(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

# FACILITIES FOR ALTERNATE SOURCES OF ENERGY AND ENERGY CONSERVATION MEASURES IN NISH

### 1. Solar Energy: Solar Plant and Solar Water Heater

NISH has installed and commissioned a solar power plant of capacity 30Kwp grid-connected since August 2018 to reduce the consumption of electricity and as an eco-friendly green initiative. The solar panels are installed on the rooftop of the Thejas Building. The solar panels have been installed at the campus by M/S KELTRON (Kerala State Electronics Development Corporation) as per the specification and guidelines issued by ANERT (Agency for New and Renewable Energy Research and Technology).

Solar Water Heater: As a renewable energy measure one solar water heater of capacity 500 LPD is installed at top of Amruth building to provide hot water (approximate 80 Degree Celsius hot water) at the Canteen kitchen purpose. This hot water can be used for dishwashing and cooking purposes.

Photographs of the facility are given below:



Solar Panel Image 1

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade



Solar Panel Image 2



Solar Panel Image 3

### 2. Wheeling to the Grid

The solar energy generated on campus is utilized by the institution as a whole.

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

### **3. BIOGAS PLANT**

A biogas plant of capacity 10 cubic meters has been installed nearby NISH canteen premises for the disposal of degradable food waste generated in the canteen and in the campus. The gas generated from the plant is connected to the canteen kitchen and one stove is working using this gas. The slurry generated from the biogas plant is used as fertilizer for the garden in the campus. The service and maintenance of the plant are carried out by one of the accredited agencies of the Kerala government.

A photograph of the biogas plant on campus and that of the letter on the same are given below.



**Biogas** Plant

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

Bio fl. ity Chef Building (il nd 1 akary - Vazutha hycadu.P.O Thinwanan Pie erala, Sindia Ph.0471-3 03/09/2010 To The Executive Director National Institute of Speech & Hearing. Karimanal. P.O. Trivandrum. Sir. Installation of 6 cum Bio gas plant - Payment requested - reg. Sub: Your letter No. NISH/BF/BG/2010 dated 13/07/2010. Ref: With reference to the work order cited we have installed the 6 cum Bio gas plant and completed in all respects. The plant is functioning very well. Therefore, I request that the 90% of the total cost of Rs. 85,000.00 i.e. Rs. 76,500.00 ( Seventy Six Thousand Five Hundred ) may kindly be sanctioned and paid at the earliest as per the terms & conditions stipulated in the letter cited. Yours faithfully. NELAG D.ALFRED Managing Director JW. THI

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

### 4. Use of LED Bulbs/ Power Efficient Equipment

LED bulbs are installed in the corridors of the Dhyan building replacing old bulbs to provide more light and hence energy saved. The new building Thejas has been installed with led lights in all the rooms. LED display boards are also there on campus.



LED Bulbs



LED TV

De are here because, we care

# NISH

NATIONAL INSTITUTE OF SPEECH & HEARING

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

## SOLAR ENERGY GENERATED IN NISH

Yearly Reports on the solar energy generated in NISH are given below.

Yearly Report 2021			
Project Overview			
Site Name:	NISH Akkulam	Yearly Energy:	28101.00kWh
System Size:	30kWp	Total Energy:	118172.9kWh
Time:	2021		
Summary			
Time	Energy (kWh)		
Jan-21	3279		
Feb-21	3331		
Mar-21	3268		
Apr-21	3139		
May-21	3042		
Jun-21	3613		
Jul-21	3697		
Aug-21	3676		

Yearly Report 2020			
Project Overview			
Site Name:	NISH Akkulam	Yearly Energy:	35378.00kWh
System Size:	30kWp	Total Energy:	118172.9kWh
Time:	2020		
Summary			
Time	Energy(kWh)		
01-2020	4011		
02-2020	3471		
03-2020	3440		
04-2020	3728		

