Respectively

4.1.4 Average energy cost is maintained at 7.6 Rs Per Unit in FY 2016-17, 2017-18, 2018-19 , 2019-20 for MTR 1, 3 & 4. For MTR 2 , it increase to Rs 9 per unit during 2018-2019 and 2019-2020.

4.1.5 Energy performance index is 48-52 KWh/Sqmtr/Year.

4.1.6 A comparison of unit consumption Meter wise reveals that meter M1 consumes max energy .

4.1.7 A study of energy consumption for 5 years energy bill reveals that while meter M1,M3 and M4 maintains a steady consumption , meter M2 has a decreasing trend.

4.1.8 The air conditioning has been provided with 1.5 and 2 TR Carrier & Daikin make split AC. Sample performance test has been carried out and the Energy efficiency of most of the units found less. Phase wise replacement of units with star rated AC is recommended.

4.1.9 Most of the Places , the set point of the AC has been kept below 24 deg C . It is recommended to maintain a set point of 24 deg C as per dept of power guideline.

4.1.10 Though in some places replacement of LED lamps has been done , there are many luminaries which are CFL. These need to be replaced by LED fittings to save further energy

4.1.11 Fans are consuming around 73 to 91 watt . Modern energy efficient fans consumes less power . The replacement of fans may be taken up in phased manner.

4.1.12 Each room is provided with Single on / off MCB outside the Door for switching off all loads while not in use which is a good initiative .

4.1.13 Unbalance load was detected at main panel .

4.1.14 Solar plant has been installed which serves lighting Load . This has given a substantial energy saving to the college

Type of Panel : 300 W Pollycrystalline Module
Area of Panel Installed : 144 sqm

General Recommendations

 All Class Rooms and labs to have Display Messages regarding optimum use of electrical appliances in the room like, lights, fans, computers and projectors. Save electricity. Display the stickers of save electricity, save nature everywhere in the campus. So that all stakeholders encouraged to save the electricity.

 Most of the time, all the tube lights in a class room are kept ON, even though, there is sufficient light level near the window opening. In such cases, the light row near the window may be kept OFF

 All projectors to be kept OFF or in idle mode if there will be no presentation slides.

 All computers to have power saving settings to turn off monitors and hard discs, say after10 minutes/30 minutes.

4.2 Summary of energy saving recommendations

We are highlighting here with only areas where further more Energy can be saved. Proposals are being summarized in table 4.1 for the quick reference. For details, the respective Chapters may be referred.

For ADAS India

(Atanu Guha)
Certified Energy Auditor (BEE)

(Dr. Shivaji Biswas)
Accredited Energy Auditor (BEE)

SUMMARY of VARIOUS OPTIONS for ENERGY SAVINGS

Performance of the various machinery has been worked out based upon the measurement data. Performance as well as effective utilization of Electricity has been observed. The energy saving options are summarized below:

Table 4.1 Options for Energy Savings

Sl No	Proposal for energy Saving	Expected annual saving (Rs)	Ref
1	Replacement of CFL Lamps with LED	1,09,000/-	Page 41
2	Replacement of AC Units Room no 112 (1.5 TR AC one no) *	23,788	Page 38
3	Replacement of AC Units Room no 309 (2 TR AC one no) *	10097	Page 38
4	Replacement of AC Units Room no 406 (2 TR AC one no) *	12681	Page 38
5	Replacement of Old ceiling Fans	88,000/-	Page 29

- ***Sample test carried out***

CHAPTER # 5
ELECTRICITY BILLING

5.1 Applicable Tariff

Tariff and associated terms and condition vide order no 04/07/2018 of Hon'ble West Bengal Electricity Regulatory Commission

Supply Agency : CESC
Supply Voltage : 3 Phase , 415 V , 50 HZ
Type of consumer: **Specified Institution , Municipal / non municipal**
Consumer Category – **Rate P**
Name of the Tariff Scheme – **Normal**

Table 5.1 Applicable Tariff Scheme

Monthly Consumption in KWh	Energy Charge in Rs/KWh
For All units	6.34

Fixed Charge / Demand Charge (Rs/ KVA) ; 28 Rs

5.2 Study of Monthly billing for the year 2016-2021

Monthly electricity bill for the period of 2016 to 2021 has been studied and results are as per following tables :

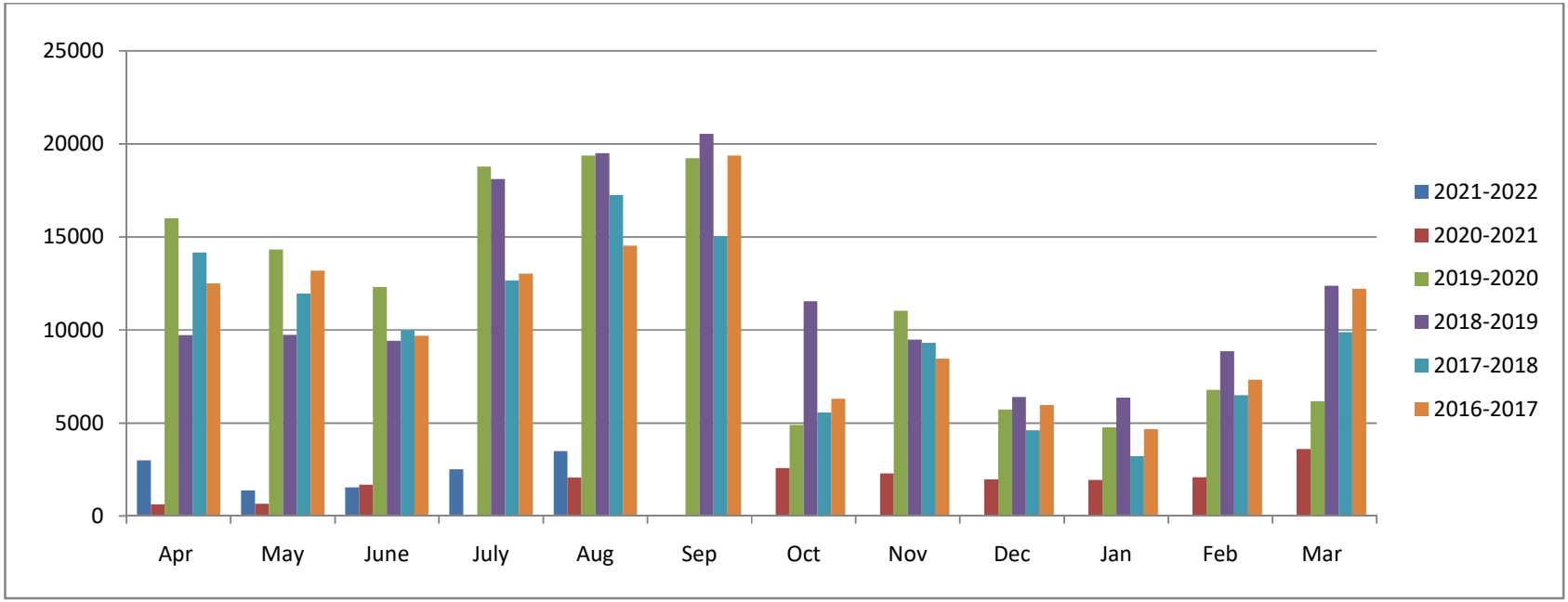
Fig 5.1 Class Room

5.2.1 Energy Bill for MTR-1

Table 5.2 Energy Bill for the year 2016-2021 – KWh Consumption MTR 1

Year/Month	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Average
2021-2022	2992	1386	1540	2520	3482								11920	2384
2020-2021	628	647.95	1680		2064		2580	2294	1980	1940	2092	3606	19512	1951
2019-2020	16008	14326	12308	18790	19388	19222	4900	11032	5728	4780	6786	6174	139442	11620
2018-2019	9722	9742	9406	18102	19508	20538	11536	9486	6394	6360	8874	12386	142054	11838
2017-2018	14166	11956	9966	12666	17254	15028	5570	9302	4606	3228	6494	9874	120110	10009
2016-2017	12506.0	13200.0	9694.0	13042.0	14528.0	19384.0	6302.0	8456.0	5980.0	4674.0	7322.0	12216.0	127304	10609

Fig 5.2 Year Wise Comparison of Energy Consumption – MTR 1

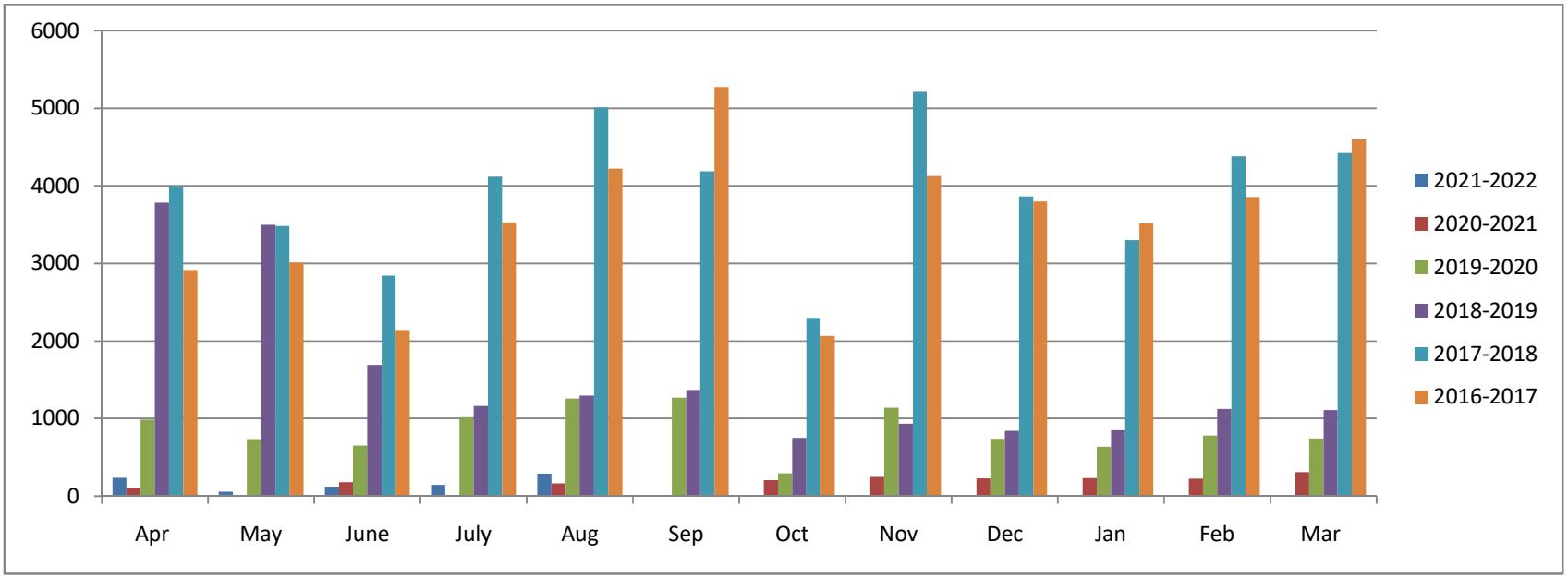


5.2.2 Energy Bill for MTR-2

Table 5.3 Energy Bill for the year 2016-2021 – KWh Consumption MTR 2

Year/Month	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Average
2021-2022	236	58	122	144	288								848	169.6
2020-2021	106	0	180		162		208	250	230	234	228	308	1906	190.6
2019-2020	986	734	654	1016	1258	1270	294	1138	740	636	784	746	10256	854.667
2018-2019	3782	3498	1690	1166	1296	1370	752	936	840	848	1124	1110	18412	1534.33
2017-2018	3994	3482	2844	4120	5010	4186	2298	5214	3864	3300	4384	4424	47120	3926.67
2016-2017	2914	3012	2142	3530	4224	5272	2066	4126	3798	3516	3856	4600	43056	3588

Fig 5.3 Year Wise Comparison of Energy Consumption – MTR 2

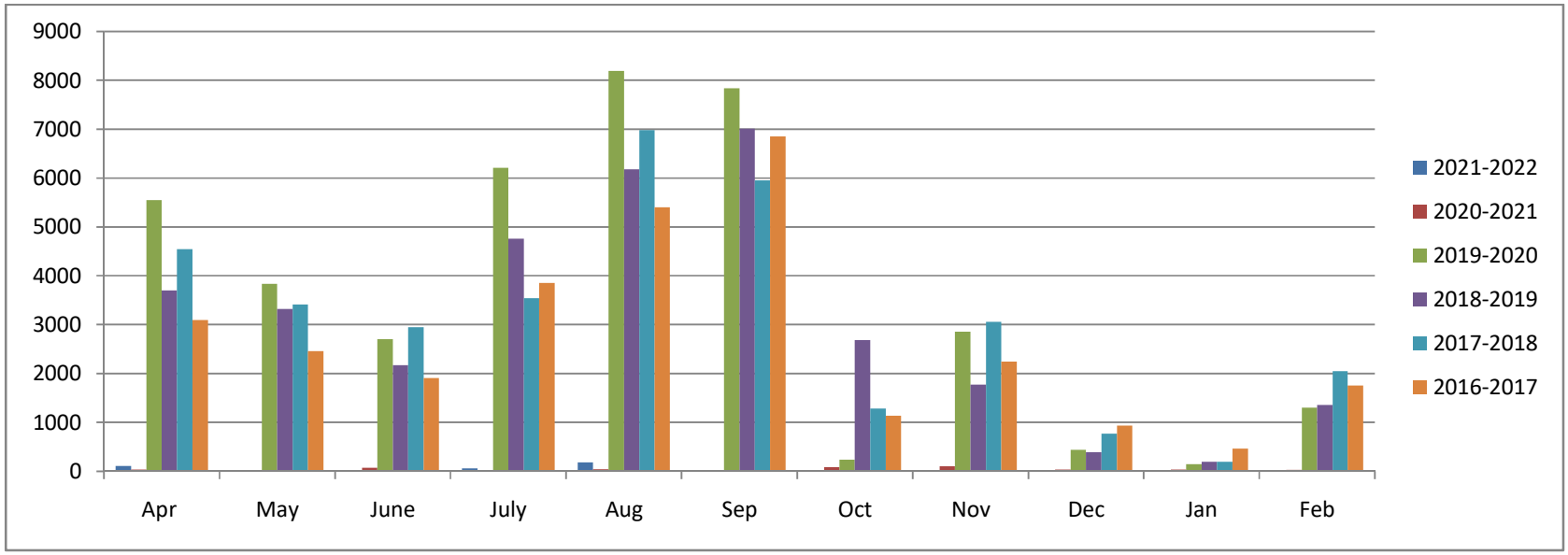


5.2.3 Energy Bill for – MTR-3

Table 5.4 Energy Bill for the year 2016-2021 – KWh Consumption MTR 3

Year/Month	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Average
2021-2022	110	8	8	58	180								364	72.8
2020-2021	38	0	72		44		82	102	38	34	30	112	552	55.2
2019-2020	5546	3834	2702	6206	8190	7840	236	2852	438	140	1302	1726	41012	3418
2018-2019	3700	3324	2170	4760	6178	7010	2688	1776	388	198	1356	3590	37138	3095
2017-2018	4546	3412	2946	3536	6980	5952	1282	3058	770	194	2046	4084	38806	3234
2016-2017	3090	2458	1904	3856	5400	6852	1138	2244	936	464	1760	3366	33468	2789

