

Energy & Green Audit Report of Mohamed Sathak Engineering College, Kilakarai. 623806.



Submitted By

SPICE Energy Solutions



NGINEERING COLLEGE KILAKARAI-623506.

ENERGY & GREEN AUDIT COMPLETION CERTIFICATE

This is to certify that following utility has carried out Energy & Green Audit as per guidelines laid down ir The Energy Conservation Act, 2001 in the month of December 2017

Name of the Installation	Mohamed Sathak Engineering College.
Details of Facilities Audited	Main college building including laboratories, libraries, etc.
Date of Energy and Green Audit	23 December 2018
Name of Certified Energy Auditor	Dr.S.Boobalan
Certification No.	M1577144
Validity of the Certificate	22 December 2019



Signature of Auditor (Dr.S.Boobalan)

Dr.S.BOOBALAN,M.E.,MBA.,Ph.D., MISTE.,M.I.E.,C.Eng(I)., Associate Professor & HOD/EEE Mohamed Sathak Engineering College, Kilakarai-623806,Ramanathapuram Dist.

MOHAMED SATHAK ENGINEERING COLLEGF KILAKARAI-623506.

Sr. No	Area	Proposed Action	Expected Result	Monthly Energy Savings in kWh	Annual Reduction in CO ₂ emission in Tons	Monthly Cost Savings in Rs	Investment in Rs.	Payback Period in Months
1	Lighting Recommendation 1	R Replace the existing 36 W FTL tube lights into 18 W LED tubes	 Total No. of light fittings = 360 Nos. Total No. of Light fitting presently operated= 241 Nos. Total No. of light fittings to be replace= 241Nos. Present Energy Consumption = 8676 kWh Expected Energy Consumption = 4338 kWh Total Energy Saved per Month = 8676-4338= 4338 kWh Total Saving = 4338 kWh Monetary Savings = Rs.10258/- Investment = Rs.40970 Simple Payback period = 07 Months 	513	4.9	5072	40970	07
2	Lighting Recommendation -2	Replace the existing 2 X 36W PL lights into 2 X 18 W LED	 Total No. of CFL light fittings = 200 Nos. Total No. of Light fitting presently operated= 189 Nos. Total No. of light fittings to be replace= 189 Nos. Present Energy Consumption = 470 kWh Expected Energy Consumption = 165 kWh Total Energy Saved per Month = 470-165= 307 kWh Total Saving = 211 kWh Monetary Savings = Rs.2132 Investment = Rs.83450 Simple Payback period = 39 Month 	211	2.05	2132	83450	39
Energy &	& Green Audit Report -	- MSEC			KILAKARAI 623806	Moham	PRINCIPA ED SATHAK ENGINEE	AL RING COLLEGE

Executive Summary – Energy Audit

Page 3 of 35

KILAKARAI 623 806

Sr.No	Area	Observations	Remark
1	Tree Plantation	College has carried out tree plantation activity. Several type of trees has been planted by students and staffs	Good initiative taken by college toward green campus
2	Use of renewable energy – Solar PV system for power generation	Solar PV system of 100 kW has been installed by college to generate the electricity from solar energy. It helps to reduce 15 tons of CO2 emission annually	Good initiative taken by college towards use of renewable energy

Executive Summary – Green Audit



PAL PRII MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI 623 806

Table of Contents

S.No	Description	Page
		No
1	Executive Summary – Energy Audit	2
2	Executive Summary – Green Audit	3
3	Acknowledgement	5
4	About College, Mission, Vision	6
5	Energy Audit	7
6	Connected Load List	11
7	Actual Load Measurement Observations	14
8	Harmonic Study Observations	15
9	Energy Saving Measure 1 – Replacement of conventional lighting system	18
	into LED	
10	Requirements of NAAC	19
11	Alternative Energy Initiative	20
12	Percentage of lighting power requirement met through LED bulbs	21
13	Green Audit Goals & Benefits	22
14	Initiatives by College towards Sustainable Environment	23
15	Tree Plantation	24

WOHAMED SATHAK ENGINEERING COLLEGE

Energy & Green Audit Report – MSEC

4

Acknowledgement

SPICE Energy Solutions extends gratitude to Mohamed Sathak Engineering College for extending us the opportunity to conduct the Energy & Green Audit.

We are thankful to the professors & supporting staff of the college for their transparency & consistent support in sharing relevant information and for providing data about policies and projects along with their other valuable information. This report would have not been possible without their support.

