

CRITERION NUMBER	CRITERION NAME	MARKS
Criterion 7	Institutional Values and Best Practices	100

CRITERION-VII (INSTITUTIONAL VALUES AND BEST PRACTICES)

7.1 INSTITUTIONAL VALUES AND SOCIAL RESPONSIBILITIES (50 Marks)

7.1.2 ENVIRONMENTAL CONSCIOUSNESS AND SUSTAINABILITY AND DIVYANGJAN FRIENDLY INITIATIVES (20 Marks)

DVV Clarifications

- Findings of DVV: -**
- 1. Kindly provide Energy Audit report and other documents duly signed and stamp by Competent Authority**
 - 2. Provide any other relevant Proof for the selected option**

- Responses: -**
- 1. Energy Audit report and other documents duly signed and stamp by the Competent Authority provided**
 - 2. Other relevant Proofs for the selected option are also provided**

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Sr.No.	Particulars	Page No.
01	Energy Audit report and other documents duly signed and stamp by the Competent Authority provided	2-39
02	Other relevant Proofs for the selected options	40-67

Executive Summary

Electrical Energy Analysis:

After conducting detailed audit in DAV Institute of Engineering & Technology, Jalandhar, the audit team has come out with following audit report & energy conservation proposals .The summary of all the audit & proposals are given below:

S. No.	Description	Parameters		
		Before implementation of audit/proposals for energy conservation	After implementation of audit/proposals for energy conservation	Savings
1	Annual Energy Consumption (Electricity Only) (Year 2019)	9,42,980kWh	7,58,562kWh	1,84,418 kWh
Multiplying kWh by 9.22				
2	Annual Energy Cost	Rs. 86,98,600/-	Rs. 69,93,941/-	Rs. 17,00,333
3	Expected Energy saving in %	19.55%		
4	Initial Investment required	Rs. 39,81,600		
5	Simple Payback Period	2.67 years		




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Table-1: Energy audit and Conservation proposal (ENCON) along with Annual Energy and Financial Savings

S. No	Proposed Energy Conservation Measures	%Saving & Source	Estimated Savings		Initial Investment (Rs.)	Simple Payback Period	Ref. Page. No.
			Annual Energy Savings(kWh)	Monetary Savings (Rs.)			
Low Cost Investment (Less than 2.0 Lakhs)							
1.	Solar water heater installation in the guest house	100% (SWH)	7875	72,607	55000	01 year	19
Medium Cost Investment (2.0 Lakhs – 5.0 Lakhs)							
2.	Replacement of conventional Street Lighting System with LEDs	53.5% (LEDs)	15943.2	1,46,996	2,11,600	1.43 years	20
High Cost Investment (Above 5.0 Lakhs)							
3.	Sensor based energy monitoring and conservation system	20% (ACs)	30,600	2,82,132	5,15,000	1.83 years	21
4.	Installing grid connected Roof Top Solar Photovoltaic power plant (<i>Proposed</i>)	13.8% (SPV)	1,30,000	Rs.11,98,600	32,00,000	2.67 years	22
Total			1,84,418 kWh	Rs. 17,00,335	Rs. 39,81,600	--	--


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ENCON-1	Solar water heater installation in the guest house
Assessment Area	Institute Guest house
Observations	<ul style="list-style-type: none"> • 07 geysers of 35 liters each were installed in the institute guest house in the college campus. • Expected usage of geysers during winter is 03 hours daily.
Assessments	<ul style="list-style-type: none"> • Wattage of each geyser is 2.5 kW. • Energy consumed during the season is approx. 7875 kWh
Recommendation (Target)	<ul style="list-style-type: none"> • Two Solar water heaters (Flat plate and evacuated tube type) of 500 liters capacity to be installed to save the power consumed by electrical based geysers.

Energy & Financial Saving Calculation

Parameters	Description	
Total No. of water geysers	7 No's.	
Energy Calculation	Before	After
Expected % of Energy Saving	-----	100%
Annual Energy Saving	-----	7875 kWh
Annual Financial Saving	-----	Rs. 72,607
Initial Investment	-----	Rs. 55,000
Simple Payback		1 year


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Baghi

ENCON-2	Replacement of conventional Street Lighting System with LEDs
Assessment Area	Street lighting forth entire campus
Observations	<ul style="list-style-type: none"> The total 36 Nos. of Street light poles with 150W each metal halide lamps (Total load of 09 kW) installed along the campus area roads A Light tower located in the front lawn with 12 metal halides of 400 W each with total load of 9.6 kW. All the light sare operated mostly between 8.00 PM to 4.00 AM (8 hours/day) and this may vary depends on the season.
Recommendation (Target)	<ul style="list-style-type: none"> For street lighting system, it is recommended to replace metal halide lamps with LEDs lights (36 Nos. of 65W each) For Light tower located, it is recommended to replace the metal halide lamps with LEDs (08 Nos. of 300W each) To install timer switches with street lighting and light tower and to program for seasonal conditions and minimum lighting requirement during late night hours.

Energy & Financial Saving Calculation

Parameters	Description	
Total no. of street lights	36 No's of 150W each + light tower with 12 lights of 400 watt each	
Energy Calculation	Before	After
Expected % of Energy Saving	—	53.5%
Expected Energy consumption	29784 kWh	13840.8 kWh
(8 hrs per day considered for all 365days)		
Annual Energy Saving	--	15943.2 kWh
Annual Financial Saving	--	Rs 1,46,996
Initial Investment	-	Rs, 2,11,600
Simple Payback	--	1.43 year

Bahish

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Sensor based energy monitoring & conservation System

In order to conserve the energy, first requirement is to analyze the energy usages pattern and to measure various parameters required for energy conservation. At DAVIET, this monitoring is performed by a Sensor based energy monitoring and conservation system installed in the institute by Equilibrium energy. It is a cloud base sensor system provides the measurement of all electrical parameters such as real power, reactive power, kWh, voltage, current, frequency, power factor of each block of the institute and all the hostels.

All the electrical quantities can be monitored live and can be analyzed as per requirement. If there is any abnormal condition/fault occurs in the system, it is informed to the personnel via text message on mobile phone by the company.

Based upon the assessment of the data readings from this system, the team has proposed the following Energy conservation proposals (ENCONs) to the institute for better energy management.

ENCON -1	Sensor based energy monitoring and conservation system
Assessment Area	Institute academic blocks and Hostels of the Institute
Observations	<ul style="list-style-type: none"> • Through the data analysis of this software, high consumption areas were identified. • Hostels were the main areas seen as high energy consumption blocks. • For AC rooms of the hostel electrical supply was not metered, hence higher consumption due to misuse of AC's
Recommendation (Target)	<ul style="list-style-type: none"> • Power supply to all the AC rooms in the hostels need to be metered for individual rooms and are there should be charges if the consumption is more than the allotted no. of free unit's. • The resident will be aware of its consumption and wastage of electricity is prevented.

Energy & Financial Saving Calculation

Parameters	Description	
Total Load of ACs in kW	102kW	
Energy Calculation	Before	After
Expected % of Energy Saving	-----	20%
(Considering 150 days, 10 hours for before and 8 hours for after)		
Expected Energy consumption	1,53,000kWh	1,22,400kWh
Annual Energy Saving		30,600kWh
Annual Financial Saving		Rs. 2,82,132 /-
Initial Investment	-----	Rs.5,15,000/-
Simple Payback	-----	1.83 year

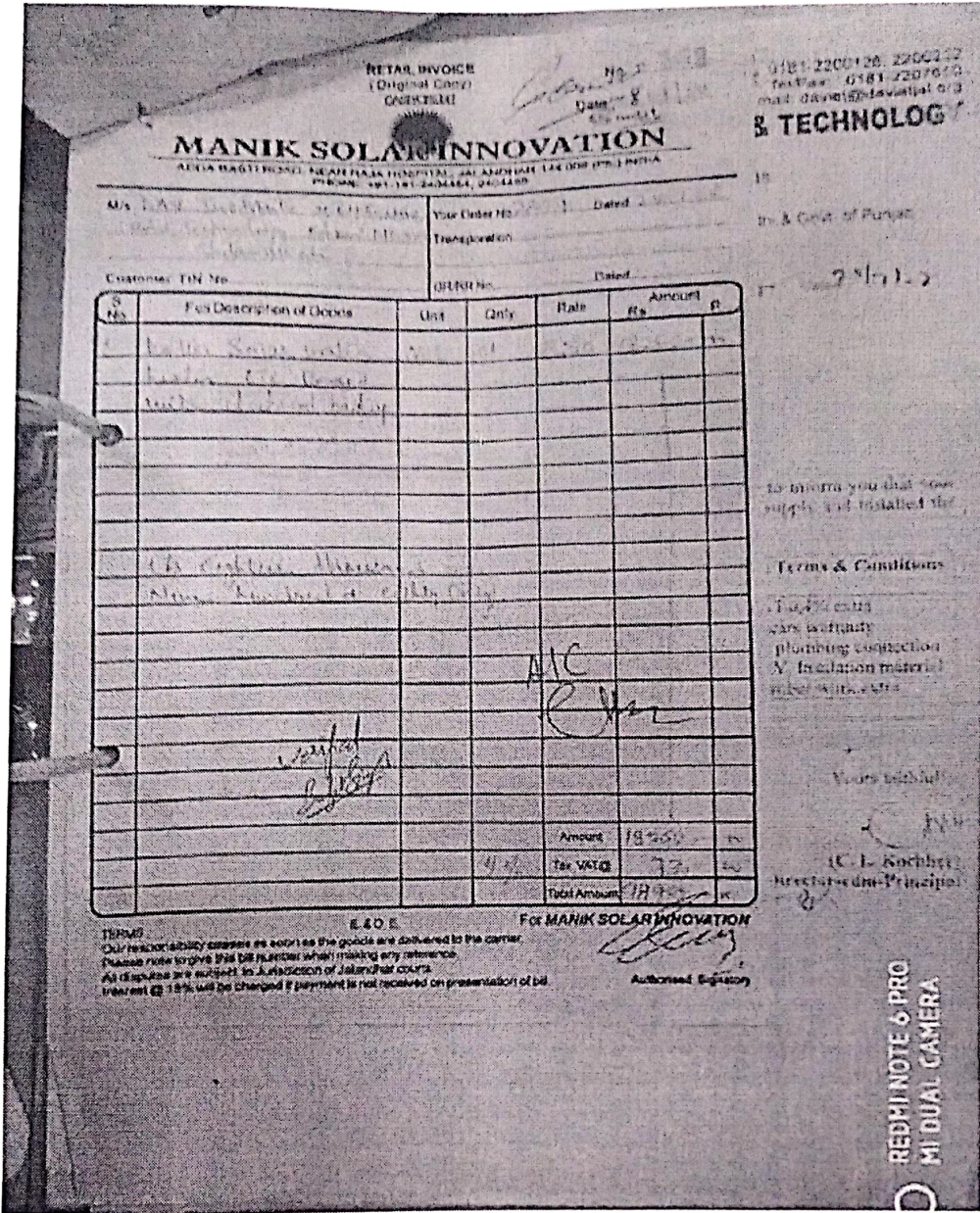
ENCON -4	Installing grid connected Roof Top Solar Photovoltaic power plant
Assessment Area	Energy generation from Roof Top Solar Photovoltaic System
Observations	<ul style="list-style-type: none"> • 300kWp roof top solar PV plant is planned to install in the campus in three phases of 100kWp with adequate cleaning at regular interval as the dust accumulation must reduce the expected power output and hence it will be a loss of generation. • In general; a minimum of 1% power generation may be improved by regularly cleaning the panels. Most of the bulk power generating solar PV plant has separate panel cleaning schedule (pipes, cleaning detergents and man power) to operate the same.
Recommendation (Target)	<ul style="list-style-type: none"> • In first phase 100kWp solar plant is proposed in the DAVIET campus. • Prepare a separate cleaning schedule; assign a team of members with higher degree of supervision. Visually inspect the panels for any damage, cracks, stains and other abnormalities. • Even conduct an IR the rmography study on the solar panels, solar DC and AC connectors, AJB and Inverter once in a year.

Energy & Financial Saving Calculation

Parameters	Description
Proposed Installed capacity of SPV Plant	100kWp
Location	Roof Top Area in the campus
Energy Calculations With Grid Connected system (Year 2019)	
Electrical Units consumed annually	9,42,980 kWh
Annual Electricity Bill	Rs. 86,98,600/-
Current Average Electricity Rate	Rs. 9.22 (per unit)
With Proposed Roof Top Solar Power Plant(100 kWp Capacity)	
Electricity Units Generated annually	1,30,000 Units
Cost of units generated annually In INR	Rs.11,98,600
Average Revenue per year In INR	Rs.11,98,600
Annual Financial Saving after payback period In INR	Rs.11,98,600
Initial Investment	32,00,000/-
Simple Payback	2.67 years

B. Singh

[Signature]
Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



Retail Invoice of Purchasing and Installation of 100 Litres/day ETC based Solar Water Heater with electric backup for DAVIET (Rs. 18,950/- paid to Manik Solar Innovation, Jalandhar City, Punjab)

[Handwritten Signature]

[Handwritten Signature]

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

AS 8/67

RETAIL INVOICE
(Original Copy)
CASH/RECD

No. _____
Date: 23/08/08

0181 220012
Tel/Fax: 011
mail: daviet@

B & TECHN

MANIK SOLAR INNOVATION

ADDA BASTI ROAD, NEAR HALA HOSPITAL, JALANDHAR-144 008 (PB.) INDIA
PHONE: +91 181 2404484, 2404485

Mr. DAV Institute of Engineering & Technology, Jalandhar
Your Order No. 2879 Dated 23/8/08
Transportation

Customer TIN No. _____ GSTR No. _____ Dated _____

S. No.	Full Description of Goods	Unit	Qty	Rate	Amount	P
1	100 ltrs/day with electrical backup ETC based solar water heater	NOS	02	18250	36500	-
	C/S Thirty Seven thousand and sixty only					
	Verified Budget					
				Amount	36500	-
		4%		Tax VAT@	1460	-
				Total Amount	37960	-

TERMS:

Our responsibility ceases as soon as the goods are delivered to the carrier.
Please note to give this bill number when making any reference.
All disputes are subject to Jurisdiction of Jalandhar courts.
Interest @ 10% will be charged if payment is not received on presentation of bill.

E & O E

For MANIK SOLAR INNOVATION

Spilly
Authorized Signatory

REDMI NOTE 6 PRO
MI DUAL CAMERA

Retail Invoice of Purchasing and Installation of 100 Litres/day ETC based Solar Water Heater with electric backup for DAVIET, Jalandhar (Rs. 37,960/- paid to Manik Solar Innovation, Jalandhar City, Punjab)

Principal *[Signature]*
D.A.V. Institute of Engineering & Technology
9/ Kabir Nagar, Jalandhar-144008

Balbir

19/01/08

SILVERLINE INDUSTRIES



TIN No. 04250021142

PLOT No. 150, INDUSTRIAL AREA, PHASE-II, CHANDIGARH-160 002
PHONE : 0172-5012324, 5003536

CUSTOMER

Director cum Principal D.A.V. Institute of Engineering & Technology Jalandhar		BILL NO. : 1793 DATE : 01/09/08 ORDER NO. : DAVIET-2008-09 2878 DATE : 25/7/08		
Despatched/Delivery Through		Encl. Challan Ref. No.	Payment Due on	Terms of Payment
Sl No.	PARTICULARS	Qty.	Rate	AMOUNT Rs P
1	375 LPD Recold Solar Water heating flat plate collector (4 nos) with SS Tank	1		82,000 - 00
	Sales Tax + Vat 12.5 %			10,250 - 00
				<u>92,250 - 00</u>
	Installation charges			3,750 - 00
	Total			<u>96,000 - 00</u>
RUPEES <i>Ninety-six thousand only</i>				E & O E.
All disputes will be settled in Chandigarh			For SILVERLINE INDUSTRIES <i>Jasvinder Singh</i> Manager/Prop.	

A/C
13/9/08

Retail Invoice of Purchasing and Installation of 375 Litres/day recold Solar Water Heating flat plate collector (4 no. with SS Tank) for DAVIET, Jalandhar (Rs. 96,000/- paid to Silverline Industries, Chandigarh)

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

10/67

Baljit

NO. 1133208028

RETAIL/VAT INVOICE

01655-231021
0172-2210079
099880 0997A
099880 09989

1126
650
099
3Y



United Solar Engg. & Technologies

HEAD OFFICE :
M.A. Sarai Road, Near Shikwa Mansi, Jull Canal, V & P.O. Gurgaon, Haryana
Jah. Jalandhar (W) Dist. Ferozpur (Pb), Pin-152022

BRANCH OFFICE
Plot No. 197, Phase 9, Ind. Area, Mohal (Pb.)