Fig 5.4 Year Wise Comparison of Energy Consumption – MTR 3

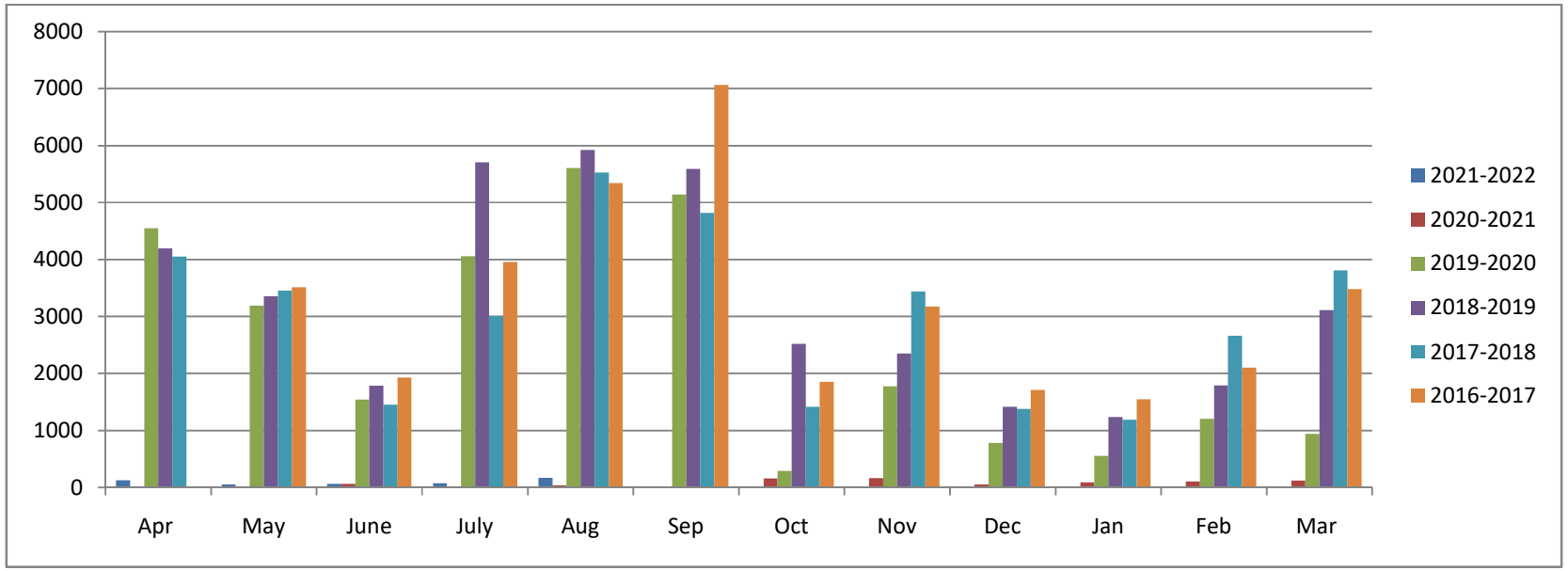


5.2.4 Energy Bill for – MTR-4

Table 5.5 Energy Bill for the year 2016-2021 – KWh Consumption MTR 4

Year/Month	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Average
2021-2022	124	52	60	72	172								480	96
2020-2021	0	0	64		36		152	158	50	88	102	120	770	77
2019-2020	4548	3188	1542	4058	5610	5140	288	1776	780	558	1206	938	29632	2469
2018-2019	4194	3354	1784	5704	5922	5590	2520	2350	1416	1234	1788	3114	38970	3248
2017-2018	4052	3452	1452	3006	5526	4822	1416	3438	1378	1186	2658	3806	36192	3016
2016-2017		3514	1930	3958	5338	7062	1850	3176	1708	1546	2098	3484	35664	2972

Fig 5.5 Year Wise Comparison of Energy Consumption – MTR 4

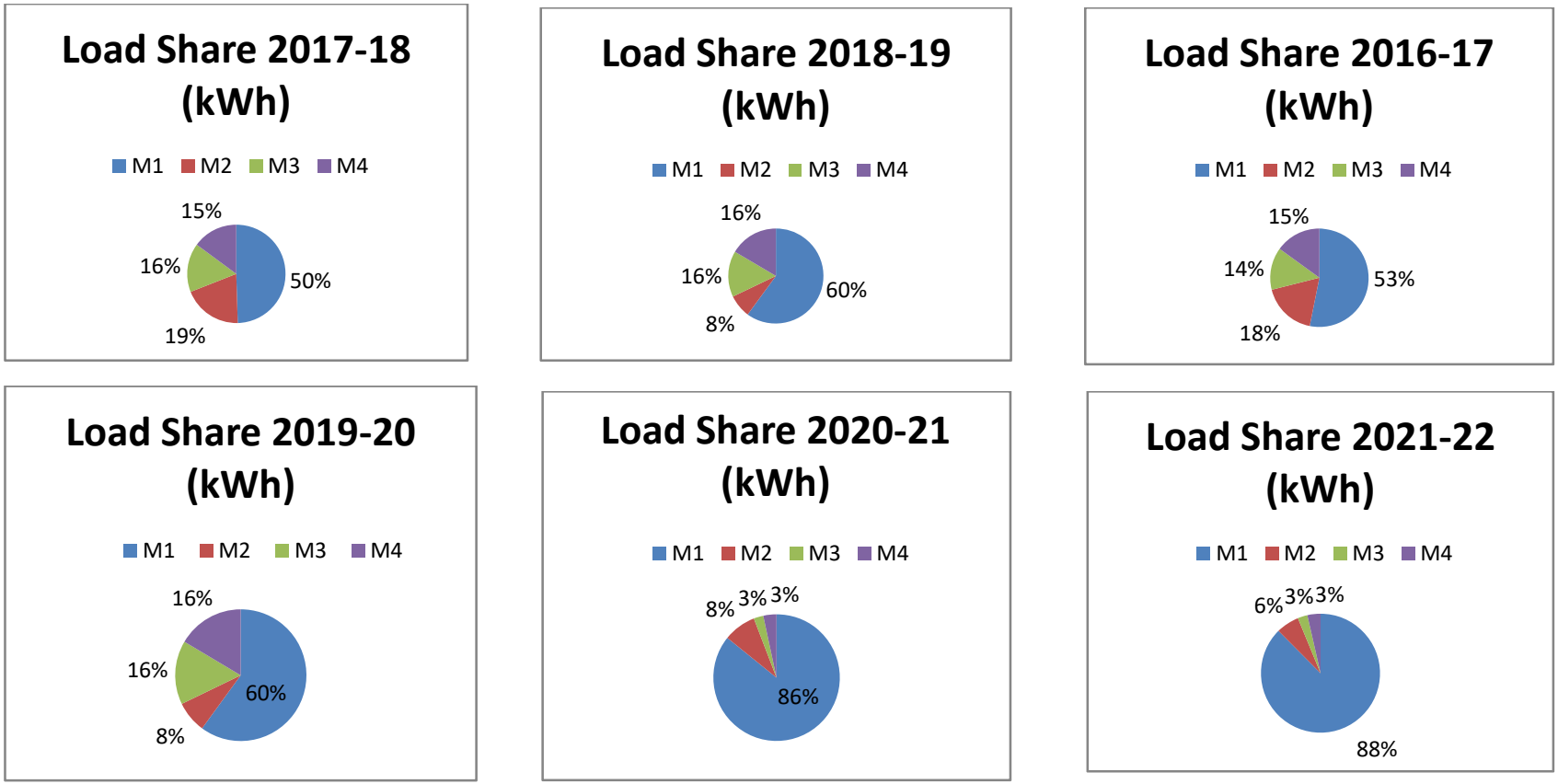


5.3 Meter Wise wise Load share for year 2016-2021

Table 5.6 Meter wise Load share for the year 2016 – 2021

Meter / Year	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
M1	11920	19511.95	139452	142054	120110	127308
M2	848	1906	10256	18412	47120	43056
M3	364	552	41012	37138	38806	33468
M4	480	770	29632	38970	36192	35900

Fig 5.6 Meter wise Load share for the year 2016-2021



5.4 Year wise Energy Cost and average unit cost 2016-2021

Table 5.7 Meter wise yearly energy cost and per unit cost

Meter	Item / Year	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
M1	Total Consumption	11920	19511.95	139452	142054	120110	127308
	Gross Amount	103716	175896	1056495	1075527	915635	968053
	Unit Cost	8.7	9.01	7.5	7.6	7.6	7.6
M2	Total Consumption	848	1906	10256	18412	47120	43056
	Gross Amount	12167	29451	91933	151361	360538	330926
	Unit Cost	14.3	15.5	9.0	8.2	7.7	7.7
M3	Total Consumption	364	552	41012	37138	38806	33468
	Gross Amount	10232	19537	290674	264989	276048	240657
	Unit Cost	28.1	35.4	7.1	7.1	7.1	7.2
M4	Total Consumption	480	770	29632	38970	36192	35900
	Gross Amount	9739	18277	230997	301185	280944	275660
	Unit Cost	20.29	23.7	7.8	7.7	7.8	7.7
Grrand Total Enery		13612	22739.95	220352	236574	242228	239732
Grrand Total Cost Of energy		135854	243160	1670099	1793062	1833165	1815296
Grand Average energy cost/unit		10.0	10.7	7.6	7.6	7.6	7.6

