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# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1



ENERGY AUDIT REPORT 2021 - 2022

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## **ENERGY AUDIT TEAM MEMBERS:**

### 1. Dr. P. Marie Arockianathan,

Head of the Department in Biochemistry,

St. Joseph's College of Arts & Science (Autonomous),

Cuddalore-1.

## 2. Dr. T. Antony Sandosh

Head of the Department in Chemistry,

St. Joseph's College of Arts& Science (Autonomous),

Cuddalore - 1.

## 3. Dr.H.Jude Leonard Hilary

Assistant Professor in Department of Physics,

St. Joseph's College of Arts& Science (Autonomous),

Cuddalore - 1.

## 4. Dr. S. Sridevi

Assistant Professor in Department of Botany,

C. Kandaswamy Naidu College for Women,

Cuddalore - 1.

## 5. Dr. P. Thenmozhi,

Asst. Prof.& Head,

Department of Zoology

St. Joseph's College of Arts & Science (Autonomous),

Cuddalore - 1.

# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1. ENERGY AUDIT REPORT 2021-'22

Energy audit is defined as the verification, monitoring and analysing the use of energy. The following are the initiatives taken in our college for energy conservation.

Solar voltaic system has been fitted in the college for use of renewable energy. We
have two solar power plants within our campus. The power generated from the above
panels are being diverted for the illumination of the street lights inside the premises.



Power saved through these panels are tabulated below

S.No.	Power consumption	No. of lights(LED)	Usage(Hrs) /	Total (Watts)/Hr
	in Watts/Hr		day	
1.	24	6	12	144
2.	15	1	12	15
3.	22	1	12	22
4.	15	1(Post Light)	12	15
		Total	Watts/Hr	196
		Total	Watts/Day	2352
		Total	Watts/Year	858480
				Watts/858.48KW

2.Awareness about Energy conservation and prevention of Energy wastage is done by

keeping boards like "save electricity", "switch off computers when not in use", etc.

#### **Other initiatives**

- Architectural design for Administrative building and class rooms are based upon use of natural lighting and ventilation, to save extra power for bulbs and fans.
- For e.g. all the classrooms are provided with good number of windows.
- Florescent bulbs are replaced with LED bulbs and LED tubes gradually.
- We have been utilizing automatic cut-off system with sensors in all the RO units present in the campus.

S.NO	Electrical Appliances/Instruments	Number	Totalpow er(W)	kW
1.	TUBE LIGHT	30	184	1.8
2.	LEDBULB	122	320	3.0
3.	LEDTUBE	134	-	-
4.	PROJECTOR	10	-	-
5.	SPEAKERS	49	-	-
6.	SPEAKERWITHHORN	6	-	-
7.	FAN	233	-	-
8.	COMPUTER	277	-	-
9.	PRINTERS	10	-	-
10.	SCANNER	4	-	-
11.	UPS	5	-	-
12.	A/C (ordinary)	16	472	4.7
13.	INVERTER A/C	19	410	4.1
14.	REFRIGERATOR	4	2097	2.1
15.	OVEN	7	230	0.2
16.	CENTRIFUGE	6	-	-
17.	AUTOCLAVE	12	-	-
18.	LAMINARFLOW	5	-	-
19.	EXHAUSTFAN	13	-	-
20.	INCUBATOR	8	-	-
21.	SANITARYNAPKIN INCINERATOR	2	-	-
	Average Total Consumption i	n K.Watts		15.9

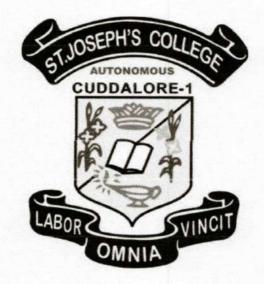
### **Energy Consumption pattern in a month**

**Bio-Gas Plant:** There is one bio-gas tank in Zoology lab which is the alternate source of LPG energy by which the number of gas cylinder usage has been reduced.