The study team would like to acknowledge the following distinguished personnel's of Mohamed Sathak Engineering College in person for the diligent involvement and cooperation.

Prof. Dr. Dr.J.Abbas Mohaideen Principal

Prof . Dr.S.Boobalan

HOD

Department of EEE

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

About College

The strength of our college lies on the shoulders of our staff. Our staff are highly motivated and as a result, our students have been very well rightly guided to perform well in the Anna University examinations. In the last annual exam, out of 350 subjects, our staff produced 100% results of pass percentage in 72 Subjects and above 90% pass percentage in 180 subjects: In the recently published results for the first year (II sem) students in almost all the subjects, the staff have produced more than 90% results, except in two with 88%. This will boost up the level of our college and place it high when the rank list is published by the Anna University, Chennai.

Mission

- To provide Quality Education to the students across the country.
- To motivate them to acquire skills and disseminate knowledge.
- To achieve academic and Professional excellence.
- To offer the frontline facilities and sophisticated environment.
- To endow with Expertise Faculty by providing opportunity to promote the students' skills and knowledge.

Vision

To be an institution of repute and rare creativity in providing quality education with technical endeavor and research opportunities of very high standards to the students, who in turn shall contribute to the advancement of the society and human kind.

ENGINEERING COLLEGE MOHAMED SATH KILAKARAI-623508.

Energy Audit

An energy audit is an inspection, survey and analysis of energy flows, for energy conservation in a building, process or system to reduce the amount of energy input into the system without negatively affecting the output(s). In commercial and industrial real estate, an energy audit is the first step in identifying opportunities to reduce energy expense and carbon footprints.

Electricity Bill Analysis

At present, one electricity meter is there for all campus

Month	KWh Unit	Bill Demand	Max Demand	Energy Charges	Demand charges	P.F	Incent./ penalty	Bill Amt	Unit/Rate
Jan 19	5856.4	75	44.88	8969.55	17,625	0.91	0	52893	10.7
Dec 18	6321.2	75	51.28	9164.85	17,625	0.93	0	56574	10.6
Nov 18	5941.6	75	50	9016.5	17,625	0.92	0	53579	12.1
Oct 18	8015.2	80	57.84	9818.1	18,935	0.93	0	69932	10.1
Sep 18	8198	78	61.76	9898.65	19,500	0.94	0	71384	8.3
Aug 18	8551.2	79	62.8	10034.1	19,750	0.93	0	74168	11.2
July 18	8219.6	75	51.12	9876.75	18,750	0.93	0	71524	10.9
June 18	6528	75	41.04	9212.4	18,750	0.95	0	58172	9.2
May 18	8755.6	86	56.72	10092.75	21,500	0.94	0	75760	10.1
April 18	8850.8	86	53.12	10119.45	21,500	0.94	0	68539	9.6
Mar 18	8460	90	48.16	9955.4	22,500	0.93	0	73409	8.5
Feb 18	7863	76	47.92	9730.8	19,000	0.92	0	68707	9.5
Avg	53757.31	79	76	115889.3	19422	0.948	0	186845	10.07

Bill analysis for consumer number 075949015560 shown below









Energy & Green Audit Report – MSEC

UNCIPAL MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

8



MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

Observations

- Monthly avergae energy consumption is 16771.7 kWh
- Monthly average maximum demand is 76 kVA
- Monthly average power factor is 0.948 which is on lower side. Improve the power factor to unity. Most of the time, college is not getting the benefit of power factor incentive in the bill. If college will maitain the power factor unity then college will get 7% incntive of on bill
- Monthly average electricity bill is Rs.186845/-
- Avg. unit rate is 10.07 Rs./kWh

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623508.

Connected Load List

SERVICE LINE BLOCKS		FLUORESCENT LAMP		CELLING FAN			PLC LAMP			COMPUTERS			
		Qty	Watts	Total	Qty	Watts	Total	Qty	Watts	Total	Qty	Watts	Total
144	CIVIL / CSE / MBA / MCA BLOCK	230	40	9200	125	60	7500	150	25	3750	175	300	52500
144	AUDITORIUM	100	18	1800	30	60	1800	282	36	10152	0	0	0
144	MARINE LAB	80	40	3200	50	60	3000	0	0	0	0	0	0
144	AERO LAB	80	40	3200	50	60	3000	0	0	0	15	300	4500
144	TRANSPORT	25	40	1000	15	60	900	0	0	0	0	0	0
210	DIGITAL LIBRARY	260	40	10400	190	60	11400	0	25	0	45	300	13500
210	ARCH / ECE / MARINE/ AERO BLOCK	190	40	7600	170	60	10200	100	25	2500	125	300	37500
210	HOSTEL GROUND	25	600	15000	0	0	0	0	0	0	0	0	0
210	CANTEEN	15	40	600	6	60	360	0	0	0	0	0	0
144/210	MAIN BUILDING	410	40	16400	260	60	15600	60	25	1500	15	300	4500
144/210	WORK SHOP	125	40	5000	80	60	4800	0	0	0	0	0	0
144/210	MARINE SHIP	50	20	1000	0	0	0	0	0	0	1	300	300