Fig 5.7. Energy consumption – year 2016-21 MTR 1

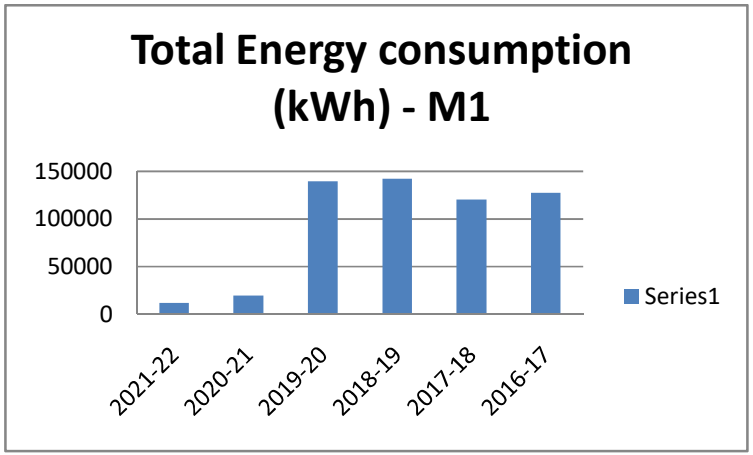


Fig 5.8 Unit Energy cost – year 2016-21 MTR 1

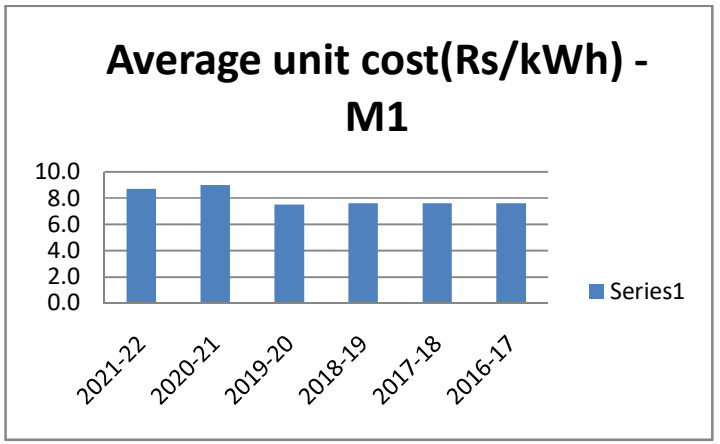


Fig 5.9 Energy consumption – year 2016 – 21 MTR 2

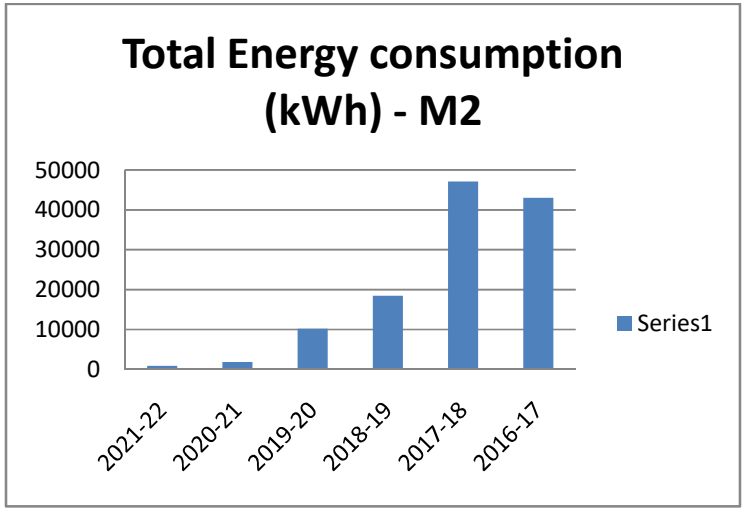


Fig 5.10.unit Energy consumption – year 2016-21 MTR2

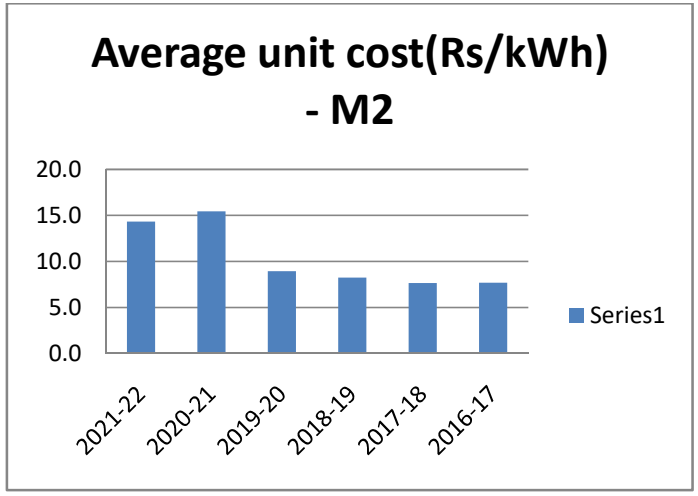


Fig 5.11 Energy consumption – year 2016 – 21 MTR 3

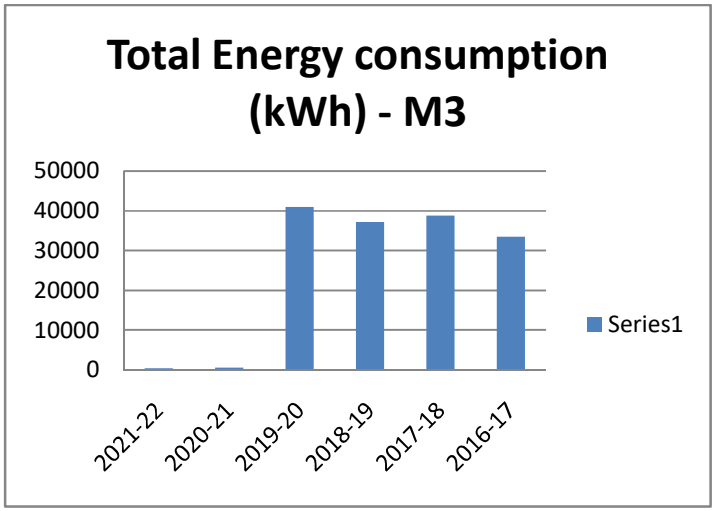


Fig 5.12 Unit Energy consumption – year 2016-21 MTR3

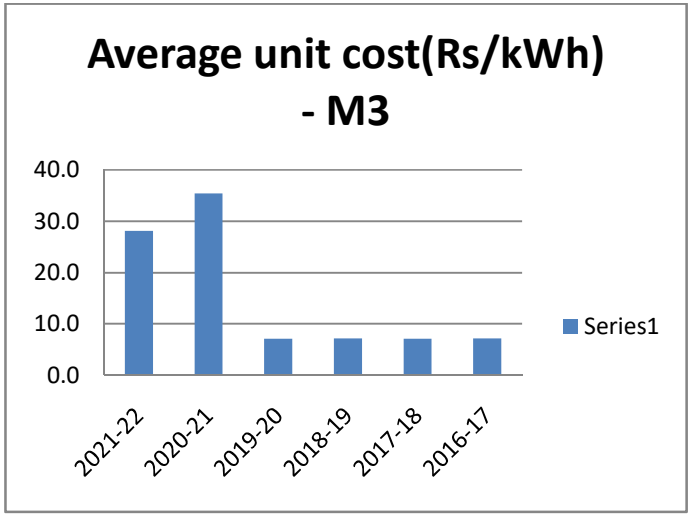


Fig 5.13 Energy consumption – year 2016 – 21 MTR 4

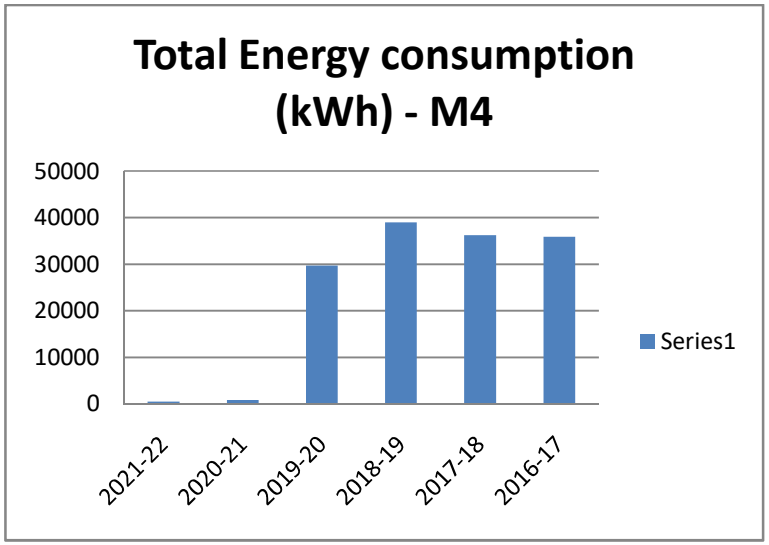
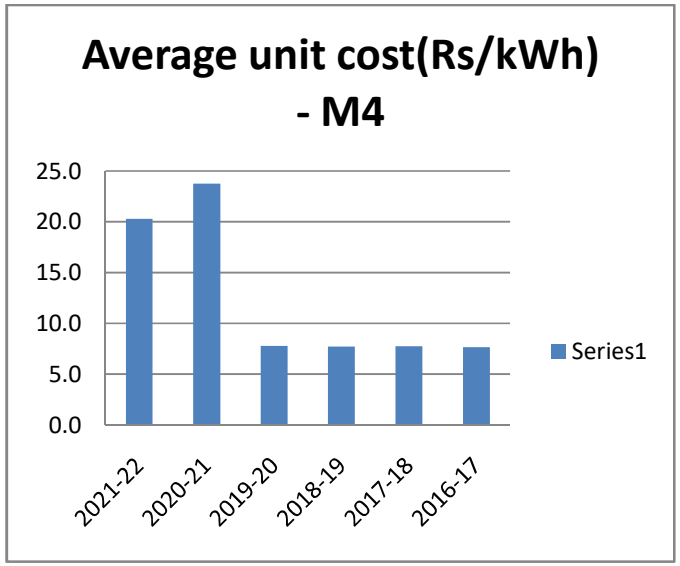


Fig 5.14 Unit Energy consumption – year 2016-21 MTR 4



5.5 Yearly Consumption Profile - 2016-2021

MTR - 1

Year	Yearly Consumption (kWh)
2019-2020	139442
2018-2019	142054
2017-2018	120110
2016-2017	127304

MTR - 2

Year	Yearly Consumption (kWh)
2019-2020	10256
2018-2019	18412
2017-2018	47120
2016-2017	43056

Mtr-3

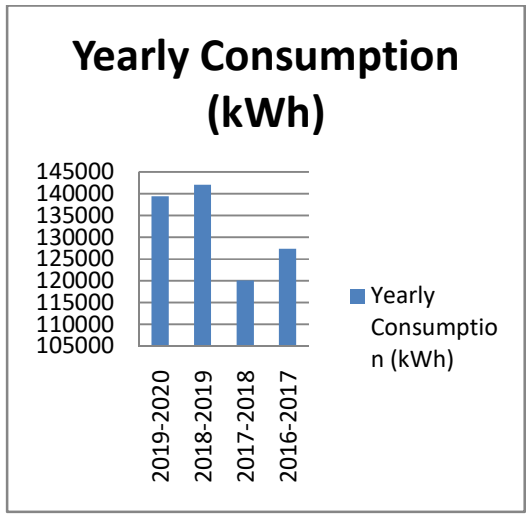
Year	Yearly Consumption (kWh)
2019-2020	41012
2018-2019	37138
2017-2018	38806
2016-2017	33468

MTR-4

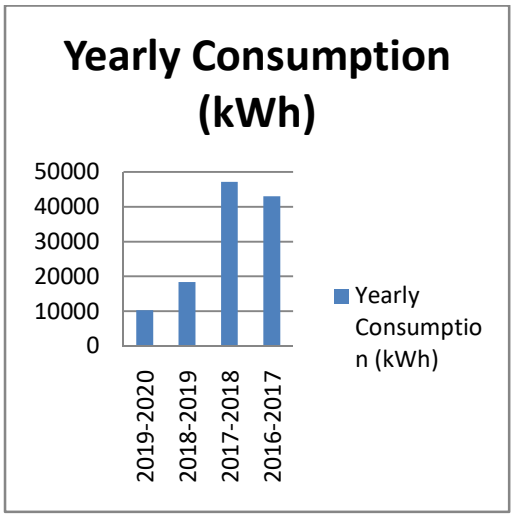
Year	Yearly Consumption (kWh)
2019-2020	29632
2018-2019	38970
2017-2018	36192
2016-2017	35664

** Year 2020-2021 data not considered

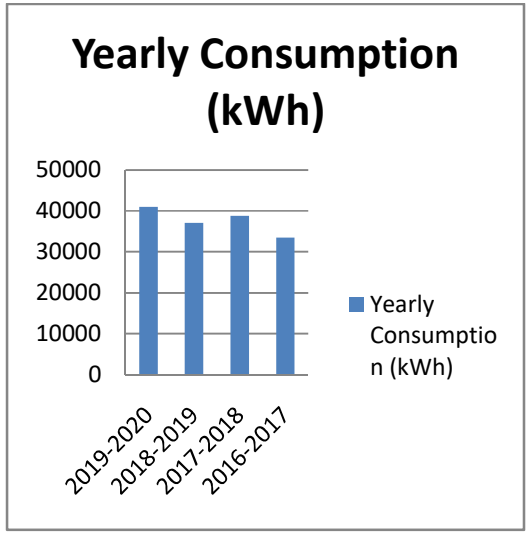
MTR - 1



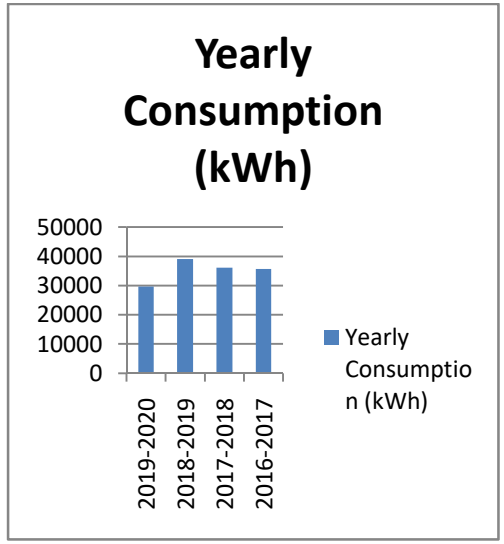
MTR - 2



MTR - 3



MTR - 4



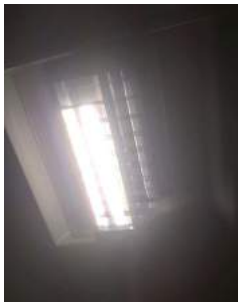
5.6 Observations

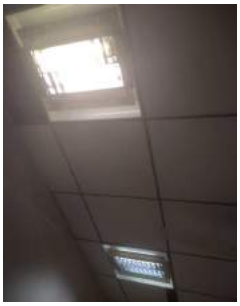
- The category of metering P(M) Type P
- Annual energy consumed in year 2016-17 was 2.36 lakh kWh, Gross bill Rs 18.15 Lakh and average cost per unit is Rs 7.6
- Annual energy consumed in year 2017-18 was 2.42 lakh kWh, Gross bill Rs 18.33 Lakh and average cost per unit is Rs 7.6
- Annual energy consumed in year 2018-19 was 2.36 lakh kWh, Gross bill Rs 17.9 Lakh and average cost per unit is Rs 7.6
- Annual energy consumed in year 2019-20 was 2.2 lakh kWh, Gross bill Rs 16.7 Lakh and average cost per unit is Rs 7.6
- The Energy performance index(EPI) is 53 to 58 KWh/sqmtr/Year.
- The year wise consumption reveals that MTR 1 consumption has a steep increase from year 2016 to 2020 whereas MTR 2 has steep decrease in KW reading . MTR 3 & 4 maintained a steady consumption.. Consumption in the year 2020 and 2021 has not been considered in this study.

CHAPTER # 6
POWER SYSTEM

6.1 Load details

415 Volt , 3 phase Power is supplied by CESC through 6 separate meters as mentioned in chapter 3. The power is fed to a distribution panel for further distributed to different floors .Each Floor is connected with Split ACs , Lights of various types, Laptop, Computers etc .. The details of the loads are given in the annexures .