De are here because, we care

# NISH

# NATIONAL INSTITUTE OF SPEECH & HEARING

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

05-2020	3177	
06-2020	2870	
07-2020	2850	
08-2020	2231	
09-2020	2171	
10-2020	2391	
11-2020	2278	
12-2020	2760	

Yearly Report 2019			
Project Overview			
Site Name:	NISH Akkulam	Yearly Energy:	34488.00kWh
System Size:	30kWp	Total Energy:	118172.9kWh
Time:	2019		
Summary			
Time	Energy(kWh)		
01-2019	3907		
02-2019	2754		
03-2019	4152		
04-2019	3094		
05-2019	3337		
06-2019	1803		
07-2019	2854		
08-2019	2436		
09-2019	2192		
10-2019	1382		
11-2019	3470		
12-2019	3107		

De are here because, we care

# NISH

## NATIONAL INSTITUTE OF SPEECH & HEARING

(An autonomous organisation under the Social Justice Department, Government of Kerala)

Accredited as Excellent Institution by RCI ISO 9001:2015 Certified Accredited by NAAC with A Grade

Yearly Report 2018			
Project Overview			
Site Name:	NISH Akkulam	Yearly Energy:	1628.00kWh
System Size:	30kWp	Total Energy:	118172.9kWh
Time:	2018		
Summary			
Time	Energy(kWh)		
12-2018	1628		

<<>>

	PAYMENT VOUCHER	
		No. : <b>453</b>
	C	Date : 12-Jul-2018
Pay :		
an a	Particulars of Payment	Amount
	Head of Account	
	M/s.Bioflame	56,840.
Prepaired by	1	
	Towards :-	and
20 1	Being the cost of remove all the waste from the plant disposal cleaning bacteria, digester height foundat	
	increasing the same level &biogas plant diges mainteance change the PVC pipe line.Tds-58000*	lei
Checked by	paid to Bioflame, Vide Try Ch.No.5109099	-

Authorised by : D

1. 2.

0

14.00

### NISH National Institute of Speech & Hearing NISH Road, Sreekaryam P.O, TVM-17. Ph: 0471-30666666, 2596919, Fax: 0471-30666699 E-Mail :nishinfo@nish.ac.in

## Journal Voucher

No. : 256	Dated	: 12-Jul-2018
Particulars	Debit	Credit
Adm-Repair & Maint General Dr	58,000.00	
ToTax Deducted at Source [Tds Payable]ToM/s.BioflameNew RefBF/10256,840.00Cr		1,160.00 56,840.00
On Account of :		
Being the cost of remove all the waste from the plant and disposal cleaning bacteria, digester height foundation increasing the same level &biogas plant digester mainteance change the		
PVC pipe line.Tds-58000*2 % paid to Bioflame	7.50.000.00	7 50 000 00
	₹ 58,000.00	₹ 58,000.00

Authorised Signatory

 $\bigcirc$ 

bloflameindia@gmai.com www.bioflame.in

RBI, Justee Hospital Road, Bakery Jn., Thiruvananthapuram | Ph : 0471-3238733

pp. Popular Hyundai, Vettu Road, Kazhakkoottam P.O., Thiruvananthapuram | Tel: 0471 327485 Branch :



04/06/2018

Bill No:BF/102/04.07.2018

Ms. Soja Oliver, Administrative Officer National Institute of speech & Hearing, Nish Road, Sreekariyam P.O, Trivandrum.