PRINCIPAL NOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623606.

Energy & Green Audit Report – MSEC

11

SERVICE LINE	BLOCKS		PRINTER / OHP / TV		LAB MOTOR		CFL LAMP			EXHAUST FAN			
		Qty	Watts	Total	HP	Watts	total	Qty	Watts	total	Qty	Watts	total
144	CIVIL / CSE / MBA / MCA BLOCK	5	2000	10000	75	736	55200	0	0	0	0	0	0
144	AUDITORIUM	0	0	0	0	0	0	20	85	1700	0	0	0
144	MARINE LAB	0	0	0	5	736	3680	0	0	0	0	0	0
144	AERO LAB	0	0	0	10	736	7360	0	0	0	0	0	0
144	TRANSPORT	0	0	0	20	736	14720	0	0	0	0	0	0
210	DIGITAL LIBRARY	3	2000	6000	0	0	0	0	0	0	0	0	0
210	ARCH / ECE / MARINE/ AERO BLOCK	5	2000	10000	0	0	0	0	0	0	0	0	0
210	HOSTEL GROUND	0	0	0			0	0	0	0	0	0	0
210	CANTEEN	0	0	0	3	736	2208	0	0	0	0	0	0
144/210	MAIN BUILDING	5	2000	10000	0	0	0	0	0	0	0	0	0
144/210	WORK SHOP	0	0	0	75	736	55200	0	0	0	0	0	0
144/210	MARINE SHIP	0	0	0	55	736	40480	15	80	1200	10	1000	10000

PRINCIPAL WOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623808.

SERVICE LINE	BLOCKS		WATER COOLER		UPS			AIR CONDITION (ton)			
		Qty	Watts	total	KVA	PF	total	1750	2000	watts	
144	CIVIL / CSE / MBA / MCA BLOCK	3	1960	5880	9000	0.9	8100	7	2	16250	
144	AUDITORIUM	0	0	0		0	0	0	0	0	
144	MARINE LAB	0	0	0		0	0	0	0	0	
144	AERO LAB	0	0	0	1000	0.9	900	0	2	4000	
144	TRANSPORT	0	0	0		0	0	0	0	0	
210	DIGITAL LIBRARY	0	0	0	2000	0.9	1800	0	0	0	
210	ARCH / ECE / MARINE/ AERO BLOCK	3	1960	5880	0	0	0	7	2	16250	
210	HOSTEL GROUND	0	0	0	0	0	0	0	0	0	
210	CANTEEN	2	1500	3000	0	0	0	0	0	0	
144/210	MAIN BUILDING	3	1960	5880	2000	0.9	1800	5	3	14750	
144/210	WORK SHOP	0	0	0	0	0	0	0	0	0	
144/210	MARINE SHIP	0	0	0	0	0	0	0	0	0	

Energy & Green Audit Report – MSEC

PRINCIPAL NOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623806.

13

Actual Load Measurement

The power logging is done at the mains of the 250 kVA transformer incoming.

The following parameters are logged.

Summary Table for Voltage and Current								
	١	/oltage (Volt)		Current (Amp)				
Phase	R Phase	Y Phase	B Phase	R Phase	Y Phase	B Phase		
Min	236.5	237.6	236.1	44.17	50.01	41.3		
Average	236.9	237.8	238.9	43.28	50.03	43.8		
Max	237.2	238	239.1	43.82	50.06	46.2		

Summary Tables For kW & Power Factor							
	Power (kW) Power Factor						
Phase	R Phase	Y Phase	B Phase	Total	Total		
Min	8.85	11.80	9.63	30.29	0.958		
Average	8.86	11.85	10.34	31.05	0.988		
Max	8.88	11.91	10.92	31.72	0.989		

Observations

- Average and maximum phase voltage is 238.9 volts and 239.1 volts respectively.
- Average and maximum load is 31.05 kW and 31.72 kW respectively
- Average and minimum power factor recorded is 0.988 and 0.989 respectively during recorded period

NOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

Harmonic Study

The Total Harmonic Distortions in main incomer are in the following table.