Following Load lists are attached as annexure :

List Of Light : Annexure – 2
Lust Of Fan : Annexure – 3
List Of Computers : Annexure - 4

6.2 V I Meaurement

Table 6.1 Meter wise Power Measurement Data

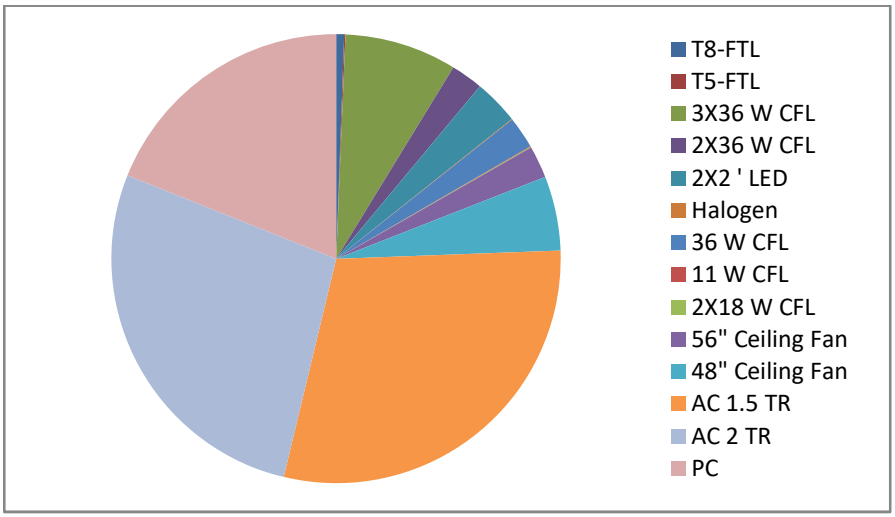
Date: 15.11.2021

Sl No	Particulars	Phase	Voltage	Load Current
1	MTR 1(836)	R	233.5	13.19
		Y	233.7	23.15
		B	236	25.35
2	MTR 1(839)	R	230.6	44.8
		Y	231.3	61.2
		B	236	48.8
3	MTR 2	R	328	1.41
		Y	237	4.33
		B	238	4.04
4	MTR 3	R	242	0.29
		Y	241.4	0.69
		B	241.6	0.06
5	MTR4	R	238	5.56
		Y	238	4.24
		B	237	6.57

6.3 Connected Load

Conencted load and Tentative Load details is furnished below

Sl No	Item	Qty	Load / unit (W/Unit)	Total KW
1	T8-FTL	43	40	1.72
2	T5-FTL	14	20	0.28
3	3X36 W CFL	224	108	24.192
4	2X36 W CFL	96	72	6.912
5	2X2 ' LED	270	36	9.72
6	Halogen	3	50	0.15
7	36 W CFL	189	36	6.804
8	11 W CFL	14	11	0.154
9	2X18 W CFL	6	36	0.216
10	56" Ceiling Fan	77	90	6.93
11	48" Ceiling Fan	200	80	16
12	AC 1.5 TR	65	1350	87.75
13	AC 2 TR	43	1900	81.7
14	PC	515	110	56.65
	Total Conncted Load			299.178



6.4 Ceiling Fan performance

Ceiling fan is a devise suspended from ceiling of a room which employs hub mounted rotating paddles to circulate air in order to produce cooling effect. When the fan rerates , the breeze created by the ceiling fan speeds the evaporation of sweat air of human skin which gives cooling .The BEE labeling scheme is for ceiling fan of 1200 mm sweep and energy efficiency is called service value .

Air delivery , fan speed and power input are the parameters to be tested for energy efficiency.

Star Rating	Service Value of Ceiling Fan
1 Star	3.2 to 3.4
2 Star	3.4 to 3.6
3 Star	3.6 to 3.8
4 Star	3.8 to 4.0

Service factor is Ratio of air delivery / power input

Air delivery (minimum) is 210 cubic meter / min

Sl No	Room No	Fan Wattage	Velocity (m/s)	Sweep Volume (m3/ min)	Service Factor
1	202	73.44	1.3	210	2.85
2	112	91.08	1.4	210	2.3
3	111	76.78	1.5	210	2.76
4	301	83.17	1.4	210	2.44

Sample Pay back calculation – Room no 112

1. No of 48" fan – 6
2. Average power drawn : 73 – 91 watt (82 watt average)
3. Power drawing by 6 fans – 492 watt
4. Power drawing by new HAVELS make fan – 50 Watt
5. Power drawing by new 6 nos HAVELS make fan – 300 Watt
6. Watt saving : 192 watt
7. Considering 180 days ./ yr , 10 Hrs/day , saving : 345.6 Kwh / yr
8. Saving in Rs @ 7.6 Rs/ unit : Rs 2626.56 / Yr ie Rs 437 per Fan
9. Investment for 6 fans @ 3065 Rs / Fan : 18390 Rs
10. Pay back – 7 years

Total No of 56" and 48 " fans is 275 . Considering average annual saving of Rs 400/ unit and 80% diversity factor , total saving per year will be Rs 88,000/-

Specification of HAVEL fan

Model : ES-New-2S fan

Sweep – 1200 mm
Air Delivery : 225 m3/ min
Colour : White
Wattage : 50 watt

Specification of BLDC fan

Wattage : 28 watt
Price – 4343 Rs
Air Delivery : 250 cmm

6.5 Observation

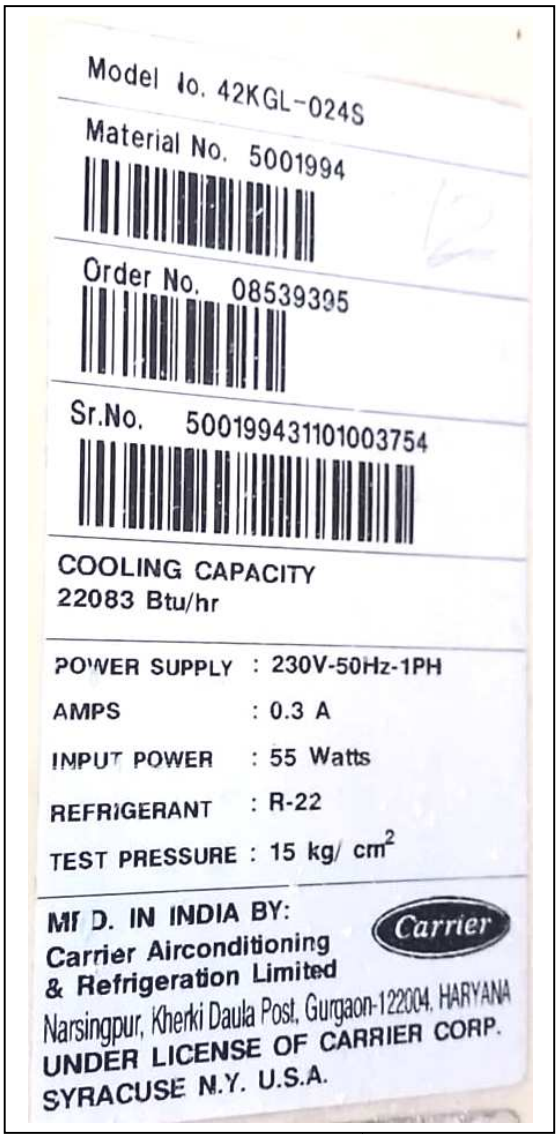
Our observations are as follows:

- Voltage : Within specified limit
- Current : Unbalance current due to random switching-on of loads in different phases observed
- Old Fans can be replaced by high efficiency fans to reduce energy consumption
- Most of the fan studied are drawing wattage from 73 to 91. This is in higher side as a result service factor reduced to 2.44 to 2.85
- Connected load is approximately 300 Kw .
- Each room is connected with single load switch outside the door to switch off all electrical units inside room which is a good initiative.

CHAPTER # 7
AIR CONDITIOINIG SYSTEM

7.1 AC system and specification

Fig 7.1 Machine details



Specification

1. Make Carrier , Cooling capacity 22083 Btu/Hr or 1.8 TR , Refrigerant R22 , Ams 0.3 A , Model 42KGL-024S

2. Make Carrier , Cooling capacity 18000 Btu/Hr or 1.5 TR , Refrigerant R22 , Am 0.3 A , Model 42KGL-018S

Table7.1 AC System Rating Details

Floor	Room No	Room Name	AC Type	Brand	Qty	Rating (Ton)	Rated EER
GR	5	Class Room	Split Ac	Carrier	2	2	2.9
GR	6	Class Room	Split Ac	Carrier	2	2	2.9
GR	LAB - 1	General Lab	Split Ac	Daikin	2	1.5	2.9
GR	LAB-2	Multimedia Lab	Split Ac	Carrier	1	2	2.9
IST	101	Principal's Room	Split Ac	Carrier	1	2	3.02
IST	102	Conferenece Room	Split Ac	Daikin	1	1.5	2.91
IST	103	PG Room	Split Ac	Carrier	1	1.5	3.17
IST	104	Joint Secretary Room	Split Ac	Daikin	1	1.5	2.91
IST	105	Principal's Office	Split Ac	Carrier	3	1.5	3.17
IST	105	Principal's Office	Split Ac	Daikin	1	1.5	2.9
IST	108	General Staff Room	Split Ac	Carrier	1	2	3.02
IST	108	General Staff Room	Split Ac	Daikin	2	1.5	2.91
IST	110	B. Ed Staff Room	Split Ac	Carrier	1	1.5	3.17
IST	111	B. Ed Activity Room	Split Ac	Carrier	1	1.5	2.9
IST	112	B. Ed Class Room	Split Ac	Carrier	2	2	3.02
IST	113	B. Ed Class Room	Split Ac	Carrier	2	2	3.02
IST	114	B. Ed Library	Split Ac	Carrier	2	2	3.02
IST	115	B. Ed Class Room	Split Ac	Carrier	1	2	3.02
IST	115	B. Ed Class Room	Split Ac	Carrier	1	1.5	3.17
IST		B. Ed Corridoor - 1	Split Ac	Carrier	1	1.5	3.17
IST		B. Ed Corridoor - 2	Split Ac	Carrier	1	1.5	3.17
IST		B. Ed Corridoor - 3	Split Ac	Carrier	1	1.5	3.17
2ND	202	Laptop Lab / Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	203A	Laptop Lab / Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	203B	Laptop Lab / Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	204	Laptop Lab / Class Room	Split Ac	Carrier	1	2	3.02
2ND	205	Class Room	Split Ac	Carrier	3	2	3.02
2ND	206	Server Room	Split Ac	Carrier	1	1.5	3.17
2ND	208	Exam Control Room	Split Ac	Carrier	1	1.5	3.17
2ND	209	Class Room	Split Ac	Carrier	2	2	3.02
2ND	210	Class Room	Split Ac	Carrier	2	1.5	3.17
2ND	211	Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	212	Class Room	Split Ac	Carrier	2	2	2.9
2ND	213A	Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	213B	Class Room	Split Ac	Carrier	1	1.5	3.17
2ND	214	Class Room	Split Ac	Carrier	2	1.5	3.17
2ND	215	Class Room	Split Ac	Carrier	2	2C	3.02

Floor	Room No	Room Name	AC Type	Brand	Qty	Rating (Ton)	Rated EER
2ND	216	Laptop Lab / Class Room	Split Ac	Carrier	2	2C	3.02
2ND	217	Media Lab	Split Ac	Carrier	3	1.5	3.17
2ND		Cafeteria	Split Ac	Carrier	3	2	2.91
2ND	A1	Physics Lab	Split Ac	Carrier	2	2	2.91
2ND	A2	Class Room	Split Ac	Carrier	3	1.5	3.17
2ND	A3	Class Room	Split Ac	Carrier	2	1.5	3.17
2ND	A4	Class Room	Split Ac	Carrier	1	2	2.91
2ND	A5	Class Room	Split Ac	Carrier	1	2	2.91
2ND	A6	Class Room	Split Ac	Carrier	1	2	2.91
2ND	A7	Class Room	Split Ac	Carrier	2	2	2.91
3RD	301	Class Room	Split Ac	Carrier	2	1.5	3.17
3RD	301	Class Room	Split Ac	Daikin	2	1.5	3.17
3RD	302	Class Room	Split Ac	Carrier	4	1.5	3.17
3RD	303	Class Room	Split Ac				
3RD	304	Yoga Room	Split Ac	Carrier	3	1.5	3.17
3RD	307A	Botany Lab	Split Ac				
3RD	307B	Botany Lab	Split Ac				
3RD	307C	Botany Class Room	Split Ac	Carrier	1	1.5	3.17
3RD	308A	Class Room	Split Ac	Carrier	1	1.5	3.17
3RD	308B	Class Room	Split Ac	Carrier	1	1.5	3.17
3RD	309	Class Room	Split Ac		2	2C	
3RD	310	Class Room	Split Ac		1	1C	
3RD	311	Geography Staff Room	Split Ac	Carrier	1	1.5	3.17
3RD	312	Class Room	Split Ac	Carrier	1	1.5	3.17
3RD	313	Class Room	Split Ac	Carrier	2	1.5	3.17
3RD	314	Class Room	Split Ac	Carrier	1	1.5	3.17
3RD	314	Class Room	Split Ac	Daikin	3	1.5	3.17
4TH	403A	Class Room	Split Ac	Carrier	1	1.5	3.17
4TH	403C	Chemistry Lab	Split Ac				
4TH	404A	Class Room	Split Ac	Carrier	1	1.5	3.17
4TH	404C	Zoology Lab	Split Ac				
4TH	405	Class Room	Split Ac	Carrier	2	2	2.91
4TH	406	Class Room	Split Ac	Carrier	2	2	2.91
4TH	407	Class Room	Split Ac	Carrier	2	2	2.91
4TH	409	Class Room	Split Ac	Carrier	2	1.5	3.17
4TH	410	Class Room	Split Ac	Carrier	2	1.5	3.17