No. of cylinders used in the current year=4

1. Name: Dr. P. Marie Arockianathan Signature: Frankan Dr. P. MARIE AROCKIANATHAN Head & Associate Professor PG & Research Dept. of Biochemistry St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607 001. 2. Name: Dr. T. Antony Sandosh Signature: 7 HEAD OF THE DEPARTMENT DEPARTMENT OF CHEMISTRY St. JOSEPH'S COLLEGE OF ARTS & SCIENC (Autonomous), CUDDALORE - 607 001 is a wind fait 3. Name: Dr. S. Sridevi Signature: Dr. S. SRIDEVI, M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, Department of Botany, C. Kandaswami Naidu College for Women, Cuddalore - 607 001. 4. Name: Dr. P. Thenmozhi, Signature: 11 Dr. P. THENMOZHI Assistant Professor & Head Department of ZOOLOGY St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607 001.

# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1



ENERGY AUDIT REPORT 2020 - 2021

### **ENERGY AUDIT TEAM MEMBERS:**

### 1. Dr. P. Marie Arockianathan,

Head of the Department, Department of Biochemistry, St. Joseph's College of Arts & Science (Autonomous), Cuddalore - 1.

### 2. Dr. T. Antony Sandosh

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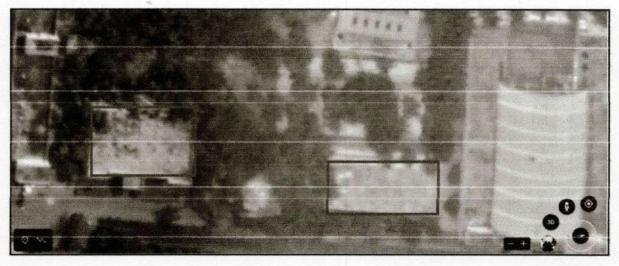
### 4. Dr. P. Thenmozhi,

Asst. Prof. & Head, Department of Zoology St. Joseph's College of Arts & Science (Autonomous), Cuddalore-1.

# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1. ENERGY AUDIT REPORT 2020-'21

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2.	15	1	12	15
3.	22	1	12	22
4.	15	1(Post Light)	12	15
	1	Total	Watts/Hr	196
		Tota	Watts/Day	2352
		Total	Watts/Year	858480 Watts/858.48KW

2. Awareness about Energy conservation and prevention of Energy wastage is done by keeping boards like "save electricity", "switch off computers when not in use", etc.

#### **Other initiatives**

- Architectural design for Administrative building and class rooms are based upon use of natural lighting and ventilation, to save extra power for bulbs and fans.
- For e.g. all the classrooms are provided with good number of windows.
- Florescent bulbs are replaced with LED bulbs and LED tubes gradually.
- We have been utilizing automatic cut-off system with sensors in all the RO units present in the campus.

S.NO	Electrical Appliances/Instruments	Number	Totalpow er(W)	kW
1.	TUBE LIGHT	65	400	4.0
2.	LEDBULB	122	320	3.0
3.	LEDTUBE	104	·	-
4.	PROJECTOR	9	- 1 20	-
5.	SPEAKERS	49	-	-
6.	SPEAKERWITHHORN	6	-	-
7.	FAN	233	-	-
8.	COMPUTER	235	-	-
9.	PRINTERS	10	-	-
10.	SCANNER	4	-	-
11.	UPS	5	-	-
12.	A/C (ordinary)	19	345	3.5
13.	INVERTERA/C	16	560	5.6
14.	REFRIGERATOR	4	2097	2.1
15.	OVEN	7	230	0.2
16.	CENTRIFUGE	6	-	-
17.	AUTOCLAVE	12	•	-
18.	LAMINARFLOW	5	-	-
19.	EXHAUSTFAN	13	-	-
20.	INCUBATOR	8	-	-
21.	SANITARYNAPKIN INCINERATOR	2	-	-
	Average Total Consumption in	K.Watts		18.4

#### Energy Consumption pattern in a month

**Bio-Gas Plant:**There is one bio-gas tank in Zoology lab which is the alternate source of LPG energy by which the number of gas cylinder usage has been reduced.

