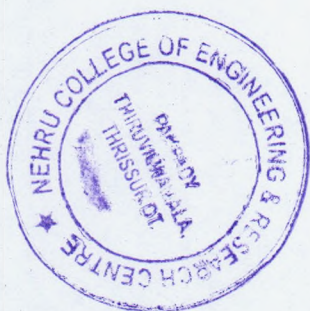


7.1.3

The facilities in the Institution for the management of the degradable and non-degradable waste




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Pin - 686 59, Kerala

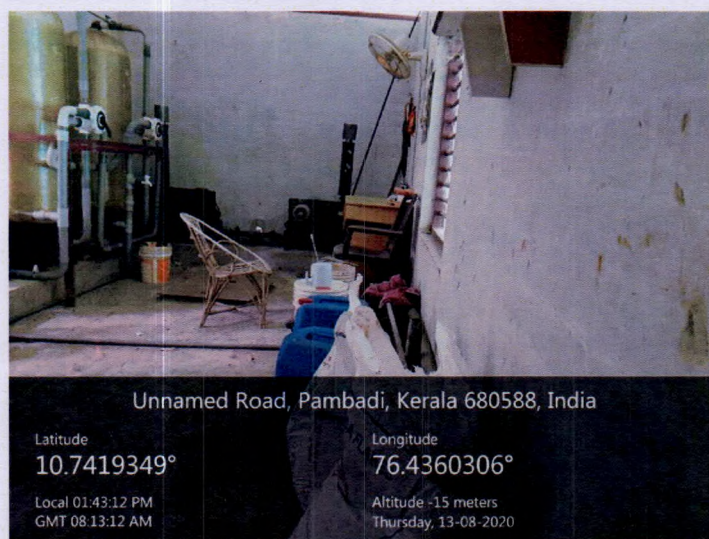
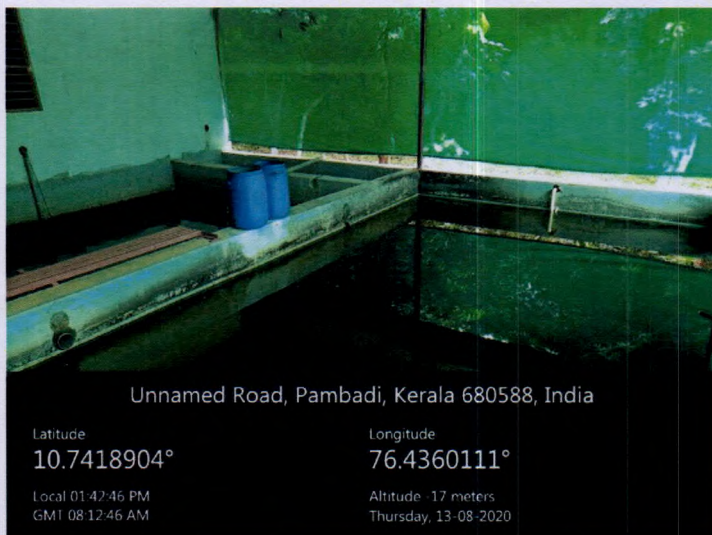
7.1.3 Geo Tagged Photos of infrastructure & Bills

1. Hostel STP photos
2. STP Write up
3. Canteen ETP photos
4. ETP Write up
5. e-waste room concrete floor
6. MOU with scrap-dealer
7. Scrap sale bills




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Pin - 680 591, K.

Hostel STP Photos (geotag)



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Pin - 680 597 Kerala



— NEHRU COLLEGE OF EDUCATIONAL AND CHARITABLE TRUST —

Ref: NCT/NCERC/WO404/18

Date: 20.03.2018

To
M/s. Abiding Water Treatments,
Nallamthottath Building, Kozhencherry,
Pathanamthitta, Kerala - 689 641.
Ph: +91 98475 06030. 81119 25537.