7.2 AC system performance measurement

Table 7.2 **AC PARAMETERS – Room 111**

DATE	15.11.2021
Room No	111
Make	Carrier
Rating	1.5 TR
Rated EER	3.17

DUCT SIZE (mm)	**L**	**B**
	840	110

VELOCITY (m/s)

4.1	4.2	4.4	3.4	3	2.9	2.5
2.4	2.6	2.3	3.4	3.3	3.2	3.2
3.1	3.9	2.9	2.8	2.5	2.3	2.4
2.4	2.6	2.7	2.6	2.7	2.5	2
1.9	2.5	2.4	2.6	2.8	2.9	3.1
3.6	3.8	3.7	2.8	2.2	2.9	3.1

Average velocity	2.919	(m/s)		2.9	(m/s)
Air qty				971.0	m3/hr
Wt of air				1165.2	kg/hr

COLD AIR DRY & WET BULB TEMP

WBT	14
DBT	15

ROOM AIR TEMP

DBT	22
WBT	20

ELECTRICAL POWER

V	**I**	**PF**	**KW**
230	8.17	0.973	1.83

Heat Extracted by AC per hr	5085.0	kcal/hr	1.682	TR
Input KW	1.83			
Input KCl/hr	1572.39	Kcal /Hr		
EER	**3.234**	**Result : THIS AC IS RUNNING EFFICIENTLY**		

Table 7.3 **AC PARAMETERS - ROOM NO 112**

DATE	15.11.2021
Room No	112
Make	Carrier
Rating	2 TR
Rared EER	3.02

DUCT SIZE (mm)	**L**	**B**
	970	110

VELOCITY (m/s)

1.3	1.4	1.5	1.7	2	2.1	2.2
2.3	2.4	2.2	2.3	2.2	2.1	2.1
2.2	2.3	2.4	2.5	2.4	2.3	1.2
2.1	2	2	1.9	1.8	1.7	1.9
1.8	2.1	2.2	2.4	2.5	2.7	2.3
2.2	2.1	2.2	2.4	2.5	2.7	2.3

Average velocity	2.117	(m/s)		2.1	(m/s)
Air qty				813.1	m3/hr
Wt of air				975.7	kg/hr

COLD AIR DRY & WET BULB TEMP

WBT	12
DBT	11

ROOM AIR TEMP

DBT	24
WBT	18

ELECTRICAL POWER

V	**I**	**PF**	**KW**
230	8.17	0.979	1.84

Heat Extracted by AC per hr	4460.5		kcal/hr	1.475	TR
Input KW	1.84				
Input KCl/hr	1582.09		Kcal /Hr		
EER	**2.819**	**Result : THIS AC IS NOT RUNNING EFFICIENTLY**			

Table 7.4 **AC PARAMETERS - ROOM NO 202**

DATE	15.11.2021
Room No	202
Make	Carrier
Rating	1.5 TR
Rared EER	3.17

DUCT SIZE (mm)	**L**	**B**
	970	110

VELOCITY (m/s)

3.2	3.7	3.8	2.9	3.8	3.5	3.6
3.1	3	3	3.2	3.1	3.1	2.9
2.9	2.9	2.6	2.5	2.5	2.5	2.5
2.4	2.3	2.2	2.8	3	3	3.9
2.8	2.7	2.7	1.8	2.2	2.8	3.1
3.1	2.9	2.8	2.8	2.4	2.8	3.1

Average velocity	2.902	(m/s)	2.9	(m/s)
Air qty			1114.9	m3/hr
Wt of air			1337.8	kg/hr

COLD AIR DRY & WET BULB TEMP

WBT	15
DBT	16

ROOM AIR TEMP

DBT	22
WBT	17

ELECTRICAL POWER

V	**I**	**PF**	**KW**
230	8.49	0.982	1.92

Heat Extracted by AC per hr	1821.1	kcal/hr	0.602	TR
Input KW	1.92			
Input KCl/hr	1649.09	Kcal /Hr		
EER	**1.104**	**Result : THIS AC IS NOT RUNNING EFFICIENTLY**		

Table 7.5 **AC PARAMETERS - ROOM NO 309**

DATE	15.11.2021
Room No	309
Make	Carrier
Rating	2 TR
Rared EER	2.91

DUCT SIZE (mm)	**L**	**B**
	970	110

VELOCITY (m/s)

2.6	3.1	3.6	3.8	4	4.1	4
3.8	3.4	3.6	3.1	2.9	2.8	2.9
2.9	2.9	2	2.1	2.2	2.1	3.1
3.1	3.1	3.1	3	3	3.1	3.1
3.1	2.2	2.4	2.5	2.4	2.5	2.5
2.5	2.4	2.4	2.3	2.5	2.7	2.6

Average velocity	2.893	(m/s)		2.9	(m/s)
Air qty				1111.2	m3/hr
Wt of air				1333.4	kg/hr

COLD AIR DRY & WET BULB TEMP

WBT	13
DBT	14

ROOM AIR TEMP

DBT	23
WBT	17

ELECTRICAL POWER

V	**I**	**PF**	**KW**
230	8.52	0.988	1.94

Heat Extracted by AC per hr	3525.0	kcal/hr	1.166	TR
Input KW	1.94			
Input KCl/hr	1665.03	Kcal /Hr		

EER **2.117**

Result : THIS AC IS not RUNNING EFFICIENTLY

Table 7.7 **AC PARAMETERS - ROOM NO 406**

DATE	15.11.2021
Room No	406
Make	Carrier
Rating	2 TR
Rared EER	2.91

DUCT SIZE (mm)	**L**	**B**
	840	110

VELOCITY (m/s)

2.2	2.6	2.7	2.6	2.5	2.3	2.2
2.1	1.9	1.9	2	2	2	1.9
1.9	1.8	1.7	1.7	1.6	1.6	1.5
2.5	1.5	1.4	1.4	1.8	1.6	1.5
1.5	1.6	1.7	1.6	1.6	1.5	1.5
1.5	1.6	1.8	1.9	2	2.2	2.3

Average velocity	1.874	(m/s)	1.874	(m/s)
Air qty			623.304	m3/hr
Wt of air			747.965	kg/hr

COLD AIR DRY & WET BULB TEMP

WBT	16
DBT	18

ROOM AIR TEMP

DBT	25
WBT	21

ELECTRICAL POWER

V	**I**	**PF**	**KW**
230	8.06	0.978	1.81

Heat Extracted by AC per hr	2859.4	kcal/hr	0.946	TR
Input KW	1.81			
Input KCl/hr	1559.19	Kcal /Hr		

EER **1.834**

Result : THIS AC IS NOT RUNNING EFFICIENTLY

7.7 Performance measurement data

Sl No	Room No	Rating (TR)	Rated EER	Measured EER	Heat Extraction	Actual TR	Actual Input Power	Designed input power	Saving Potential (Rs)
1	112	2	3.02	2.819	4460.5	1.48	1.84	1.717	2328.9
2	202	1.5	3.17	1.104	1821.1	0.60	1.92	0.668	23788.0
3	309	2	2.91	2.117	3525	1.17	1.94	1.409	10097.8
4	406	2	2.91	1.834	2859.4	0.95	1.81	1.143	12681.1

7.3 Observation and Recommendations

- It has been observed that most of the ACs are kept at very low setting. This should be increased to at least 24 deg C to save power. It should be noted that 1 degree rise in evaporator temperature will give 3% saving in energy.

- The performance study of ACs reveals that most of the ACs have been deteriorated in terms of Efficiency. Power consumption is high. Modern Inverter compressor uses an external variable frequency drive - to control the speed of the compressor. The refrigerant flow rate is changed by the change in the speed of compressor and contribute saving of energy to a large extent.

CHAPTER # 8
LIGHTING

8.1 Lighting system

Different types of Lumanaire has been used in the Building . A list of Luminaries Installed has been furnished as annexure 2

Though in Some floors LED lights has been used , some rooms are having CFL Lamps .These CFL lamps can be replaced by LED lamps which will give substantial power saving .

Are LED lights brighter than or equal to Compact Fluorescent (CFL) bulbs? The trick is to understand the technology. In short, LED and CFL as technologies do not have a difference in brightness intrinsically. Brightness is determined by lumens. Lumens is best described as the measurement of light. A single CFL and LED bulb might have the same lumen (brightness) output but vary greatly in the amount energy needed to generate that level of brightness.

Nearly 32 kw of Light is still Fluorescent type which can be replaced by LED at around 60% Wattage . Hence total saving per day will be around 20 KW and annual saving will be Rs 1,09,000/- considering 180 days / yr , 5 hrs / day working and per unit cost of Rs 7.6 and 80% diversity factor

8.2 Measured data

Lux Level (With all lights on)

Table 8.1 Lux level measurement

Room No	Lux Measured	Average Lux	Recommended	Remarks
111	331, 253, 205, 207, 292, 289, 316, 346	280	250 Lux	Good
112	335,360,249,380,294,303,287,281,2846,303,311,312,	305	250 Lux	Good
409	225, 176, 160, 262, 265, 365, 215, 202, 221, 228, 250, 315	240	250 Lux	Needs Improvement
406	293, 157, 221, 236, 268, 330	250	250 Lux	Good
202	353, 337, 322, 311, 307	326	250 Lux	Good
209	362, 353, 245, 313, 242, 347, 351, 347, 346, 349, 352, 351, 351	331	250 Lux	Good
309	222, 243, 326, 225, 202, 218, 250, 204, 220	234	250 Lux	Needs Improvement
214	281, 375, 322, 275, 357, 283	315	250 Lux	Good
301	256, 307, 279, 207, 372, 269, 318, 315, 355, 329, 339, 119, 216	283	250 Lux	Good

Sample saving calculation

Room No : 111

Room Size ; 22' x 11 ' = 242 sqft or 22.48 m2
Room Lumen actual : 280 * 22.48 m2 =6294 Lumen
Recommended Lumen : 250 x 22.48 m2 = 5620 Lumen
Wattage of Light : 72 x 5 sets = 360 watt
Lumen / Watt = 17.48
LED bulb has luminous efficacy of 40 Lumen / watt and as per ECBC Building code recommended Lighting load should be 0.9 – 1.1 watt / sqft. So wattage requirement for 242 sqft is 266 watt .

Present wattage maintained is hight (360 watt)

By Channging LED , we will have 5620/40 ie 140 watt
Saving in Room no 111 (360-140) 220 wa or .22 Kw
Annual saving (180 days / yr and 10 hrs/day) = 396 kw or Rs 3009

8.3 Observation and recommendations

8.3.1 Observations

- Lux maintained at various places are good
- Incorporating renewable energy for lighting has been taken up..
- In many places room lumen maintained is more than that recommended . This may be reduced suitably to reduce energy consumption
- Around 275 lumanaires are CFL which needs to be changed to LED to save further energy..

ANNEXURES

CESC LIMITED

CESC House, Chowringhee Square, Kolkata 700 001

Sub: Tariff and Associated Terms and Conditions vide Order dated July 4, 2018 of the Hon'ble West Bengal Electricity Regulatory Co

As per aforesaid Order of the Hon'ble Commission, the applicable tariff and related conditions for all categories of consumers of CESC Limited for the year 2017-18 are given below.

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No.	Type of Consumer	Applicable Tariff Scheme					Optional Tariff Scheme								
							Optional Tariff Scheme – I					Optional Tariff Scheme – II			
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH	Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs./ KVA/ Mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH	Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs./ KVA/ Mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH	E C P
1.	Life Line Consumer (Domestic)	Rate G (LL)	Normal	0 to 25	378	5.00	Not Applicable					Not Applicable			
2.	Domestic (Urban)	Rate G	Normal	First 25 Next 35 Next 40 Next 50 Next 50 Next 100 Above 300	489 540 641 716 733 733 892	15	Rate G (p)	Prepaid	All Units	722	15	Not Applicable			
3.	Commercial (Urban)	Rate M (i)	Normal	First 60 Next 40 Next 50 Next 150 Above 300	628 695 764 820 897	24	Rate M (i) (TOD)	Normal TOD	06:00 hrs to 17:00 hrs 17:00 hrs to 23:00 hrs 23:00 hrs to 06:00 hrs	760 836 707	24	Rate M (i) (pTOD)	Prepaid - TOD	06:00 hrs to 17:00 hrs 17:00 hrs to 23:00 hrs 23:00 hrs to 06:00 hrs	
4.	Short-term Supply	Rate STLT	Prepaid - TOD	06.00 hrs to 17.00 hrs 17.00 hrs to 23.00 hrs 23.00 hrs to 06.00 hrs	724 796 673	28	Not Applicable					Not Applicable			
5.	Specified Institution Municipal or Non-Municipal	Rate P	Normal	On all Units	634	28	Rate P(p)	Prepaid	On all Units	617	28	Rate P (pTOD)	Prepaid - TOD	06.00 hrs to 17.00 hrs & 20.00 hrs to 23.00 hrs 17.00 hrs to 20.00 hrs 23.00 hrs to 06.00 hrs	All Units All Units All Units
6.	Government School, Government aided School or Government Sponsored School	P1	Normal	On all Units	495	12	P1 (TOD)	Normal (TOD)	06.00 hrs to 17.00 hrs & 20.00 hrs to 23.00 hrs 17.00 hrs to 20.00 hrs 23.00 hrs to 06.00 hrs	All Units All Units All Units	488 537 473	12	Not Applicable		
7.	Public Bodies Municipal or Non-Municipal	Rate C1	Normal	On all Units	693	42	Rate C1(p)	Prepaid	On all Units	658	42	Rate C1(pTOD)	Prepaid - TOD	06.00 hrs to 17.00 hrs & 20.00 hrs to 23.00 hrs 17.00 hrs to 20.00 hrs 23.00 hrs to 06.00 hrs	All Units All Units All Units
8.	Cottage Industry / Artisan / Weavers / Small production oriented establishment not run by electricity as motive power	Rate M (ii)	Normal	First 100 Next 100 Above 200	553 672 817	24	Rate M (ii) (pTOD)	Prepaid - TOD	06.00 hrs to 17.00 hrs 17.00 hrs to 23.00 hrs 23.00 hrs to 06.00 hrs	All Units All Units All Units	619 681 576	24	Not Applicable		