No. of cylinders used in the current year=nil(due to lockdown for Covid)

1. Name: Dr. P. Marie Arockianathan Signature: Frank Dr. P. MARIE AROCKIANATHAN Head & Associate Professor PG & Research Dept. of Biochemistry St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607 001. 2. Name: Dr. T. Antony Sandosh Signature: Am all a net HEAD OF THE DEPARTMENT DEPARTMENT OF CHEMISTRY St. JOSEPH'S COLLEGE OF ARTS & SCIENCE (Autonomous). CUDDALORE - 607 001 a is de min Classe

3. Name: Dr. S. Sridevi

Signature:

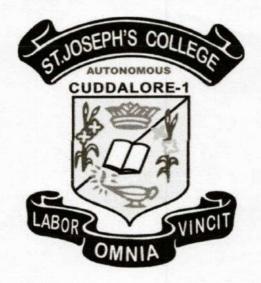
Dr. S. SRIDEVI, M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, Department of Botany, C. Kandaswami Naidu College for Women, Cuddalore - 607 001.

4. Name: Dr. P. Thenmozhi,

Signature: Dr. P. THENMOZHI Assistant Professor & Head

Department of ZOOLOGY St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607 001.

# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1



## ENERGY AUDIT REPORT 2019 - 2020

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## 2. Dr. T. Antony Sandosh

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### 4. Dr. P. Thenmozhi,

Asst. Prof. & Head, Department of Zoology St. Joseph's College of Arts & Science (Autonomous), Cuddalore - 1.

# ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) CUDDALORE – 1. ENERGY AUDIT REPORT (2019–2020)

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4.	15	1(Post Light)	12	15
		Total	Watts/Hr	196
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- > Florescent bulbs are replaced with LED bulbs and LED tubes gradually.
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S.NO	Electrical Appliances/Instruments	Number	Totalpo wer(W)	kW
1.	TUBE LIGHT	65	2600	2.6
2.	LEDBULB	122	7320	7.32
3.	LEDTUBE	104	2080	2.08
4.	PROJECTOR	9	1080	1.08
5.	SPEAKERS	49	980	0.98
6.	SPEAKERWITHHORN	6	180	0.18
7.	FAN	233	17475	17.475
8.	COMPUTER	235	47000	47.0
9.	PRINTERS	10	500	0.5
10.	SCANNER	4	40	0.004
11.	UPS	5	50	0.005
12.	A/C (ordinary)	19	15200	15.2
13.	INVERTERA/C	16	8000	8.0
14.	REFRIGERATOR	4	3120	3.12
15.	OVEN	7	21000	21.0
16.	CENTRIFUGE	6	660	0.66
17.	AUTOCLAVE	12	30000	30.0
18.	LAMINARFLOW	5	3600	3.6
19.	EXHAUSTFAN	13	520	0.52
20.	INCUBATOR	8	960	0.960
21.	SANITARYNAPKIN INCINERATOR	2	1600	1.600
	Average Total Consumptio	n in K. Watts		163.9

#### Energy Consumption pattern in a month

> Average Electricity Consumption in an Year is 1967 KW.

#### **Bio-Gas Plant**

There is one bio-gas tank in Zoology lab which is the alternate source of LPG energy by which the number of gas cylinder usage is reduced.

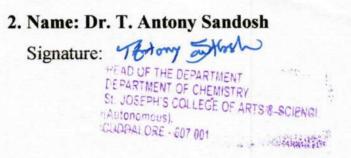
No. of LPG cylindersto be used in an year=3

No. of LPG cylinders reduced in usage =2

1. Name: Dr. P. Marie Arockianathan

Signature: Ford

Dr. P. MARUE ADOCIOANATHAN Head & A. PG & Research Deptore themistry St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607 001.



3. Name: Dr. S. Sridevi

Signature:

Dr. S. SRIDEVI, M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, Department of Botany, C. Kandaswami Naidu College for Women, Cuddalore - 607 001.

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