

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A Deemed to be University declared under Section 3 of UGC Act 1956)

Comprising Sri Devaraj Urs Medical College

[Constituent unit of Sri Devaraj Urs Educational Trust for Backward Classes (Regd.)]

TAMAKA, KOLAR-563 103, KARNATAKA, INDIA

Ph: 918152-243003, +91 9448395232, Fax : +918152 - 243008 E-mail - registrar@sduu.ac.in/office@sduu.ac.in. Website: www.sduu.ac.in

7.1.4 - Installation and Maintenance receipts

Sl. No.	File Description
1.	STP & ETP installation receipts
2	STP &ETP service bills
3	Rain water harvesting plan
4	Green audit report

Registrar Sri Devaraj Urs Academy of Higher Education and Research Tamaka, Kolar - 563 103.

STP & ETP Installation Receipts

Brookefield WATER TECHNOLOGIES

TAX INVOICE					
Invoice No.: P-25/2006-07		Date : 14.12	2.2006		
		Time: 10:00 I	nrs.		
То,	TIGHT TOUGT	Order Ref.:			
SRI DEVARAJ URS EDUCA	ATIONAL TRUST	005-0	G		
TAMAKA, KOLAR-563 101		Date: 30/09/	2005		
PARTIC	ULAR ,	Dute : corder	AMOUNT [Rs.]		
Design Engineering, Sup Commissioning of 250 KLD R L Jalappa Hospital & Res	oly, Erection, Testing Effluent Treatment Plan earch Centre.	& t at	12150 00.00		
	VAT @ 12.	5%	113906.00		
	Т	otal	1328906.00		
Amount in words [Rs.]: Thirtee	en Lakh Twenty Eight Th	nousand Nine Hur	ndred Six Only		
Note: Please make your paymen	t only by a crossed cheque/d	emand draft in favour	of "Brookefield		
Our TIN No.: 2988036	for BROC	DKEFIELDWATER	TECHNOLOGIES		
	Basic Price	VAT	TOTAL		
Invoice amount (Rs.)	1215000.00	113906.00	1328906.)0		
Less: RA bill Payments(Rs.)	-1093500.00	-102515.00	-1196015.00		
Balance Amount Payable (Rs.)	121500.00	11391.00	132891.)0		

Aten) for min 13

E-1381, Ground Floor, AECS Layout, ITPL Road, Brookefields, Bangalore-560 037. Tel 5126 4920, 2852 5426 Fax 2852 5426 brookefieldwater@rediffmail.com



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Sri Devaraj Urs Academy of Higher Education & Research Comprising Sri Devaraj Urs Medical College DEEMED TO BE UNIVERSITY



Established under Section 3 of UGC Act, 1956, MHRD GOI No. F. 9-36/2006-U.3 (A) Dt. 25th May 2007 POST BOX NO. 62, TAMAKA, KOLAR - 563 101. KARNATAKA, INDIA Ph:08152-210604,210605,243003,243009, Fax:08152-243008, E-mail : sdumcrli@bgl.vsnl.net.in, sduet @ rediffmail.com. Website :www.sdumc.ac.in

No.SDUAHER/KLR/ACS/ 1153/2009-10

Dated : \$4-02-2010.

To,

M/s Dowac Systems and Projects India Pvt. Ltd., Dowac House, # 13, 12 th Cross, Maruthi Nagar, Nagashetty Halli Ring Road, Bangalore – 560 094. Phone : 080-23514753 / 23416134.

Sir,

Sub: Placing of Purchase Order for supplying, Installation, and Commissioning of (300 KLD Capacity) ETP Plant for SDUAHER Campus Reg:-

R Your Proforma invoice No. DS/SNH/HS/MS/29203/1 Dated: 26-08-2009.

With reference to the above we are here by placing the purchase order for the supply of supplying, Installation, and Commissioning of (300 KLD Capacity) ETP Plant for SDUAHER Campus against your proforma invoice. On the following terms and conditions:

Particulars	Qty	Amount
Bar Screen MOC : MSEP Size 100 mm X 750 mm	2 Nos	
Raw Sewage Transfer Pump : Make Kirloskar MOC : CI Type : Self	2 Nos	
Air Blowers Make : Everest Capacity : 600 CU.Mtr MOC : CI Type : Twin Lobe	2 Nos	
Air Blowers Motors Make : Kirloskar Type Induction Capacity : 20 HP	2 Nos	5
Filter Feed Pump Make : Kirloskar MOC: CI type Mono Block Capacity : 7.5 HP	2 Nos	
Core Diffusers MOC: UPVC Size : 25 mm	15 Nos	
Fine Pore Diffusers Make : Air Flex MOC : EPDM Size : 90X1000	35 Mtr	
Clarifer Mechanism Type : Reduction Gear motor cap:1 HP with all accessories	1 Set	
Tube Deck Media MOC: MSEP size1500 mm X 2000 mm Pressure Sand	13 Cmt -	
Filter MOC : MSEP Size:1800mmX1500 mm	1 No	
A ated carbon Filter MOC: MSEP Size 1500 mm X 2000 mm	1 No	
Chlorine Doser Make : E Dose MOC: PP Type Diaphragm Capacity 6LPH	1 No	
'ter Press Type : Hydraulic Plates : 12	1 No	1800000 00
Screw Pump : Motor Cap 1 HP with all accessories	1 No	100000.00
Control panel Accessories L & T / Seimens/ Equivelent	1 No	
Internal Power cabling size 2.5 & 4 Sqmm Type Armoured	LSM	
Hardware Materials : Make Supreme/Kissan/Tata Jinda MOC : UPVC /MS	LSM	
Design Charges & Drawing	LSM	
Installation, Commissioning Charges including 30 Dasy operation & Training	LSM	
Excluding consumables.	Dorn	
Instrumentation E.G Pressure Gauges 4 Nos Flov/meter-1 No Level Censors - 2 Sets.	LSM	
Design and Drawings for the civil works to be arranged by the firm		
Getting Approval from the Kornotoka State Pollution Control Poord is to be added		
Free Training for the Operators to be mentioned	Contentin a	
Flow Chart Discours is to be mentioned	-	
riow Chart Diagram is to be mentioned	-	
IUIAL		1800000.00

Sri Devaraj Urs Academy of Higher Education & Research Comprising Sri Devaraj Urs Medical College DEEMED TO BE UNIVERSITY



Established under Section 3 of UGC Act, 1956, MHRD GOI No. F. 9-36/2006-U.3 (A) Dt. 25th May 2007 POST BOX NO. 62, TAMAKA, KOLAR - 563 101. KARNATAKA, INDIA Ph:08152-210604,210605,243003,243009, Fax:08152-243008, E-mail : sdumcdi@bgl.vsnl.net.in, sduet @ rediffmail.com. Website :www.sdumc.ac.in

-2-

TERMS & CONDITIONS OF PURCHASE

1. PRICE: Prices quoted are for supply of C.I.F destination basis Inclusive of all taxes.

2. PAYMENT: 40 % Advance along with purchase order, & 50 % of the supply bill.

3. DELIVERY: 4-6 weeks from the date of purchase order.

4. WARRANTY : On site warranty of Two year.

Note : The above ETP Plant may be supplied as per specifications mentioned in your quotation No. DS/SNH/HS/MS/29203/1 Dated : 06-08-2009.

"ence we request you to kindly supply the same and raise the invoice and documents in favour of gistrar, Sri Devaraj Urs Academy of Higher Education and Research.

Thanking you,

Prepared By:

Finance Office

Executive Engineer ECUTIVE ENC. Estate División, S.D.U. U.I. Kolar-563 101.

