

Supporting Documents for Qualitative Metric 7.1.3



Submitted to NAAC

By

Gandhi Institute For Technology (GIFT),

Bhubaneswar

CONTENT

7.1.3 Facilities in the Institution for the management of the following types of degradable and non-degradable waste

| Particulars | Page No |
|--|----------------|
| • Solid waste management | 1-3 |
| • Liquid waste management (MOU) | 4-8 |
| • E-waste management (MOU) | 9-12 |



Gandhi Institute For Technology (GIFT) Bhubaneswar

7.1.3 Describe the Facilities in the Institution for the management of the following types of degradable and non-degradable waste

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

Response:

- According to Union Minister of State for Environment, Forests and Climate Change, 62 million tons of waste is generated annually in the country at present, out of which 5.6 million tons is plastic wastes, 0.17 million tons is biomedical waste, hazardous waste generation is 7.90 million tons per annum and 15 lakh tons is E-waste.
- It was found that only about 75-80 per cent of the municipal waste gets collected and only 22-28 per cent of this waste is processed and treated. The new rules have mandated the source segregation of waste in order to channelize the waste to wealth by recovery, reuse and recycle.
- Waste generators would now have to segregate waste into three streams - Biodegradables, Dry (Plastic, Paper, metal, Wood, etc.) and Hazardous waste (diapers, napkins, mosquito repellants, cleaning agents etc.).

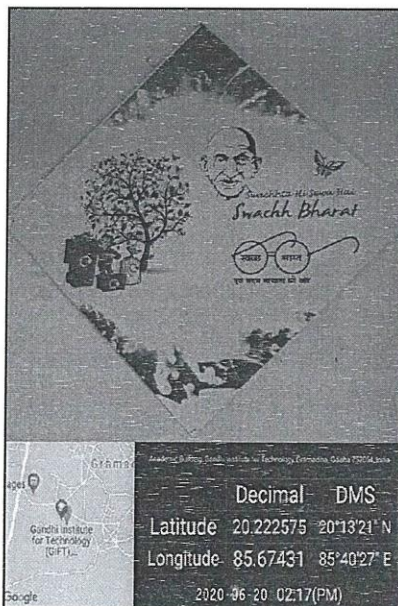
Abhishek
PRINCIPAL
Gandhi Institute for Technology (GIFT)
Bhubaneswar

- Institutional generators have been directly made responsible for segregation and sorting the waste and manage in partnership with local bodies. In case of an event, or gathering of more than 100 persons, the organizer will have to ensure segregation of waste at source and handing over of segregated waste to waste collector or agency, as specified by the local authority.

The following Waste Management practices are adopted in our institute campus, we have tried to reduce the waste and transfer it in some form of wealth.