Dear Sir,

WORK ORDER

Further to your final Techno Commercial Offer Ref: ABD/QTN/1540/018, Dtd 16.03.2018, we (M/s. Nehru College of Educational & Charitable Trust, Pampady, Thrissur, here in after called The Employer) hereby entitle you (M/s. Abiding Water Treatments, Kozhencherry, Pathanamthitta, hereinafter called The Contractor) for Refurbishment of existing 40 KLD Sewage Treatment Plant at Nehru College of Engineering & Research Centre, Pampady, Thrissur.

Scope of Works:

Supply, Installation, Testing, Commissioning & Refurbishment of 40 KLD Sewage Treatment Plant at Nehru College of Engineering & Research Centre, Pampady, Thrissur.

Value:


Contract Value: Rs.1,90,000/- (Rupees: One Lakh Ninety Thousand only) Taxes will be Extra on actual.

Please refer attached **Appendix 'A'** for Conditions of Agreement and Annexure I which shall form an integral part of this Work Order. Should you accept this offer, kindly endorse the duplicate copy and return the same to our office.



Accepted the Terms and Conditions
For Abiding Water Treatments




Managing Trustee
CBE

Address for Reply: Nila Gardens, Pampady, Thiruvilwamala, Thrissur - 680 588, Kerala, Ph: 91 - 4884 - 281670, 282070, E-mail: necet@rediffmail.com

Regd. Off.: 451-D, Palakkad Main Road, Kuniamuthur, Coimbatore - 8, Phone: 0422-2251148, Fax: 0422-2251147

* # Collect PAN, GST, Aadhaar.

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Pin 680 597 Kerala

Appendix 'A'

CONDITIONS OF AGREEMENT

*Abiding Water
Treatments*

1.00 Brief Scope of Work:

Supply, Installation, Testing, Commissioning & Refurbishment of 40 KLD Sewage Treatment Plant at Nehru College of Engineering & Research Centre, Pampady, Thrissur, in accordance with the specifications in the enclosed annexure.

2.00 Value of Works

Contract Value: Rs.1,90,000/- (Rupees: One Lakh Ninety Thousand only) Taxes Extra.

The above rates are considered only for quality works and in case of inferior quality works/finish, the payment shall be kept on hold by the Employer until such time that the work is rectified by the Contractor at no extra cost to the Employer. The work shall consist providing Skilled Labour. If any wastage/damage takes place by the Contractor on material issued by the Employer, the Employer shall have the right to debit the cost of material to the Contractor account. The manpower engaged shall have adequate skill for the work and under no circumstances unskilled workers should be engaged for the job except as helpers. The executed work shall be considered complete and shall be subject to the approval by the site representative of the Employer and Consultant.

3.00 Schedule of Works

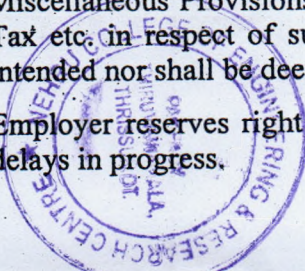
The agreed Works are to be completed within 30 days.

4.00 Mode of Payment:

- 1) 50% As advance payment 2) 30% upon Supply of materials. 3) 20% up on com.*
- ✓ Rupees 50,000/- as Advance payment against acceptance of work order/agreement
 - ✗ Balance Rupees 1,02,000/- Pro-rata amount against equipments / materials delivery at site after consultant's materials certification.
 - ✗ Balance Rupees 28,500/- after installation, testing and commissioning of equipments.
 - Balance Rupees 9,500/- i.e. 5 % Retention amount to be deducted from bill and the same shall be released after one year from the date of work completion certificate.

