Soundarya Education Trust(R)
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
Soundaryanagar, Sidedahalli, Hessaraghatta Main Road, Bangalore- 73
Internal Quality Assurance Cell(IQAC)

Name of the MoU / linkage	Name of the institution / industry with whom the MoU / linkage is made, with contact details	MoU start date	MoU End date
Foundation for research and sustaibility	FERNESS	09-09-2024	Till 2025

Sl. No	Date	Event Name	Beneficiaries	Event Coordinator
1	09/09/2024	Energy Audit	Institution	Dr.Shreemati Giri
2	13-07-2024	Recycling workshop	Students	Dr.Shreemati Giri

SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE

IQAC Initiative

Report on Recycling workshop

About

Title of the talk	Recycling workshop
Resource Person(s)	FERNESS
Date	13-07-2024
Student Attended	B Sc Students
Faculty coordinator(s)	Dr.Shreemati Giri

Objective(s) & Outcome(s)

Objective(s)

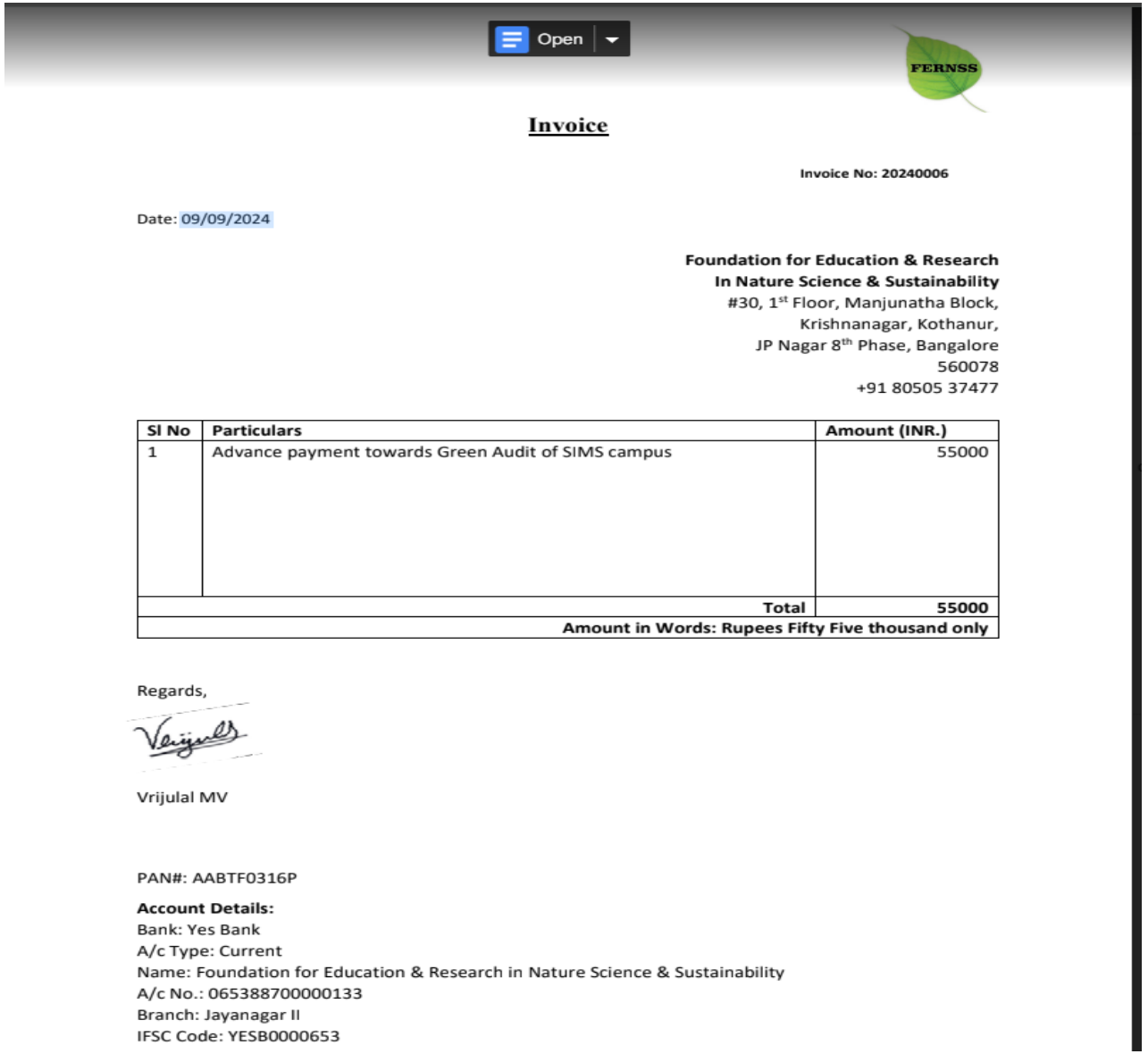
1	Raise Awareness: Educate students about the importance of waste recycling and its environmental impact
2	Identify Types of Waste: Teach participants to recognize different types of waste generated on campus (e.g., paper, plastics, e-waste).
3	Hands-On Learning: Provide practical demonstrations on sorting and recycling various waste materials.