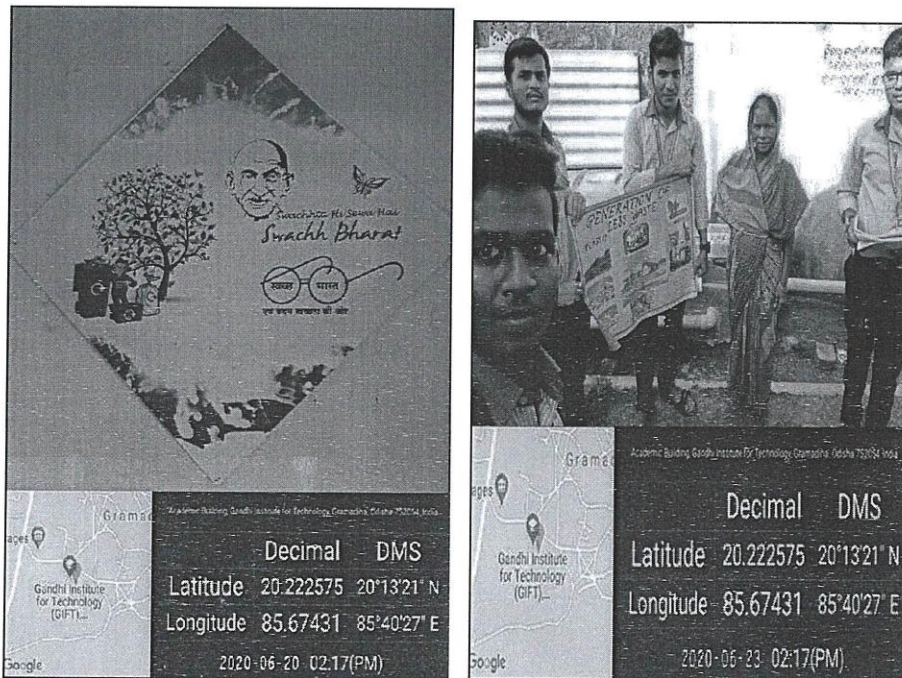
Solid waste management

- Dust bins are arranged at various locations to litter. Sign boards arranged with slogans 'Do not litter'. Adequate sweepers and scavengers appointed to maintain clean campus.
- At every week-end, students and staff members are encouraged to participate in 'SWACHA BHARATH ABHIYAN' program to keep the campus and nearby villages neat and clean.



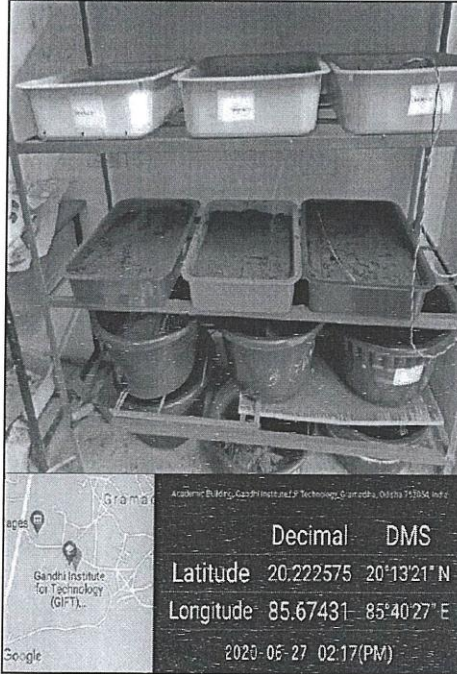
Chandra
PRINCIPAL
Gandhi Institute for Technology (GIFT)
Bhubaneswar

- Biogas plant and Vermiculture units are established in the institute to dispose the canteen wastes into some valuable outcomes.