5.00 Special Conditions:

- It is expressly understood that all persons engaged by you in connection with the above work whether on casual or permanent basis, as your employee or otherwise, shall not be deemed to be our employees for any purpose under any law applicable to such employees. You shall solely be responsible for all statutory obligations including those under Employees Provident Fund & Miscellaneous Provisions Act, ESI Act, Workmen compensation Act, TDS, Service Tax, Sales Tax etc. in respect of such persons/ employees. No "Employer - Employee" relationship is intended nor shall be deemed to subsist between the Employer and such person/employees.
- Employer reserves right to terminate services of the contract in case of bad workmanship or delays in progress.



Principal

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Pampady, Thiruvilwamala, Thrissur Dt.
Pin 680 597, Kerala

Guarantee of works

The Contractor shall guarantee the Refurbished 40 KLD Sewage Treatment Plant against any manufacturing defects of Air blower motor, Control Panel, Dosing Pump & Diffusers for a period of 1 (one) year from the date of test and commissioning at site

7.00 Performance Guarantee

The Contractor undertakes to provide performance guarantee for a period of Three (3) years from the date of testing & commissioning of 40 KLD STP as stipulated by Kerala State Pollution Control Board.

8.00 Confidentiality:

The Contractor shall maintain absolute confidentiality and will not share any project related information with any outsiders except with the written consent of the Employer.

9.00 Jurisdiction:

In case of a dispute, judgment may be entered upon in accordance with applicable law in any court having jurisdiction in Palakkad.

All other terms and conditions will be explained in duly executed agreement in 200 rupees Stamp Paper.



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Pin - 680 597 Kerala

ANNEXURE – I

COMMERCIAL						
SL NO	PARTICULARS	MAKE	UNIT	QTY	PRICE	AMOUNT
1	Air blower Motor - 5 HP	Everest/Ingersoll/Eqlt	NOS	2	22,000.00	44,000.00
2	CPVC Pipes & Fittings	Supreme/Astral	LS	LS	LS	5,500.00
3	PVC Pipes & Fittings	Supreme/Astral	LS	LS	LS	5,500.00
4	Electrical Control Panel	Abiding	NOS	1	65,000.00	65,000.00
5	Dosing Pump	Pro Aqua / UKL	NOS	1	6,000.00	6,000.00
6	Fine Bubble Diffuser 2 inch	Tecpro	NOS	20	1,000.00	20,000.00
7	Commissioning Chemicals	TCCA	KG	1	350.00	350.00
8	Bar Screen		LS	LS	LS	20,000.00
9	Labour Charges		LS	LS	LS	40,000.00
10	Transportation		LS	LS	LS	3,000.00
				Total		209,350.00
				Less Discount		19,350.00
				Net Amount		1,90,000.00

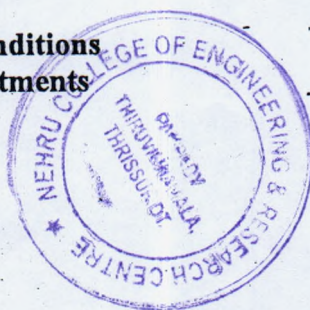
(Rupees One Lakh Ninety Thousand Only)

Copy to – Accounts - NGI - Kerala

Terms & Conditions:

1. Transportation & Unloading charges included in the above rate.
2. Taxes will be extra on actual.
3. Proper training shall be provided to our team.
4. Any defects in the guarantee period to be rectified free of cost.
5. Work to be carried out as per the drawings / specifications.

Accepted Terms and Conditions
For Abiding Water Treatments



Managing Trustee
CBE

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Pampady Thiruvananthapuram, Thiruvananthapuram
Pin - 695 016 Kerala

Canteen ETP (geotag)



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude
10.7446307°

Longitude
76.433274°

Local 01:22:04 PM
GMT 07:52:04 AM

Altitude -19 meters
Wednesday, 05-08-2020



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude
10.744701°

Longitude
76.4333124°

Local 01:22:31 PM
GMT 07:52:31 AM

Altitude -6.3 meters
Wednesday, 05-08-2020



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

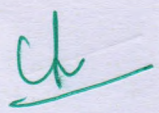
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Longitude
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GMT 07:52:17 AM

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Wednesday, 05-08-2020




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4) Primary Clarifier - The function of PC is to remove suspended heavy particles from the raw effluent.