REGIS

Registrar Sri Devara, die University Kolar-563101, Marnataka, India.

e-Sugam No: 79617152



P	inneering Reuse					
Dowac	Systems & Projects India Byt I td		TIN	1. 20200240245		
"DOWAC	C" House No 13		Data	22 Apr 2012		
12th Cr	oss Maruthi Nagar		Date	23-Ap1-2012		
Nagash	etty Halli Ring Road.		Invoice No:	7		
Bangalo	ore -560 094			,		
Phone:	080-23416134		DC No:	11		
Fax: 08	0-23513424					
E-mail:	info@dowac.in					
Website	: www.dowacsys.com					
Pill To	M/o Sri Dovoroi Uro Acadomy of					
	Higher Education & Research					
Addiess	Post Box No.62 Tamaka					
	Kolar - 563 101					
	Karnataka, India					
	Ph:08152-210604,210605,243003					
Goods s	sent through vide L/R.No.					
Inrough	as per your Purchase Order No;SDUA	HER/KLR/A	ACS/M53/2009-10dt:	4thFeb10		
1	Supply of Air Blowers	2 Nos	122 208 00	Amount 244 506 00		
		21403	122,290.00	244,590.00		
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	2					
	Total Sale Value:			244,596.00		
	Toyon @ 149/ on non-wet		11.000/	0404400		
	Vehicle No:KA 04 C 1922		14.00%	34,244.00		
	Venicie N0.101 04 0 1322					
	Total Payable			278.840.00		
	(Rupees Two Lakhs seventy eight thou	usand eight	hundred forty anly)	Det DO	- 200	
		Dodull	59. 10100	indes ende	\$*00 V	
Goods (Once sold cannot be taken back or exch	nanged	lens and old	9,989	0=00	
All Disp	ule subject to Bangalore Jurisdiction .	for Down	Suptomo & Drot Bat			
		101 Dowae	Systems & Projects	s india PVt Ltd.,	do uno	offin
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		Au	thorised Signatory	BRNO	Dr	
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Dowac Systems & Projects India Pvt Ltd., "DOWAC" House, No.13, 12th Cross, Maruthi Nagar, Nagashetty Halli Ring Road, Bangalore -560 094 Phone: 080-23416134 Fax: 080-23513424 E-mail: info@dowac.in Website: www.dowacsys.com

Bill To M/s.Sri Devaraj Urs Academy of Address Higher Education & Research Post Box No.62, Tamaka, Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003 Goods sent through vide L/R.No.

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10

SI No. Description Classic Huller LLtd., Otv Unit Price Amount

A REAL PROPERTY OF THE PARTY OF	the state of the s	A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER	and the second sec	Construction of the other software of the soft
1	Installation Charges	Lsm	50,000.00	50,000.00
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	Total Sale Value:			50,000.00
	Service Tax 12.36%		12.36%	6,180.00
	n ikan			
	Total Payable			56 190 00
	Total Payable	1		50,100.00

(Rupees Fifty six thousand one hundred eighty only UNA 2 20%). 1803=00

for Dowac Systems & Projects India Pvt Ltd.,

Goods Once sold cannot be taken back or exchanged All Dispute subject to Bangalore Jurisdiction . S.1. Releasion our ound is signatory Bl No effice Authorised signatory Bl No Et. Completed Satisfactory.

Tax Invoice

TIN: 29280346245 Date 23-Apr-2012

Invoice No: 8



accounter of the of the of the of				
		1	TIN: 29280346245	
"DOWAC" House, No.13,		Date	12-Dec-2011	
12th Cross, Maruthi Nagar,				
Nagashetty Halli Ring Road,		Invoice No:	87	
Bangalore -560 094				
Phone: 080-23416134		DC No:	245	
Fax: 080-23513424		DO NO.	240	
E mail: dowac@bal yeal not in				
website. www.dowacsys.com				
Dill Te M/s Oci Deversi Une Association (
Bill to Mi/s.Sri Devaraj Urs Academy of				
Addres Higher Education & Research				
Post Box No.62, Tamaka,				
Kolar - 563 101				
Karnataka, India				
Ph:08152-210604,210605,243003				
Goods sent through vide L/R.No.				
Through as per your Purchase Order No;SDUAHER	KLR/AC	S/M53/2009-10dt:4thF	eb10	
SI No. Description	Qty	Unit Price	Amount	
1 Filter press	1 No.	153,947.00	153,947,00	
2 Screw Pump	1 No.	44,474.00	44,474,00	
3 BarScreen	2 Nos.	8,552,00	17,104,00	
4 Electrical Control Panel	1 No.	92,368,00	92,368,00	
5 Fine Pore Diffusers	36mtrs	3,763,00	135 468 00	
6 Tube Deck Media	13cu.mtr	5 132 00	66 716 00	
		0,102.00	00,710.00	
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Total Sale Value:			510 077 00	
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			X e	
Taxas @ 14% as partiet		14.000/	74 444 00	
Vahiala Na: KA 04 C 1022		14.00%	71,411.00	
Venicie No.KA 04 C 1922				
Tetal Develop				
Total Payable			581,488.00	1
(Rupees Five Lakhs eighty one thousand fou	r hundred	eighty eight only)	0000	· (10)
Vedu	n ver	encadrice 24.	27075	
Goods Once sold cannot be taken back or exchang	led		TERAIS	2017
All Dispute subject to Bangalore Jurisdiction .		10	229412	
25 •	for Dov	vac Systems & Proje	cts India Pvt Ltd.,	
	[]	37		
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	A	uthorised Signatory		1 1
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1912 a Cress epile	Villes	- MO E	36 .	

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1	TIN:	29280346245
Date	1	6-Dec-2011

Invoice No:	89
DC No:	250

"DOWAC" House, No.13, 12th Cross, Maruthi Nagar, Nagashetty Halli Ring Road, Bangalore -560 094 Phone: 080-23416134 Fax: 080-23513424 E-mail: dowac@bgl.vsnl.net.in Website: www.dowacsys.com

Bill To M/s.Sri Devaraj Urs Academy of Addres Higher Education & Research Post Box No.62, Tamaka, Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003

Goods sent through vide L/R.No.

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10

SI No. Description Qty Unit Price Amount MSEP Filters (ACF) with Accessories 1 Nos. 146,491.00 146,491.00 **Total Sale Value:** 146,491.00 Taxes @ 14% as per vat 14.00% 20,509.00 Vehicle No:KA 04 C 1922 **Total Payable** 167,000.00 (Rupees One Lakh sixty seven thousand only) C.J. Deterbum Destuct 8350.00 Goods Once sold cannot be taken back or exchanged 128650200 All Dispute subject to Bangalore Jurisdiction . for Dowac Systems & Projects India Pvt Ltd., Authorised Signatory i's reliased 57. Retarkung Aucoul Bt. 104030/2



Pioneering Reuse	TIN	: 29280346245
"DOWAC" House, No.13, 12th Cross Maruthi Nagar	Date	17-Dec-2011
Nagashetty Halli Ring Road, Bangalore 560 094	Invoice No:	90
Phone: 080-23416134	DC No:	251
Fax: 080-23513424 E-mail: dowac@bgl.vsnl.net.in		

Bill To M/s.Sri Devaraj Urs Academy of Address Higher Education & Research Post Box No.62, Tamaka, Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003

Goods sent through vide L/R.No.

Website: www.dowacsys.com

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10

SI No.	Description	Qty	Unit Price	Amount	
1	MSEP Filters (PSF)with Accessories	1 Nos.	131,579.00	131,579.00	
* 201					
	Total Sale Value:	n a s		131,579.00	
10	Taxes @ 14% as per vat Vehicle No:KA 04 C 1922	40 g.	14.00%	18,421.00	
-	Total Payable			150,000.00	
Goods All Disp	Once sold cannot be taken back or exch oute subject to Bangalore Jurisdiction	aut A	at autor of a	142500 x	000
		for Dowac	Systems & Project	ຣ໌ India Pvt Ltd.,	
54	. Rehauter un Aucusul	of ro	7500 (. 1	s Julias	ed wido
B	lub. Bt.			Harbon 30B.	



Pioneering Reuse	TIN	: 29280346245
"DOWAC" House, No.13,	Date	21-Dec-2011
12th Cross, Maruthi Nagar,		
Nagashetty Halli Ring Road,	Invoice No:	91
Bangalore -560 094		
Phone: 080-23416134	DC No:	253
Fax: 080-23513424	4-	
E-mail: dowac@bgl.vsnl.net.in		
Website: www.dowacsys.com		

Bill To M/s.Sri Devaraj Urs Academy of Address Higher Education & Research Post Box No.62, Tamaka, Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003 Goods sent through vide L/R.No.