Mr. DAVIET (DAV College)
Institute of Engineering & Technology

Invoice No. 49 Dated 19/12/10

Parties TIN No. _____ Our Quotation No. _____ Dated. _____

P.D. Ref No. _____ Dated. _____ Transport _____

Delivery Chalan No. _____ Dated. _____ GSTR No. _____ Dated. _____

Payment Terms: By Cheque No. of Boxes _____ Freight _____

Sr. No.	DESCRIPTION	QTY.	RATE	Rs.	AMOUNT	P.
1	Installation of Solar Stand Along Security Lights. Description: LED - 192 (3.vead. 130 Ang) + 2000 MCD	4	23,500	94,000		rs
2	Battery Make: Exide. 40 AH. Tubular 12V.					
3	Battery Box Solid Box Poly Carbonate					
4	Pole MS. 3.5" OD.					
5	SPV. Mono Crystalline 37W, 12V.					
6	Inbuilt Charging Controller with Auto Off to Down. Customer's Signature					
TOTAL				94,000		rs
VAT @ 5%				4,700		rs
C. Inv. Surcharges				770		rs
Transportation Charges				—		
Grand Total				99,170		rs

Rupees (in words) NINETY NINE THOUSAND
ONE HUNDRED SEVENTY
ONLY

Goods once sold cannot be taken back
Interest 24% per annum will be charged on all accounts not settled within 15 days
All kinds of disputes shall be subject to Mohal Jurisdiction
E. & O.E.

For United Solar Engg. & Technologies

Signature

Retail Invoice of Purchasing and Installation of Solar lighting systems (4 no.) in DAVIET, Jalandhar (Rs. 99,170/- paid to United Solar Engg. & Technologies, Jalandhar, Ferozpur)

Bapichal
Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

(Original for Buyer)

EXCISE INVOICE
FORM OF INVOICE UNDER RULE 11 OF CENTRAL EXCISE ACT, 1944 (S. 2002)

Ecolibrium Energy Private Limited
504, Venus Atlantis, 100FT Ring Road, Anandnagar Road, Prahladnagar, Ahmedabad-15.
CIN: U40108KA2000PTC048178

Block 340, Godown Number 5, Opp Innovative Moong Plant, Near Harsha Engineers, Changodar, Ahmedabad -382213

Company No. 24AACCE1600M121
Regn No. AACCE1600MEM001

Range V
Division V
Commissionerate II / AHMEDABAD
PAN/Invoice Tar No AACCE1600M

Company & Bank Details
Bank Name HDFC Bank CA No. 08902560000790
A/c No. 08902560000790

Branch Prahladnagar
IFS Code HDFC0000890

Consignee
DAV Institute of Engineering and Technology
Kabir Nagar
Punjab
Jalandhar
India 144008

Invoice No. Dated 10-Mar-2017
Buyer's Order No. Dated
DAVIET/2016-17/9554 16-Feb-2017
Delivery Note Dated

Supplier's Ref./Order No. Despatch Document No.

INVE16-17-MAR-0178
Despatched through Destination

Date & Time of issue of invoice Motor Vehicle No.
10-Mar-2017 at 15:45

Date & Time of Removal of Goods Authenticated By
10-Mar-2017 at 15:45 for Ecolibrium Energy Private Limited
Mode/Terms of Payment

as per po Authorized Signatory

Sl. No.	Description of Goods	Tariff/HSN Classification	Quantity	Rate	per	Amount
1	M3 SmartSense Meter		3 Nos	60,000.00	Nos	1,80,000.00
	Excise Duty (CST 5%)			12.50	%	22,500.00
				5	%	10,125.00

*Sub System Installed
Registers Bno 61
(Balwinds)*

Mc
PAID
[Signature]

Total 3 Nos ₹ 2,12,625.00

Amount Chargeable (in words) INR Two Lakh Twelve Thousand Six Hundred Twenty Five Only

Amount of Duty (in words) INR Twenty Two Thousand Five Hundred Only

Serial No. 411244123

Declaration: We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct for Ecolibrium Energy Private Limited

[Signature]
Authorized Signatory

This is a Computer Generated Invoice

1.102

Retail Invoice of Purchasing and Installation of MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar (Rs. 2,12,625/- paid to Ecolibrium Energy Pvt. Ltd., Ahmadabad)

[Signature]
[Signature]

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

(Original)

Retail Invoice

Ecolibrium Energy Private Limited
4, Venus Atlantis, 100FT Ring Road,
Prahadnagar Road, Prahladnagar,
Ahmedabad-15.
IN: U40108KA2C00BPTC048176

Invoice No.
INVRI-16-17-Mar-0069
Delivery Note

Dated
10-Mar-2017
Mode/Terms of Payment
as per po
Other Reference(s)

Consignee
JAV Institute of Engineering and Technology
Karbir Nagar
Punjab
Jalandhar
India 144008
PAN/T No :

Supplier's Ref.
INVRI16-17-MAR-0069
Buyer's Order No.
DAVIET/2016-17/9554
Despatch Document No.

Dated
16-Feb-2017
Delivery Note Date

Buyer (if other than consignee)
DAV Institute of Engineering and Technology
Karbir Nagar
Punjab
Jalandhar
India 144008
PAN/T No :

Despatched through

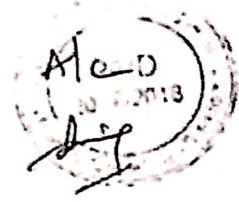
Destination

Terms of Delivery
SO1663

Sl No	Description of Goods	Quantity	Rate	per	Amount
1	Schneider MFM EM6400	8 Nos	9,000.00	Nos	72,000.00
2	Digital Meter-Class1.0-Schneider Conserve-EM6436	22 Nos	6,000.00	Nos	1,32,000.00
3	CT Current Transformer	90 Nos	400.00	Nos	36,000.00
					2,40,000.00
CST 5%					12,000.00
Total		120 Nos			₹ 2,52,000.00

Amount Chargeable (in words)
INR Two Lakh Fifty Two Thousand Only

*Sub Sanction System
Ledger no. (Balwinder)*



Company's PAN : **AACCE1600M**

Company's Bank Details
Bank Name : **HDFC Bank CA No. 08902560000790**
A/c No. : **08902560000790**
Branch & IFS Code : **Prahladnagar & HDFC0000890**
for Ecolibrium Energy Private Limited

Declaration
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

Customer's Seal and Signature

Amma Authorized Signatory

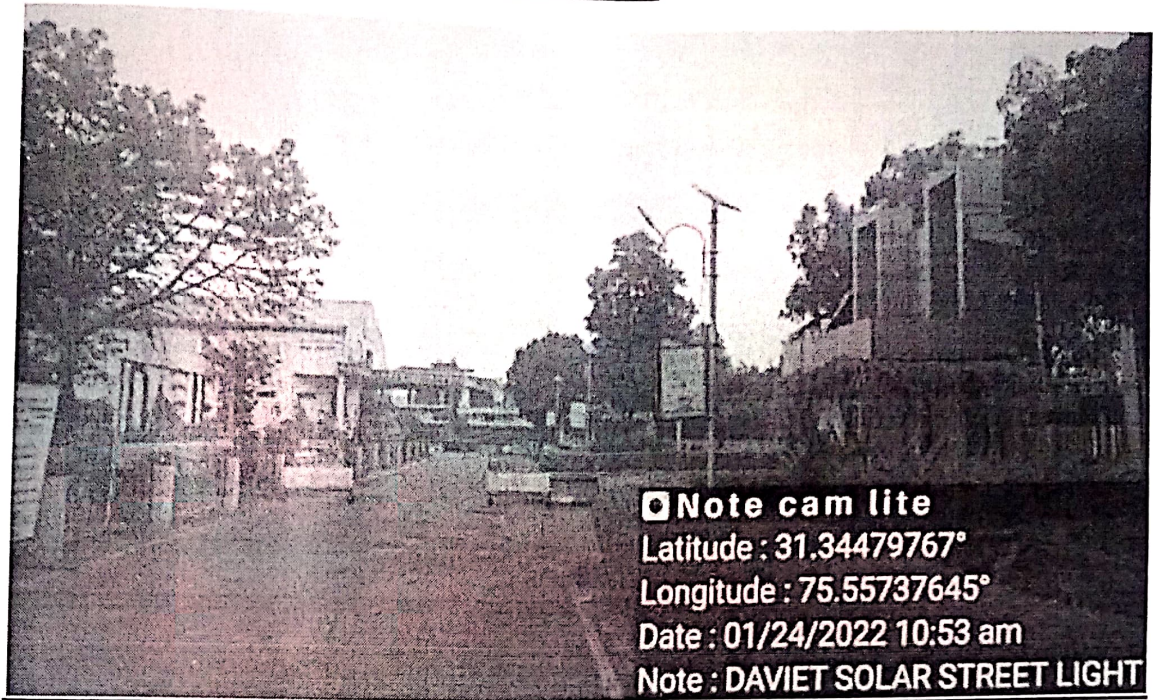
This is a Computer Generated Invoice

Retail Invoice of Purchasing and Installation of MFM Schneider, Digital meter and CT Current Transformer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar (Rs. 2,52,000/- paid to Ecolibrium Energy Pvt. Ltd., Ahmedabad)

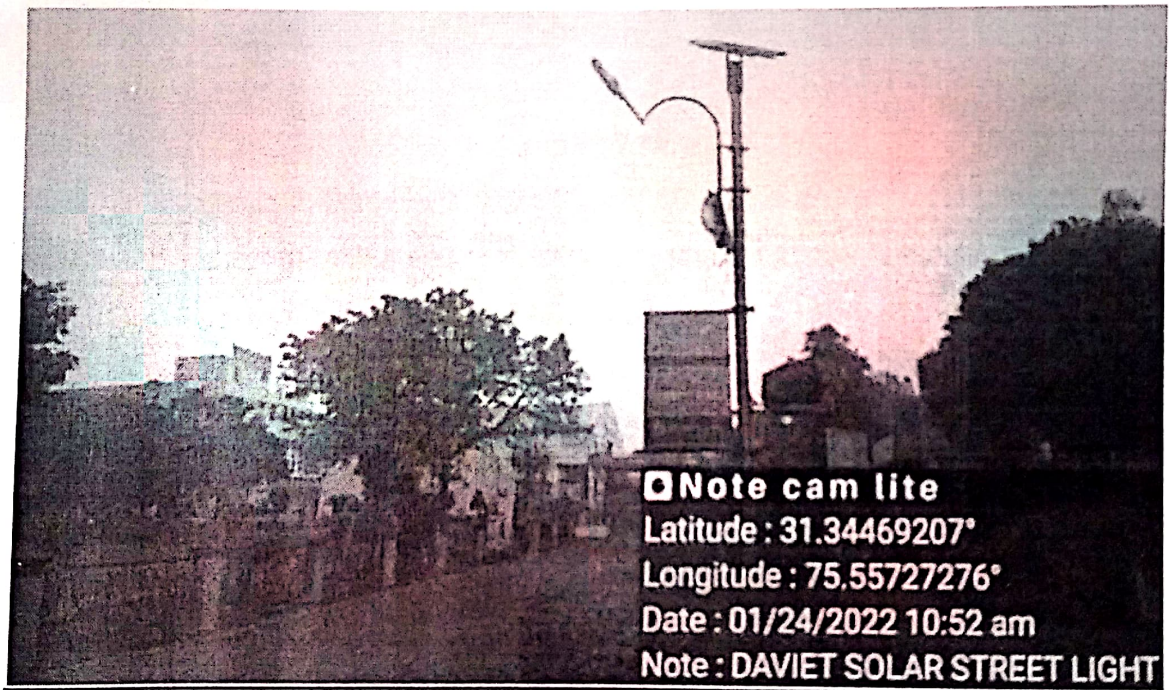
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Principal
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Photographs related to solar energy systems in the campus

Solar Street Lights



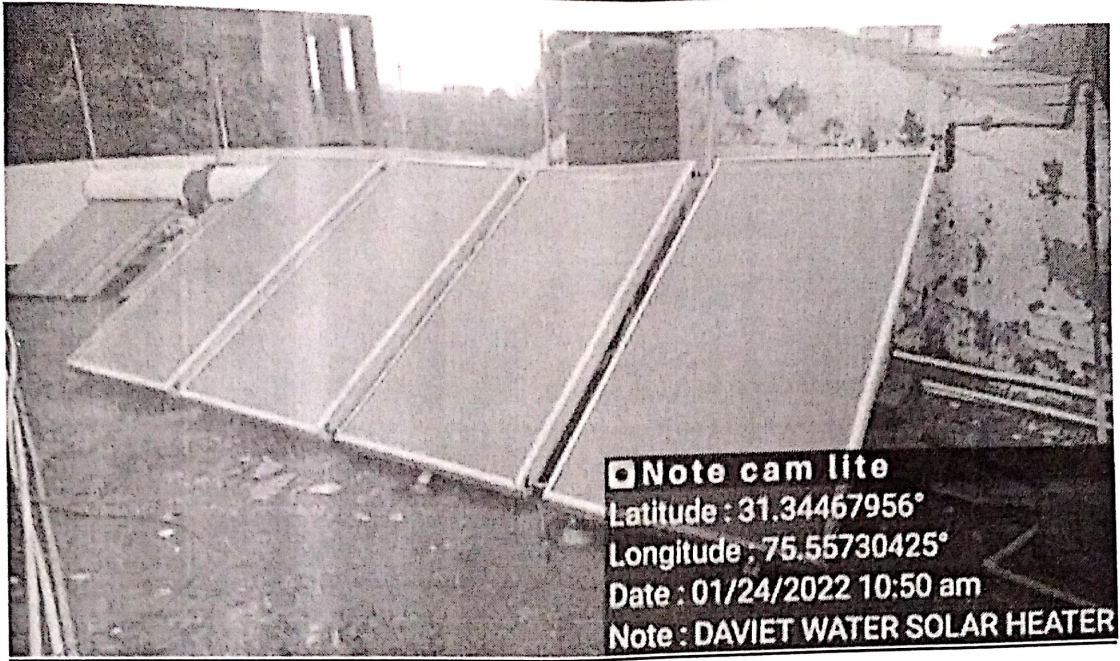
Solar Street Lights installed in DAVIET, Jalandhar



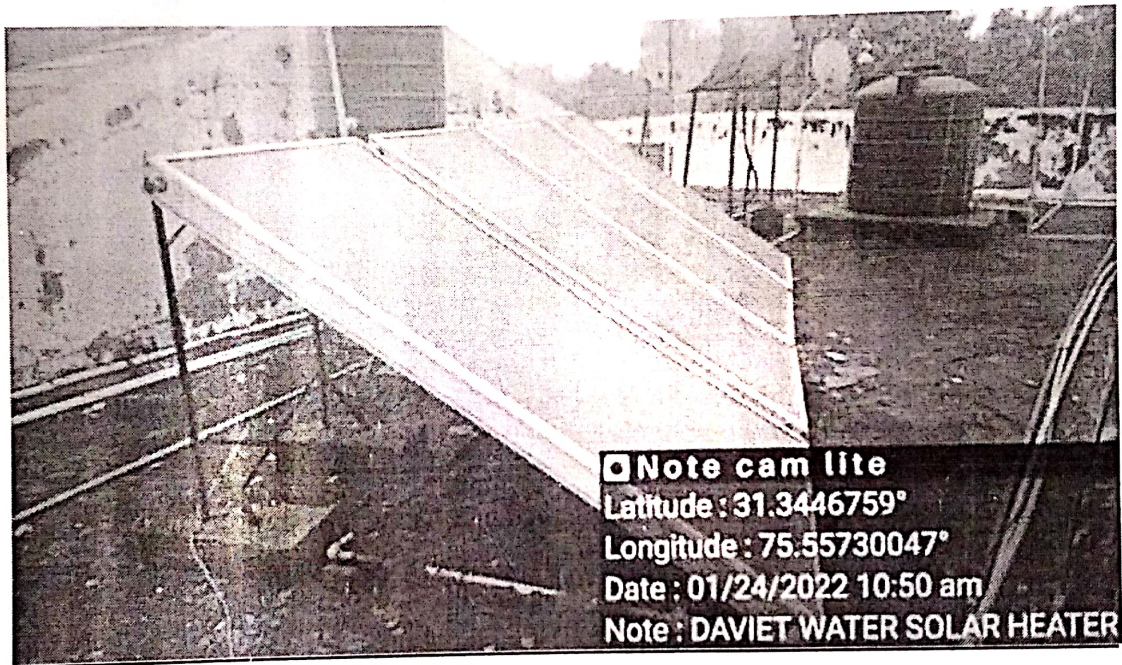
Solar Street Lights installed in DAVIET, Jalandhar