Process: In this tank, the heavy particles along with the sludge, which the bacteria have degraded settles down at the bottom of the tank and the water flows on top of it. A rotator is fixed in the middle of the tank, so that the heavy particle along with the sludge which has settled down does not block the outlet of the PC. In this tank, mostly the inactive heavy particles along with little amount of sludge is thrown out in the Sludge drying beds. The pH of the PC is maintained to 7.0 to 8.0.

5) Anaerobic Hybrid Reactor - This unit is provided for the anaerobic treatment of the effluent.

Process - The effluent after treatment in PC is passed to the AHR through gravity. The design of the AHR is in a way that at the bottom of this tank anaerobic bacteria's beds are made. The effluent which comes from PC react with the anaerobic bacteria and the break up of organic compounds takes place with the production of Methane gas which can be seen in the form of bubbles on the upper layer of the water in the tank. The pH of the AHR is maintained to 7.0-7.5 because the anaerobic bacteria are stable in this pH. If there is much fluctuation in the pH of this tank the anaerobic bacteria can die.

6) Aeration Tanks 1 & 2 - This unit is provided for aerobic biological treatment of the effluent for the reduction of organic matter in the effluent.

Process: The effluent from the AHR is received in the aeration tank stage-1 by pumping and is aerated by the help of mechanical surface aerators in the presence of previously developed biological sludge (Mixed Liquor Suspended Solids i.e. MLSS). The food / microorganism ratio is maintained at about 0.6 and 0.137 in the first and second stage aeration tanks respectively which correspond to about 3500 mg / ml.

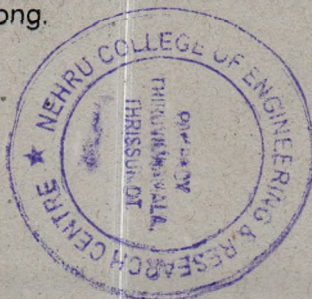
Operation - The start up of the activated sludge process can be accomplished by using seed sludge available from night soil develop a suitable microorganism population expressed as MLSS. Required nutrients viz. N and P are added with aeration tanks by pumping a solution of Urea and DAP. The aerators also help to keep the biological solids in suspension. The mixed liquor from the aeration tanks is subjected to gravitational settling in the hopper bottom secondary clarifier.

7) Final Clarifier- The function of final clarifier is to separate biological solids from the mixed liquor first stage aeration tank.

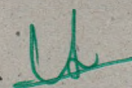
Process : The mixed liquor from the first stage aeration tank is received in the clarifier by gravity. The clarifier is hopper bottom type. The sedimentation of sludge is withdrawn by pumps and is recirculated back into the aeration tank stage-1 for maintaining the MLSS. Provision is given to transfer the sludge into the stage-2 aeration tank through the necessary connections given on the delivery line of the sludge recirculation pump.

Operation - The clarifier is filled up with effluent by gravity. The biological solids get settled by gravity at bottom. The suction valves corresponding to each hopper portion of clarifier are kept opened. The settled sludge is recirculated by operating pump back into the aeration tank continuously. If the MLSS exceed the required level, or sludge needs to be wasted, the sludge is diverted into aerobic.

Discharge to Earth : The raw effluent, which has been treated through different process, lastly clarified, is now discharged into the earth and it's pollution free, and prevents all our water bodies from contamination.



Supervisor - Civil Department, NCERC


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Report on ETP Purpose and Functioning

Purpose of ETP

Our Nala Canteen has an ETP Plant. The purpose of the effluent treatment facility is for biological treatment of the effluents. The effluent bears large amounts of organic matter. The direct discharge of the effluent into the water bodies causes depletion of DO of the water. Hence, in order to meet the recommended standards of quality of the effluent, it is necessary to treat the effluent before it is finally disposed off. This treatment facility provides for removal of major pollutants from the effluent.