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10

SI No.	Description	Qty	Unit Price	Amount
1	Core Diffusers	1 Lot	32,719.00	32,719.00
2	Filter Media	77 Bags	219.00	16,863.00
	Total Sale Value:			49,582.00
.S	Taxes @ 14% as per vat Vehicle No:KA 04 C 1922		14.00%	6,941.00
	Total Payable			56,523.00
1	(Rupees Fifty six thousand five hundre	d twenty thr	ee only a st.	2826=07

Goods Once sold cannot be taken back or exchanged All Dispute subject to Bangalore Jurisdiction .

for Dowac Systems & Projects India Pvt Ltd.,

53697:00

Authorised Signatory is relieved 51- le teulirer emouli 2826 B 0 B BRNO



Tax Invoice

"DOWAC" House, No.13.	LIN Date	29-Dec-2011
12th Cross, Maruthi Nagar,	Date	23-Dec-2011
Nagashetty Halli Ring Road,	Invoice No:	94
Bangalore -560 094		
Phone: 080-23416134	DC No:	259
Fax: 080-23513424		
E-mail: dowac@bgl.vsnl.net.in		
Website: www.dowacsys.com		
Bill To M/s.Sri Devaraj Urs Academy of		
Address Figher Education & Research		

Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003

Goods sent through vide L/R.No.

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10 SI No Description

SI NO.	Description	QIY	Unit Price	Amount
1	Raw Sewage Transfer Pump	2 Nos	36,842.00	73,684,00
2	Filter Feed Pump	3 Nos.	20,761.00	62,283.00
3	Air Blower Motor	2 Nos.	19,737.00	39,474.00
4	Kirloskar Make Pump 1HP,3phase	1 No.	17,543.00	17,543.00
5	Chlorine Doser	1 No.	26,315.00	26,315.00
6	Pipes & Fittings	1 Lot	134,175.00	134,175.00
7	Electrical Items	1 Lot	48,246.00	48,246.00
	Instrumentation .			
8	Pressurégauges, FlowMeter, Level			5.
	censors	LSM	10,526.00	10,526.00
В.	~			
	Total Sale Value:			412,246,00
	Taylog @ 140/ as passed			•
	Taxes @ 14% as per vat		14.00%	57,714.00
	Venicle No:KA 04 C 1922			
	Δ			
	Total Daughla			
	I otal Payable			469,960.00
	(Rupees Four Lakhs sixty nine thousar	nd nine hund	dred sixty only	02100
	5	Leebo	Letterthing to 5	1 22420

Goods Once sold cannot be taken back or exchanged All Dispute subject to Bangalore Jurisdiction .

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for Dowac Systems & Projects India Pvt Ltd.,

Authorised Signatory

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"DOWAC" House, No.13, 12th Cross, Maruthi Nagar, Nagashetty Halli Ring Road,

E-mail: dowac@bgl.vsnl.net.in Website: www.dowacsys.com

Bangalore -560 094 Phone: 080-23416134 Fax: 080-23513424

Tax Invoice

TIN Date	l: 29280346245 2-Jan-2012
Invoice No:	98
DC No:	264

Bill To M/s.Sri Devaraj Urs Academy of Addres Higher Education & Research Post Box No.62, Tamaka, Kolar - 563 101 Karnataka, India Ph:08152-210604,210605,243003

Goods sent through vide L/R.No.

Through as per your Purchase Order No;SDUAHER/KLR/ACS/M53/2009-10dt:4thFeb10

SI NO.	Description	Qty	Unit Price	Amount
1	MS Pipe With Accessories	1 lot	26,316.00	26,316,00
		1 - P - P		
			*	
	Total Sale Value:			00.010.00
	i otal o'al o'al ac.			26,316.00
. d				
	Taxes @ 14% as per vat		14 00%	2 694 00
	Vehicle No:KA 04 C 1922		14.0070	3,004.00
		a ³²⁷		
	Total Payable			30,000,00
	(Rupees Thirty thousand only)	ile de	bauluun Do	1000
	120	our a	r million Co Cy	100 201

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Goods Once sold cannot be taken back or exchanged All Dispute subject to Bangalore Jurisdiction .

28500 200

for Dowac Systems & Projects India Pvt Ltd.,

Authorised Signatory

57. Rebenderion annount DE-

13 chie becalie as acri and

Service Bills



NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. <u>rc.enterprises4089@gmail.com</u>. Mobil No.9591954089

BILL

То

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The Registrar Shri Devarajurs Academy of Higher education & research Tamaka, Kolar. Invoice NO: RCE/92 Date: 26.11.2020

Pan No:BEPPN2935H

SI no	Description	Qty	Rate	Amount ·
01	Air blower 350Cm ³ Nylon V belts	12 nos	891	.10,692.00
02	4"Multiport Valve 5 in 1	1 no	10980	10,980.00
03	Chemical dossing pump	1 no	9450	9,450.00
04	Servicing of Air blower 5 ltr	2 sets	7380	14,760.00
05	Diffusers fitting items	20 nos	666	13,320.00
06	Rubber gasket and packing glands	8 nos	180	1,440.00
07	Bolts and nuts	4 kgs	306	1,224.00
08	100 litrs storage drum	1 no	450	450.00
	1100 1100 010 010 010 010 010 010 010 0	Total	Amount	62,316.00

For: RC ENTERPRISES

Authorized Signatory Authorized Signatory



NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. rc.enterprises4089@gmail.com. Mobil No.9591954089

BILL

To

The Registrar Shri Devarajurs Academy of Higher education &research Tamaka, Kolar. Invoice NO: RCE/90 Date: 18.11.2020

Pan No:BEPPN2935H

SI no	Description	Qty	Rate	Amount
01	Endotoxin test from NABL laboratory	2 samples	9650	19,300.00
	1	То	tal amount	19,300.00

For: RC ENTERPRISES (SEC Sinnatory

Authorized Signatory

rc. Enterprises'

NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. rc.enterprises4089@gmail.com. Mobil No.9591954089

BILL

То

The Registrar Shri Devarajurs Academy of Higher education & research Tamaka, Kolar. Invoice NO: RCE/86 Date: 29.09.2020

Pan No:BEPPN2935H

SIno	Description	Qty	Rate	Amount ·
01	Thinner	40 ltrs	114	4,560.00
01	Thinks	T	otal amount	4,560.00

For R.C.ENTERPERSERISES

Authorised Signatory Authorized Signatory



NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. <u>rc.enterprises4089@gmail.com</u>. Mobil No.9591954089

BILL

* To

The Registrar Shri Devarajurs Academy of Higher education & research Tamaka, Kolar. Invoice NO: RCE/84 Date: 14.09.2020

Pan No:BEPPN2935H

Sino	Description	Qty	Rate	Amount
01	Smoke grey enamel	20 ltrs	375.25	7505.00
02	White enamel paint	10 ltrs	389.5	3,895.00
03	Nctinner	4 ltrs	133	532.00
04	Tinner	10 ltrs	114	1,140.00
05	Enamel brush 4"	5 nos	275.5	1,377.5
05		T	otal amount	14,449.50

FOURCENTERPRISES RISES

Authorized Signatory





Expressions for Green Environment

#218, S.P.G.Extension Tavarekere, Magadi Main Road Bangalore South. Pin- 562130. E-mail: suprimagreentech@gmail.com For Assistance Contact: 9980214089

Bill

То

The Registrar Shri Devarajurs Academy of Higher education & research

Tamaka, Kolar.