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Kabir Nagar, Jalandhar-144008

1. 500 ltr. Solar Heater System in the DAVIET campus

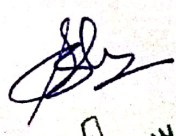
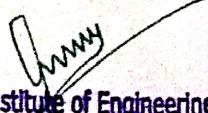


Solar Heater System in the DAVIET campus



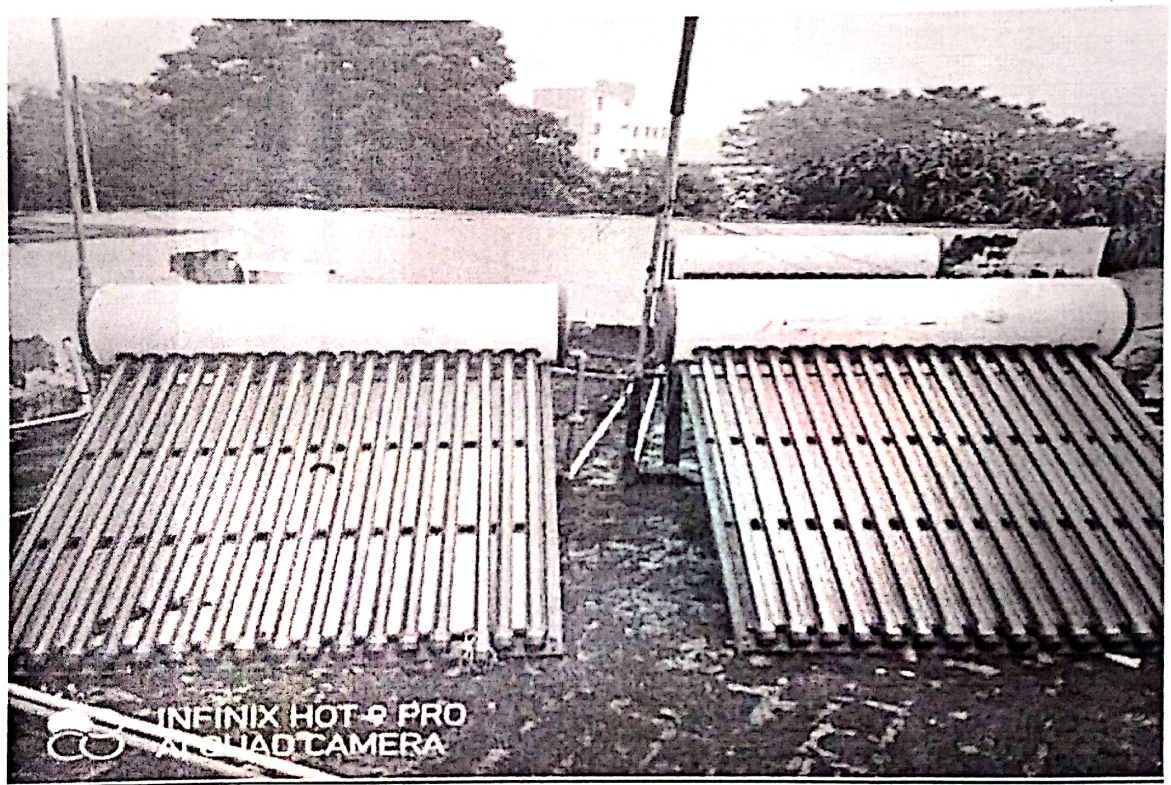
Solar Heater System in the DAVIET campus

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Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008
15 / 67



Solar Heater System in the DAVIET campus



Solar Heater System in the DAVIET campus

Bahar

Principal

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

Sensor based energy conservation system installed in the institute

This Sensor based energy conservation system is installed in the substation of the institute by equilibrium energy which provides all electrical parameters such as Power, Energy, Voltage, Current , Frequency, Power Factor of every block and hostels. All electrical data available on line also of which any one can analyze where internet facility is available. Any abnormal condition is informed by the messages on mobiles by the company.



MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar

[Signature]
Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

[Signature]



MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar

[Signature]
Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

[Signature]



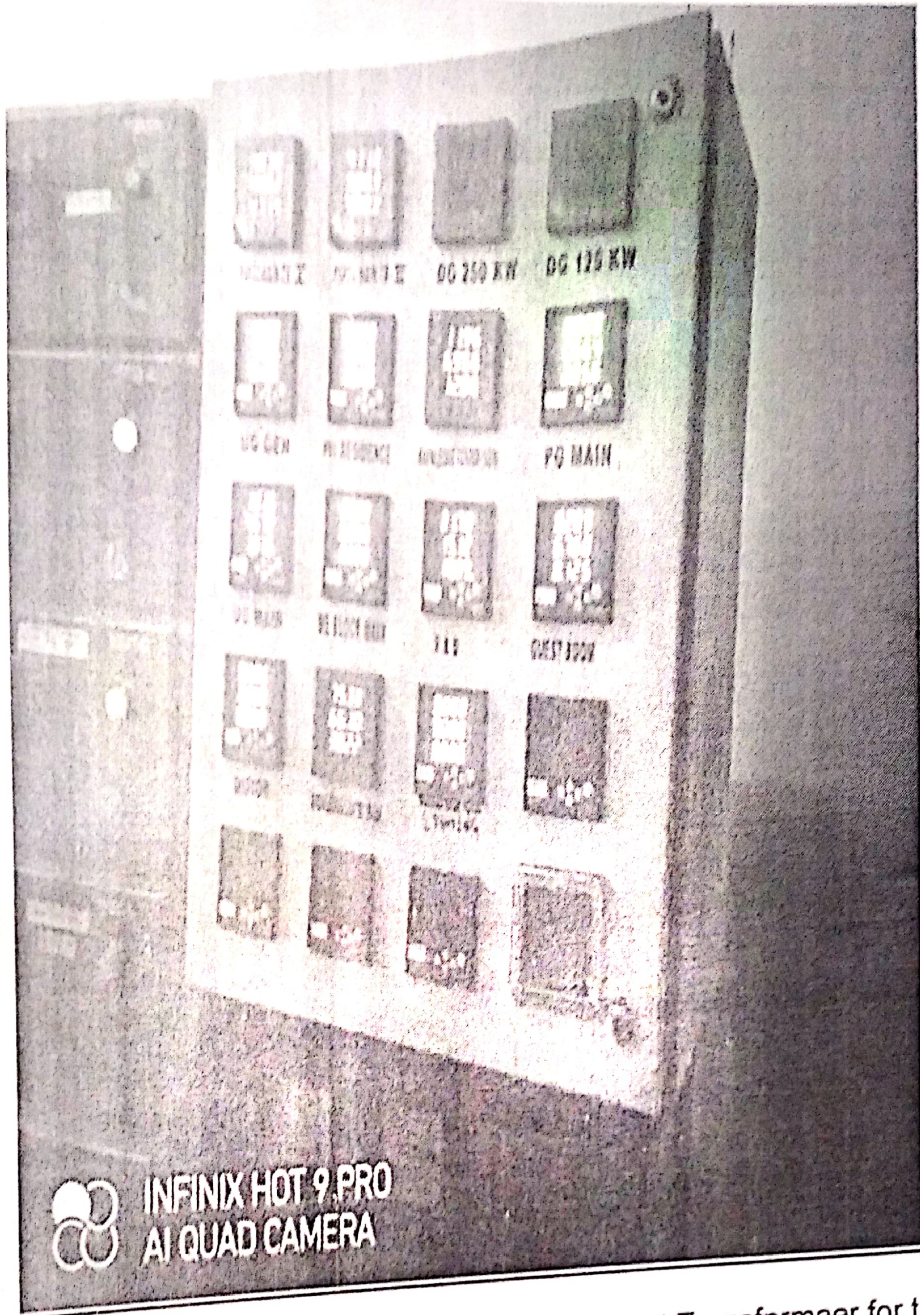
MFM Schneider, Digital meter and CT Current Transfprmaer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar

Signature

Signature

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D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

Signature



MFM Schneider, Digital meter and CT Current Transfprmaer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar

Balbir

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Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

DAVIET JALANDHAR

Energy Audit on the Campus

Long Term Plan for The Use Of Solar Energy on The Campus

Energy Audit for proposed solar power plant in the campus :

Roof Top Area available for solar power	:	50000 sq.ft.
Electrical Load Capacity of the campus	:	938.849 kW
Present average monthly electricity bill	:	Rs. 7, 75,000
Present average annual electricity bill	:	Rs. 92, 95,840
Average units consumed annually	:	77931 kWh
Proposed solar capacity to be installed	:	100 kW
Electricity units generated per month	:	12500 (1kw generates approx. 125 units)
Electricity units generated per Annum	:	1, 50,000
Current avg. electricity rate	:	Rs. 6.38 (per unit)
Electricity unit generation in 25 years	:	37, 50,000
Total revenue generated in 25 years	:	23925000
Avg. revenue per Year	:	Rs. 957000
Total Plant cost	:	Rs. 30,00000
Cost including 5% G.S.T.	:	Rs. 3150000
Payback period	:	3.29 years
Free Electricity	:	21.71 years
Savings after payback period	:	Rs. 2.07 crore

Audit Results

Free Electricity

21.71 years

Savings for 25 years

Rs. 2.07 crore (after payback period)


Principal
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Kabir Nagar, Jalandhar-144008

Energy Audit for solar water heater system in the guest house of the campus:

Total No. of 35 liters Geysers installed in the guest house	:	07
Approximate No. of Hours use of each geezer in winters	:	03 Hours daily
No. of days in winter season (for 05 months)	:	150 days
Working hours of each geyser in winter season	:	450 hours
Working hours of 07 geysers in the season	:	3150 hours
Wattage of each geyser	:	2.5 KW (apprx.)
Energy consumed by 07 geysers in the season	:	7875 KWH
Approx. Rate of Energy unit	:	Rs. 6.38 per KWH
Energy cost by 07 geysers in the season	:	Rs.78750/-
Capacity of solar water heater (one unit)	:	500 liters
Cost of solar water heater	:	55,000/-
Energy saves annually	:	7875 KWH
Energy costs save annually	:	Rs. 50242/-
Payback period	:	1.09 Year

Audit Result

Energy Save Annually	7875 KWH
Annual Savings	Rs. 50242/-

Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



RETAIL INVOICE
(Original Copy)
DAVIET

0181 220910A 2200232
Tel: 0181 2207600
mail: daviet@redhitechnology.com
REDHI NOTE & TECHNOLOGY

MANIK SOLAR INNOVATION

ATENA BASTI ROAD, NEAR PIAA HOSPITAL, SAS ARDHANA 144 002 INDIA
PHONE: 0181 2209100, 0181 2207600

Customer Name: DAVIET Date: 29/11/20
 Invoice No: 111
 Customer TIN No: 1911001001 Date: 29/11/20

Sl No	Full Description of Goods	Unit	Qty	Rate	Rs	Amount
1	100 Litres/day ETC based Solar Water Heater with electric backup		1	18950	18950	
2	Installation material					
3	Labour charges					
4	10% GST on Material					
5	10% GST on Labour					
					Amount	18950
					Tax (VAT/GST)	750
					Total Amount	19700

Handwritten signature

AIC
Handwritten signature

TERMS & CONDITIONS
 Our responsibility ceases as soon as the goods are delivered to the carrier.
 Payment must be made full & final when making any reference.
 All disputes are subject to Jurisdiction of Jalandhar courts.
 Interest @ 18% will be charged if payment is not received on presentation of bill.

For MANIK SOLAR INNOVATION
Handwritten signature
 Authorized Signatory

To inform you that we supply and installed the

Terms & Conditions
 1. 10% GST on material
 2. 10% GST on labour
 3. Plumbing connection
 4. Insulation material
 5. Water pipe extra

Visit our website
 www.daviet.com
 H. L. Kochhar
 Director cum-Principal

REDHI NOTE & PRO
 MI DUAL CAMERA

Retail Invoice of Purchasing and Installation of 100 Litres/day ETC based Solar Water Heater with electric backup for DAVIET (Rs. 18,950/- paid to Manik Solar Innovation, Jalandhar City, Punjab)

Handwritten signature

Principal
 D.A.V. Institute of Engineering & Technology
 Kablr Nagar, Jalandhar-144008
 23/1/20

MANIK SOLAR INNOVATION

ADDA BASTI ROAD, NEAR RAJA HOSPITAL, JALANDHAR-144 008 (Pb.) INDIA
PHONE: 981-101-245449, 2454488

Mr. DAV Institute of Engineering
& Technology
Jalandhar

Your Order No. 2879 Dated 20/7/08
Transportation

Customer TIN No.

QUAIR No.

Dated

Sl. No.	Full Description of Goods	Unit	Qty.	Rate	Amount		
					Rs	P	
1	100 ltrs/day with electrical backup ETC based Solar water heater	NOS	02	18250	36500	-00	
(As Thirty Seven thousand Nine hundred & sixty only)							
					Amount	36500	-00
					Tax VAT @ 4%	1460	-00
					Total Amount	37960	-00

*Verified
Bajaj*

MC

TERMS:
Our responsibility ceases as soon as the goods are delivered to the carrier.
Please note to give this bill number when making any reference.
All disputes are subject to Jurisdiction of Jalandhar courts.
Interest @ 10% will be charged if payment is not received on presentation of bill.

E & O E.

For MANIK SOLAR INNOVATION

Singh
Authorized Signatory



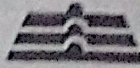
Retail Invoice of Purchasing and Installation of 100 Litres/day ETC based Solar Water Heater with electric backup for DAVIET, Jalandhar (Rs. 37,960/- paid to Manik Solar Innovation, Jalandhar City, Punjab)

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

Bajaj

19/09/08

SILVERLINE INDUSTRIES



PLOT No. 150, INDUSTRIAL AREA, PHASE-II, CHANDIGARH-160102
PHONE - 0172-5012324, 5003535

CUSTOMER

Director cum Principal D.A.V. Institute of Engineering & Technology Jalandhar		BILL NO. : 1793		
		DATE : 01/09/08		
		ORDER NO. : DAVIET/2008-09 2878		
		DATE : 25/7/08		
Despatched/Delivery Through		Excl. Chalan Ref. No.	Payment Due on	Terms of Payment
Sl. No.	PARTICULARS	Qty	Rate	AMOUNT
1	375 LTR Recold Solar Water Heating Flat Plate collector (4 no.) with SS Tank	1		82,000 - 00
	Sales Tax + Vat 12.5%			10,250 - 00
				92,250 - 00
	Installation charges			3,750 - 00
	Total			96,000 - 00
RUPEES <i>Ninety-Six thousand only</i>				E & O E.
All disputes will be settled in Chandigarh			For SILVERLINE INDUSTRIES <i>Jindal</i> Manager/Prop.	