Total Harmonic Distortion							
		V _{THD}		I _{THD}			
		%		%			
Phase	R	Y	В	R	Y	В	
Min	1.5	1.8	1.4	12.5	12.2	0	
Average	1.55	1.86	1.6	12.667	12.3	0	
Мах	1.6	1.9	1.9	12.8	12.4	0	

Observations

- Maximum voltage THD is 1.9% which is in the permissible limit of IEE 519 (i.e. 3%)
- Maximum current THD is 12.8% which is in the permissible limit of IEE 519 (i.e. 12%)

The monitored parameters of main incomer are also mentioned in line graph as shown below.



MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623808.





PRINCIPAL MOHAMED SATHAK ENGINEERING COLLEGE 16 KILAKARAI-623506.





MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623808.

Lighting Recommendation -1

Replace the existing 36 W FTL tube lights into 18 W LED tubes

- Total No. of light fittings = 325 Nos.
- Total No. of Light fitting presently operated= 325 Nos.
- Total No. of light fittings to be replace= 325Nos.
- Present Energy Consumption = 1058 kWh
- Expected Energy Consumption = 545 kWh
- Total Energy Saved per Month = 1058-545= 513 kW h
- Total Saving = 513 kWh
- Monetary Savings = Rs.5166
- Investment = Rs.108460
- Simple Payback period = 21 Months

Lighting Recommendation -2

Replace the existing 2 X 36W PL lights into 2 X 18 W LED

- Total No. of CFL light fittings = 61 Nos.
- Total No. of Light fitting presently operated= 61 Nos.
- Total No. of light fittings to be replace= 61 Nos.
- Present Energy Consumption = 410 kWh
- Expected Energy Consumption = 198 kWh
- Total Energy Saved per Month = 410-198= 211 kWh
- Total Saving = 211 kWh
- Monetary Savings = Rs.2132
- Investment = Rs.83450
- Simple Payback period = 39 Month

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

Requirements of NAAC

Percentage of lighting power requirement met through LED bulbs

Percentage of lighting power requirement met through LED bulbs

= (Lighting power requirement met through LED bulbs / Total lighting power requirement) X 100

= (14.78 / 42.20)

= 35.01 %

RINCIPAL MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

Green Audit

Green audit was initiated with the beginning of 1970s with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. It exposes the authenticity of the proclamations made by multinational companies, armies and national governments with the concern of health issues as the consequences of environmental pollution. It is the duty of organizations to carry out the Green Audits of their ongoing processes for various reasons such as; to make sure whether they are performing in accordance with relevant rules and regulations, to improve the procedures and ability of materials, to analyze the potential duties and to determine a way which can lower the cost and add to the revenue. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Some of the incidents like Bhopal Gas Tragedy (Bhopal; 1984), Chernobyl Catastrophe (Ukraine; 1986) and Exxon-Valdez Oil Spill (Alaska; 1989) have cautioned the industries that setting corporate strategies for environmental security elements have no meaning until they are implemented.

Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade a, Grade B or Grade C according to the scores assigned at the time of accreditation.

The intention of organizing Green Audit is to upgrade the environment condition in and around the institutes, colleges, companies and other organizations. It is carried out with the aid of performing tasks like waste management, energy saving and others to turn into a better environmental friendly institute.

Goals of Green Audit

- The objective of carrying out Green Audit is securing the environment and cut down the threats posed to human health.
- To make sure that rules and regulations are taken care of
- To avoid the interruptions in environment that are more difficult to handle and their correction requires high cost.
- To suggest the best protocols for adding to sustainable development

NOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

20

Benefits of Green Audit

- It would help to shield the environment
- Recognize the cost saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- Authenticate conformity with the implemented laws
- Empower the organizations to frame a better environmental performance
- It portrays a good image of a company which helps building better relationships with the group of stakeholders
- Enhance the alertness for environmental guidelines and duties

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

Initiatives by College towards Sustainable Environment

Tree Plantation

Tree-planting is the process of transplanting tree seedlings, generally for forestry, land reclamation, or landscaping purpose. It differs from the transplantation of larger trees in arboriculture, and from the lower cost but slower and less reliable distribution of tree seeds.