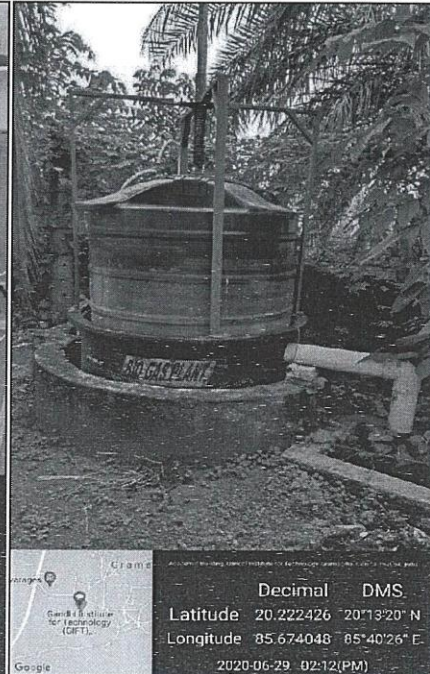


SWACH BHARAT ABHIYAN CAMPAIGN


PRINCIPAL
Gandhi Institute for Technology (GIFT)
Bhubaneswar



VERMICULTURE UNITS

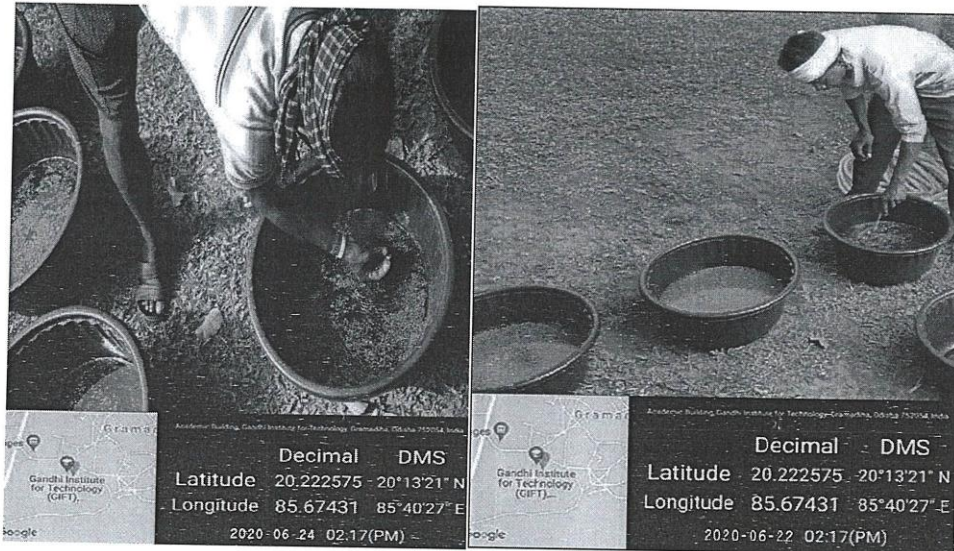


BIOGAS PLANT

- **Liquid waste management**

Most of the waste water is used to irrigate/cultivate greenery and certain portion is send to Sedimentation tanks. The waste waters are used for gardening and Algae culture.

[Handwritten Signature]
PRINCIPAL
 Gandhi Institute for Technology (GIFT)
 Bhubaneswar



WASTE WATER USED FOR ALGAL CULTURE AND GARDENING

Handwritten signature
PRINCIPAL
Gandhi Institute for Technology (GIFT)
Bhubaneswar

Memorandum of Understanding

EFFECTIVE DATE: This MOU is executed on (15.07.2019) between

PARTY 1: [Primary applicant: Academia's particulars] Gandhi Institute For Technology (GIFT)

PARTY 2: [Collaborator: Industry particulars] RB INFRACON PRIVATE LIMITED

Whereas, the institute has developed proof of concept with regard to "Production of colour pigments and fish feed from algal biomass developed from waste water".

Whereas institute has identified RB Infracon Private Limited to carry out part of its study that will involve providing necessary services required for the construction of project utilities like ponds and other civil structures for storing and developing algal biomass from waste water.

Whereas RB Infracon Private Limited has agreed to perform such required services such as construction of project utilities like ponds and other civil structures for storing and developing algal biomass from waste water as per the schedule and terms agreed mutually. Now thereof the parties for valid consideration enter into this MOU:

1. OBJECTIVE: The present study

- a. Fresh water and marine algal biomass production
- b. Use of waste water for above purpose
- c. Utilization of biomass for the development of pigments and fish feed

2. SCOPE OF WORK: The scope of work shall include:

- a) Algal biomass production from waste water
- b) Utilization of biomass for the development of pigments and fish feed

3. ROLES & RESPONSIBILITIES:

A. GIFT:

- Literature Survey
- Purchase of raw material and consumables
- Building the pond for algal culture
- Preparation of pigments and fish feed from algal mass
- Submission of Project Report

B. RB Infracon Private Limited :

- construction of project utilities like ponds
- Any other civil structures for storing and developing algal biomass from waste water

Disclaimer: This sample MoU is for example only. It should not merely be duplicated without consideration of the project for CRS. The parties should include additional terms and conditions based on project specifics and additional aspects that require mutual governance.

4. **CONFIDENTIALITY:** All information under the MOU shared between the parties shall be treated as confidential information and shall be subject to restrictions on disclosure other than for the purpose of this MOU. The confidentiality obligations shall survive even after the termination or expiration of this MOU. Confidential information shall not include:
- information that is available in public domain;
 - information already known to the receiving party;
 - information disclosed to the receiving party by a third party not under obligation of confidentiality;
 - Information developed by the receiving party independent of the confidential information received under this MOU.