Invoice no:060 Date: 21.12.2019 Pan no: Pan NoAJEPN1848A GST No: 29 AJEPN1848A2ZC

300 KLD STP Servicing

SI no	Description	Qty	Amount
1	Raw sewage, settling tank, filter feed tank and Final treated tanks cleaning	4 tanks	
2	Sand (SF) filter media change with painting	1 no 900 KG	-1
3	Activated carbon filter media change with painting	1 no 850 KG	-
4	Raw water motors, filter feed motors and final treated all motors pipe line fittings. (material type: Brass valves and Un plasticized polyvinyl chloride materials)	Full set	1
5	Sewage monoblock pump with motor 5 Hp (make: Kirloskar)	3 nos	6,00,000.00
6	Core bubbler Air diffusers with GI fittings (Ball valves, nipples, diffusers connecting ring nylon pipe, callers, connecting elands with painting.		
7	Kay international Air Blower Service	1 no	-
8	Replacement of 2" and 21/2" B class MS Pipe Line for blower line with accessories like suitable gate valve, GI bends Flexible Pipes, extension pipes, gaskets, painting complete	1 set	
9	Tools (Ring spanner set, cutting plair, foot valves, Bolts and nuts).	lot	
	(A) Tota	al amount	6,00,000.00
	(B) Advar	nce amount	2,94,000.00
	(C) Balance amount		
	(D) GST 18% to	tal amount	1,08,000.00
	Balance Billing Amo	unt (C + D)	4,14,000.00
		and the second se	

For : SUPRIMAGREENTECH GREEN TECH

Authorized Signatory

Authorised Signature



NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. rc.enterprises4089@gmail.com. Mobil No.9591954089

BILL

То

The Registrar Shri Devarajurs Academy of Higher education &research Tamaka, Kolar. Invoice NO: RCE/45 Date: 26.08.2019

Pan No:BEPPN2935H

'STP 300 KLD(Sewage Treatment Plant).

Sl no	Description	Qty	Rate	Amount
01	Kay international 300 Cm ³ Heavy Air blower service.	l no	11,400	11,400.00
02	Nylon V belts for blower pulley	6 nos	836	5,016.00
03	Electric control panel board components change (relay , timer , contactor , sleeves)	lot	19,950	19,950.00
	Total amount			

For: RC ENTERPRISE For R.C.ENTERPRISE TERPRISES Authorized Signator

28



BILL

То

ž

The Registrar

Shri Devarajurs Academy of Higher education &research Tamaka, Kolar. Invoice NO: RCE/29 Date06.06.2019 Pan No:BEPPN2935H

Sino	Description	Qty	Rate	Amount
01	Dismantling 15 mtr pole by engaging crane and installation fixing fitting, wiring, testing complete.	lset	18000	18,000.00
		Tot	tal amount	18,000.00

For:RC ENTERPRISES For R.C.ENTERPRISES



NO.24/2, Yerappanahalli, Doddagubbi .P. Bidrahalli, Bangallore East- 560077. Email. <u>rc.enterprises4089(a)gmail.com</u>. Mobil No.9591954089

BILL

То

The Registrar Shri Devarajurs Academy of Higher education &research Tamaka, Kolar. Invoice NO: RCE/15 Date.06.02.2019 Pan No:BEPPN2935H

ETP 250 KLD

SI no	Description	Qty	Rate	Amount
1	Multy port valve 3 ^{inch}	l no	19,800	19,800.00
2	Sludge motor 2 Hp	l no	26,100	26,100.00
3	Sewage water flow meter 3 ^{inch}	l no	16,740	16,740.00
4	Control panel board 2 Hp capacity	2 nos	5,040	10,080.00
5	Chemical dosing pumps	l no	9,450	9,450.00
6	Repair servicing of panal board	l no	13,500	13,500.00
7	Submitting compliance, environmental audit report & farm N0.4 to KSPCB	l job	40,500	40,500.00
		Total	amount	1,36,1709.00

For : RC Enterprises Authonizee



Suprima Green Teur

Expressions for Green Environment #218, S.P.G.Extension Tavarekere, Magadi Main Road Bangalore South. Pin- 562130. E-mail: suprimagreentech@gmail.com For Assistance Contact: 9980214089

BILL

Invoice no.042 Date.9.11.2018

To The Registrar Shri Devarajurs Academy of Higher education & research Tamaka, Kolar.

STP, ETP and R.O. Plant analysis reports for Jalappa Hospital unit.

SI no	Description	Qty	Rate	Amount
1	a. STP Raw water b. STP Treated water	6 reports	1275	. 7650.00
2	a. ETP Raw water b. ETP Treated Water	6 reports	1275	7650.00
3	 a. Hospital ward block R.O. Plant b. Dialysis unit "1" R.O. Plant c. Dialysis unit "2" R.O. Plant d. Softener 	4 reports	1360	5440.00
		4	Total	20,740.00

Yours FoiSLSURPRIMAGERENETECH J. N. J. Strengton Authorized Signatory Authorized Signatory





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Certificate of Compliance

GREEN AUDIT REPORT

of

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH,

Post Box No 62, Tamaka, Kolar- 563103.

This is to certify that a Green Audit of SDUAHER campus has been conducted by Dr. Vanishri Arunachalam and Mr. C. Madhan Mohan of M/s Tulasi EOHS Consultancy Services on 29th June 2020.

The Audit Report has been found to be satisfactory.

Mr. Anil Patil Kulkarni Managing Director



ACM Certification Pvt. Ltd.

No. 811, Anand Mangal-3, Opp Doctor House Lane, Nr. Parimal Under Bridge, Ambawadi Ahmedabad, Gujarat- 380 006. e-mail: info@acmcertifications.com | www.acmcertifications.com

~_____



"Solutioning" in the Consultation/Training/Auditing

GREEN AUDIT REPORT

SDUAHER



Submitted by TULASI EOHS CONSULTANCY SERVICES

Registrar sri Devaraj Urs Academy of Higher

Sri Devaraj Urs Academy of Higher Education and Research Tamaka, Kolar - 563 103.

Regd off: NO.18, SAKTHI NAGAR, LAKSHMI PURAM, WEST TAMBARAM, CHENNAI-600045 Mob: 9884624964, Email: <u>chellamadhan@gmail.com</u>, <u>tulasieohsconsultancy@gmail.com</u> This is to certify that the following utilities were carried out Green audit in the month of June'2020.

Details of Facilities Audited: Main building of Academy / Institution which includes Laboratories, Libraries, Hospitals, All departments and Hostel and Academy/ Institution Canteen.



Dr. Vanisri Arunachalam

Er. C. Madhan Mohan

Authorized Signatory

For TULASI EOHS CONSULTANCY SERVICES

Date: 29-06-2020

Place: Chennai

Registrar šri Devaraj Urs Academy of Higher Education and Research Tamaka, Kolar - 563 103.

GREEN AUDIT REPORT

2019-2020

Done by Dr. A. Vanisri Er. C. Madhan Mohan

Green Audit Report, 2019~2020

Page 1 of 37

Contents

1.	INTRODUCTION	3
2.	OBJECTIVES	4
3.	METHODOLOGY	4
4.	EXECUTIVE SUMMARY	5
5.	ABOUT THE INSTITUTION	7
6.	VISION & MISSION STATEMENT	7
7.	CAMPUS INFRASTRCTURE	8
8	GREEN AUDITING	. 10
9	AUDIT STAGE	. 35
10	CONCLUSION	. 36
11	ANNEXURES	. 37

1.INTRODUCTION

"The term 'Green' means eco-friendly or not damaging the environment. This can acronymically be called as 'Global Readiness in Ensuring Ecological Neutrality' (GREEN).

Green Audit is a process of Systematic identification, Quantification, Recording, Reporting and Analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. **G**reen audit can be a useful tool for an institution to determine how and where they are using the most energy or water or resources; the institution can then consider how to implement changes and make savings.

Educational institutions now a day are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the energy savings, recycle of waste, water reduction, water harvesting etc..

Green audit is defined as an official examination of the effects a institution has on the environment. As a part of such practice, internal environmental audit (Green Audit) is conducted to evaluate the actual scenario at the campus.

2.OBJECTIVES

The Green Audit of an institution is self- assessment of the institution which reveals the role of the institution in mitigating the present environmental problems. The institution has been putting efforts to keep our environment clean since beginning. The non-scholastic effort has not been documented. Hence, the purpose of the present green audit is to Identify, Quantify, Describe and Prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies, and standards. The main objectives of carrying out Green Audit are:

- To promote environmental aspects, the institute has initiated steps which include in campus rainwater harvesting projects,
- b. Complete ban on plastics within the campus,
- c. Solar water heating systems in all hostels,
- d. Treatment of wastewater and its recycling,
- e. Percentage of power requirement of the Academy met by the renewable energy sources Solar panels for street lighting and Solar Energy is used for water heating,
- f. The academy is encouraged the faculty and students to use cycles to save environment, prevent air pollution and promote healthy lifestyle.