In silviculture the activity is known as reforestation, or afforestation, depending on whether the area being planted has or has not recently been forested. It involves planting seedlings over an area of land where the forest has been harvested or damaged by fire, disease or human activity. Tree planting is carried out in many different parts of the world, and strategies may differ widely across nations and regions and among individual reforestation companies. Tree planting is grounded in forest science, and if performed properly can result in the successful regeneration of a deforested area. Reforestation is the commercial logging industry's answer to the large-scale destruction of old growth forests, but a planted forest rarely replicates the biodiversity and complexity of a natural forest.

Because trees remove carbon dioxide from the air as they grow, tree planting can be used as agro engineering technique to remove CO₂from the atmosphere. Desert greening projects are also motivated by improved biodiversity and reclamation of natural water systems, but also improved economy and social welfare due to increased number of jobs in farming and forestry.

College has planted the trees campus area to make it more environments friendly.

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623506.

(/ 104401	
Name of Activity organized	Tree Plantation
Title of the Activity	Tree Plantation
Date of Activity organized	01/7/2016
Name of the coordinator of Activity	Prof.N.Meera Mohaideen
Place of the Activity	MSEC, Campus
No. of Participant (Student+ Staff)	188
Name of the sponsored	GREEN KALAM PROJECT
organization	
Nature of sponsorship (Total	NIL
Grants Received if any)	
Objective of the Activity	To save environment , Reduce global warming
Outcome of the Activity	Improves Air quality ,reduces erosion and
	pollution
News	s published (if any)
	Photo Gallery
	WOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI-623806.
Pho	to-1 Tree Plantation

(Academic Year: 2017-18)





ENERGY AUDITING REPORT

То

The Principal , Mohamed Sathak Engineering College , Kilakarai – 623806.

Sub: Energy audit report for LED lamp utilized in MSEC – Kilakarai.

7.1.4 Percentage of annual lighting power requirements met through LED bulbs (2018-19)

Total Lighting requirements	:	42200KWH
Percentage Lighting through LED bulbs	:	35.01 %
Percentage Lighting through other	:	64.99 %



S.BOOBALAN, M.E., MBA., Ph.D., MISTE., M.I.E., C.Eng(I)., Associate Professor & HOD/EEE Mohamed Sathak Engineering College, Kilakarai-623806, Ramanathapuram Dist.

PRINCIPAL MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI 623 806

ENERGY AUDITING REPORT

3

Sub: Details of LED lamp utilized in Mohamed Sathak Engineering College – Kilakarai

					Energy	Energy
S.No	Description	Watts	ατγ	Avg.Operating Hours / Day	consumption (KwH) / Day	consumption (KwH) / Year
						0107 00
		35	15	11	5.78	2101.00
-	Street Lignt – LEU	3	2			5200 SU
	Ctrock 1 inht 1 ED	60	22	11	14.52	00:0070
Z	סוופבו רואווי - ררה				100	2375 0G
c	I ED Danel (Sultare Type)	18	241	1.5	10.0	5010103
<u>。</u>	LED Faller (oddare 1)Pol				13.68	4993.20
4	LED Tube Light	20	152	6.4	00001	
		seumotio	n ner Year in	KWH through LED		14775.93
	lotal Energy col	nduinei	in port toda in			

Kilakarai-623806.Ramanathapuram Dist Mohamed Sathak Engineering Collegia Dr.S.BOOBALAN,M.E.,MBA.,F* 7. MISTE.,M.I.E.,C.E+3 44 Associate Professor & HOLDEE 4





MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI – 623 806 MSEC STORE



		2	1	Γ		Γ	Γ				Τ	Τ	Τ					Τ		1	
		Ben	12															-		a	2
		ланис	Principal	Z	3	ろ	ぞ	Ъ,	た												
	105	Sig	Store In charge	A.S.	222-2	J.p.	222	Dr. dr. C	34.	1. N. L.	122	The B	A. S.	E.	A Start	R. R.					
ne No.	BC INU.		Balance	500	747	267	468	158.	455	1,27	1 67	007	410	147	399	39,8					
ď	Га	No.	Disposed Off	l	ى	!	. SC	· 01	05	٩١	و 0	· 0	5	5	d	× -	v			ا م	
			Sígn	l	and y	L'A	AL AL	Str.		R. R. H	Af	-true	Q.Kulin	All	A	é,	i-A ¹	H.T.	N 1 B	Egnila.	
		etails	Location Identification		12154 Samo	SNYSSics	YOUN HOUSEN	Claes toom	طمل المانك	لك ويما الم وسه ور	New Burgh	Cleys Poor	- & x x x x x x x x x x x x x x x x x x	Burgalaw	Phoement	Cuo logua	leced hay	bog à Host	Dean House	Hechania	
ster		Issued De	No.of. Quantity	1	و و		ත	٥	5	9	5+1	63	13	Ŋ	4	-	+	Ч	~	6	
k Regi			Date		lologi I (g	2, 10 1	04/10/18	2/10/18	51/01/20	graf (di	SI/OILI	25/00/2	analantiva	8/101/1	3,11	81[\\]L	28/11/18	5/12/18	8 12/8	9.12.18	
Stocl			Dept		(to vor	DREH	(a) fac	HERO	21110	Acres	UJQ1	LL CE	and the second		L'ACE	=		-	=	3	
		Amount	Rs	1																2	EGE
		QIY	Purchased	P.F.																	ERING COLL
אב רו פיאנ		Description		O TOUCE O														6		PRINCIP	SATHAK ENGINE ILAKARAI 62
S: LED TUP		Supplier Name		لمعتا وعستعلم																	KIOHAMED K
Article	Invoice	Bill		4												KILAKARAI 623804					-
e of the	, L	naic	Subalie		- Andre C										¥	ED &			_		
Nam		02.6	_		6															+	

Scanned by CamScanner

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI – 623 806 MSEC STORE

いたいでいたが、ことでいたでいたのであり、

A APPROXIMENT

Name of the Article: LED TUBE LISHE

Page No: 106

															T	Т	T	T	7
Rema	rks													-					
nature	Principal																		
Sign	Store In charge	Tr-Se-A	Je	Ser 22	and the second	Less?	the start	A. S.	The st	The state	E AL								
	Balance																		
No	Disposed Off																		
	Sign	Manulu	A III A	Bruch	-Q1	No the second	in the second	- within	M-SA	AN.	R-14	M. Fr. U	L.	A					.
	Location	Merillication	Main Gela	33t your	her in the	314 Jroom-2 Clay Room -2	Lab 132	WORK Shop	دراطما صغها	Ewil black	Principalitan	parcialt simurant	SHABC	Securits					
	Issued De	Quantity	7 4	7 -		4	8	2	a	1+1	PHT HE	6	So	0					
	Date		ALL LA	। भारगार्थ		51/10/ 50	61 101 t.0	21 /10/12	61/10/30	0662110	+ 55/02/1	erler 11	<u>مالده/معط</u>	424					
	Dent	1			00	J. No		Work	8,4	(Elec.		20	1-9-1-					EG.
	Amount Rs																	AL	CERING COL
	Qry Purchased															5	8	RINCI	HAK ENGINE
2	Description																	d	WOHAMED SA
	Supplicr Name														Z				
Invoice	Bill														C23606				
	Date														131.74				
	S.No											1	1		1	\uparrow	1	1	\neg

Scanned by CamScanner

シートレーンというというというというというというというという



MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI – 623 806 MSEC STORE



Ц
te
is
eg
2
K
30
S

Name of the Article: רבט משאבר רומאי

Page No:110

				T						-		1	1	1	T	1	T	T	
re Rema	incipal da	Zi	ź							-								_	_
Signanu	charte Pr	12.15	1 miles	E. Net	1×3	Les Mary	Jag and	The set	A.S. C.	The second	12.5	N. S.	C. : EL						_
	Datance) 33cD	2470	243	5623	2413	23%	23710	1020	0000	100	325							
No.	Disposed		30	40	g	Y	in ch	. 8	6		ž.	2							
	Sign		X	-1120	Ford	まま	Q. Aur	Q.A.M.G	R.S.J.	X: CON	Raut	52. R	-07						
etails	Location		Sinta Bog	Soninar	Uon Emm	ちいうこと	مى تولى بى مى		ושופסיו פאבו מנורמדעפיו	CSE	man the la	and the	Comen albur						
Issued D	No.of.	Annueny	с С		8	Ň	2	2	10	44	51	. 3	5						
	Date		Ve laska	and of the	-Telie	03/10/10	at he like	0 m / 4 / 12	al ci la	たいい (11	ميايلوا	P-alul-s	cheel 2					t	
	Dept	•	X	빌	508	27.40	ter or	a contract	(solpe	6:475)	N.	of the part	1. SUCON					6 COL	9
	Amount Rs		,													0	τρλι	VOWEER	1 623 8(
ė	Purchased	1970														How	prind	ED SATHAK B	кисанана
	Description	ten Truck																NOHAN	
Circultan	oupplict Name	RECINC IN												(Contraction (1)			
Invoice	Bill																		
Date		eristie								-									
C ND														-	-				