Green Campus

Environmental Promotion Activity In The Campus by NSS

Dengue Eradication Drive by NSS 2018

Awareness Lecture 2018

Awareness Lecture by Nature Club 2018

Leafleting about Environmental Protection by NSS 2018

Leafleting about Environmental Protection by NSS 2018

7.1.3 CERTIFICATE OF THE AWARDS RECEIVED FROM THE RECOGNIZED AGENCIES

VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL

EXCELLENCE

2017

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 1762 KGS OF PAPER
WHICH NEARLYSAVED 35.24 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

www.vitalwaste.com | info@vitalwaste.com | 033-66064288

VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL

EXCELLENCE

2018

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 5866 KGS OF PAPER
WHICH NEARLYSAVED 117.32 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

www.vitalwaste.com | info@vitalwaste.com | 033-66064288

VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL

EXCELLENCE

2019

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 2521 KGS OF PAPER
WHICH NEARLYSAVED 50.42 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

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VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL

EXCELLENCE

2020

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 856 KGS OF PAPER WHICH NEARLYSAVED 17.12 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

www.vitalwaste.com | info@vitalwaste.com | 033-66064288

VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL EXCELLENCE

2021

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 1228.9 KGS OF PAPER WHICH NEARLY SAVED 24.5 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

www.vitalwaste.com | info@vitalwaste.com | 033-66064288

VITAL WASTE

A RECYCLING AND WASTE MANAGEMENT COMPANY

CERTIFICATE

OF ENVIRONMENTAL EXCELLENCE

2022

IN RECOGNITION OF THE SPIRIT TO CONSERVETHE ENVIRONMENT AND FOR MAINTAINING HIGH STANDARDS OF RECYCLING, WE ARE HAPPY TO CERTIFY

SHRI SHIKSHAYATAN COLLEGE

HAS RECYCLED 1979.3 KGS OF PAPER WHICH NEARLY SAVED 39.5 TREES

PRANAV GOEL

DIRECTOR

VITAL WASTE

A Brand of REDIVIVUS RECYCLERS PVT. LTD.

www.vitalwaste.com | info@vitalwaste.com | 033-66064288

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2017)

Audit Subject: Waste Audit report of the month January – December 2017

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

PURPOSE
The purpose of the audit was to identify, quantity and analyse the composition of the waste stream generated by the collective functional areas within the Premises.

SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 1762 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 1762 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
103.9	57.2	5	1.2	8.8	125.7

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2018)

Audit Subject: Waste Audit report of the month January – December 2018

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

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SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 5866 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 5866 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
346	190	16.9	4.2	29.5	418.5

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2019)

Audit Subject: Waste Audit report of the month January – December 2019

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

PURPOSE
The purpose of the audit was to identify, quantity and analyse the composition of the waste stream generated by the collective functional areas within the Premises.

SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 2521 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 2521 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
148	81.8	7.2	1.8	12.7	179.8

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2020)

Audit Subject: Waste Audit report of the month January – December 2020

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

PURPOSE
The purpose of the audit was to identify, quantity and analyse the composition of the waste stream generated by the collective functional areas within the Premises.

SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 856 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 856 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
50.5	27.7	2.4	0.6	4.3	61

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2021)

Audit Subject: Waste Audit report of the month January – December 2021

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

PURPOSE
The purpose of the audit was to identify, quantity and analyse the composition of the waste stream generated by the collective functional areas within the Premises.

SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 1228.9 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 1228.9 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
72.5	39.8	3.5	0.8	6.2	87.6

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

WASTE AUDIT REPORT

Shri Shikshayatan College Waste Audit Report (January – December 2022)

Audit Subject: Waste Audit report of the month January – December 2022

OVERVIEW

Vital Waste has been appointed to conduct Recycling of various types of solid waste (non-hazardous) at your premises. A waste Audit Report has been prepared as per the waste collection done.

PURPOSE
The purpose of the audit was to identify, quantity and analyse the composition of the waste stream generated by the collective functional areas within the Premises.

SUMMARY
The total amount of solid, Non-hazardous waste generated is estimated to be as below: - Paper and cardboard – 1979.3 kgs

Enclosure – Graphical Representation of Environment Impact through Recycling

Environmental saving through Recycling of 1979.3 kgs of Paper Recovery.

Trees (Mature Trees)	Water (Ltrs in Thousand)	Landfill Space (Cubic metres)	Oil (Ltrs in Thousand	Energy MWH	Air Pollution (Pounds)
116.7	64.2	5.7	1.4	9.9	141.2

We thankyou for giving us the opportunity to help you Reduce, Reuse and Recycle materials from your existing waste stream and provide you a foundation for a waste reduction work plan.

REPORT ON THE ENVIRONMENTAL PROMOTIONAL ACTIVITIES CONDUCTED BEYOND THE CAMPUS

7.1.3 REPORT ON

CLEAN AND GREEN CAMPUS INITIATIVE

AND

THE ENVIRONMENTAL PROMOTIONAL ACTIVITIES CONDUCTED BEYOND THE CAMPUS

The College is conscious of the need of environmental sustainability and hence take effective steps to promote the environment both inside as well as beyond the campus. The students are made aware of the campus as ‘Plastic free zone” and inculcate the habit of planting saplings to maintain a balance in the environment. They are sensitized of saving the Mother Earth and contribute in their own little way to keep the campus clean and green.

The NSS, LTS units of the College and Nature Club take steps to promote environmental promotion activities beyond the campus. Different awareness programmes on global warming, dengue and chikungunya are organized by the Nature Club. The NSS unit of the College organizes the online poster making and quiz competitions amongst the students to raise awareness about dengue. The cleaning of road and spreading of bleaching powder is done in the locality and this measure gets support and appreciation from the local residents and shopkeepers who are the beneficiaries of it. The LTS and NSS unit of the College organizes programmes like the Green Legion Walk, E- panorama, celebration of Earth Day and World Forest Week, competition on Recycles waste, projects on waste segregation to help the students consciously promote environmental promotional activities both inside and outside the campus of the Institution.

7.1.3

Name of the event- Dengue and chikungunya awareness programme

Date- 24/09/2018

Venue- College

Number of participants (students)- 40

Number of participants (teachers)- 3

Speaker: Smt. Ramyani Chattopadhyay (Faculty of Zoology)

Outcome- Creating awareness among students about dengue

Name of the event- Seminar on Say No to Plastics

Date- 12/01/2019

Venue- College

Speaker: Mr. Curtis Arathoon (Trustee, Green for Life Foundation)

Number of participants (students)- 40

Number of participants (teachers)- 5

Outcome- Alternative use of plastics and how to plant more trees was discussed

NAME OF THE EVENT- **CELEBRATION OF ENVIRONMENT DAY**

DATE: 25/6/20

VENUE: **Online mode**

COLLABORATOR (IF ANY):

NAME OF SPEAKER:

TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 12

NUMBER OF PARTICIPANTS (TEACHERS): 2

OUTCOME: NSS volunteers took an oath to take an initiative to save the environment and doing their bit for a cleaner and greener Earth. They enthusiastically participated in the activity of planting a sapling at home as it happened during the lockdown and posting its picture later. The celebrations ended with educating students on how to plant and adopt a tree and motivated them to plant more and more trees.

PICTURES (2)

NAME OF THE EVENT: Online poster making competition to raise awareness about dengue

DATE: 17.08.2020

VENUE: Online

COLLABORATOR (IF ANY): NA

NAME OF SPEAKER:

TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 54

NUMBER OF PARTICIPANTS (TEACHERS): 3

OUTCOME: Creating awareness among students and the public about dengue.

Example of posters made by the participating students

DATE: 17.08.2020

VENUE: Online

COLLABORATOR (IF ANY): NA

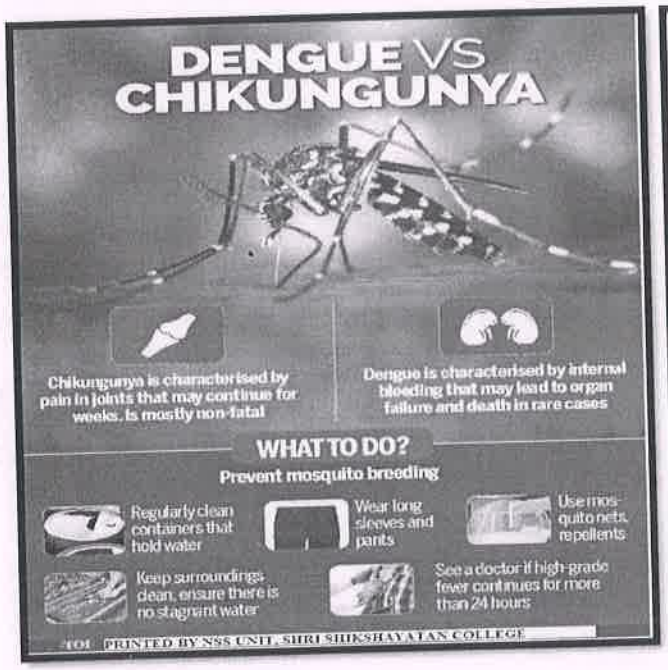
NAME OF SPEAKER:

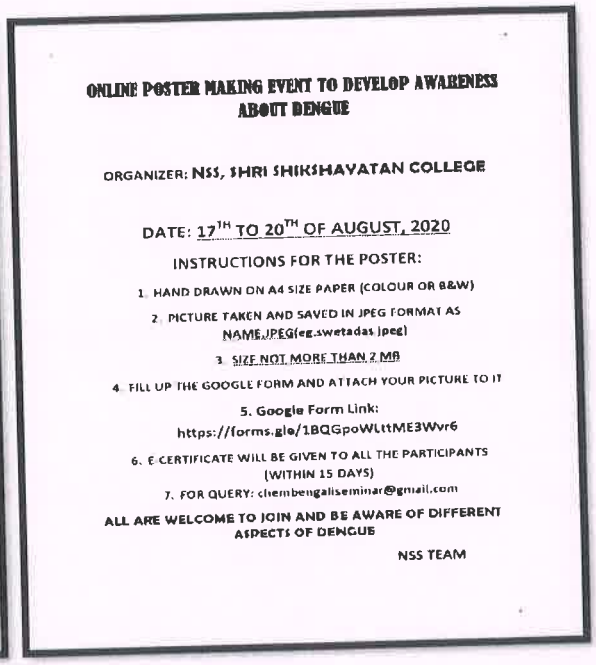
TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 54

NUMBER OF PARTICIPANTS (TEACHERS): 3

OUTCOME: Creating awareness among students and the public about dengue.





ONLINE POSTER MAKING EVENT TO DEVELOP AWARENESS ABOUT DENGUE

ORGANIZER: NSS, SHRI SHIKSHAYATAN COLLEGE

DATE: 17TH TO 20TH OF AUGUST, 2020

INSTRUCTIONS FOR THE POSTER:

1. HAND DRAWN ON A4 SIZE PAPER (COLOUR OR B&W)
2. PICTURE TAKEN AND SAVED IN JPEG FORMAT AS NAME.JPEG(eg.swetadas.jpeg)
3. SIZE NOT MORE THAN 2 MB
4. FILL UP THE GOOGLE FORM AND ATTACH YOUR PICTURE TO IT
5. Google Form Link: https://forms.gle/1BQGpoWLttME3Wvr6
6. E-CERTIFICATE WILL BE GIVEN TO ALL THE PARTICIPANTS (WITHIN 15 DAYS)
7. FOR QUERY: chembengaliseminar@gmail.com

ALL ARE WELCOME TO JOIN AND BE AWARE OF DIFFERENT ASPECTS OF DENGUE

NSS TEAM

NAME OF THE EVENT- Online quiz to raise awareness about Dengue

DATE: 22.08.2020

VENUE: Online

COLLABORATOR (IF ANY): NA

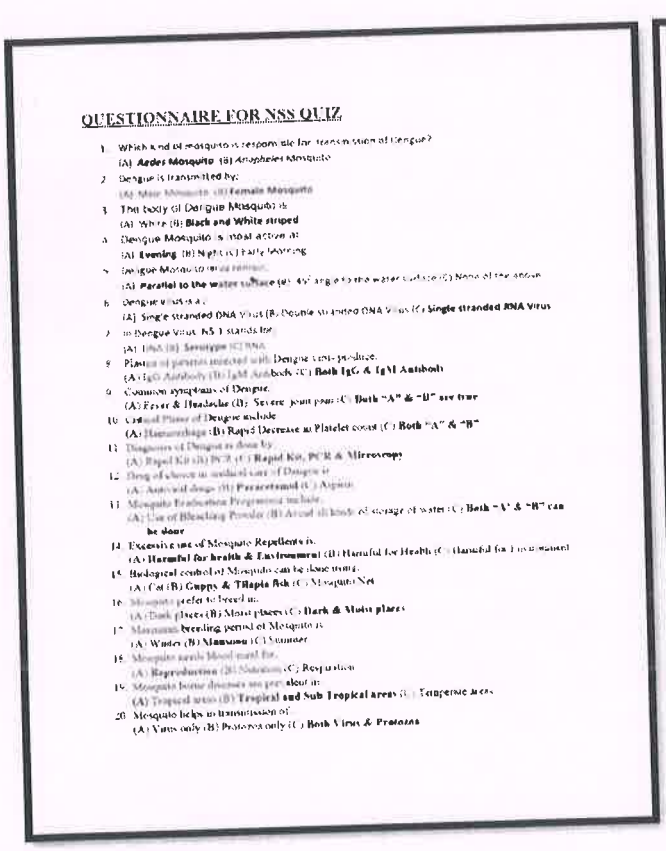
NAME OF SPEAKER:

TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 186

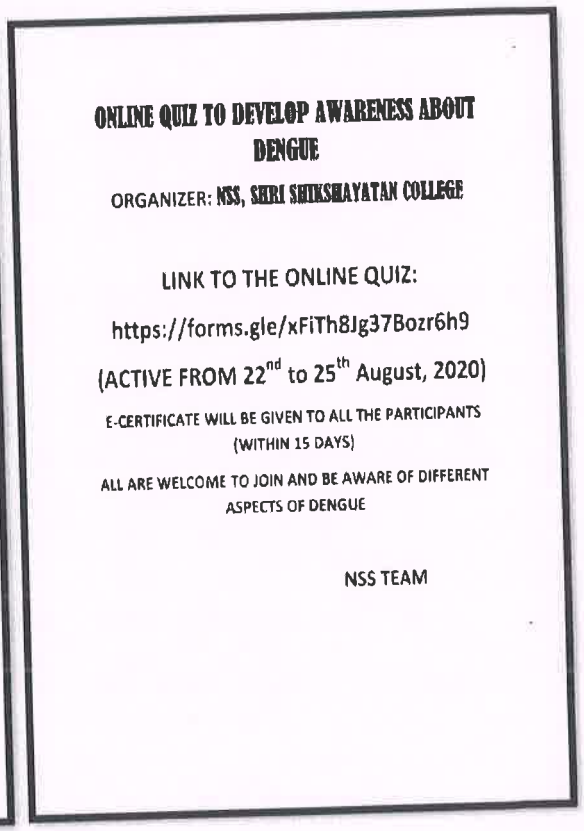
NUMBER OF PARTICIPANTS (TEACHERS): 3

OUTCOME: Creating awareness among students and the public about dengue. Students were enriched by the knowledge of this disease.The questionnaire is given below:



QUESTIONNAIRE FOR NSS QUIZ

1. Which kind of mosquito is responsible for transmission of Dengue?
   (A) **Aedes Mosquito** (B) Anopheles Mosquito
2. Dengue is transmitted by:
   (A) Male Mosquito (B) **Female Mosquito**
3. The body of Dengue Mosquito is
   (A) White (B) **Black and White striped**
4. Dengue Mosquito is most active at:
   (A) **Evening** (B) Night (C) Early Morning
5. Dengue Mosquito rests at
   (A) **Parallel to the water surface** (B) 45° angle to the water surface (C) None of the above
6. Dengue Virus is a:
   (A) Single stranded DNA Virus (B) Double stranded DNA Virus (C) **Single stranded RNA Virus**
7. In Dengue Virus NS 1 stands for
   (A) DNA (B) **Serotype** (C) RNA
8. Person of persons infected with Dengue test-positive.
   (A) IgG Antibody (B) IgM Antibody (C) **Both IgG & IgM Antibody**
9. Common symptoms of Dengue.
   (A) Fever & Headache (B) Severe joint pain (C) **Both "A" & "B" are true**
10. Critical Phase of Dengue include
    (A) Haemorrhage (B) Rapid Decrease in Platelet count (C) **Both "A" & "B"**
11. Diagnosis of Dengue is done by
    (A) Rapid Kit (B) PCR (C) **Rapid Kit, PCR & Microscopy**
12. Drug of choice in medical care of Dengue is
    (A) Antiviral drugs (B) **Paracetamol** (C) Aspirin
13. Mosquito Eradication Programme include
    (A) Use of Bleaching Powder (B) Avoid stagnation of storage of water (C) **Both "A" & "B" can be done**
14. Excessive use of Mosquito Repellents is
    (A) **Harmful for health & Environment** (B) Harmful for Health (C) Harmful for Environment
15. Biological control of Mosquito can be done using
    (A) Cat (B) **Guppy & Tilapia fish** (C) Mosquito Net
16. Mosquito prefer to breed in:
    (A) Dark places (B) Moist places (C) **Dark & Moist places**
17. Maximum breeding period of Mosquito is
    (A) Winter (B) **Monsoon** (C) Summer
18. Mosquito needs blood meal for
    (A) **Reproduction** (B) Nutrition (C) Respiration
19. Mosquito borne diseases are prevalent in
    (A) Tropical areas (B) **Tropical and Sub Tropical areas** (C) Temperate areas
20. Mosquito helps in transmission of
    (A) Virus only (B) Protozoa only (C) **Both Virus & Protozoa**



ONLINE QUIZ TO DEVELOP AWARENESS ABOUT DENGUE

ORGANIZER: **NSS, SHRI SHIKSHAYATAN COLLEGE**

LINK TO THE ONLINE QUIZ:

https://forms.gle/xFiTh8Jg37Bozr6h9

(ACTIVE FROM 22nd to 25th August, 2020)

E-CERTIFICATE WILL BE GIVEN TO ALL THE PARTICIPANTS (WITHIN 15 DAYS)

ALL ARE WELCOME TO JOIN AND BE AWARE OF DIFFERENT ASPECTS OF DENGUE

NSS TEAM

NAME OF THE EVENT: Webinar on Women at the time of COVID

NAME OF THE EVENT- Online quiz to raise awareness about Dengue

DATE: 22.08.2020

VENUE: Online

COLLABORATOR (IF ANY): NA

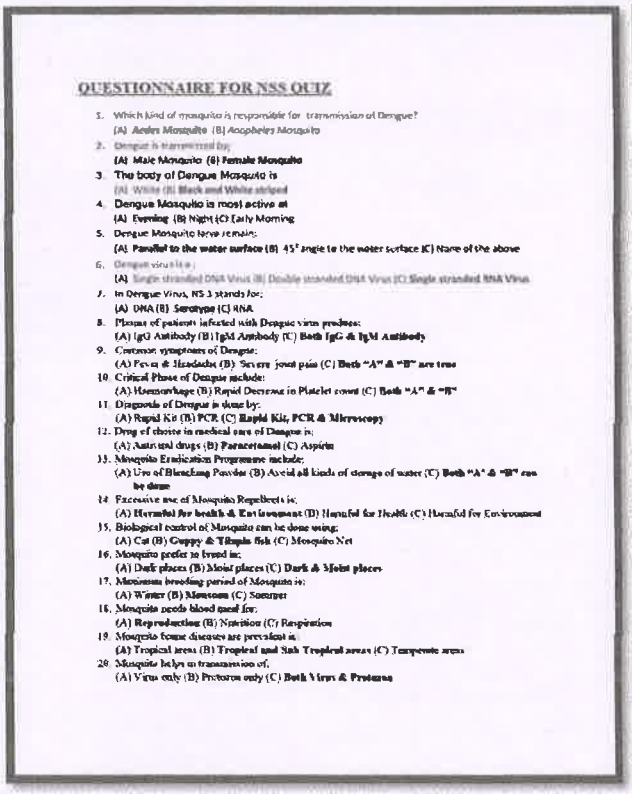
NAME OF SPEAKER:

TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 186

NUMBER OF PARTICIPANTS (TEACHERS): 3

OUTCOME: Creating awareness among students and the public about dengue. Students were enriched by the knowledge of this disease. The questionnaire is given below:



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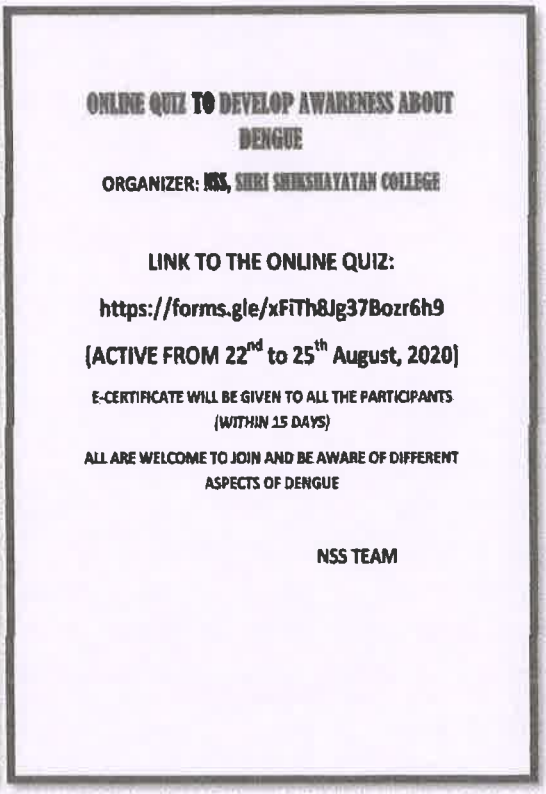
1. Which kind of mosquito is responsible for transmission of Dengue?
   (A) Aedes Mosquito (B) Anopheles Mosquito
2. Dengue is transmitted by;
   (A) Male Mosquito (B) Female Mosquito
3. The body of Dengue Mosquito is
   (A) White (B) Black and White striped
4. Dengue Mosquito is most active at
   (A) Evening (B) Night (C) Early Morning
5. Dengue Mosquito larva remain;
   (A) Parallel to the water surface (B) 45° angle to the water surface (C) None of the above
6. Dengue virus is a ;
   (A) Single stranded DNA Virus (B) Double stranded DNA Virus (C) Single stranded RNA Virus
7. In Dengue Virus, NS 3 stands for;
   (A) DNA (B) Serotype (C) RNA
8. Plasma of patients infected with Dengue virus produce;
   (A) IgG Antibody (B) IgM Antibody (C) Both IgG & IgM Antibody
9. Common symptoms of Dengue;
   (A) Fever & Headache (B) Severe joint pain (C) Both "A" & "B" are true
10. Critical Phase of Dengue include;
    (A) Haemorrhage (B) Rapid Decrease in Platelet count (C) Both "A" & "B"
11. Diagnosis of Dengue is done by;
    (A) Rapid Kit (B) PCR (C) Rapid Kit, PCR & Microscopy
12. Drug of choice in medical care of Dengue is;
    (A) Antiviral drugs (B) Paracetamol (C) Aspirin
13. Mosquito Eradication Programme include;
    (A) Use of Bleaching Powder (B) Avoid all kinds of storage of water (C) Both "A" & "B" can be done
14. Excessive use of Mosquito Repellents is;
    (A) Harmful for health & Environment (B) Harmful for Health (C) Harmful for Environment
15. Biological control of Mosquito can be done using;
    (A) Cat (B) Guppy & Tilapia fish (C) Mosquito Net
16. Mosquito prefer to breed in;
    (A) Dark places (B) Moist places (C) Dark & Moist places
17. Maximum breeding period of Mosquito is;
    (A) Winter (B) Monsoon (C) Summer
18. Mosquito needs blood meal for;
    (A) Reproduction (B) Nutrition (C) Respiration
19. Mosquito borne diseases are prevalent in;
    (A) Tropical areas (B) Tropical and Sub Tropical areas (C) Temperate areas
20. Mosquito helps in transmission of;
    (A) Virus only (B) Protozoa only (C) Both Virus & Protozoa



ONLINE QUIZ TO DEVELOP AWARENESS ABOUT DENGUE

ORGANIZER: NSS, SHRI SHIKSHAYATAN COLLEGE

LINK TO THE ONLINE QUIZ:

https://forms.gle/xFiTh8Jg37Bozr6h9

(ACTIVE FROM 22nd to 25th August, 2020)

E-CERTIFICATE WILL BE GIVEN TO ALL THE PARTICIPANTS (WITHIN 15 DAYS)

ALL ARE WELCOME TO JOIN AND BE AWARE OF DIFFERENT ASPECTS OF DENGUE

NSS TEAM

Annual Report NSS (2020-2021)

All programmes were done online

Date	Name of the programme	Collaborator	No.of participants
12.01.2020	Celebration of Swami Vivekananda's Birth Anniversary		5
July,2020	Essay Competition on Effect of COVID on Women/Environment		446 (50 of college, rest external)
15.8.2020	Independence Day (Virtual Programme)		43
17.8.2020	Online poster making competition to raise awareness about Dengue		54
22.8.2020	Online Quiz to raise awareness about Dengue		186
24.9.2020	Webinar on Women at the time of COVID		84
5.8.2020	Puja Dresses to the children of SICW		----
14.11.2020	Ration to UMEED		-----
23.12.2020	Sponsoring Christmas Dinner at Little Sisters of the Poor		------
29.1.2021	Orientation of NSS volunteers		78
4.2.2021	Orientation seminar on blood donation at the time of COVID	Blood Connect	77
5.2.21	Creative Writing event on blood donation	Blood connect	16
5.2.21	Case study event	Blood Connect	39
23.2.2021-1.3.2021	Seminar on Different Aspects of Mental Health		79+61+64+75+69+58 =406/6=68
23.2.2021	Webinar on NGOs in Kolkata		98
24.2.2021	Webinar on Social Entreprneurship		77
25.2.2021	Webinar on Formation of NGO		69
26.2.2021	Student Seminar on Breaking Gender stereotyping		67