5. **PUBLICATION:**

XXXXX

6. **INTELLECTUAL PROPERTY RIGHTS :**

- "Intellectual Property" means the legal rights relating to inventions, patent applications, patents, copyrights, trademarks, mask works, trade secrets, and any other legally protectable information, including computer software, first made or generated by such investors.
- The "Intellectual Property Rights (IPR)" generated during the project will exclusively lie with the academia, RB Infracon Private Limited.
- Patent Prosecution and Expenses. The filing, prosecution, defense and maintenance of all Patents for the Inventions will be conducted and controlled individually in the name of GIFT & RB Infracon Private Limited (institute), acting reasonably and in good faith.
- Background Intellectual Property: Any of the party possess rights in background intellectual property, that is, intellectual property not otherwise subjected to this MOU , which would be useful or essential to the practice or commercialization of the results of this MOU, should be disclosed. Except to the limited extent required to perform a party's obligations under this MOU, neither party receives any right, title, or interest in or to any Research Materials provided to it by the other party or any technology, works or inventions of the other party that are not Research Program Inventions, or any patent, copyright, trade secret or other proprietary rights in any of the foregoing.
- Maintaining the Laboratory Notes: Each party agrees that research efforts will be well documented in the form a laboratory notes with accurate data disclosed for each experiments performed therein, during the course of this MOU.
- In the event of commercialization of the technology by Gandhi Institute For Technology , RB Infracon Private Limited will have the first right of refusal

Disclaimer: This sample MoU is for example only. It should not merely be duplicated without consideration of the project for CRS. The parties should include additional terms and conditions based on project specifics and additional aspects that require mutual governance.

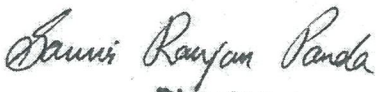


Principal
Gandhi Institute for Technology

7. **TERM AND TERMINATION:** This MOU shall be valid for a period of **Three** years from the Effective Date and can be terminated by a notice of six months by either party. The termination of this MOU shall not affect any IP rights accrued and related obligations arising under this MOU. As per the need the MOU will be revised for further duration with same terms and conditions or mutually agreeable modifications.
8. **INDEMNIFICATION:** Neither party shall be held responsible for the indemnification of their respective obligations under this MOU due to the exigency of one or more of the force majeure events such as but not limited to acts of God, War, Flood, Earthquakes, Strikes, Lockouts beyond the control of the party claiming force majeure, Epidemics, Riots, Civil Commotions etc. provided on the occurrence and cessation of any such event the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action.
9. **DISPUTE RESOLUTION, GOVERNING LAW AND JURISDICTION:**
Any disputes between the parties shall be resolved by mutual discussions. Minor dispute during execution of the project shall be subjected to resolution out of this MOU. The MoU shall be considered, interpreted and governed by the laws of India and Courts at Bhubaneswar shall have exclusive jurisdiction in all such matters.

Dr. S. Krishna Mohan Rao
Principal
Gandhi Institute For Technology
Party 1 : **Applicant, Academia**

Mr. Samir Ranjan Panda
Director
RB INFRACON PRIVATE LIMITED
Party 2: **Collaborator, Industry**


Director
RB INFRACON PVT. LTD.

Disclaimer: This sample MoU is for example only. It should not merely be duplicated without consideration of the project for CRS. The parties should include additional terms and conditions based on project specifics and additional aspects that require mutual governance.


Principal
Gandhi Institute for Technology

- **E-waste management**

The electronic waste is sent to scrap yards for the purpose of recirculation. A MoU has been made with **Shree Ganesh Recycling (SGR) Pvt. Ltd.** a certified recycler and social enterprise with focus on working in the space of sustainability and circular economy. SGR is recognized as a start up under Start up India and Start up Odisha.

PROVISIONAL CERTIFICATE OF E-WASTE RECYCLING

This certificate is proudly presented to
Gandhi Institute For Technology, Bhubaneswar
for the ethical collection and
channelization for recycling of
E-waste.

This document certifies that all materials/equipment will be
chanalized for recycling under standards set down in the
E-waste (Management) Rules, 2016 and amendments
thereafter.

HULLADEK RECYCLING PRIVATE LIMITED

Director

Chief Executive Officer
Certificate No.: **HUL/19-20/BBSR/19**
Date: **10/02/2020**

CPCB REGISTRATION NO.: B-29016(12)/(PRO)/18/WM-III Division



MOU Signed with SGR for disposal of E-waste

 **PRINCIPAL**
Gandhi Institute for Technology (GIFT)
Bhubaneswar



MOU For Waste Management & Sustainability Initiatives

This MOU for collaboration on waste Management and sustainability Initiatives is entered into on 26-07-2019 by and amongst,

SHREE GANESH RECYCLING PVT. LIMITED having its Registered office at 131, Punjabi Colony, Satyanagar, Bhubaneswar-751007, (herein after referred as "SGR" which expression shall unless contrary to the context or meaning thereof, mean and include its successors and permitted assigns) represented by Shri Narasingha Panigrahi, Director, SGR.