seamers and hermons

6

MOHAMED SATHAK ENGINEERING COLLEGE KULAKARAI – 623 806 MSEC STORE



Stock Register

Name of the Article: STREET LICHT LED

Page No: 101

Г					1	T		-										
	Rema	2																
	nature	Principal	, Kr	Ž														
	Sig Store In	charge	the state	٦ _γ	Juni 1	3												
	Balance		152	871		273	139	135										
	No. Disposed	Off					2	\ ¥										
		Sign		syme (4	2	Ð											
	tails	Location	Inclusion	indiate and	Taking hand	20 by	ようでいろうとう	SHAB										
	Issued De	No.of.	Kinuen	1	-	7	<u>, , , , , , , , , , , , , , , , , , , </u>	V							NG COLLEGE	90		
		Date			211845	23/4/18	241					4		GIPA	ENGINEERI	3AI 6238		
		Dept	•	1 50	2	0.43 1	TATA I	5				1	2	R I	ATHAK	AKAF		
3	Amount	Rs		0											OHAMED S	ž		
	Otv	Purchased		2,00											-			
	Decerimina	uonquinen	/											RINC				
	Supplier Name		2000,000 50										ALLA ENG	S KILAKARA	TI III			
	Invoice	ma																
	Date		0118951															
	S.No		÷								Γ	T		T		T	T	

Scanned by CamScanner

REED.	

MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI - 623 806 MSEC STORE



	0	۰.													1		1	1 1
	Rema	R										 	a scatter -			-united and a second		
lo	Signature	Store In Principal charge	to say	and wh	X AN	N AN	No and	C. Marker								(and a state of the state of th	problemment of	
e No:		in the	'EB	76	53	cc	1	0	5							-		
Pag	No.	Disposed	e	-	-	11	ig)	-	5							100.00		
		Sign	æ	-Co	B	8.	.0	Ø	15	Q)								
	rails	Location	SILK	Bo wayou	10 marg	Buch A Part	Bugalo -	Burgelow	hiberro	Carle Consel							ä	
ster	Iccord De	No.of.	(man)	9 -	-	=	-	-	S							-	ENIS COLLE	908
k Regi		Date	01 0 10	Ser ha	alequo	14/08/12	3.4 4	81/11/co	26/02/14	elleoleo					5	NCID	X ENGINEE	RAI 623
Stock		Dept	105	t have	Dere is	Con Star	Sec.	Pure sol	2000	E.C.						ad	D SATH	GLAK
		Amount Rs															E HAR	
Burthu		Qty Purchased											Jul I	uno .				
angue ce		Description												E CLERE) I			
c: 60 M JE		Supplier Name																
e Articl		Bill				10-1-1-1		talland of vite										
e of the		Date																
Nam		S.No	-	2.	có	Y.	à	ف	Г		Γ					Τ	T	T