Treatment Process

The raw effluent, bears large amount of suspended solids and oxygen consuming organic matter. The conceptual approach of the treatment includes the removal of suspended particles, dissolved organic matters and handling of sludge for disposal.

Treatment system employed was composed of screening and settling tank for removing the suspended solids and aeration for decreasing the COD and BOD. It was a low cost system in which the materials used were mostly taken from the redundant stock. Air was given for aeration with the help of a compressor.

Excess or deficient quantity of food (incoming BOD) adversely affects the physical quality of biological sludge. The activated sludge system is designed on the basis of a particular food to microorganism ratio. This ratio is in practice indicated by the quantity of BOD in influent per unit quantity of mixed liquor suspended solids per unit time.

In the aeration tanks recirculate the biological solids separated in the final clarifier. The surplus biological sludge (and the sludge from the secondary clarifier) needs further dewatering, which is achieved in sludge drying beds. The final effluent is suitable for discharging into the ground.

Process Units their Description And respective Operation

1) Storage Tank- The function of storage tank is to collect and store the raw effluent from different parts of factory.

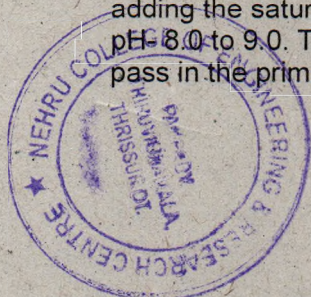
Process: The raw effluent is collected from the different part of the factory and stored. From the storage tank the raw effluent is passed to the equalization tank with the help of pump.

2) Equalization Tank - The function of equalization tank is to equalize the raw effluent emanating from different processing units.

Process: The effluent is collected in an existing combined effluent from where it is pumped to the existing aeration tank, which serves as an equalization tank. The floating aerator is operated to homogenize effluent which is then pumped to the neutralization tank.

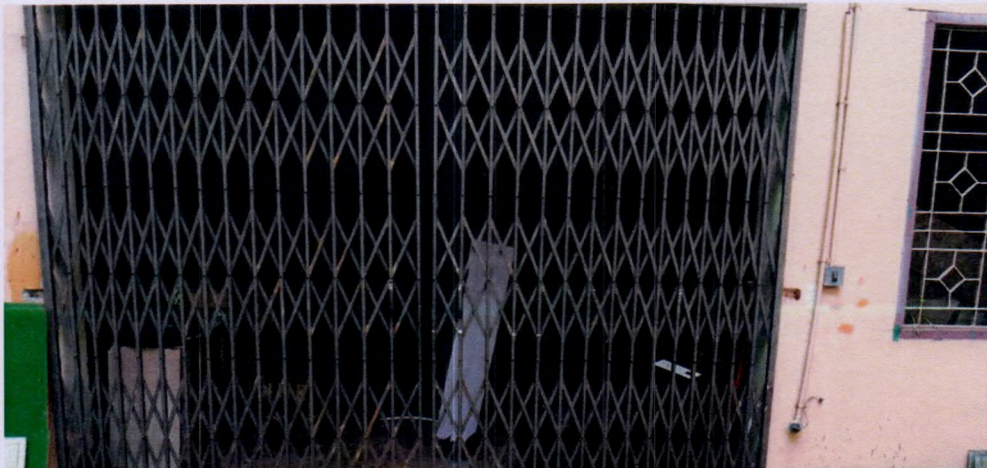
3) Neutralization Tank- The function of the neutralization tank is to neutralize the raw effluent, which is generally acidic in nature.

Process: The raw effluent, which is usually acidic (pH-5.5 to 6.5) in nature is neutralized by adding the saturated solution of NaOH. So, the final pH of the neutralization tank is adjusted to pH-8.0 to 9.0. Then the raw effluent after has been treated in neutralization tank is allowed to pass in the primary clarifier through gravity.