27.2.2021	Webinar on Higher Studies in Social Work		56
28.2.2021	Webinar on Legal rights of Women		49
1.3.2021	Webinar on History of Women's Movement in India		65
4.3.2021	Online poser competition on "Women and Pandemic"		69
31.3.2021	Student Seminar to celebrate Environment Day		35
3.5.2021	Orienation session on recording of audio book by	Samamrthanam Trust	55
12.5.2021	Awareness Session on Thalassemia	Bloodconnect	70
19.5.2021	Webinar on Cyber crime and Security		87
5.6.2021	Competition on Recycles Waste		42
19.6.2021	Live yoga session to celebrate Yoga Day		36

NAME OF THE EVENT- Student Seminar to celebrate Environment Day

DATE: 31.3.2021

VENUE: Online

COLLABORATOR (IF ANY):

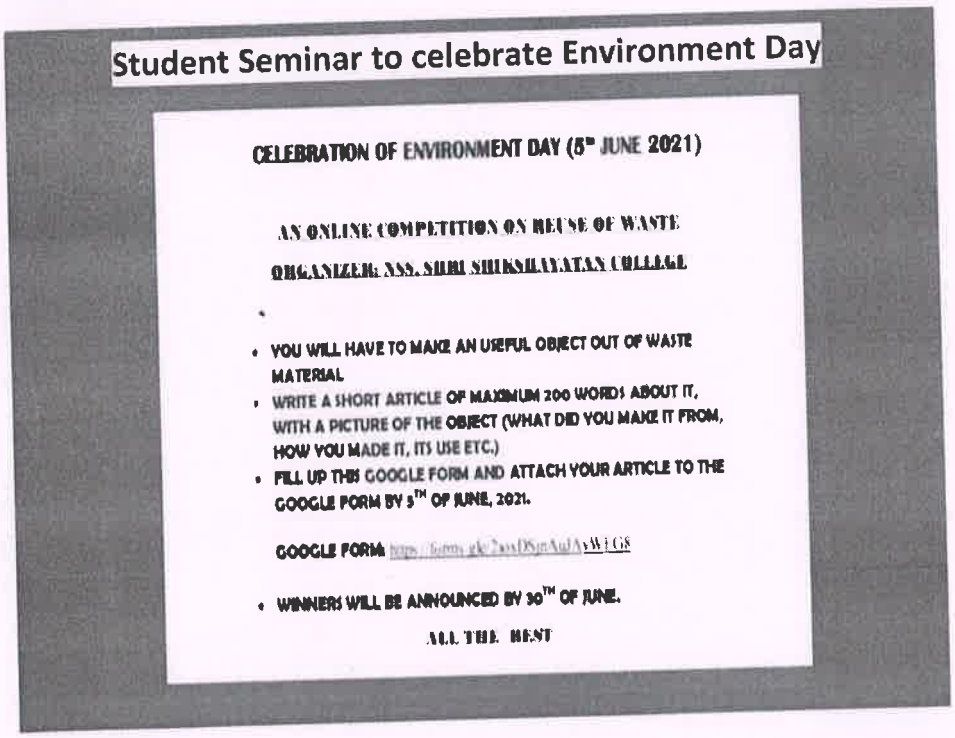
NAME OF SPEAKER:

TITLE OF LECTURE:

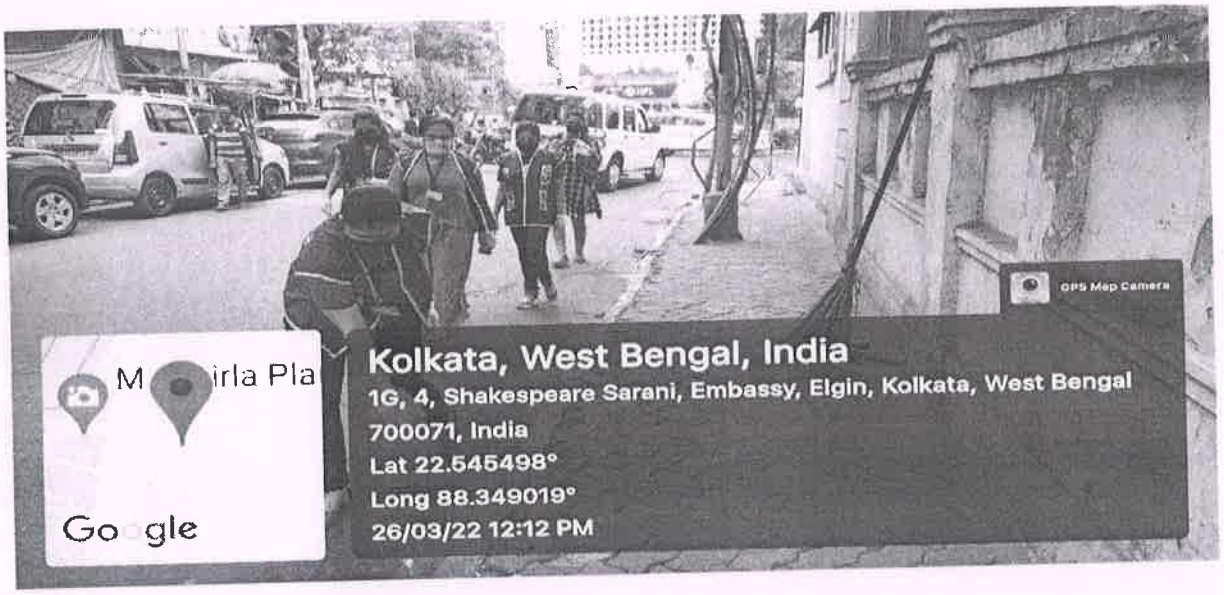
NUMBER OF PARTICIPANTS (STUDENT): 35

NUMBER OF PARTICIPANTS (TEACHERS): 4

OUTCOME:Increased environmental awareness.



Name of the event: Cleaning of local road and spreading of bleaching powder
Date: 26/03/2022
Venue: College Premises and adjacent Neighbourhood
Collaborator: N.A.
Name of the speaker: N.A.
Title of the lecture: N.A.
Number of participants (Student) :
Number of participants (teacher): N.A
Outcome: Local residents and shopkeepers were benefitted



NAME OF THE EVENT- WORLD ENVIRONMENT DAY

DATE: 05.06.2018

VENUE: CALCUTTA UNIVERSITY

COLLABORATOR (IF ANY):

NAME OF SPEAKER:

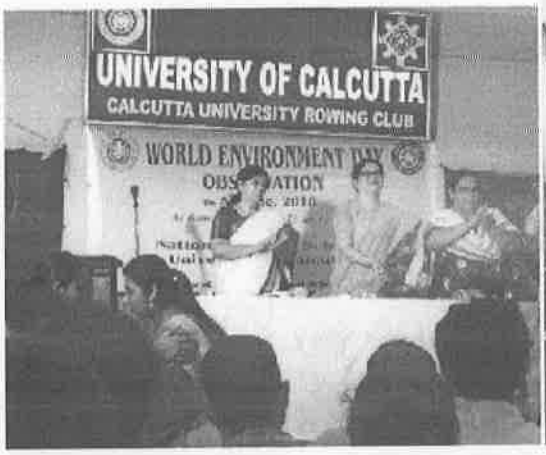
TITLE OF LECTURE:

NUMBER OF PARTICIPANTS (STUDENT): 60

NUMBER OF PARTICIPANTS (TEACHERS): 03

OUTCOME/ DESCRIPTION:

PICTURES (2)



REPORT FOR AN EVENT/ACTIVITY

NAME OF THE EVENT- **Dengue eradication drive on Lord Sinha Road**

DATE: 30.8.19

VENUE: Shri Shikshayatan College locality, Lord Sinha Road

COLLABORATOR (IF ANY): Shop keepers of the area

NAME OF SPEAKER:

TITLE OF LECTURE: NUMBER OF PARTICIPANTS (STUDENT): 18

NUMBER OF PARTICIPANTS (TEACHERS): 2

OUTCOME: Shri Shikshayatan College NSS volunteers had conducted a dengue prevention drive in the college localities. The volunteers forming teams had checked vacant plots and visited households to check whether there was any accumulation of stagnant water. They took up a broom to sweep the streets to generate awareness on dengue prevention and also spread bleaching all through the road.

PICTURES (2)

REPORT FOR AN EVENT/ACTIVITY

NAME OF THE EVENT- **Dengue eradication drive in college**

DATE: 4/9/19

VENUE: Shri Shikshayatan College

COLLABORATOR (IF ANY): Students of different department of college

NAME OF SPEAKER:

TITLE OF LECTURE: NUMBER OF PARTICIPANTS (STUDENT): 10

NUMBER OF PARTICIPANTS (TEACHERS): 3

OUTCOME: Shri Shikshayatan College NSS volunteers were instructed to identify places within the campus where mosquitoes were likely to breed. They were provided with disposable gloves, masks and disinfectant. The students screened the campus for stagnant water and tried to eliminate them. They emptied and removed empty cartons and containers filled with water. They also sprinkled bleaching powder on the ground and places where complete removal of cartons was not possible.

PICTURES (2)

DEPARTMENT OF GEOGRAPHY (DEPARTMENTAL ACTIVITIES)

YEAR 2016-17

NAME OF THE EVENT: Active Learning Day

DATE: 11.11.16

VENUE: Department of Geography, Shri Shikshayatan College

TITLE OF THE EVENT: 'Impact of Climate Change on India'

NUMBER OF PARTICIPANTS: Students-62 (Ist year Honours students)

Teachers- 7

DESCRIPTION: The students of First year Honours were divided into 7 groups for a power point presentation on 'Impact of Climate Change on India.' They spoke about the impact of climate change on various aspects like forests, water resources, health, extreme events etc. Dr. Nivedita Roy Barman and Mrs. Soha Hossain judged the competition .

(A)

NAME OF THE EVENT: National Webinar

DATE: 26.6.21

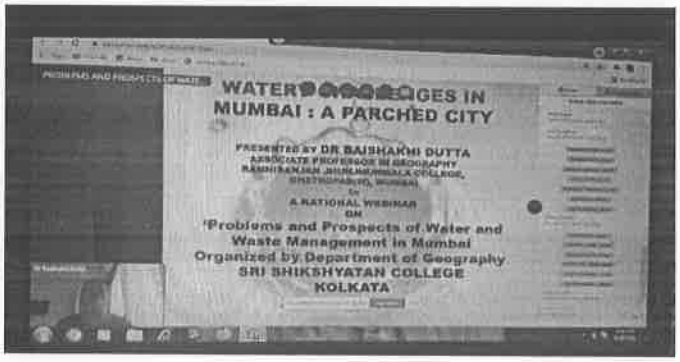
VENUE: Online (Google Meet)

TITLE OF THE EVENT: 'Problems and Prospects of water and waste management in Mumbai'

NAME OF THE SPEAKERS: Dr. Baishakhi Dutta and Dr. Chandani Bhattacharya

NUMBER OF PARTICIPANTS: Students- 150 (Students of Sem 2,4,6 Geography Hons.)
Teachers-8

DESCRIPTION: A National level Webinar was organized by the Geography Department on 26th June, 2021 from 3 pm to 5:30 pm.in an online mode (Impartus).The eminent speakers were Dr. Baishakhi Dutta, Associate Professor, R.J. College of Arts, Science and Commerce (Mumbai) and Dr. Chandani Bhattacharya, Associate Professor, H.R College of Commerce and Economics, Mumbai. The presentations 'Watery Challenges of Mumbai' A Parched City and Waste Management: A Mumbai Story were very informative and the sessions were interactive and interesting.



NAME OF THE EVENT: National Conference

DATE: 4.8.17

VENUE: Shri Shikshayatan College

COLLABORATOR: Department of Geography, Shri Shikshayatan College in association with Department of Geography, University of Calcutta, co-sponsored by The West Bengal Power Development Corporation Limited.

TITLE OF THE EVENT: 'Environmental Issues: Perspectives, Practices and Policies'

NAME OF THE SPEAKER: Dr. Ashish Ghosh (keynote speaker) and four other distinguished speakers.

NUMBER OF PARTICIPANTS: 60

DESCRIPTION: The National Conference on Environmental Issues was open to all UG Colleges. It was inauguarated by Dr. Aditi Dey and Dr. Sumana Bandopadhyay (CU collaboration). Dr. Ashish Ghosh was the keynote speaker. There were four other distinguished speakers.

ACTION TAKEN REPORTS AND ACHIEVEMENT REPORT AS CLEAN AND GREEN CAMPUS INITIATIVE

ACTION TAKEN REPORT ON GREEN AUDIT

A Green Audit was conducted by World Wide Fund for Nature India on the Transport, Electricity and Water by Shri Shikshayatan College in 2020-21. The actions taken by the College on the basis of the Report are

1. The Institution has confirmed to vital environmental services and resources for maintaining a sustainable environment for all its stakeholders.
2. The College has identified, quantified, recorded, reported and analysed all components of environmental diversity.
3. Efforts have been made to improve the environment of not the College campus but outside the campus even for creating an eco- friendly ambience.
4. The Institution checks and record the carbon footprint of the stakeholders and has minimized the use of personal vehicles within the campus.
5. Created awareness among all the stakeholders about water conservation and how to reduce the fresh water wastage.

ACTION TAKEN REPORT ON ENERGY AUDIT

A Energy Audit was conducted by ADAS, India in 2021-22 and the College has taken actions on the basis of that.

1. The College has been working on energy saving recommendations made by the Auditing Agency with regard to electric consumption, total power system, air conditioning and lighting.
2. Steps have been taken for energy management measures and for reducing energy wastage in major equipment and processes.
3. The College has identified the quantity, use of various energy and the potential of reduction of energy and the cost.
4. Spread awareness amongst all stakeholders to save energy for a sustainable future.

ADITI DEY

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