Scanned by CamScanner

AMAN IMPEX	Involce No.	6		Dated
OLD NO. 96 ARMENIAN STREET	15	1. Description	and the second	11-Jan-2015
MANNADY CHENNAL	Purchaso Ord	er No,	ť .	PO Dated
E-mail : crown dolhi@hotmail.com Contanct No. +91-9717494205	Customer Ret	MO CHENNIA'-	-1-)	Permit/Form No.
Buyer/Consignee	Shimed They		- And	Dated
Nohamed Sathak Trust No. 6/1 , Pycrofts Garden Road,			-	30
Thousand Lights, Chennai-600008	Payment Torm	181 1	1 A.	Cheque No
	Bank Name			Dated
No. Description of Goods	t 01Y.	Unit Rate(Rs.)	Per	AmountiRs
				T
Ceiling Lamp	4	8000.00	Pcs	24000.00.
2 Pendant Lamp	1 2 .	12000.00	Pcs	24000 00
3 LEO Bulb	200	170 00	Pcs	34000 00
4 LED Downlight	3840	125.00	Pcs	480000.00
5 Spot Light	50	200 00	Pc	12000.00
Griver	150	25 00	Pcs	3750.00
Wall Comer Lamp	100	250 00	Pcs	25000.00
Street Lamp	60	1700.00	Pcs	102000.00
9 Underground Lamp	50	400.00	Pcs	= 20000.00-
LED Stop	1 500 FOO	80 00	Pr-	00.000
Spot Light	. 8	2509.00	PCS	20000.00
Street Light(single Gm)	50	2300.00	Pos	128800 00
Street Light Double 3m)	10	to in	173	-SAR 00
Lawn Light	40	1000 00	Pcs	40009.00
Sourcing of	25	320.00	Pcs	00.00
Sola(1+2+3)		30000.00	Set	30000 00
Sola	1	25000.00	Pcs	25000 00
Sola Sel(1-1+3)	2	35000.00	Set	70000 00
Drawer	the t	6000.00	Pcs	6000.00
Table	1	20000 00	Pcs	20000 00
Executive Table	15-2	20000.00	Pcs	20000.00
Corner Table	2	10000.00	Pcs	20000 00
Round Table	1.561	8500.00	Pcs	8500 00
Dining Table	1.42 M CA-	15000 00	Pcs	- 15000 mg.
Center lable	Contraction in the	/000,00	Pcs	- 7000.00
End Table	1	6000.00	Pcs	6000.00
Conce Lable	1 2	30000 00	Set	60000 00
Caomet	2 *	22000 00	Pcs	44000.00
rioor Cabinel	L. Jong Ser #	7800.00	Pcs	7800.00
+lie Cabinet		10000 00	Pcs	10310.00
Chair	12	7000.00	Pcs	RAPENT OG
Ceistite Chair	5	25000 00	Pcs i	150000 00
2 Duning Chair	6	6000 the 1	Pes	36000.00
Executive Chair	3	3000.00	Pcs	27000 00
Vieilor Chair	9	4000 00	Pcs	26010 00

KULAMARAI BEJBOB

PRINCIPAL MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI 623 806

1658850.00 TOTAL Lotal Amt 6100 240513.00 11 14.60% VAL 0.00 Freight Charges 1000303.00 Amount Chargeabledin vegets i Grand total Rupces Eighteen Lash Nineteen Throusand Three Hundred and Eighty firee Only Sellor's THIND 330762024FO to: Aman Impor Rager's TIN NO. NA For Amon ATTE 1.10 10.4 metalation We contact this me money above the inclust pipe of the goods describer to Authorier 1 5 g to a so the state and the sector of the Auth, ale Enter CIPAL MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI 623 806 Asobrom, 容 h .. Pints. 6712-1 5 Pa 51 Scanned by CamScanner

	RETAIL INVO	DICE	m. Pro	ST. SERVICE MARKED
AMAN IMPEX OLD NO. 96 ,ARMENIAN STREET	Involce No. 13		44	Dated 1-Dec-2015
MANNADY, CHENNAI TAMILNADU-600001	Purchase Orde	r No.	\$ <u>~</u> 365	PO Dated
E-mail : crown.delhi@hotmail.com Contanct No. +91-9717494205	Customer Rot.	No.	1 x	Permit/Form No.
Buyer/Consignee Mohamed Salhak Trust No. 6/1 . Pycrofts Garden Road,	Shipped Throu	gh .		Dated .
Thousand Lights, Chennal-800006	Payment Term		1 4	Cheque No.
and and the second s	Bank Name			Dated
S.No. Description of Goods	OTY.	Unit Rate(Rs.)	Por	Amount(Rs.)
1 Street Lamp	60	3639.02	Pcs	218341.00

	and the second		
TOTAL	L 60	Total Amt.	218341.00
	VAT	14.50%	31659.00
A REAL STRUCTURE	Freight Charges		0.00
Amount Chargoable(in words)	Grand Total		250000.00

Rupees Two Lakh Fifty Thousand Only

Seller's TIN NO. ; 33976267450 Buyer's TIN NO. : NA	tor Aman Impex
Declaration	N/
We declare that this invoice shows the fictual price of the goods described	a Authorised Senatory
Inal bit particulars and true and correct	Autoraign.
Salas in the state of the state of the state of the	March Carl Contractor
	n PI
and the second sec	Lit
	DRINCIPAL
(CZ JEGG V) ()	PRETAVENCINEERING COLLEUP
MOHA	AMED SATHAN ENGINEERING OF
	WILLAKARAI 623 000

Scanned by CamScanner

KILAKARAI 623 806