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Pin - 680 097 Kerala

Waste disposing area- hard concrete floor to prevent the toxic materials from polluting the earth



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude

10.7435022°

Longitude

76.4345545°

Local 02:33:55 PM

GMT 09:03:55 AM

Altitude 0 meters

Thursday, 13-08-2020



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude

10.7435718°

Longitude

76.4346089°

Local 02:34:31 PM

GMT 09:04:31 AM

Altitude 0 meters

Thursday, 13-08-2020



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Pin - 680588 Kerala



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude

10.7435657°

Longitude

76.4346104°

Local 02:34:43 PM

GMT 09:04:43 AM

Altitude 0 meters

Thursday, 13-08-2020



NCERC Admin Bldg Rd, Pambadi, Kerala 680588, India

Latitude

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Longitude

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Thursday, 13-08-2020



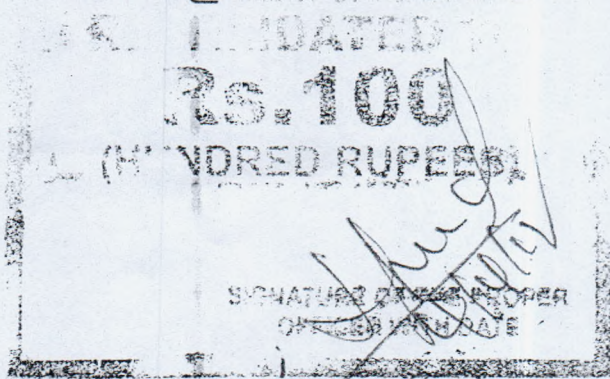
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Engineering and Research Centre
Pambady Thiruvilwamala, Thrissur Dt
Pin 680 597 Kerala



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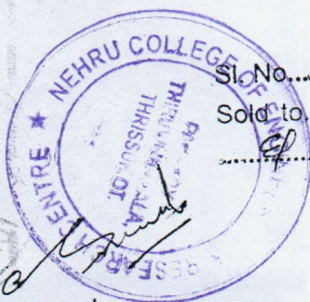
28AA 790451



MEMORANDUM OF UNDERSTANDING

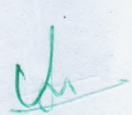
This Memorandum of Understanding (this "Agreement") is made and entered into as of April 16, 2018, by and between the Campus Manager, Nehru College of Engineering and Research Centre Nila Gardens Pambady, Thiruvilwamala, a part of Nehru Group of Institutions, ("First Party") and Basheer & Co Melepattambi, Pattambi, Palakkad(dist) a Scrap and Metal Dealing Firm ("Second Party"), represented by its proprietor Mr. Abdul Basheer, collectively referred to as the "parties".

12 APR 2018



Sl.No. 540 Rs. 100/- Date 13/4/2018
Sold to Nehru College of Engineering
& Research Centre Pambady.

K. N. SANKARAN
O.M.C. VENNOOR
OTTAPALAM


PRINCIPAL
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Engineering and Research Centre
Pambady Thiruvilwamala, Thiruvil Dt
Pin 680 597 Kerala

WHEREAS, Second Party has submitted a proposal in response to the note issued by First Party for disposal of Recyclables, Metals, and eWaste, dated March 3 2018

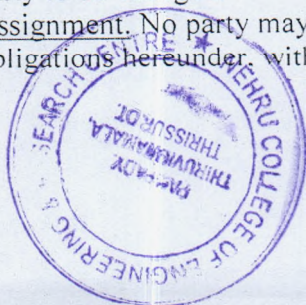
WHEREAS, First Party has decided to execute MoU with the Second Party in connection with disposal of Recyclable, Metals, and eWaste