3.METHODOLOGY

The purpose of the Green audit is to ensure the commitments mentioned in the Green policies are adhered. This includes

- Inspection of the campus,
- Document Review,
- Interview with Key personnel,
- Measurements and recommendations.

4.EXECUTIVE SUMMARY

SI No	Area	Observation	Remarks
1	Tree Plantation	Institution has carried out tree plantation activity. Several type of trees has been planted by students and staffs in Botanical or Medicinal significance	 NSS, YRS and other associations also organize extension and outreach Activities Planting many trees in the campus, community and villages are one of the regular features of NSS
2	Energy conservation	The steps taken to reduce energy consumption is a great achievement in all aspects like usage of fluorescent, usage of daylight, A/c Controlled at 25° C, reduction of standby electronic gadgets when not in use.	Good support from the institution and Good initiative taken by institution towards reduction of energy consumption
3	Use of renewable energy	 Solar Panels – the entire rooftops of all the hostels, the hospital and the guest house are covered with solar panels - 93500 LPD, so as to provide hot water facility to all the inmates It has an Effluent treatment plant (capacity more than 5 liters per day), where the wastewater is treated and is used for watering the plants in the campus and for building construction work. 	 Good initiative taken by institution towards use of renewable energy. The Academy practices wastewater management system effectively to keep the campus clean, hygienic and free from any sort of pollution.

4	Water harvesting	 Several types of water saving system adhered like Rainwater harvesting system Soak pits to collect the rainwater 	Underground drainage system avoids pollution. Assessment of water samples for their potability in the campus is done regularly by the Department of Microbiology and Engineering Section.
5	Solar panels	Solar Panels – the entire rooftops of all the hostels, the hospital and the guest house are covered with solar panels - 93500 LPD so as to provide hot water facility to all the inmates.	Good initiative taken by institution towards use of renewable energy.
6	Efforts for carbon neutrality	Several activities taken by the organization for carbon neutrality like, Prevention of pollution, tree sampling, reduction of paper usage in many ways, Plastic free zone.	Good initiative taken by the institution towards prevention of pollution and make the institution a greenery one.
7	Bio-hazardous waste management	Segregation at the point of generation awareness is great achievement and waste management is carried out as per Government regulation.	The good imitative taken by the institution and being a leading example of handling bio- hazardous waste management.
8	E-waste management	E-waste handling techniques are well mannered, Green computing, disposal, inculcating environmental awareness, art from waste etc.	The e-waste management is one among the long term.
9	Effluent treatment and recycling plant	 Recycling of wastewater - STP 300KLD and ETP 250KLD. An ETP, which treat the waste water its being used for flowering and construction work activities. 	The institution practices wastewater management system effectively to keep the campus clean, hygienic and free from any sort of pollution.

5.ABOUT THE INSTITUTION

In the year 1984, a group of dedicated and like-minded visionaries headed by Shri. R.L. Jalappa, a champion of Co-operative movement in the state of Karnataka established Sri Devaraj URS Educational Trust for Backward Classes with the focus on provisioning of medical and health care education and social responsibility and community participation.

6.VISION & MISSION STATEMENT

6.1 Vision

"ACADEMY OF EXCELLENCE - KNOWLEDGE FOR POSTERITY"

6.2 Mission

- To be a global center of excellence for Teaching, Training and Research in the field of Higher education.
- To inculcate scientific temper, research attitude and social accountability amongst faculty and students.
- To promote with value-based education for the overall personality development and leadership qualities to serve the humanity.

6.3 Total Campus

	Built up Area	153121.48 Sq.mt
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7.CAMPUS INFRASTRCTURE

Student hostel

The institution Hostels are independent units in respects to its internal administration under the overall supervision of council of Wardens & Hostel Management. The hostels are situated within the campus & have separate hostel office & mess within the hostel premises.

Hostel Name	Total Rooms	Total Capacity	Present Occupants
UG Men's Hostel	163	377	314
Intern's Men's Hostel	48	94	61
PG Men's Hostel	80	158	74
NRI Men's Hostel	31	57	42
Total	322	686	492

Accommodation Details for Men's Hostel

Accommodation Details for Women's Hostel

Type of Hostels	Total Rooms	Total Capacity	Present Occupants
NUGH	98	294	226
PGWH	112	228	140
SWH(AHS)	77	214	90
NRI	31	61	47
JWH	18	44	38
IWH (Guest Rooms)	12	24	0
Total	348	865	541

There are 3 Kitchens, one in Undergraduate Men's Hostel, one in Undergraduate Women's hostel & other in Post Graduate Men's Hostel with dining hall attached.

The other facilities include **RO-UV Plant** for drinking & cooking purpose, reading room, recreation hall with TV facility, Gym, newspaper facility Wi-Fi facility & visitors lounge.

- **7.1 Food Court** Newly built spacious Food court for the student's refreshment with good quality food stalls.
- **7.2 SPORTS & FITNESS CENTER** Indoor and outdoor sports facilities are available for Men& Women.
- **7.3 LIBRARY** The library meets the information needs of the faculty and students. It is housed in the ground and first floor of the silver jubilee building in the campus. **The library is centrally air conditioned and well-furnished for users.** The library has Wi-Fi facilities to browse and access the resources. The library is serving as a medical learning resource center, support to research, educational and clinical needs of the students, and faculty and research scholars of the Academy. The Library is kept open on all working days from 8.30 AM to 9.00 PM. and all general holidays, Sundays and 2nd Saturday from 9.00 AM to 2.00 PM and own book reading section 8.00 AM to 11.00 PM.
- **7.4 GEO TAG GALLERY** Galleries available in the institution with geo tag images.
- **7.5 BANKING FACILITY** Separate bank and ATM facility is established within the campus for easy transactions.
- **7.6 STUDENTS CLUB -** Sports club, ICMR, DEMEDCON, & SANKEERNA, Sports, Literacy, Cultural and many more clubs to encourage student's talent.
- **7.7 INFORMATION CENTER -** Incorporated new technology for the betterment and simplifying the process.
- **7.8 CAMPUS STORE -** Within the campus have stores to make availability of basic students' needs.

- **7.9 STUDENT COUNSELLING CENTER** Students are motivated and made them active by giving proper counseling by recognized counsellor.
- 7.10 DIGITAL CLASSROOMS & LABARATORIES Spacious ICT based (Podium, Internet, Smart board) classrooms make use new technologybased teaching.

8 GREEN AUDITING

8.1 Benefits of green auditing

- To safeguard the environment and natural resources used in the institution.
- Address current or potential future problems that may arise during action.
- To provide basis for improved sustainability.
- To create a green campus.
- To enable waste management through reduction of waste Generation, solid- waste and water recycling.
- To create plastic free campus and evolve health consciousness among the stakeholders.
- Providing an opportunity for management to give credit for good environmental performance.
- Empower the organizations to frame a better environmental performance.
- Impart environmental education through systematic environmental Management approach and improving environmental standards.
- Benchmarking for environmental protection initiatives.
- Financial savings through a reduction in resource use.
- Development of ownership, personal and social responsibility for the Institution and its environment.

- Enhancement of institution profile.
- Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management for monitoring of environmental and sustainable development programs of the institution

8.2 Target areas of green auditing

Basically, Green Audit involves the inspection to assess the total environmental impact of its activities. It indicates what type of carbon footprints organizations are leaving on the planet & also suggest ways to reduce it.

Accordingly, Green Audit mainly emphasizes the following key areas:

- **1.** Energy Conservation
- 2. Saving Water
- **3.** Greening the workplace
 - a. Efforts of carbon neutrality
 - b. Plantation Botanical or Medical Significance
 - c. Non-conventional Energy sources-solar panels
- **4.** Waste Management
 - a. Bio-Hazardous
 - b. E-Waste
- 5. Effluent Treatment and Recycling plant.

8.3 Methodology of Green Auditing

8.3.1 Data Collection

8.3.2 Data Analysis

8.3.3 Observation

8.3.4 Recommendation

8.3.5 Review of Documents and Records

8.3.1.1 Data collection

In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements.