A/C Recd 13/9/08

Retail Invoice of Purchasing and Installation of 375 Litres/day recold Solar Water Heating flat plate collector (4 no. with SS Tank) for DAVIET, Jalandhar (Rs. 96,000/- paid to Silverline Industries, Chandigarh)

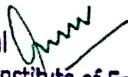
Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

Balraj

Energy Audit for Solar Street Lights in the Campus :

Total No. of Street Lights in the Campus	:	04
Wattage of each light	:	15 Watts
Operating Hours per day of each light	:	09 Hours daily
Energy saving by each light	:	0.135 KWH per day
Energy Consumed by 04 lights	:	0.540 KWH per day
Energy saves by 04 lights monthly	:	16.200 KWH
Energy saves by 04 lights annually	:	194.400 KWH
Avg. Unit Cost	:	Rs.6.38/- per KWH
Energy cost saving by solar light	:	Rs.1238/- Annually
Cost of one solar street light 15 W	:	Rs.10000/-(including all)
Cost of 04 solar lights	:	Rs. 40,000/-
Payback Period	:	32.3 years

<u>Result/Conclusion</u>	
Energy save per year	194.4 KWH
Savings per year	Rs.1238/-

Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



NO. 0332068230

RETAIL/VAI INVOICE

61685-231021
0172-2210093
099880 09974
099880 09989

1126
850
.org
BY



United Solar Engg. & Technologies

HEAD OFFICE: Makhar Road, Near Shivwala Market, Kullu Chowk, V & P O, Gurgaon/Haryana
Tel: Jalandhar (W), Dist. Ferozpur (Pb), Pin 152022
BRANCH OFFICE: Plot No. 187, Phase 9, Ind. Area, Mohali (Pb)

M/s. DAVIET (DAV College)
Inst. of Engineering & Technology

Invoice No. 49 Dated 19/8/10

Parties TIN No. _____ Our Quotation No. _____ Dated _____

P.O. Ref No. _____ Dated _____ Transport _____ Dated _____

Delivery Chalan No. _____ Dated _____ GRIRI No. _____ Dated _____

Payment Terms: By Cheque No of Boxes _____ Freight _____

Sr. No.	DESCRIPTION	QTY.	RATE	AMOUNT	
				Rs.	P.
1	Installation of Solar Stand Along Security Lights. Description:- LED - 172. (3 each 120 Angles) + 2000 MCD	4	23,500	94,000	00
2	Battery Make:- Exide 40 AH. Tubular 12V				
3	Battery Box Solid Box Poly Carbonate				
4	Pole MS. 3.5" OD.				
5	SPV. Mono Crystalline 37W, 12V.				
6	Inbuilt Charging Controller With Auto Cut to Dawn Customer's Signature				
TOTAL				94,000	00
VAT @ 5%				4,700	00
Surcharges				470	00
Transportation Charges				—	00
Grand Total				99,170	00

Rupees (in words) NINETY NINE THOUSAND
ONE HUNDRED SEVENTY
DOLLY

Goods once sold cannot be taken back
Interest 24% per annum will be charged on all accounts not settled within 15 days
All kinds of disputes shall be subject to Mohali Jurisdiction.
E. & O.E.

For United Solar Engg. & Technologies
Signature

Retail Invoice of Purchasing and Installation of Solar lighting systems (4 no.) in DAVIET, Jalandhar (Rs. 99,170/- paid to United Solar Engg. & Technologies, Jalalabad, Ferozpur)

Bahadur

Principal

Principal
D.A.V. Institute of Engineering & Technology
Kabil Nagar, Jalandhar-144008

Use of LED Street lights /power efficient equipment:

Total No. of street lights in the campus : 36 + 24 (Mask Pole)

No. of street lights replaced with LED street lights : 28 of 65W each + 08 of 100W each

Approx. daily use of street lights : 10 hours daily

Total Annually consumption of LED Street lights $(28*65*10*30*12) + (08*100*10*30*12) = 9432\text{KWH}$

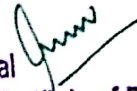
Total Annually consumption without LED Street lights : $36*400*10*30*12 = 51,840\text{KWH}$

Annual Energy saved using LED street lights : $51840 - 9432 = 42408\text{KWH}$

Avg. unit cost : Rs. 6.38 /- per KWH

Savings per year : Rs. 270563/-

<u>Result/Conclusion</u>	
Energy save per year	42408 KWH
Savings per year	Rs.270563/-

Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



Sensor based energy conservation system installed in the institute

This Sensor based energy conservation system is installed in the substation of the institute by equilibrium energy which provides all electrical parameters such as Power, Energy, Voltage, Current, Frequency, Power Factor of every block and hostels. All electrical data available on line also of which any one can analyze where internet facility is available. Any abnormal condition is informed by the messages on mobiles by the company.

(Original for Buyer)

EXCISE INVOICE
FORM OF INVOICE UNDER RULE 11 OF CENTRAL EXCISE, 1944 (1902)

Ecolibrium Energy Private Limited
 504, Venus Atlantis, 100FT Ring Road, Anandnagar Road, Prahladnagar, Ahmedabad-15.
 CIN: U40108KA2008PTC048176

Block 340, Godown Number 5, Opp Innovative Moong Plant, Near Harsha Engineers, Changodar, Ahmedabad - 382213

Invoice No: 24AACCE1600M1Z1	Range: V
Inv Regn No: AACCE1600MEM001	Division: II / AHMEDABAD
	FAN/Invoice Tax No: AACCE1600M

Company's Bank Details	Branch: Prahladnagar
Bank Name: HDFC Bank CA No. 08902560000790	IF S Code: HDFC0000890
Ac No: 08902560000790	Invoice No: Dated
Consignee: DAV Institute of Engineering and Technology	INVE16-17-MAR-0178
Kabir Nagar	Buyer's Order No: Dated
Punjab	DAVIET/2016-17/554
Jalandhar	Delivery Note: Dated
India 144008	Supplier's Ref/Order No: Despatch Document No.
	INVE16-17-MAR-0178
	Despatched through: Destination
Buyer (if other than consignee): DAV Institute of Engineering and Technology	Date & Time of issue of Invoice: Motor Vehicle No.
Kabir Nagar	10-Mar-2017 at 15:45
Punjab	Date & Time of Removal of Goods: Authenticated By
Jalandhar	10-Mar-2017 at 15:45
India 144008	Model/Terms of Payment: for Ecolibrium Energy Private Limited

Sl No	Description of Goods	Tariff / HSN Classification	Quantity	Rate		Amount	
				per	per	per	Amount
1	MFM SmartSense Meter		3 Nos	60,000.00	None		1,80,000.00
	Excise Duty CST 5%(1)			12.50	%		22,500.00
							10,125.00
Total			3 Nos				₹ 2,12,625.00

Amount Chargeable (in words): INR Two Lakh Twelve Thousand Six Hundred Twenty Five Only

Amount of Duty (in words): INR Twenty Two Thousand Five Hundred Only

Serial No. as per Rule 25

Declaration: We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

for Ecolibrium Energy Private Limited


This is a Computer Generated Invoice

E R O E

Sub Station Name: Rajinder Road (61) (Bhalwadi)

Mc

Retail Invoice of Purchasing and Installation of MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar (Rs. 2,12,625/- paid to Ecolibrium Energy Pvt. Ltd., Ahmadabad)


 Principal
 D.A.V. Institute of Engineering & Technology
 Kabir Nagar, Jalandhar-144008

(Original)

Retail Invoice

Ecolibrium Energy Private Limited
4, Venus Atlantis, 100FT Ring Road,
Prahadnagar Road, Prahadnagar,
Ahmadabad-15.
IN: U40109KA2008PTC045176

Invoice No.
INVRI-16-17-Mar-0069
Delivery Note
Supplier's Ref.
INVRI16-17-MAR-0069
Buyer's Order No.
DAVIET/2016-17/9554
Despatch Document No.

Dated
10-Mar-2017
Mode/Terms of Payment
as per po
Other Reference(s)
Dated
16-Feb-2017
Delivery Note Date
Destination

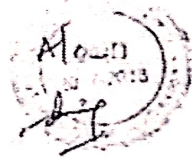
Consignee
JAV Institute of Engineering and Technology
Kabir Nagar
Punjab
Jalandhar
India 144008
PANIT No
Buyer (if other than consignee)
DAV Institute of Engineering and Technology
Kabir Nagar
Punjab
Jalandhar
India 144008
PANIT No

Despatched through
Terms of Delivery
SO1663

S/No	Description of Goods	Quantity	Rate	per	Amount
1	Schneider MFM EM6400	8 Nos	9,000.00	Nos	72,000.00
2	Digital Meter-CL3521,0-3U-Schneider Conserve-EM6436	22 Nos	6,000.00	Nos	1,32,000.00
3	CT Current Transformer	30 Nos	400.00	Nos	36,000.00
					2,40,000.00
	CST 5%			5 %	12,000.00
Total		120 Nos			₹ 2,52,000.00

Amount Chargable (in words)
INR Two Lakh Fifty Two Thousand Only

Sub Auditor Journal Ledger no 13
(Bazilish)



Company's PAN : AACCE1685M

Declaration
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

Company's Bank Details
Bank Name : HDFC Bank CA No. 09002560000790
Ac No : 08502560000790
Branch & IFS Code : Prahadnagar & HDFC0000830
for Ecolibrium Energy Private Limited

Customer's Bank and Signature

Signature
Authorized Signatory

This is a Computer Generated Invoice


Retail Invoice of Purchasing and Installation of MFM Schneider, Digital meter and CT Current Transfprmaer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar (Rs. 2,52,000/- paid to Ecolibrium Energy Pvt. Ltd., Ahmadabad)

Principal *Signature*
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

Signature

Annual Consumption of Electricity

Sr. No.	Month	MDI	KVAH	KWH
1	Jul-18	466	107770	105280
2	Aug-18	542	148650	143600
3	Sep-18	471	118160	115160
4	Oct-18	471	84950	83480
5	Nov-18	157	49570	49430
6	Dec-18	141	48510	48450
7	Jan-19	154	52160	52070
8	Feb-19	158	44270	44160
9	Mar-19	169	46340	46210
10	Apr-19	375	76090	75210
11	May-19	417	108330	105830
12	Jun-19	464	102310	99340
		TOTAL	987110	968120


 Principal
 D.A.V. Institute of Engineering & Technology
 Kabir Nagar, Jalandhar-144008



Amount of Power handling by Renewable sources:

1. Solar Power Plant of 100 KW (Proposed/implementation under process).
2. Solar street lights: $4 \times 15 = 60 \text{ W}$
3. Solar water heater system: $7 \times 2.5 \text{ KW} = 17.5 \text{ KW}$

Institute Sanctioned Load = 938 KW

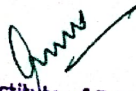

Percentage of power handled by renewable sources = **12.5 %** (included Solar Power Plant of 100 KW contribution)

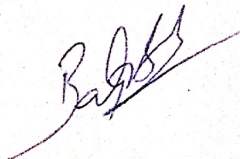
Sensor based energy conservation system :

The Sensor based energy conservation system is installed in the sub-station of the institute by equilibrium energy which provides all electrical parameters such as Power, Energy, Voltage, Current, Frequency, Power Factor of every block and hostels. All electrical data available on line also of which any one can analyze where internet facility is available. Any abnormal condition is informed by the messages on mobiles by the company.

To conserve the energy following actions have been taken:

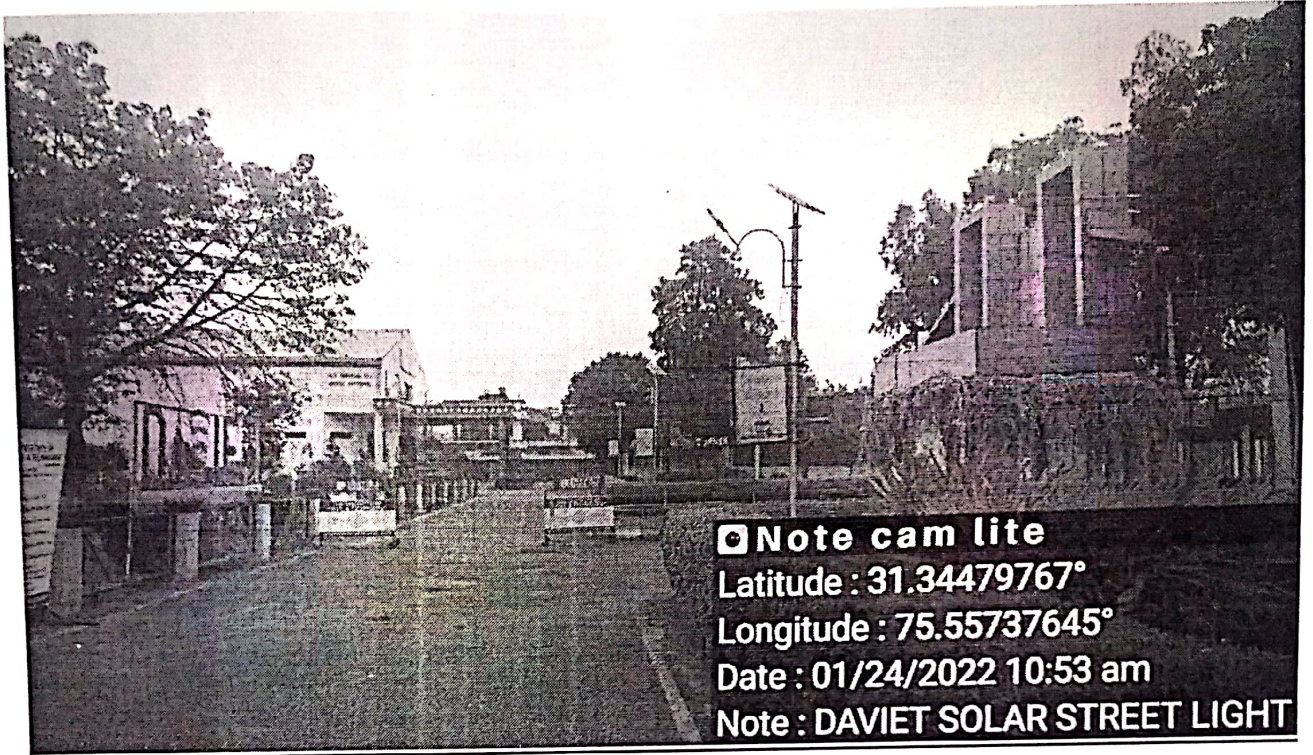
1. To ensure appropriate use of AC's provided to the hostellers each AC is provided with the separate Energy meter to deduct the energy charges. With this step each student will minimize use of AC and energy will conserve accordingly.
2. Electric supply to the residences of wardens of all the hostels, Ground man residence and Driver residence is not free but charging with a planned manner that is first 125 units are free to them, above 125 units there would be charges. With this step they would use minimum electricity and energy will conserve accordingly.
3. Some of the AC's of the campus provide with digital timers so ac's not run continuously but intermediate and energy is conserve accordingly.
4. All street lights of the campus have been replaced with LED lights which consume very low power with the same lumens. Lot of energy have been conserve with this step.
5. Stickers are paste on most of the switch boards of the campus which delivers the message to switch off the appliances when not in use. This also helps to save the electricity.

Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008


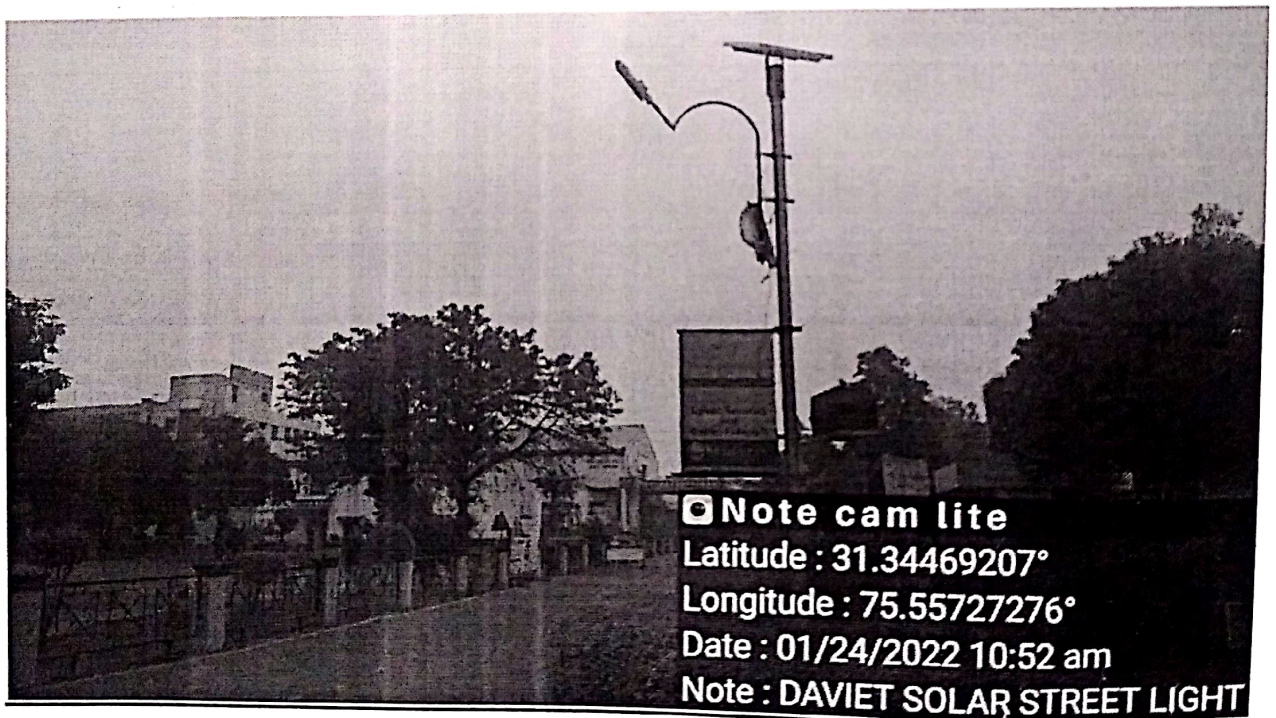


Geo-tagged Photographs related to solar energy systems in the campus

1. Solar Street Lights installed in the DAVIET Campus



Solar Street Lights installed in DAVIET, Jalandhar

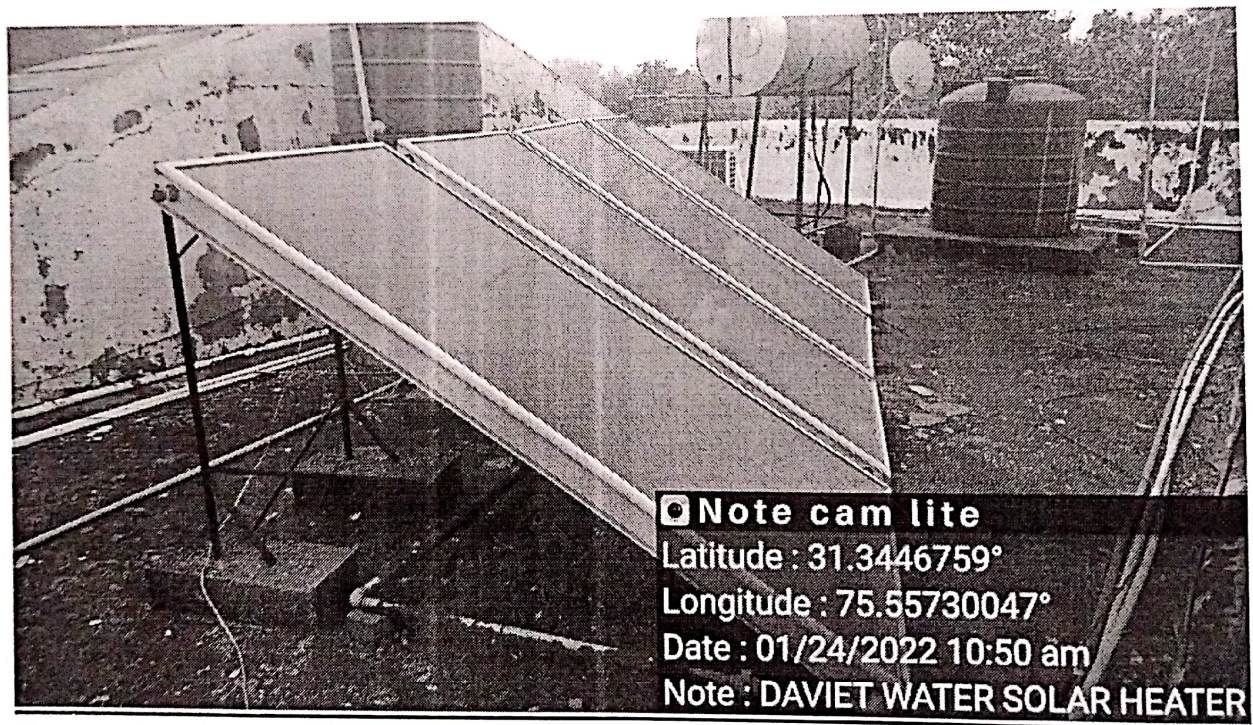


Solar Street Lights installed in DAVIET, Jalandhar


2. 500 ltr. Solar Heater System in the DAVIET campus



Solar Heater System in the DAVIET campus



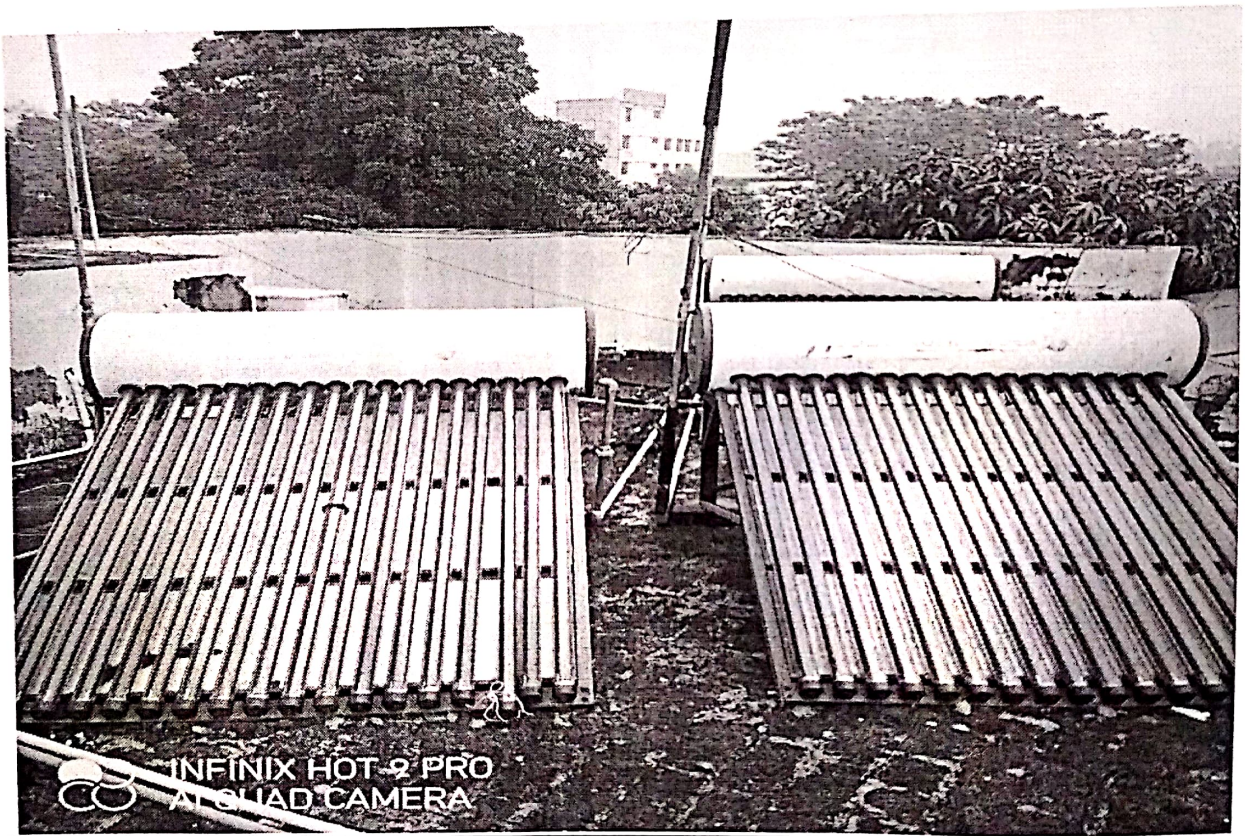
Solar Heater System in the DAVIET campus

Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

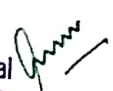





Solar Heater System in the DAVIET campus

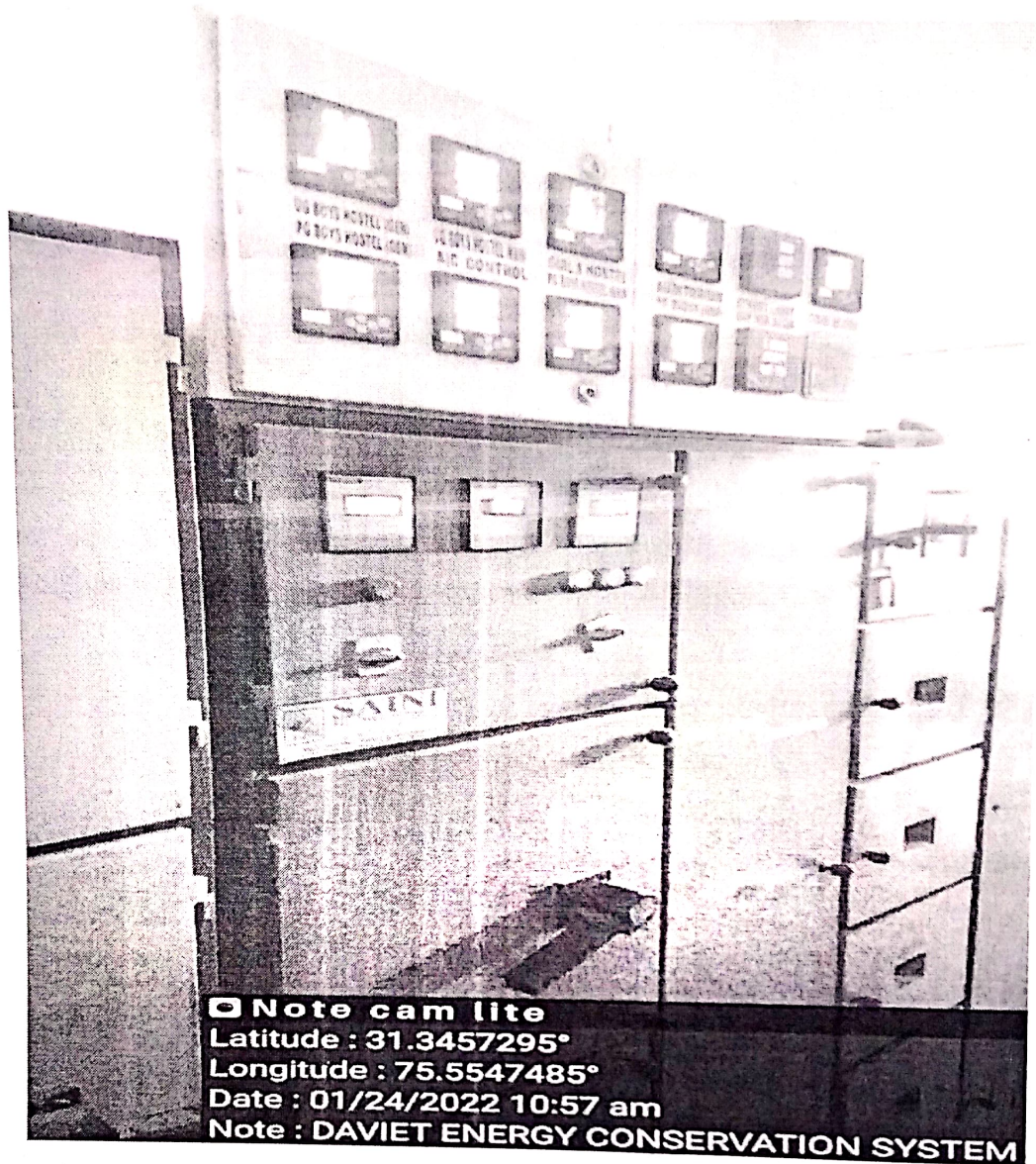


Solar Heater System in the DAVIET campus

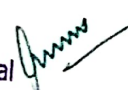
Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



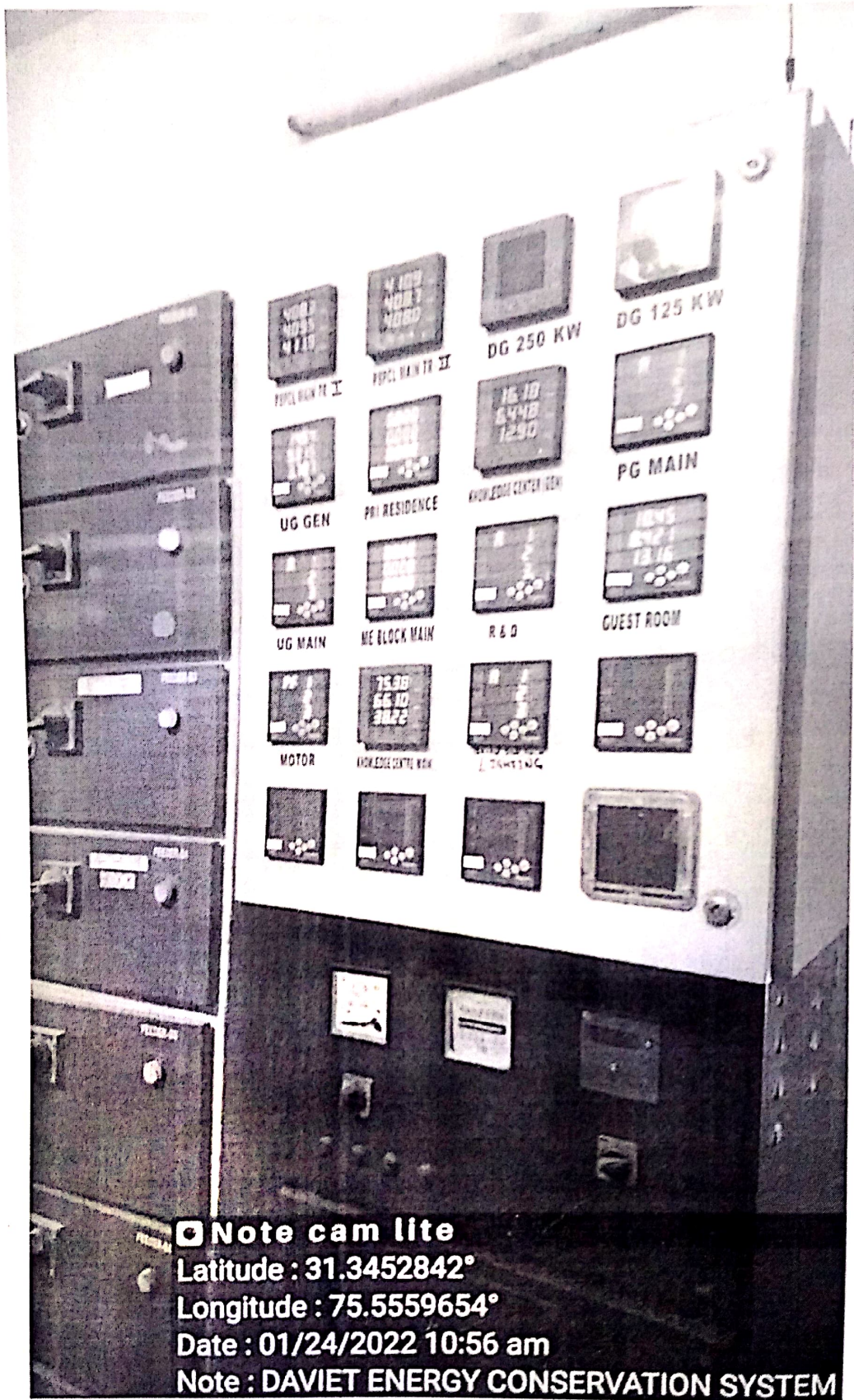
3. Sensor based energy conservation system installed in DAVIET Campus



MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar

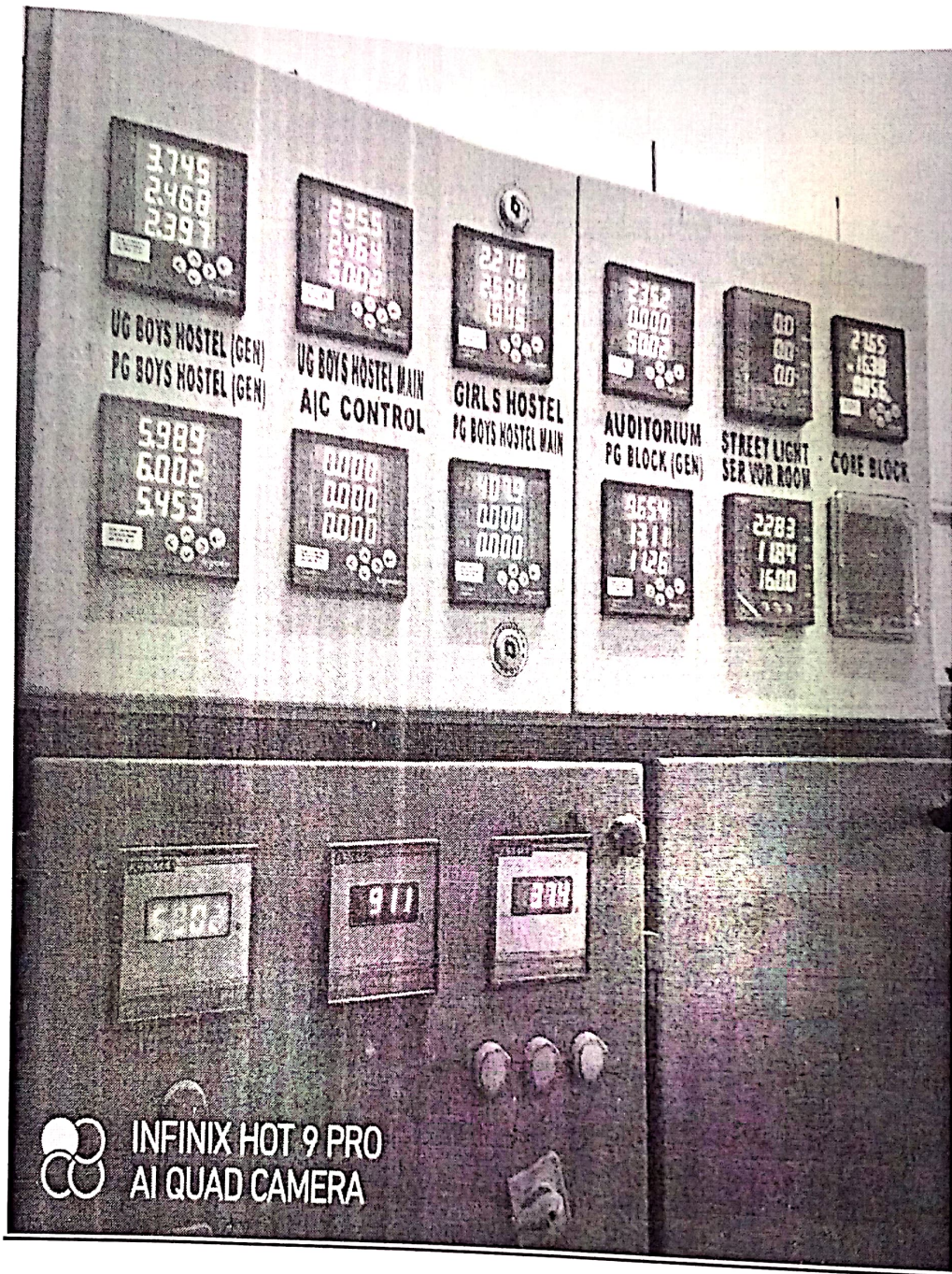
Principal 
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008





MFM Schneider Smart meter for the Sensor based energy conservation systems (3 no.) installed in DAVIET, Jalandhar

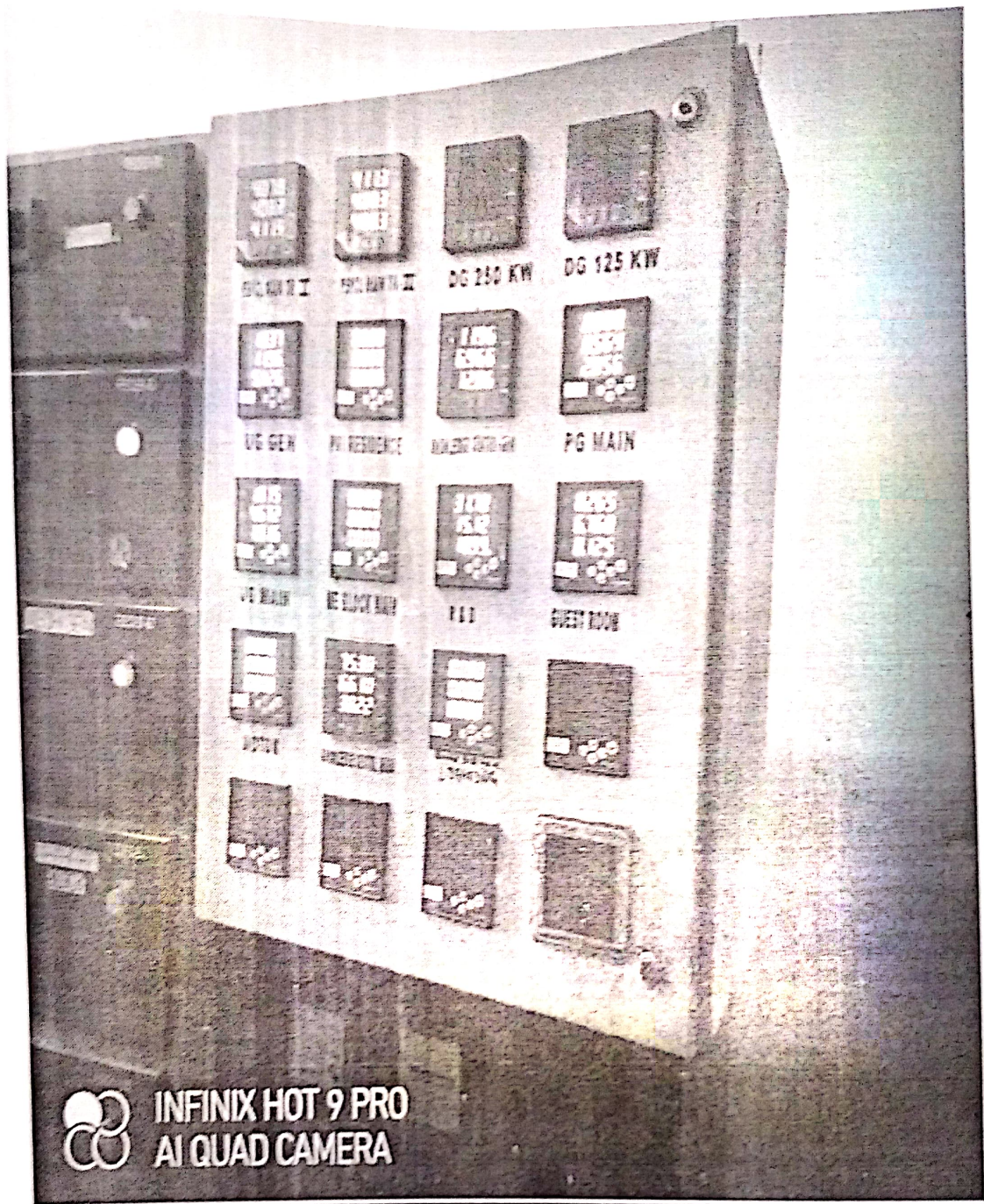
Principal *[Signature]*
 D.A.V. Institute of Engineering & Technology
 Kabir Nagar, Jalandhar-144008



MFM Schneider, Digital meter and CT Current Transfprmaer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar

Principal *[Signature]*
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

[Signature]



MFM Schneider, Digital meter and CT Current Transfprmaer for the Sensor based energy conservation systems installed in DAVIET, Jalandhar

[Signature]
Principal *[Signature]*
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008
[Signature]

Other relevant Proofs for the selected options

Sr. No.	Other relevant Proofs for the selected options (Initiatives for Energy and Env. Management)
1	Policy document on the Environment and Energy Usage
2	Policy document on the Restricted entry of Automobiles
3	Policy document on the Ban on the Plastic uses
4	Policy document on the E-waste Management
5	MoU agreement document related to E-waste Management
6	MoU agreement document related to paper wastage Management
7	Policy document on the Waste Management
8	Policy document for the Differently-abled students

Policy document on Environment and Energy Use

The **DAV Institute of Engineering and Technology's (DAVIET)** Environment and Energy Usage Policy aims to use and manage energy in a methodical manner to reduce environmental impacts. The policy suggests that in order to decrease the load on the government/ utilities and to identify alternative natural resources as remedies for the energy issue, feasibility of renewable energy sources should be investigated.

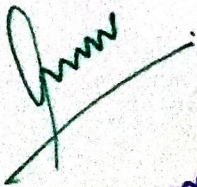
It is mandatory to follow the Environment and Energy policy for all the activities of the institute. It also applies to all stakeholders. As a result, all will be able to understand our obligations and commitment to the conservation of natural resources and to limiting their utilization. This will help us become more efficient and environmentally conscious in all of our daily activities. The various activities for advancing green projects, conducting green literacy campaigns, and raising awareness about environmental issues in order to reduce waste and safeguard the environment are conducted regularly.

Policies:

- To assess our energy consumption and its environmental impact.
- To educate our staff and students through various activities so they can become "Go Green Specialists".
- To associate with the collaborators/ NGOs to undertake tree plantation drive.
- To develop a micro-forest in the campus.
- To develop an herbal garden in the campus.
- To provide opportunities for employees and students to participate in environmental initiatives that benefit the environment.
- To install LED lights in the complete campus to save energy.
- Rainwater harvesting
- To actively collaborate with local organizations in the fields of environment, energy efficiency, and sustainable development. To engage in communication with the government agencies, municipal corporation, and affiliated university.
- To develop systematic waste management system.

- To implement new strategies to continually reduce our energy consumption.
- To promote the adoption of cutting-edge technologies to reduce energy use, air pollutants, especially from vehicles.
- To utilize environmentally friendly transportation methods, such as Electric vehicles bicycles, and the usage of pedestrian-friendly routes, to lower local air pollutant emissions.
- To encourage the use of public transportation.
- To install photovoltaic solar panels for the generation of alternate energy.
- To develop and maintain an environmental management system which is ISO: 14001 and an Energy Management System based on ISO: 50001.
- To provide training opportunities to faculty staff and students on energy saving techniques.

This policy will be communicated to the will be made available to all the stakeholders and displayed on the institutional website. The Environment and Energy Policy, objectives and targets will be reviewed on a regular basis under the guidance of the Principal of the institute.


Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



DAV INSTITUTE OF ENGINEERING & TECHNOLOGY

Kabir Nagar, Jalandhar, Punjab - 144 008

Accredited by NAAC with "A" Grade & Recognized by UGC under Section 2(f)

Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/ 2022-23f236

Dated : 9/5/2022

POLICY DOCUMENT

"Restricted Entry of Automobiles in DAVIET Campus"

- DAVIET Jalandhar is housed in a lush green campus of 12 acres where use of petrol/diesel/electric powered vehicles by students is prohibited as per Institute rules.
- Visitors' vehicles are allowed to enter the institute premises only after verification by security deployed at entry gate till designated parking points.
- Day scholars can bring two wheelers/cars only after verification by security deployed at entry gate till designated parking points.
- Two wheelers and four wheelers have different parking allocated spaces.
- The students can walk through the connecting corridors of different blocks /departments as our campus as all the academic blocks of DAVIET are interconnected.
- There is no traffic of petrol/diesel/electric powered vehicles on the roads of the institute connecting academic area with the hostels therefore they are pedestrian friendly therefore no need of additional pedestrian friendly pathways.
- Students, if they wish, can use bicycle to transit to various campus locations whereas use of battery-operated vehicles for the visitor is allowed.
- Faculty/staff and Students are encouraged to use alternative modes of transportation, such as carpooling, vanpooling, and public transportation to reach institute in order to reduce traffic congestion and air pollution
- Any public transport like auto ricksha is not allowed to run inside campus.
- Day scholars can use parking spaces up to 24 hours only in one stretch.

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008



DAV INSTITUTE OF ENGINEERING & TECHNOLOGY

Kabir Nagar, Jalandhar, Punjab - 144 008

Accredited by NAAC with "A" Grade & Recognized by UGC under Section 2(f)

Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/2022-23/485

Dated : 7/6/2022

POLICY DOCUMENT

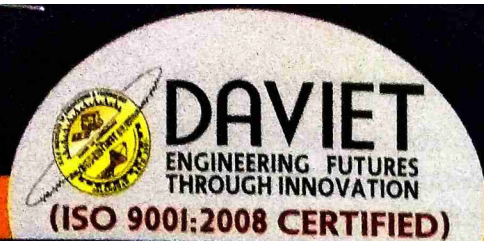
"Ban on the use of Plastic in DAVIET Campus"

Plastic pollution is currently one of the biggest environmental concerns. The short-term benefits and convenience of plastic and plastic goods have led to a boom in the production and consumption of plastic. Over the past century, excess-consumption of plastic has surpassed management of plastic waste and led it to become a scourge to the planet. Plastic is a menace that impacts not the environment as well as our health and wellbeing. We have all contributed to this problem, knowingly and unknowingly and now we all must work to reduce and eliminate plastic pollution by actively contribute to the effort of banning the use of single-use plastics.

In view of the above, Institute has adopted following guidelines, policies and practices towards cleaner and plastic-free campus.

- Institute will conduct events and poster competitions etc. on designing ecological and environmentally friendly goods to minimise the use of single-use plastic on regular basis.
- Institution will carry out awareness drives and sensitizing workshops on the harmful impacts of single-use plastics.
- Institute will ensure plastic-free campuses. Students and faculty must work towards this in mission mode. Usage of plastics should be stopped in canteens, shopping complexes in the institution's premises and hostels, etc. Students may not be permitted to bring non-bio- degradable plastic items to the institution.
- Every student will be motivated to make his/her household plastic-free. Students to be incentivized to carry out similar campaigns at the community level.
- Institute will ensure Installation of necessary alternative facilities like water units to avoid the purchase and use of plastic water bottles in coming days.
- Institute will ensure the presence of alternative solutions like cloth bags etc., to plastic bottles, covers and other goods on campuses.

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Ref. No. : DAVIET/2022-23/520

Dated : 8/6/2022

DAV Institute of Engineering & Technology, Jalandhar

E-Waste Policy

As approved by competent authority, the following is the policy for Electronic Waste Disposal of our Institute:

Definition of E-Waste:

E-Waste means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

E-Waste Management Rules, 2016 have been notified vide notification No. G.S.R. 338 (E) dated 23.03.2016 and are come into force w.e.f. 1st October 2016 and amended vide notification No. G.S.R. 261 (E) dated 22.3.2018.

Salient features of E-Waste Management Rules, 2016:

These rules are applicable to every manufacturer, producer, consumer, bulk consumer, collection centres, dealers, e-retailer, refurbishes, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.

BULK CONSUMER means bulk users of electrical and electronic equipment such as Central Government or State Government Departments, public sector undertakings, banks, educational institutions, multinational organisations, international agencies, partnership and public or private companies that are registered under the Factories Act, 1948 (63 of 1948) and the Companies Act, 2013 (18 of 2013) and health care facilities which have turnover of more than one crore or have more than twenty employees. **CONSUMER** means any person using electrical and electronic equipment excluding the bulk consumers.

DEALER means any individual or firm that buys or receives electrical and electronic equipment's their components or consumables or parts or spares from producers for sale.

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Website : www.davletjal.org
Email : davlet@davletjal.org

Ph. : 0181-2207650, 2200232, 2343400

E-Waste Definition:

E-Waste means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment, and repair processes.

Institute E-Waste:

The Institute awards the contract for Electrical/Electronic goods Recycling to the empanelled vendors of Punjab Pollution board mentioned at their website i.e. <https://ppcb.punjab.gov.in/>.

- All institute departments/branches will take consideration of the disposal/obsolete /condemnation E-Waste policy of the university.

Life Span of Electronic/Electrical Items to be dispose-off:

Cat.	Nature	Items	Useful/Productive Life
1	Immediate obsolescence/ use and throw products	Printing Consumables (Ink Toners), Floppies, CDs, DVDs, Digital Audio Tapes (DAT), Linear Tapes Open (LTA), UPS Batteries.	As per usage, No. residual value determined. However, proper inventories of purchase, issue and final use/disposal etc. would be maintained in order to keep an accounting system.
2	Low life/Fast obsolescence products	Mobile Phones	Two years
		Laptops, pen drives, external hard disk Drive (HDD), SSD etc.	Three years in case of Laptops, HDD, SSD etc. for replacement. One years in case of Pen Drive. Residual values determined separately.
3	Medium obsolescence/ Medium Life products	Desktops, All-in-ones, Printers, HIFDs, Scanners, Multimedia Projectors, Online UPS System etc.	Eight years in case of Desktops/All-in-ones. Five years in case of, Printers, MFDs, Scanners, Multimedia Projectors, Online UPS System etc.
4	Slow obsolescence/ Pledium Life products	Fax, EPBAX, Electronics Items such as Bio Metric Machines, Cameras, TVs, DVD Players, Public Address Systems, Electronics Calorie Meter, Electronic Thaw Unit, Sterilizers etc.	Seven years
5	Software	Software Like MS Office, Oracle, MS-SQL, MS Windows, Antivirus, etc.	As per license the purchased.
6	Others	Any other Electronics/ Electrical Items	As per the license purchased/ life span claimed by the concerned manufacturer/ supplier.
Note:	The above-mentioned items can be used beyond the mentioned/specified life till such time these items continue to serve the purpose.		