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows

1. There is no Employee Employer relationship between the parties
2. Both the First Party and Second Party will bear financial loss incurred to them in case of any disruptions due to unexpected happenings.
3. The validity of this MOU shall be Three years (3) initially from the date of execution of this MOU
4. Both parties are equally responsible to communicate all the official matters directly to each parties through the official Single Point of Contact (SPOC)
5. The scrap will be sold to the second party, as per the market value (the price list appended as Annexure A will be a part of this MoU). Changes in price from time to time will be applicable, in this regard.
6. The clearance and transportation of waste shall be the sole responsibility of Second Party
7. Nothing in this Agreement shall be deemed to limit the terms and conditions of the Post-Collection Solid Waste issued by the First, or its rights and remedies with respect thereto.

Miscellaneous

- a. Amendment. No modification, waiver or amendment of this Agreement or any provision hereof shall be effective unless in writing and signed by the party to be charged.
- b. Assignment. No party may assign this Agreement or any of its rights or obligations hereunder, without the prior written consent of the other parties.



[Handwritten signature]

[Handwritten signature]
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Pampady Thiruvilwamala, Thiruvananthapuram Dt
Pin 680 597 Kerala

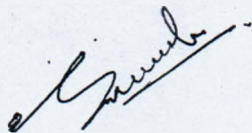
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This Agreement shall be binding upon and inure to the benefit of the successors and assigns of each party.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the 16th day of April 2018

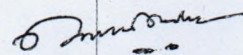
APPROVED AS TO FORM:

FIRST PARTY



Campus Manager
Nehru College of Engineering and Research Centre
Pambady

SECOND PARTY

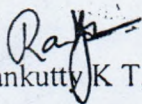


Abdul Basheer
Propreiter, Basheer & Co
Pattambi

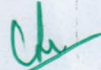
WITNESS



1. Sudheer Marar, Sreevalsam Marath, Chelakkara, Thrissur(dist)



2. Ramankutty K T, Kalathparambil house, Killimangalam, Thrissur(dist)



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Pin 686 597 Kerala

22/10/19
✓

Scrap
Batteries - sale
at Thiruvamala

22/10/19

MC Receipt
109/5 - 7665



Sp
23/10/19

Batteries sold for Scrap
on 22/10/19 of Physics Lab = 2 kg
Library — 1 kg

23/10/19

Total wt = 109.5 kg

Rate = 70/- kg $109.5 \times 70 = 7665$

Balance 7565/2
Rate — 100
Rs 7565/2



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Engineering and Research Centre
Panipady Thiruvilwamala, Thiruvananthapuram Dt
Pin 680 597 Kerala

Scrap

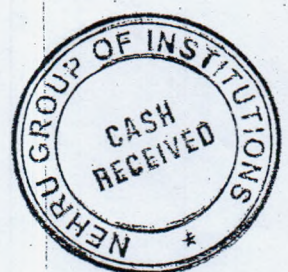
28/9/19

Buttery - Big - 30 Nos x 2000/rs	=	60,000 -
Small - 10 Nos x 1300/rs	=	13,000 -
Alu - 4 Nos x 2000/rs	=	8,000 -
UPS - 7 Nos x 1500/rs	=	10,500 10,500 -
Eng m ^r - 650 kg x 22/rs	=	14,300 -
m ^r - 300 kg x 10/rs	=	3,000 -
Plastic - 157 1/2 kg x 15/rs	=	2362.50 -
Pvc - 74 1/2 kg x 20/rs	=	1490 -
Newspapers 322 kg x 13/rs	=	4186 -
Papper 4050 kg x 12/rs	=	48,600 -
Celling Fan 87 Nos x 150/rs	=	13,050 -
Note Book 582 1/2 kg x 12/rs	=	6,990 -
weekly 555 1/2 kg x 7/rs	=	3,888.50 -

189397/-

189400/-

Rakesh-7
Ratan



28/9/19

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Nehru College of
Engineering and Research Centre
Pampady Thiruvilwamala, Thrissur Dt
Pin - 686 597 Kerala