Following steps were taken for data collection:

- The team went to each department, Library, canteen etc.
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.

Categories of land use in sq meters	72 acres , 30 Gunta, 294399.00 Sq.mt	
Open space and plantation	40 Acre 20 Gunta 163897.68 Sq.mt.	
	5867 Nos. Plants	
Built up Area	153121.48 Sq.mt.	

8.3.1.2 GEOGRAPHICAL LOCATION WITH CAMPUS MAP IN SCALE



8.3.1.3 CATEGORIES OF LAND USE (BUILT UP AREA)

DESCRIPTION	AREA IN SQ. MT
Play ground	15495 sq. mt.
Main faculty building with	(25980 + 2155) 28135 Sq. mt.
administrative block (Institution	
Building + Administrative Block)	
Boys hostel	18376 Sq. mt.
Ladies hostel	27759 Sq. mt
· Auditorium	1827 + 580 2407 Sq. mt.
Canteen	590 + 265 855 Sq. mt.
Indoor stadium	788 Sq. mt.
Lab	Institution + Hospital 6330 Sq. mt. (3886 + 2444)
Toilets	Institution + Hospital 2749 Sq. mt. (1190 Nos. (Each
	1.52 x 1.52)
Etc Hospital	5156.48 Sq. mt.
Etc (Quarters)	14566 Sq. mt.
Total	153121.48 Sq. mt.



8.3.1.4 FLORA & FAUNA

DESCRIPTION- FLORA	QTY
Tamarind Trees	8
Avenue Trees	118
Neem Trees	305
Jack Fruit Trees	25
Mango Trees	73
Coconut Trees	380
Jamoon Trees	125
Amla trees	35
Singapore Cherry Trees	99
Champak Trees	70
Jungle Trees	634
Teak Trees	380
Paneer Trees	10

Bogan Villa Plants	330
Teak Wood Trees	3275
DESCRIPTION- FAUNA	Zoological name
SPIDERS	Araneae
Reptiles	Reptilia
Birds	Aves
Mammals	Mammalia

Note: A separate Internal Audit for flora and fauna conducted, the details in annexure 1

List of Trees at SDUAHER and Housing Layout						
SI No	Tree Names	16-17	17-18	18-19	19-20	
1	Tamarind Trees	8	-	-	-	
2	Avenu Trees	40	45	33	-	
3	Neem Trees	125	55	100	25	
4	Jack Fruit Trees	15	-	10	-	
5	Mango Trees	-	48	-	25	
6	Coconut Trees	130	150	100	-	
7	Jamoon Trees	50	40	35	-	
8	Amla Trees	-	20	15	-	
9	Singapore Cherry Trees	30	44	25	-	
10	Champak Trees	20	30	20	-	
11	Jungle Trees	284	200	150	-	
12	Teak Trees	380	-	-	-	
13	Panner Trees	-	-	10	-	
14	Bagan Villa Plants	100	80	150	-	
15	Teak Wood Trees at Sy. No. 18	3275	-	-	-	
16	Pick Cross	_	-	-	60	
17	Egrow	-	-	-	40	
		4457	712	648	150	



8.3.2 DATA ANALYSIS

Detailed analysis of data collected data was done and the analysis includes, calculation of energy consumption, analysis of latest electricity bill of the campus, understanding the tariff plan provided by the Karnataka State Electricity Board Data related to water usages were also analyzed using appropriate methodology.

Consumption of Electricity per year in kW-hr					
2015-2016	4384508				
2016-2017	4872231				
2017-2018	4693649				
2018-2019	5087102				
2019-2020	5610993				
Total 5 Yrs.	24648483				

Electrical Power Consumption for the year of 2019 from 3 Nos. HT Installations				
Jan-19	398821			
Feb-19	396426			
Mar-19	497737			
Apr-19	511640			
May-19	531935			
Jun-19	516419			
Jul-19	492086			
Aug-19	452581			
Sep-19	462153			
Oct-19	464555			
Nov-19	458985			
Dec-19	427655			
Total	5610993			

Details of Electrical Equipment &	Qty.
Generators	
HT35 Installation	
500 KVA Transformer	1
750 KVA Transformer	1
630 KVA Transformer	1
500 KVA DG Set	1
750 KVA DG Set	1
630 KVA DG Set	1
HT60 Installation	
630 KVA Transformer	1
500 KVA Transformer	1
250 KVA Transformer	1

500 KVA DG Set	1
500 KVA DG Set	1
HT61 Installation	
500 KVA Transformer	1
500 KVA DG Set	1
OPD Block Kolar	
82.5 KVA DG Set	1

8.3.2.1 COMPLAINCE REPORTS

i. Air Quality

Air quality has monitored in the following places to ensure that the air quality is meeting the threshold values as per the requirements of NAAQ.

- In front of RLJ Center school
- Near Doctors quarter's
- Near Coconut Garden
- Near DG Room
- Near STP Area
- Near Nursing College
- In front of Ladies Hostel
- In front of Boy's Hostel
- In front of Medical College
- In front of Academy building
- Near Hospital Main Gate Entrance
- Near Main Gate

Results

SI No	Particulars	Protocol/Method	Units	Results	NAAQ
1	Respirable suspended	IS : 5182(Part 23)-	µg/m³	Within limits	100 µg/m³
	particulate	2006 RA 2017			
	matter(PM10)				
2	Sulphur-di-oxide	IS : 5182(Part 23)-	µg/m³	Within limits	80 µg/m³
		2006 RA 2017			
3	Oxides of Nitrogen	IS : 5182(Part 23)-	µg/m³	Within limits	80 µg/m³
		2006 RA 2017			

Note: Ref the annexure for detailed report

Sample Particulars: 750 KVA DG set, 630 KVA DG set, 500 KVA DG Set 1,2,3,4

ii. Water Quality

WATER QUALITY REPORT						
Parameter/ WHO Permissible Level		Observed Value Method				
		Under Permissible Lir	Inder Permissible Limit Protocol			
Water Quality Report as Follows						
Sample Nature/Name: Bore well water						
Description: - Colorless, Odorle	ess, Transpare	nt liquid.				
		Maximum	Maximum			
TESTS	RESULTS	Acceptable Limits (In Mg/l)	Permissible Limits (In	Protocol		
			wg/T)	IS-3025		
		(As per IS 10500:2012)				

Color, Hazen Units	<5	5	15	IS-3025/Part-4	
Odor	Agreeable	Agreeable	Agreeable	IS-3025/Part-5	
Turbidity, NTU	<0.1	1	5	IS-3025/Part-10	
pH Value	6.6	6.5 - 8.5	No Relaxation	IS-3025/ Part- 11	
Total Hardness as CaCO ₃ , mg/1	262	200	600	APHA 23 rd Edition	
Calcium as Ca, mg/1	61	75	200	APHA 23 rd Edition	
Magnesium, as Mg, mg/1	25	30	100	APHA 23 rd Edition	
Chloride as Cl, mg/1	153	250	1000	IS-3025/Part-32	
Total Dissolved solids, mg/1	592	500	2000	IS-3025/Part-16	
Sulphate as SO ₄ , mg/1	34	200	400	IS-3025/Part-24	
Nitrate as NO ₃ , mg/1	11	45	No Relaxation	IS-3025/Part-34	
Fluoride as F, mg/1	0.4	1	1.5	APHA 23 rd Edition	
Iron as Fe, mg/1	0.1	0.3	No Relaxation	IS-3025/Part-53	
Chromium as Cr6+, mg/1	0.02	0.05	No Relaxation	IS-3025/Part-52	
Copper as Cu, mg/1	0.02	0.05	1.5	IS-3025/Part-42	
Manganese as Mn , mg/1	<0.1	0.1	0.3	IS-3025/Part-59	
Residual Free Chlorine, mg/l	<0.2	0.2	1	IS-3025/Part-26	
Total Alkalinity as "CaCO3, mg/1	244	200	600	IS-3025/Part-23	
Aluminum, as Al, mg/1	0.03	0.03	0.2	IS-3025/Part-55	
Boron as B, mg/1	0.1	0.5	1	APHA 23rd Edition	