The following equipment will be considered for obsolescing/disposal/condemnation:

The equipment will Be Covered Under electronic E-Waste equipment's like TV, Air Conditioners, and Information Technology/Telecommunication Equipment like

Centralized Data Processor Mainframe, Server, Minicomputer, Personal Computer (Central Processing Unit with Input and Output Devices), Laptop, Computer, Notebook, Printer including Cartridge, Scanner, Multifunctional Printer, Printer Sharer, Copying Equipment, Electrical and Electronic Type Writer, User Terminal and System, Facsimile, Fax, EPABX, Telex, Telephone, Pay Telephone, Codeless Telephone, Cellular Telephone, Public Address System, Electronic Calorie System, Electronic Thaw Unit, Answering System, UPS Bakeries, Online UPS, UPS, Stabilizers, DVD Players, CVTs, DVD, CD, Floppies, Pen-Drive, Internal & External HDD/SSD, DAT Tape, RAM, LCD & DLP Projector, Head Phones, Computer Speakers, Computer MIC, VGA Cable, HDMI Cable, C-Type Cable, Networking items like Switch, HUB, Router, Modem, LAN Card, WIFI Access Point and Other Electronics Card Like Sound, Graphics, PCI Cards etc.

Centralized E-Waste Inspection Committee of the Institute:

All obsolete/condemned material will be verified/ Inspected by the following inspection committee:

- | | |
|---|------------|
| (i) Principal | - Chairman |
| (ii) HOD(CSE) | - Member |
| (iii) HOD(ECE) | - Member |
| (iv) Assistant Professors (ECE/CSE) | - Member |
| (v) Assistant Professors (EE/CE) | - Member |
| (vi) EO | - Member |
| (vii) Sr. Assistant (General Administration) | - Member |
| (viii) Senior Assistant (IT/CSE Services/Department) or above | - Member |
| (ix) Incharge Store | - Member |

Aforesaid Inspection committee will work to inspection of equipment under consideration of obsolete/disposal/condemnation.

E-Waste Process and Important points

All departments will condemn/write-off their electronic/electrical items in following steps

- a) Each department/branch will submit the details of items as per **Annex "A"** to the IT Services Branch/department of Institute in half-yearly i.e., 31st July and 31st Dec. of every year.
- b) The General branch will compile all such requests and submit a detailed report to the E-Waste Inspection Committee within 10 working days.
- c) The Inspection committee will collect the request from the department/branches. All disposal obsoleting/ condemnation equipment and stock register will be presented and shown by all departments/branches to the inspection committee at the time of inspection. Senior Assistant (IT/CSE Services/department) will verify the working condition of all the equipment as submitted by the department/branch on the site.
- d) The committee will submit their final report on the consolidated list of disposal/obsolete/condemnation equipment to be disposed of to worthy Principal.
- e) After the approval of competent authority Senior Assistant (IT/CSE Services/Department) and Incharge Store will perform the dispose-off process directly with the emplaned vendors of the Punjab Pollution board for the consolidated list of obsoleting/disposal/condemnation material mentioned on their website i.e. <https://ppcb.punjab.gov.in/>.
- f) All department/branches will retain this obsoleting/disposal/condemnation material at their site and will be picked by sanctioned emplaned E-waste vendor under the

supervision of Senior Assistant (IT/CSE Services/Department) as **Annex "B"**

- g) All CPU hard drive/other storage device must be cleaned by the concern employee. He/She will be solely responsible for the backup of their data before obsoleting/disposal/condemnation of the material.
- h) The concerned department will be responsible for prevents damage to obsoleting/disposal/condemnation material while awaiting disposal.
 - 1. Monitors/Screens/LED/LCD etc. should be stored in an upright position. These should be stored in a manner that prevents breakage of the screen. Computer monitor power cables should be wrapped up or properly secured before offering it for recycling.
 - 2. Toner cartridges and paper in printers should be removed from printers prior to disposal.
- i) Department must ensure that leased equipment is returned to the leasing vendor only as mentioned in the "Annex "B".
- j) Inspection committee will schedule the disposal of electronic waste from the Institute. Electronic waste disposal is performed by emplaned vendors of Punjab Pollution board. Incharge Store will maintain all records of disposal, including shipping papers and certificates of recycling where applicable.
- k) E-waste policy is derived from Punjab Pollution Board E-Waste Rules.
- l) The policy will be reviewed after 2 years, as the need.


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E - Waste Policy

Annexure "A"

S. No.	Item Description	Date of Purchase or year of Purchase	Stock Register Page No.	Qty	Unit Price	Total Price	Purchase was Made directly or Through the emplaned vendors	Status (Working or Not working)	Signature of Concern employee

HOD/In-Charge (Concern Branch)

Verified by

CSE/IT/ECE/EE Department

Remarks (if any)

.....

.....


.....

Dealing Hand/Senior Assistant (IT services)/ Incharge Store

HOD/In-Charge

Annexure "1"

Sr. No	Name & Address of the facility	Type of Facility	Capacity	Contact Person With	Mobile No	E-mail ID	E Waste authorization	Valid up To	Remarks if any
1	Ms KJ. Recycler, (Recycling facility) C-38, Sanjay Gandhi Nagar, Industrial Area, Jalandhar City, Punjab	Recycler	2 TPD	Sh. Pritpal Singh Chawla (Partner)	9814060756	arvinder@kjrecyclers.com	Vide no. 25590-92 dated 24.11.2020	20.11.2026	


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 Kabir Nagar, Jalandhar-144008

PAN INDIA SERVICES AGREEMENT

This Services Agreement (hereinafter referred to as "Agreement") made at Jalandhar on 23/12/2022 (hereinafter to as "Effective Date") by and between:

1. **K. J. Recyclers**, a partnership firm having its E-waste Recycling Facility at **C-38, Sanjay Gandhi Nagar, Industrial Area Jalandhar Punjab 144004**, (hereinafter referred to as the "Service Provider", which expression unless be repugnant to the context, shall mean and include successors and assigns), represented on behalf of the firm by **Mr. Pritpal Singh Chawla** (Partner) of the firm, duly authorized by the firm to execute this agreement or addendum(s) related hereto, on the First Part.

AND

DAV Institute of Engineering and Technology is an Educational Institute having its registered office at **Kabir Nagar, Jalandhar, Punjab 144008** hereinafter referred to as the "Recipient" which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns); represented by **Dr. Sanjeev Naval, Principal** of the Institute

The Service Provider and the Recipient are hereinafter collectively referred to as the "Parties" and singularly as "Party".

WHEREAS:

- A. The Recipients engaged in the business of **Educational Institute**
- B. The Service Provider is engaged in the business of collection, transportation, reverse logistics, refurbishing, recycling and disposal of used electrical and electronic appliances and e-Waste (as defined below).
- C. The Service Provider is a registered and approved by the Punjab Pollution Control Board as well as Authorized by Central Pollution Control Board under Producer Responsibility Organization and is operating a facility for the collection, reception, transportation, treatment and disposal of E-Waste and having their authorized Recycling Machinery in Jalandhar, Punjab.

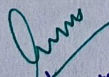
NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES AND COVENANTS AND FOR OTHER VALUABLE CONSIDERATION, THE RECEIPT AND SUFFICIENCY OF WHICH IS HEREBY ACKNOWLEDGED, THE PARTIES HERETO AGREE AS FOLLOWS:

1. DEFINITIONS

Provided that Confidential Information shall not include information that the Receiving Party can demonstrate by sustainable evidence:

- (i) is, or hereafter becomes, through no act or failure to act on the part of the Receiving Party, generally known or available; or,
- (ii) is known to the Receiving Party at the time of receipt of such information; or,
- (iii) is hereafter furnished to the Receiving Party by a third party, as a matter of right and without restriction on disclosure, there being no obligations of confidentiality attached to the source of such information.

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“e-Waste” means electrical and electronic equipment, whole or in part discarded as waste by the consumer as well as rejects from manufacturing, refurbishment and repair processes

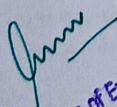
“Recycling” shall mean and include refurbishing, reusing, reconditioning, repairing the e-Waste and such other activities incidental and ancillary to recycling.

“Recipient Company” means a party that receives Confidential Information under this agreement.

“Services” shall mean the services more fully set forth in **Schedule 1** to be rendered in accordance with the terms of this Agreement.

2. SERVICES

- 2.1. The Service Provider shall perform services in the nature of collection, and Recycling of the e-Waste that it shall collect at various locations including Recipient offices, service centers, service dealers, warehouse, stores, factory/manufacturing locations/Institutes across the country from the Recipient and its customers/consumers and such other services as are more fully described in **Schedule 1** (“Services”) during the Term of the Agreement.
- 2.2. Recipient agrees to permit Service Provider during the reasonable time for collection of E-Waste material on “as is – where is” basis. Service Provider agrees to collect the E-waste as may be agreed by the parties in writing at the time of collection of E-waste material. The Service provider shall collect the e-waste material from the Factory or any other places as may be specified in writing from time to time. Service Provider agrees to Process such quantities of the Materials as offered by the Recipient from time to time.
- 2.3. It is agreed between the parties that every Material agreed to be offered under this agreement shall necessarily pass through the Process before it is ultimately recycled or disposed-off or refurbished in an eco-friendly manner and in accordance with the / laws passed by the central or state pollution control boards or such other authorities as may be applicable from time to time.
- 2.4. The Parties may at any time by mutual discussions on mutually agreed terms and conditions amend the **Schedule 1**.
- 2.5. During the Term of this Agreement, the Service Provider agrees and undertakes that it shall obtain/ obtained and maintain all the necessary permits, approvals, sanctions and licenses etc. in compliance with the existing applicable Laws including any modifications therein from time to time in relation to or in connection with the rendering of the Services under this Agreement.
- 2.6. The Service Provider agrees that it shall at all times comply with all applicable Laws.


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3. CONSIDERATION AND PAYMENTS:

- 3.1 Service Provider will make payment to the Recipient against the received e-waste material, as specified in Schedule 2 of this Agreement. The Service Provider shall also provide the services as specified in Schedule 1 of this agreement.
- 3.2 It is agreed by both the parties that Recipient shall make payment to Service Provider as specified in Schedule 2 for utilization of various services as mentioned in Schedule 1 after submitting the necessary documents pertaining to services accomplishment.
- 3.3 The cost of loading and unloading of the E-waste material offered to the Service Provider including the cost of manpower deployed for the said purposes shall also be borne by Service Provider and Recipient shall not make any payment whatsoever for the same. There should not be delay in allowing the service Provider to pick-up the material from the factories of the recipient.

4. INDEMNITY

4.1. Indemnification by the Service Provider:

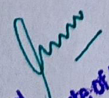
4.1.1. The Service Provider shall be liable to indemnify, defend and hold harmless the Recipient, its Affiliates, employees, agents and other representatives (collectively, the "Indemnified Persons") from and against any and all Losses, whether suffered or incurred by any of the Indemnified Persons, to which any of the Indemnified Persons may otherwise become subject (regardless of whether or not such Losses relate to any Third Party claim) and which arise out of, or result from or are connected with any:

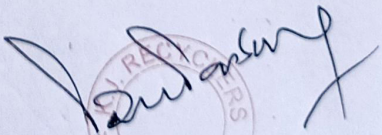
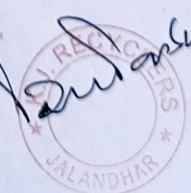
- (i) misrepresentation in, inaccuracy in or breach by the Service Provider of any representation, warranty, term, covenant or undertaking of the Service Provider contained in this Agreement; or,
- (ii) violation of the applicable Law or any Governmental approval by the Service Provider in the course of this Agreement; or,
- (iii) any act or omission amounting to the gross negligence, willful default or willful misconduct by the Service Provider.

4.2. Indemnification by the Recipient:

4.2.1. The Recipient shall be liable to indemnify, defend and hold harmless the Service Provider its Affiliates, employees, agents and other representatives (collectively, the "Indemnified Persons") from and against any and all Losses, whether suffered or incurred by any of the Indemnified Persons, to which any of the Indemnified Persons may otherwise become subject (regardless of whether or not such Losses relate to any Third Party claim) and which arise out of, or result from or are connected with any:

- (i) misrepresentation in, inaccuracy in or breach by the Recipient of any representation, warranty, term, covenant or undertaking of the Recipient contained in this Agreement; or,
- (ii) violation of the terms of applicable Law or any Governmental approval by the Recipient in the course of this Agreement with the Service Provider; or,
- (iii) any act or omission amounting to negligence, default or misconduct by the Recipient;


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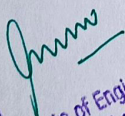



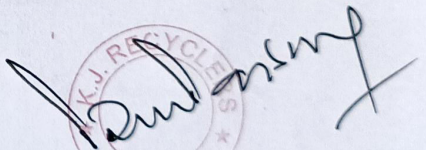

5. TERMINATION –

- 5.1. This Agreement, unless otherwise terminated earlier, shall be effective for a period of Five (5) years i.e. from 23/12/2022 to 22/12/2027 The Parties may renew the Agreement for a further term by mutually agreeing in writing. The terms of the Services shall also be subject to renewal from time to time as agreed between the Parties.
- 5.2. The Parties may terminate this Agreement by mutual consent by giving the other party a written notice of one (1) calendar month. In such an event, subject to the other terms contained herein, the Service Provider shall be paid for the Services as per this Agreement rendered till the date of such termination.
- 5.3. Consequences of Termination: Upon termination of Agreement:
- 5.3.1. the Service Provider shall immediately cease to provide the Services;
 - 5.3.2. the Service Provider shall pay all the amounts stated in this Agreement due to the Recipient till the date of termination;
 - 5.3.3. within thirty (30) days of receipt of notice of termination, each Party shall return Confidential Information of the other in its possession and shall not make or retain copies without the consent of the other Parties

6. ETHICS

The Parties agree to conduct business in an ethical manner and in accordance with all applicable laws. No promise/offer/payment in cash or kind including no improper payments has or will be made to either party or their respective officials/agents etc. or to any third party with respect to the Contract. Breach of any of the above shall be sufficient ground for the non-defaulting party to revoke or cancel this Contract extra judicially.


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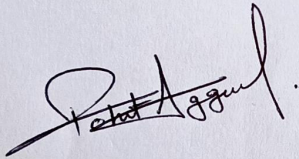
IN WITNESS WHEREOF, each of the forenamed Parties has signed and executed this Agreement and all the original copies hereto, on the date first above written.

For KJ RECYCLERS



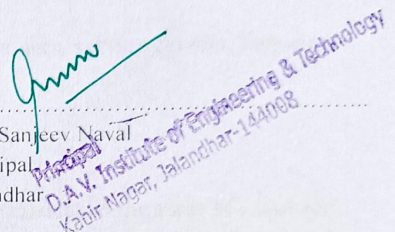
.....
Name: Mr. Pritpal Singh Chawla
Title: Partner
Place: Jalandhar

Witness:



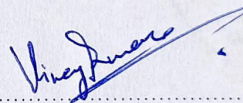
.....
Name: Mr. Rohit Aggarwal
Title: Manager

For DAV Institute of Engineering and Technology



.....
Name: Dr. Sanjeev Naval
Title: Principal
Place: Jalandhar

Witness



.....
Name: Mr Viney Kumar
Title: Estate Officer

SCHEDULE 1
(Services)

1. Compliance Services

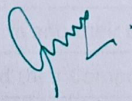
- Environment friendly recycling according to the CPCB guidelines.
- Destruction Certificate will be provided to the customer after processing.
- Form 6 collection manifest at the time of collection

2. E-waste – Generic

Pan-India pickup of E-waste generated at Recipient Offices, warehouses, service centers, factories, resulting from repairs, replacements, rejections/defectives.

3. E-waste - Bulk Consumer

Pan-India pickup of E-waste generated at their offices or corporate Offices in the form of E-waste created in the form of IT or Non IT Material and Consumer electric and electronic equipment if full or parts



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SCHEDULE 2
(Service Fees and other Fees)

1. **Service Fees –**

Service provider will not charge annually for assisting in Compliance services mentioned in Schedule 1.