#### Amount Advance Rate Rs. Qty Particulars Si.No. Payable Rs. . Remove all the waste from the plant 30,000.00 000.00 01 and dispose cleaning bacteria cost 30,000.00 -1. Digester Height Foundation increasing 2. 16,000.00 000.00 16,000.00 🖌 01 the same level cost. Biogas plant digester maintance. 3. 12,000.00 000.00 12,000.00 / 01 Change the PVC pipe line cost 58,000.00 Total (Rupees Fifty Eight Thousand Only) The work was complified Neussary aitom may tole Scho factorly ory by phase he te work ord TITE 18 BC

Thrissur

Ernakulam

0944 633 2913

ollam

08111 84 6655

Branches;

Thodupuzha

0487 2385244 0974 625 1044

Calicut

0495 2302293

Malappuram

0974 591 3305

CASH BILL

NISH National Institute of Speech & Hearing NISH Road, Sreekaryam P.O, TVM-17. Ph: 0471-3066666, 2596919, Fax: 0471-30666699 E-Mail :nishinfo@nish.ac.in

## PAYMENT VOUCHER

No. : 1021 /

Date : 26-Nov-2019

	Particulars of Payment	Amount
	Head of Account	
	M/s.City Electricals	2,13,934.00
Prepaired by	R PAYMENT / <u>Towards:-</u> Being the electrical works for class rooms and general	
SEDF	Towards :-	
PASS	Being the electrical works for class rooms and general maintenance at Dhyan Building,Tds-218300*1%,	
Checked by	KBOWWB-218300*1% paid to City Electricals, vide	
enconed by	Treasury (PSTSB) Ch.No. 5285026	/
		₹ 2,13,934.00

Received Rupees : Two Lakh Thirteen Thousand Nine Hundred Thirty Four Only.

Passed by :

Authorised by

Signature of Receipient

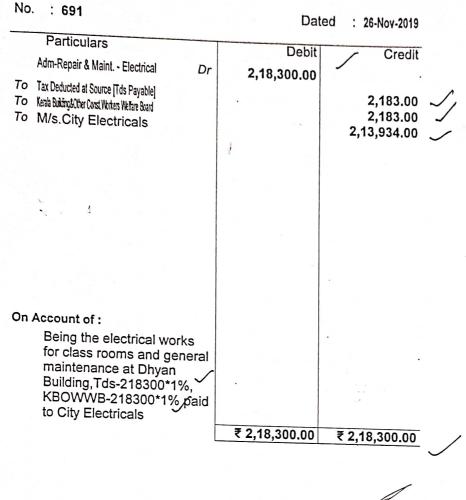
0

0

#### NISH

National Institute of Speech & Hearing NISH Road, Sreekaryam P.O, TVM-17. Ph: 0471-3066666, 2596919, Fax: 0471-30666699 E-Mail :nishinfo@nish.ac.in

### Journal Voucher



Authorised Signatory

RC.

	INVOICE	NUMBER :	32B00090	CITY ELECTRICALS			
		Name	of work:Elect	rical works for class rooms and General Maintenance a er Number: NISH180805/Electrical Wash- R	GSTIN:	32AYDPA22	50M17V
SI. No As	Qty as per	Data	Work Ord	er Number: NISH180805/Electrical Maintenance	at Nish Can	ipus	
	Agreement	nate As per 1 A mound	Amount as	er Number: NISH180805/Electrical Works Dated 2 /09/2019			
Agreeme	0	Agreement	per Agreemen	Description	Unit	Executed	Amount for
				Supply and installation of 18 with 20 W		Qty	Executed Qty
				respectation in the rest in the second secon			
				I - Could UKLA Housing I ED. G			
11.06				and cover marne with that white 1 in			
				distribution acrylic cover Dente			
				required . Make Philips Model: SM200C LED 16S 65400			
11.06	100	1850	185000	Supply&Installation			
				pp-y constantation	Nos	100	185000 •
					Total A	Amount Rs	185000 ~
				TOTAL	TAXABI	LE VALUE	185000.0
						GST @9%	16650.0 🗸
						GST @9%	16650.0 2
				T	OTAL GS	T VALUE	. 33300.0 🗸
an a			Two la	GRAND TOTAI khis Eighteen Thousand Three Hundred Only	INCLUI	DING GST	218300.00 🗸

Verified. All the above light fittings on working propurly. Bill Amount Rs 2,18300 ] - may be subased.