ANALYSIS OF WASTE GENERATION AND DISPOSAL

SR	POINT OF DISPOSAL	ТҮРЕ	QTY IN Kg - Per Annum	MODE OF DISPOSAL	Remarks	
1	Canteen	Solid Waste	10950 Kg's	Out sourced vide P.O NO. 016 Dated :		
2	Library	Paper Waste	500 Kg's	29/04/2019		
3	Store	Packing Material	1000 Kg's			
4	Office	Papers & Electronic Waste	200 Kg's	E - Waste Disposed to authorized Recycler		
5	Garden	Leaves and Branch cutting	3650 Kg's	Out sourced vide P.O	The generated	
6	Auditorium	General Waste	150 Kg′s	29/04/2019	wastes are	
7	Bathrooms	Pad & Napkin	100 Kg′s.		per the legal	
8	Classrooms	Paper & General waste	150 Kg's.		requirements.	
9	Lab	Bio Medical	2000 Ka's	Disposed to Authorized		
		Waste	2000 Ng 3.	agency		
10	Premises	Garbage	9000 Kg's.	Disposed through Proper		
			, J	incinerator		

ANALYSIS ON RECYCLING TREATED WATER

STP AND RECYCLING TREATED WATER	Qty	REMARKS
300 KLD STP treated water per day	300	The treated water is using for
250 KLD ETP treated water	250	gardening and Toilet flush of Hostels & Quarters
TOTAL – KLD	550	

REQUIREMENT OF WATER PER DAY IN HOSTEL, Kolar-2015~2019

SL. No.	Description	Year-2015	Year-2016	Year-2017	Year-2018	Year-2019
1	No of Occupants	2912	2917	3835	3631	3631
2	Total Consumption	225000	220000	247000	302970	313670
3	Actual Per Capita	77.26	75.4	64.4	83.4	86.6

SL. No.	Description	Year-2015	Year-2016	Year-2017	Year-2018	Year-2019
1	No of Occupants	750	750	750	850	850
2	Total Consumption	315653	290000	310653	310000	315000
3	Actual Per Capita	420.8	386.6	414	364.7	393.75

REQUIREMENT OF WATER PER DAY IN HOSPITAL, Kolar-2015~2019

A detailed reports, Refer annexures 2-"Requirement of water per day "

SOURCE OF SUPPLY OF WATER PER DAY

Description	Yr-2015	Yr-2016	Yr-2017	Yr-2018	Yr-2019
Pipe Line , Tanker 405 Nos. X 5000/26	300000	390000	300000	390000	390000
Bore Well -1) Now Borewell 2) Borewell 3) Total borewell at Coconut Garden	205000	205000	202000	209600	205000





Requirement as per Norms Vs Actual Per capita consumption in Liters

Description	Yr-2015		Yr-2016		Yr-2017		Yr-2018		Yr-2019	
	Req	Act								
Hospital	450	421	450	387	450	414	450	364	450	394
Hostels	135	102	135	99	135	99	135	100	135	95
NRI and PG Hostels	135	88	100	95	100	104	100	87	100	87
Quarters & Doctors Rooms above Club	100	95	45	19	45	33	45	15	45	15
Academy, PG and New Library 1667 per Dept. (21 Dept.)	45	19	135	88	135	102	135	99	135	105
Total	865	725	865	688	865	752	865	665	865	696



Note: The Actual per capita consumption is <u>less</u> than the Requirement as per Norms

8.3.3 Major Audit Observations

- Observed that institution has promoted environmental aspects, has initiated steps which include in campus rainwater harvesting projects.
- Practiced complete ban on plastics within the campus.
- Observed solar water heating systems in all hostels.
- Treatment of wastewater and its recycling is as per regulations.
- Renewable energy sources like solar panels used for street lighting and solar energy is used for water heating hence the Percentage of power requirement of the Academy met.
- The academy is encouraged the faculty and students to use cycles to save environment, prevent air pollution and promote healthy lifestyle.
- The future goal is to make the institution, a paperless organization.

- Hence the academy promotes the eco-friendly initiatives include energy conservation, use of solar / renewable energy, rainwater harvesting, sewage treatment plant, domestic waste and biomedical waste management and air pollution control.
- The biohazardous waste is segregated at the point of its origin and disposed as per the Pollution Control Board directives and the radioactive hazardous materials are disposed as per the AERB guidelines.
- Electronic wastes are collected and pooled and stored in e-waste room and they are disposed to the agencies recommended by the Pollution Control Board.

8.3.4 Recommendation

Based on results of data analysis and observations, some steps for reducing power, water consumption, greening the workplace, waste management and effluent treatment and recycling plant were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health.

Target Areas of green auditing in Detail

8.3.4.1 Energy Conservation – This includes energy audit where the auditors identifies way to save electric, natural gas, and other forms of power that are inefficient or being wasted in the organization. This is done by recommending more efficient electric heating & cooling etc.

The following are steps taken to ensure the energy conservation

- Tungsten bulbs have been replaced with LED and CFL (compact fluorescent lights) which conserve energy.
- All the light switches are labeled to make it obvious which switches relate to which appliances.

- During the day, lights are switched off to make use of daylight.
- External lights are switched off during daytime.
- Light fittings are cleaned regularly to ensure optimal lighting.
- Windowpanes are cleaned regularly to allow in more day light.
- All air conditioners are with local control and are used only when necessary. They are set to a comfortable 25°C.
- External doors and windows are closed when air conditioning is on.
- All computers, printers, photocopiers, and other equipment are switched off at the end of the day.
- Standby settings on LCD projectors, printers and computers are avoided.
- No of Energy efficient ceiling fans has to be increased to conserve more power
- Fridges are not placed next to heat sources.
- Posters are displayed to remind people of good practice.

SL NO	CATEGORIES	QTY	POWER CONSUMPTION in units per annum
1	Energy Efficient LED Lights	6850	400040
2	Energy Efficient Ceiling Fans	600	35040
3	VRF Air Conditioners-36 kw	1	46872
4	VRF Air Conditioners-13.5 kw	1	17577

8.3.4.2 Saving water- This involves educating the employees on ways to save, recycle & reuse precious water resources both inside & outside the premises. The basic emphasis should be to reduce water consumption.

Steps taken to conserve water are as follows:

- Rainwater harvesting system has been implemented from the past three years and all the areas/ buildings in the campus have rainwater harvesting system in place.
- Soak pits are provided which collect the rainwater which helps to elevate the water table in the campus; the number exceedingly more than 50 in the entire campus.
- Underground drainage system avoids pollution.
- Assessment of water samples for their potability in the campus is done regularly by the Department of Microbiology and Engineering Section.

RAINWATER HARVESTING

Total Rainwater Harvesting was done the 9967.66 Sq.mt. building terrace area has been done for rainwater harvesting and this rainwater is supplying to sump tank after required treatment and filtration through the filters.

SI No	Description	Area					
1	Institution Building	3931.66					
2	Library	1827 .00					
3	UG Ladies Hostel	1300.00					
4	New O.T Block	1996.00					
5	Care Building	790.00					
6	UG Boys Hostel	1360.00					
7	Food Court	590.00					
Total	9967.66						
25 No	25 No's.						
rings fil							
to rech							

- **8.3.4.3 Greening the workplace -** This is achieved by the following activities of designing a greener office space like:
 - a. Efforts of Carbon neutrality which includes driving green
 - b. Plantation Botanical or Medical Significance
 - c. Non-conventional energy sources
 - i. Solar Energy
 - d. Waste Management
 - i. Bio-hazardous
 - ii. E-Waste
 - e. Water recycling.

In one year a single mature tree will absorb up to 48 pounds of carbon-di-oxide from the atmosphere and releases its oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people.

a. Efforts of carbon Neutrality

- Restricted entry for vehicles to the campus to keep the campus pollution free.
- Students are encouraged to use bi-cycle and e-mopeds
- Transport facilities are provided to cater to the commuting needs of the staff.
- Buses are fitted with pollution free stickers (emission test done)
- The staff is also encouraged to carpool to reduce consumption of fuel, pollution and reduce carbon footprint.
- The Academy vehicles are checked by the RTO and provided with pollution-free stickers.
- Planting a large number of trees in the campus and adopted villages is one of the regular features of the NSS Special Camps.