AND

Gandhi Institute For Technology having its corporate office at At: N2/45, IRC Village , P.O.: Nayapalli, City:Bhubaneswar, Odisha - 751015, India and Campus at Gramadiha, P.O.: Gangapada, City:Bhubaneswar, District:Khurda Odisha - 752054, India (herein after referred to as "GIFT", which expression shall unless repugnant to the context or meaning thereof, mean and include its successors and permitted assigns) represented by Shri. Prof. (Dr.) S Krishna Mohan Rao, Principal, duly authorized vide Management of the institute.

WHEREAS;

- SGR is operating a service in service of decentralized waste management including promoting the practices of Source Segregation, Recycling and Composting. It also supports the channelization of recyclable waste, through appropriate recyclers, in compliance with the various waste management rules.
- SGR ^{was} the implementation partner for the UNDP- Hindustan Coca Cola Beverages Private Limited, Plastic Waste Management partnership in collaboration with Bhubaneswar Municipal Corporation and the support of Odisha State Pollution Control Board. The initiative aims to set in place a system for effective collection and channelization of Plastic Waste in the city of Bhubaneswar.
- SGR has also partnered with Producer Responsibility Organizations, registered under Central Pollution Control Board, for collection and channelization of E-Waste.
- GIFT & SGR have agreed to partner for waste management and sustainability initiatives including Paper waste, E-Waste, Plastic waste and Organic waste

NOW THIS AGREEMENT witnesses as follows;

DEFINITIONS AND INTERPRETATION

1. Paper Waste – Includes all kind of paper waste including exam copies, practical records, news paper, cartons and other kind of paper waste.


Principal
Gandhi Institute for Technology



2. Plastic Waste – Includes all kind of plastic waste including PET, HDPE, LDPE, PP, HIPS, ABS, PC and others.
3. Organic Waste – Includes food waste and kitchen waste
4. E-Waste – Will refer to the following kinds:
 - a. Waste Electrical and Electronics items covered in the Schedule 1 of the E-Waste management rules 2016 notified by the Ministry of Environment forest and climate change, Government of india.

SCOPE OF THE AGREEMENT

Responsibility of SGR

- To help in establishing the processes and systems for collection and channelization of Paper, Plastic and E-Waste.
- To support with awareness programs on Waste Management and sustainability.
- To support with institutionalizing processes for conversion of organic waste into compost/bio gas as applicable

Responsibility of GIFT:

- To Form a Waste Management and sustainability committee.
- To Organize in house awareness activities related to waste management and sustainability.
- To identify and segregate all kinds of Paper, Plastic and E-Waste generated in GIFT Campus.
- To coordinate with SGR for channelizing waste for recycling.

PAYMENTS

1. SGR shall pay or supply hand made paper / paper made products for waste as per the mutually agreed quotation which would be negotiated for every transaction.
2. The payment shall be made within 7days of the collection of recyclable waste in the form of an electronic transfer / cheque.

TERM AND TERMINATION

1. This understanding shall be in force for a period of 5 years from the date of signing of this Agreement. upon completion of the term, the Agreement may be renewed at the option of both the Parties in writing on mutually agreed terms and conditions.

IN WITNESS WHEREOF,

This MOU has been signed by the duly authorized representatives of each Party hereto.

Principal
Gandhi Institute for Technology
Bhubaneswar



For

SHREE GANESH RECYCLING PVT. LIMITED

For **SHREE GANESH RECYCLING PVT. LTD.**

Narasingha Panigrahi

Name: Narasingha Panigrahi (**Director**)

Designation: Director

Date: 6/8/19.

Gandhi Institute For Technology

S Krishna Mohan Rao
6/8/19

Name: S Krishna Mohan Rao

Designation: Principal

Date: 6/8/19

Principal
Gandhi Institute for Technology
Bhubaneswar

Asvika

Principal
Gandhi Institute for Technology
Bhubaneswar