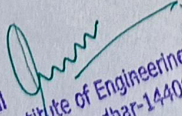
2. **E-waste Generic as Bulk Consumer**

Particular	Quoted Value	Consideration
Laptops Complete (with Motherboard, Processor, RAM, HDD)	INR 800 Per Unit	Service Provider will pay
All in one PCs (with Motherboard, Processor, RAM, HDD)	INR 800 per unit	
CPU P (1,2,3) (With Motherboard, Processor, RAM, HDD)	INR 200 Per Unit	
CPU P4- Core 2 Dual (With Motherboard, Processor, RAM, HDD)	INR 400 Per Unit	
CPU Above C2D (With Motherboard, Processor, RAM, HDD)	INR 600 Per Unit	
TFT (Any Size)	INR 300 Per Unit	
CRT Monitor (Not Black & White)	INR 250 Per Unit	
Television (LED, Smart Android Etc)	INR 100 Per Unit	
Air Conditioners- Split/Window Indoor & Outdoor (Comprising all Parts)	INR 3000 Per Unit	
Batteries (Excluding water weight)	INR 18 Per Ah	
Stabilizers/ UPS	INR 300 Per Unit	
Washing Machine (With Parts and their components)	INR 600 Per Unit	
Refrigerator (With Parts and their Components)	INR 900 Per Unit	
Scanner, Dot Matrix, Line Printer (Small) Less than 12 Kg's	INR 110 per unit	
Inkjet, Dot Matrix, Line Printer/ Fax (Medium Size)	INR 300 per unit	
Multifunction Printer, FAX (Big Size) More than 40 Kg	INR 600 per unit	
Scrap Wires (Other Than IT Cables)	INR 50 Per Kg	
Scrap Wires (IT Cables)	INR 25 Per Kg	
Telephones	INR 10 Per Unit	
Mouse	INR 6 per unit	
Key Board	INR 12 per unit	
Servers, Modems, Switches, Routers	INR 20 Per unit	
Other electrical-electronic items (not covered in any above)	INR 25 per Kg	
CFL/Tube, Led Lights, Bulbs	INR 100 Per Kg	Recipient will pay

Quoted Prices are exclusive of GST

3. **Awareness Campaigns**

As per statutory compliance for end consumer awareness campaigns, all campaigns will be managed and executed by the Recipient and all costs will be borne by Recipient.


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Re-accredited A Grade with 3.83 (highest score in India) out of 4 by NAAC

Declared Role Model College by NAAC Peer Team, Star College by DBT, Ministry of HRD, Govt. of India

Recognized as College of Excellence by UGC

HANS RAJ MAHILA MAHA VIDYALAYA

Managed by DAV College Managing Committee New Delhi.

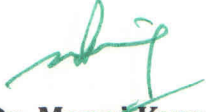
Mahatma Hans Raj Marg, Jalandhar-144 008.

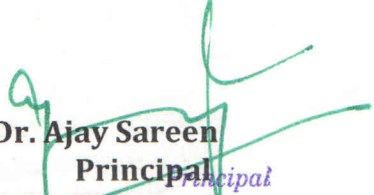
Ref No 1119-A

MEMORANDUM OF UNDERSTANDING

The DAV Institute of Engineering and Technology (DAVIET) Jalandhar and Hans Raj Mahila Maha Vidyalaya (HMV) Jalandhar have mutually agreed for an arrangement for purpose of using paper recycling unit for DAVIET from time to time on the terms and condition as set forth herein for the period of two years from the date of execution of this memorandum of understanding.

1. HMV shall allow DAVIET the use of paper recycling unit facility for recycling paper waste of DAVIET.
2. The use of the paper recycling facilities shall be made on the availability of free slots.
3. The use of the paper recycling facilities will be allowed only on advance information for the same through proper channels.
4. The running cost of the paper recycling unit for recycling of paper waste of DAVIET will be borne by DAVIET, Jalandhar.


Dr. Manoj Kumar
 Principal
 DAVIET
 Jalandhar, Punjab 144008


Dr. Ajay Sareen
 Principal
 Hans Raj Mahila Maha Vidyalaya
 Jalandhar, Punjab 144008

Date: 10-06-2022
 Place: Jalandhar

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DAV INSTITUTE OF ENGINEERING & TECHNOLOGY

Kabir Nagar, Jalandhar, Punjab - 144 008

Accredited by NAAC with "A" Grade & Recognized by UGC under Section 2(f)

Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/2022-23/290

Dated : 18/5/2022

"Waste Management Policy"

1. Introduction

DAV Institute Of Engineering & Technology, Jalandhar (DAVIET, Jalandhar), is committed to transform lives and serve the society through pursuit of excellence in teaching, innovation, lifelong learning, cultural enrichment and outreach services. DAVIET, Jalandhar came into existence in 2001, with the objective to promote interdisciplinary higher education and research in the fields of Engineering, Management & computer application. DAVIET realizes sustainable and holistic waste management essential in reducing its environmental footprint and providing a safe and healthy work environment for teaching and non-teaching employees, students, and visitors. The institute has a duty to ensure that all the campus wastes are disposed of responsibly by using proper waste segregation mechanism at the source and if possible, converting it into value added environment friendly product. Furthermore, the medical and other hazardous waste should be disposed or managed by government approved, registered waste contractors. The purpose of the policy is to facilitate implementation of the action plan brought out in "National Environment Policy 2006" on management aspects of hazardous waste including their minimization, environmentally sound management and active promotion of transfer and use of cleaner technologies.

2. Policy Statement

The Institute will adopt the principles of the 'best practicable environmental option' in the delivery of its waste management services. The institute will apply a 'waste hierarchical approach', to reduce, reuse, recycle and recover waste products in preference to the disposal of waste to landfill. The institute recognizes the importance of meeting these

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legal requirements and to manage its waste responsibly, reduce the volume of waste sent to landfill and maximize reuse and recycling where possible. The University requires all the teaching and non-teaching staff, students, guests and anyone else making use of the premises to comply with this Policy and associated "Institute Environmental Guidance" to ensure compliance with all waste legislations. Any solid waste generated in the campus shall be managed and handled in accordance with the compliance criteria and the procedure laid down in Municipal Solid Wastes (Management and Handling) Rules, 1999, published under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 783(E), dated, the 27th September, 1999 in the Gazette of India, Part II, Section 3, Sub-section (ii). There is a legal requirement for all who produce, keep or dispose hazardous/ radioactive waste/chemical waste of any type to comply with the various regulations under national and international environmental protection legislation.

3. Policy Objectives


The objectives of this policy are:

- ✓ To ensure that waste management is performed in accordance with all waste legislative requirements, including the duty of care, and to plan for future legislative changes and to mitigate their effects.
- ✓ To minimize waste generation at source and facilitate repair, reuse and recycling over the disposal of wastes in a cost effective manner.
- ✓ To provide clearly defined roles and responsibilities to identify and co-ordinate each activity of the waste management.
- ✓ To promote environmental awareness in order to increase and encourage waste minimization, reuse and recycling.
- ✓ To invest into the expansion of recycling opportunities on the institute campus and transform waste into value added products.
- ✓ To ensure the safe handling and storage of wastes on institute campus.

- ✓ To provide appropriate training for teacher, resident, staff, students and other stakeholders on waste management issues.
- ✓ To promote holistic approach of waste management in the campus.

4. Organization and Management

The responsibilities and organizational arrangements for this Waste Management Policy lie with a variety of personnel within the Institute.


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▪ **Advisory Board**

- a. The Principal - Chairman
- b. Dean Academic Affairs
- c. Dean (Student Affairs)
- d. Dean (RIC)
- e. Dean (Accreditation)
- f. Medical Officer, DAVIET
- g. Two outside expert (to be nominated by Principal)

Function of Advisory Board.

- i). Coordinating the provision of a central waste and recycling contract service for use by all facilities on the campus.
- ii). Ensuring that all contractors are advised that they must comply with the Duty of Care; that they must comply with the institute's Waste Management Policy.
- iii). Ensuring that all contractors appointed to carry out works are from the government 'approved list'.

Co-ordinator, Environment Sustainability Management Cell, DAVIET, Jalandhar is responsible for:

- i). Provision of advice and guidance to the University on waste management.
- ii). Setting Environmental Performance Indicators for waste management.
- iii). Reporting annually to the advisory Board on progress against the 'Environmental Performance Indicators'.
- iv). Monitoring and auditing the management systems for all wastes, to ensure safety and legal compliance.
- v). Monitoring and auditing all waste contractors working for the institute.
- vi). Provision of appropriate training for all personnel who have responsibilities for waste management.
- vii). Coordinating the gathering of, and supplying all relevant information to appropriate enforcement agencies, when information relating to waste management is requested.
- viii). Investigation of any incidents or spillage relating to all type of hazardous and general waste management.

Support staff is

Responsible for:

- i). Overseeing the day to day delivery of general waste and their recycling services.
- ii). Monitoring the performance of the institute contractor against the contact agreements.


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- iii). Liaising with the "Environment Sustainability Management Cell" to establish standard procedures for managing waste on the Institute campus.
- iv). Operational monitoring of waste management systems across the campus.
- v). Compiling waste transfer data and statistics notes for centrally managed waste and recycling collections.

Heads of Departments are:

Responsible for:

i). **Non-hazardous Wastes**

Ensuring that no hazardous waste is disposed of through the general or waste recycling streams.

ii). **Hazardous Wastes;**

Nominating a '*responsible person*' within their department to coordinate waste disposal for any hazardous or laboratory wastes.

- iii). Informing the **Environment Sustainability and Management Cell**, about the nominated '*responsible person*' and updating the cell if and when the '*responsible person*' changes. The tenure of the person will be minimum two year.

▪ **Staff/Supervisor (contractual) will be**

Responsible for:

- i). Disposing of waste responsibly (**at both office and residence**), through the appropriate waste disposal system (segregation of waste), in accordance with Institute policy and procedures.
- ii). Reporting any problems with waste collection schemes to **Environment Sustainability and Management Cell** of the Institute.

▪ **Students will be**

Responsible for:

- i). Disposing of waste responsibly, through the appropriate waste disposal system, in accordance with institute policy and procedures.
- ii). Reporting any problems related department/laboratory waste or waste collection Procedure to the 'Head of Department'.

5. **Action Plan**

The waste could be recycled /reused or disposed of in captive or common treatment, storage and disposed facilities available in the campus or incinerated, as proposed in the waste hierarchy list (Fig. 1). Inventories of 'end of life' consumer products such as e-waste are also required to be made.

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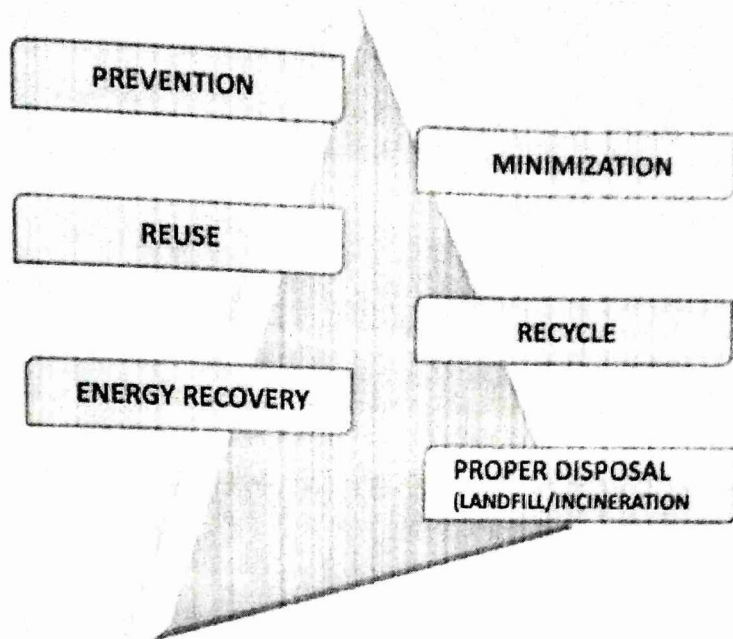


Fig. 1. Waste Hierarchy list in order of preference from the most favorable (top) to the least (bottom).

Waste avoidance and waste minimization at source

In the hierarchy of waste management, waste avoidance and waste minimization have to be attempted first, for which dissemination of information on technological options should be a continuing exercise. Promote implementation of recovery of resources such as solvents, other reagents and by-products as well as re-generation of spent catalysts in a time frame manner.

Reuse, recovery and recycling of non-hazardous waste

Institute will explore options/ opportunities of reusing, recovery and recycling of non hazardous waste in an environmentally sustainable manner. Paper waste will be recycled to make file covers paper board and packing material. The dry leaves/food waste generated in the hostels etc will be treated in the pits adjoining the PG hostel to convert them to compost .

Safe disposal of hazardous waste

For the waste which cannot be recycled/ reused, safe and environmentally sound disposal will be adopted depending upon waste category. Design and operation norms of disposal facilities should be strictly adhered to as per the guidelines framed by CPCB.

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6. Glossary

Hazardous Waste

Waste that causes substantial or potential threats to public health or the environment e.g. Acids, Pesticides, Fluorescent Tubes, Alkaline Solutions, Photographic Chemicals, Batteries Waste Oils Paint, Solvents, Computer Monitors, radioactive substances.

Recycling

The diversion of waste away from landfill or incineration and the reprocessing of those wastes either into the same product or a different one. This mainly includes non-hazardous wastes such as organic waste, wood, paper, glass, cardboard, plastic and scrap metal.

Responsible person

The person who oversees the wastes to be removed from the premises at which it was Produced or is being held.

Waste

According to United Nations Statistics Division (UNSD), waste are "materials that are not prime products (that is, products produced for the market) for which the generator has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose. Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. Residuals recycled or reused at the place of generation are excluded."

Incident

Events that are distinguished from accidents in terms of being less severe.

Segregation

An activity where waste or materials are separated or are kept separate according to radiological, chemical and/or physical properties to facilitate waste handling and/or processing.

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Treatment and disposal of "Biomedical Waste"

(a) Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards prescribed in Schedule V, Bio-Medical Waste (Management and Handling) Rules, 1998, MoEF, Gov. of India.

(b) Every occupier, where required, shall set up in accordance with the time-schedule in Schedule VI, requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste, or, ensure requisite treatment of waste at a common waste treatment facility or any other waste treatment facility.

Biomedical waste

waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or in research activities pertaining thereto or in the production or testing of biologicals, and including categories mentioned in Schedule I, (Management and Handling) Rules, 1998, MoEF, Gov. of India.

Cytotoxic waste may be contaminated with a cytotoxic, pharmaceuticals, laboratory chemicals used in preparation, transportation and administration.

Chemical waste is generated from the use of chemicals in laboratories for teaching and research

Radioactive waste is contaminated with radioactive substances which arises from medical or research uses.

General waste includes paper, plastics, glass, liquids and organics.

Hazardous Waste, bulk of which is generated by the industries, can cause environmental pollution and adverse health effects if not handled and managed properly. Its effective management, with emphasis on minimization of generation and recycling/ reuse, taking into account economic aspects, is therefore essential.

Dr. Manoj Kumar
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Policy Document for differently-abled Students

The College provides special attention to persons with Disabilities under the provisions of 'The Rights of Persons with Disabilities Act, 2016'. It has been felt that differently-abled persons need special arrangements in the Environment for their Mobility and Independent functioning. It is ensured by the College that all existing structures as well as future construction projects in the campus are made friendly for such persons. The Institute cares to create special facilities such as Ramps, Washrooms and Special Toilets, and make other necessary changes to suit the special needs of differently-abled persons. The construction plans clearly address the accessibility issues pertaining to disability.

The Infrastructural and other support facilities at College are Divyangjan friendly in order to make the study environment more convenient for the differently-abled students. The College has following facilities:

- Facilitating timely availability of Scholarships pertaining to these students as provided by the State and other agencies.
- Facilitating Students by giving extra time for writing examination where over applicable.
- Making provisions in the infrastructure facilities like Ramps, Railing on the Stair cases etc. Annual review of these facilities is done continually.
- Separate Washrooms are maintained.
- Sensitization, Motivational sessions and Awareness programmes are organized to inculcate the feeling of social inclusion among the Divyangjan students.
- Annual review regarding Admissions to students is done under the act.
- To conduct Awareness programmes for Teachers of the Institute, about the approaches to Teaching, Evaluation procedures, etc. which they should address in the case of differently-abled students.
- Focusing on their strengths and abilities rather than the disability and helping to strengthen them by giving them equal opportunities to participate in extra-curricular activities.

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