- The institution has launched a drive to reduce the use of paper and paper usage has been replaced by soft copies like scanned copies and images and circulars are sent via e-mails and text messages.
- The staff is encouraged to make judicious use of printers.
- The future goal is to make the institution, a paperless organization.
- Online application forms are used during the institution's National level medical undergraduate conferences to reduce paper usage.
- Environment friendly jute bags are distributed to the delegates during the national medical undergraduate conferences.
- The campus is a Plastic Free Zone and disposable plastic goods are used minimally.
- The use of polythene covers are discouraged on campus instead everyone is encouraged to use paper bags / cloth bags.
- The hostel mess use local produce only.

b. Plantation - Botanical or Medicinal significance

- The Academy offices are spread over almost 72 acres of lush green campus. The campus has many potted plants and trees.
- Bougainvillea plants decorate the campus and the campus looks beautiful.
- The institution has an open-air gallery/auditorium with lawns and lush trees surrounding it. The open-air gallery serves as a green background for institution level functions.
- Clean, well maintained campus roads with pavers are built.
- Both sides of the roads inside the campus are lined by trees and plants.
- The Academy has an herbal cum toxicology garden having several plants of medical significance which are utilized for teaching learning purposes. All the trees on the campus are named and numbered.

- Underground drainage system with water treatment plant.
- The Academy has a horticulture officer for maintaining gardens and lawns.
- Grow more Tulasi (Ocimum tenuiflorum) plants which give out oxygen for 20 hours and ozone for four hours a day along with the formation of nascent oxygen which absorbs harmful gases like carbon monoxide, carbon dioxide and Sulphur dioxide from the environment.

c. Non-conventional Energy source

a. Solar Energy

- The entire rooftops of all the hostels, the hospital and the guest house are covered with solar panels so as to provide hot water facility to all the inmates and solar streetlights are also in place.
- Hence amount of Energy required is balanced with Energy conserved for water heating purpose.

Solar Water Heating		Energy Conserved Per	Energy Conserved Per Year				
Energy Panels		Day	Considering 250 Days				
Solar Energy	630 Panels	4	630000 Units				

The Institution has facilities for alternate sources of energy and Energy Conservation Measure:

- Totally **630 solar panels** are installed at various locations
- Majority of campus has LED bulbs now.

Statement of Energy Conserved through Solar Water heaters in the academy campus during the year of- 2019.

SI. No	Location	No Panel	Energy conservation by each solar water heater panel in Kw	Total energy savings by solar water heater per day in Kw	Total Electrical Power savings in year approximately 250 days in Kw	Cost per unit as Bescom	Total
1	Ladies Hostel						
а	New Ladies Hostel	60	4	240	60000	8.00	480000.00
	senior Ladies						
b	Hostel	50	4	200	50000	8.00	400000.00
с	NRI Ladies Hostel	30	4	120	30000	8.00	240000.00
	Junior Ladies						
d	Hostel	10	4	40	10000	8.00	80000.00
	Ladies recreation						
е	Club	10	4	40	10000	8.00	80000.00
f	P.G Ladies Hostel	60	4	240	60000	8.00	480000.00
2	Boys Hostel						
а	UG Men's Hostel	60	4	240	60000	8.00	480000.00
b	Interns Hostel	30	4	120	30000	8.00	240000.00
С	NRI Boys Hostel	20	4	80	20000	8.00	160000.00
d	PG Boys Hostel	50	4	200	50000	8.00	400000.00
	R.L Jalappa						
3	Hospital and RC	250	4	1000	250000	8.00	200000.00
	Total	630		2520.0	630000.0		5040000.00

R.L.Jalappa hospital, ladies hostel, men's hostel and guest house



d. Waste Management-

With a commitment to protecting the environment by reducing its impacts on the environment by managing its waste in an efficient and sustainable manner to recognize the need for safe and efficient segregation, collection and proper disposal of all waste generated within its premises.

• Bio-hazardous waste

- i. The bio-hazardous waste is segregated at the point of its generation in color coded bins as per the guidelines.
- ii. The segregated bio-medical waste disposal is outsourced to M/s. Meera Enivrotech Pvt. Ltd., Bangalore. (Government Recognized agency).
 Vide No: SDUAHER/KLR/PURCHASE/1507/2013-14 Valid till 2023



- iii. Radio-active bio-hazard material disposal is outsourced to Kirloskar Theratronics as per AERB guidelines via Ref No: KT/00018.
- iv. The infection control committee regularly monitors the process
 - a. Through a microbiologist designated as infection controlling officer.
- v. Awareness about segregation of waste through charts has been displayed in all the laboratories and wards.

• E-Waste

- i. Green computing through implementation of energy-efficient central processing units (CPUs), servers and peripherals as well as proper disposal of electronic waste is being ensured and all the equipment in the laboratories and departments are under Annual Maintenance Contract (AMC) to ensure their optimum functioning.
- ii. Minor repairs are set right by the staff and the Laboratory.
- iii. Assistants and the major repairs are undertaken by the professional technicians and the equipment is reused.
- iv. Instruments which cannot be repaired are returned to the vendors who dispose of them in an environment friendly manner.
- v. E- Waste is a hazardous waste that requires proper recycling and dumping methods, Electronic wastes like Computers, Laptops, desktops Printers, and other Information Communication Technology equipment's like server, Router, Wi-Fi hotspot, which cannot be used are written off and properly disposed to Government authorized agency as per E-Waste Management Rules 2016, To work towards a healthy and sustainable environment by using safe recycling and dumping methods.

- vi. To inculcate environment awareness among the students and to urge them to recycle waste materials, they are encouraged to actively participate in competitions on 'Junk Art'; making art from waste.
- vii. Separate e waste bins are maintained in the campus.

• Effluent treatment and recycling plant

- a. The institution practices wastewater management system effectively to keep the campus clean, hygienic and free from any sort of pollution.
- b. It has an Effluent treatment plant, where the wastewater is
- c. Treated and this is used for watering the plants in the campus and for building construction work.
- d. Central water purification to avoid water borne diseases.
- e. Recycling of wastewater STP 300KLD and ETP 250KLD.

Review of Documents and Records

Documents such as admission registers, registers of electricity and water charge remittance, furniture register, laboratory equipment registers, purchase register, audited statements, and office registers were examined, and data were collected. Institution calendars, institution magazines, annual report of the institution etc. were also verified as part of data collection.

9 AUDIT STAGE

Objective: Meeting of the team with the appropriate personnel of the unit The 3 primary functions on site activities are

- Record & documentation review.
- Interview with staff.

• Physical inspection of the facilities.

Data collection was done in the sectors such as Energy, Waste, Greening, and Water use. Institution records and documents were verified several times to clarify the data received through survey and discussions.

10 CONCLUSION

Although the concept of Green Auditing is being implemented & appreciated, it should overcome the following challenges:

- Reducing power, Water consumption, Waste generation were recommended, Greening the workplace is mandatory.
- Encouraging responsible water use through posters/placards/ incentives/ contests/ awards.
- Meters needs to measure the water consumption from the resources.
- The Academy is excellent with respect to the usage of day lighting.
 Sufficient lux levels above 250 are common on the work stations. A
 General Survey recommended undertaking with employees with respect to lighting efficacy and identifying any complaints if any.
- The Electrical Equipment's are well operated. Redundant operations are avoided.
- The Academy practices wastewater management system effectively to keep the campus clean, hygienic and free from any sort of pollution.
- The students, staff members and guests have access to clean, safe and potable water.
- Suggested to Monitor Noise level as per Ambient Air Quality Standards in respect of Noise, Whereas the increasing ambient noise levels in public places from various sources, inter-alia, , generator sets, vehicular horns and

other mechanical devices have deleterious effects on human health and the psychological wellbeing of the people, it is considered necessary to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise.

11 ANNEXURES

I. Internal Audit flora and fauna reports



flora audit - part 1.pdf flora audit - part 2.pdf



flora audit - part 3.pdf

II. Requirement of water per day



III. Test reports STP Raw and Treated Water, ETP Raw and Treated Water,

Bore well water-1 & 2, 750, 630 , 500, KVA DG sets



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