Outcome(s)	**1**	Informed Participants: Attendees will understand the significance of recycling and its effects on the environment.
	2	Waste Management Skills: Students will learn how to properly sort and dispose of different types of waste.
	3	Sustainable Mind-set: Participants will adopt more sustainable practices in their daily lives and encourage peers to do the same.

Principal
PRINCIPAL
Soundarya Institute of Management & Scienc
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73.

Photos (Geo tag)

Energy Audit Receipt



Open

FERNSS

Invoice

Invoice No: 20240006

Date: 09/09/2024

Foundation for Education & Research
In Nature Science & Sustainability
#30, 1st Floor, Manjunatha Block,
Krishnanagar, Kothanur,
JP Nagar 8th Phase, Bangalore
560078
+91 80505 37477

Sl No	Particulars	Amount (INR.)
1	Advance payment towards Green Audit of SIMS campus	55000
	Total	**55000**
	Amount in Words: Rupees Fifty Five thousand only	

Regards,

Vrijulal MV

PAN#: AABTF0316P

Account Details:
Bank: Yes Bank
A/c Type: Current
Name: Foundation for Education & Research in Nature Science & Sustainability
A/c No.: 065388700000133
Branch: Jayanagar II
IFSC Code: YESB0000653

WASTE AUDIT REPORT (2024)

For

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Soundaryanagar, Sidedahalli, Nagasandra Post, Bangalore-560073

Prepared By

Foundation for Education & Research in Nature Science & Sustainability

#30, Manjunatha Block, Krishnanagar, Kothanur, JP Nagar 8th Phase, Bengaluru - 560078

Soundarya Institute for management & Science

Soundaryanagar, Sidedahalli, Nagasandra Post, Bangalore-560073

Waste Audit Committee at SIMS

Dr. Vasu BA
Principal

Dr. Shreemathi Giri
Convenor

Committee Members
Mr. Arjun Swamy
Mrs. Deepika
Mrs. Anuradha

Waste Audit Team from FERNSS

Mr. Vrijulal MV
Chairman

Miss. Bhuvana C
Consultant/Member

1. Introduction

Waste management is a critical component of sustainability, and conducting a waste audit is an essential step in understanding the current waste generation, disposal patterns, and identifying opportunities for improvement.

The purpose of the waste audit is to assess the type, quantity, and sources of waste generated across the campus. By analyzing the data collected through the audit, the institution can develop targeted strategies to reduce waste, improve recycling and composting efforts, and promote sustainable practices within the campus community. Additionally, the audit will help in creating awareness about the environmental impact of improper waste management and contribute towards the development of a comprehensive campus-wide waste reduction plan.

The findings from the audit will also support the institute's commitment to environmental responsibility and align with the global sustainability goals, particularly in reducing waste sent to landfills, lowering the institute's carbon footprint, and encouraging the adoption of the 3Rs: Reduce, Reuse, and Recycle.

1.1 Institutional Background

SIMS campus consists of two buildings, one dedicated to Undergraduate programs and the other to Postgraduate programs. This assessment encompasses both buildings, which collectively consist of eleven floors. Each floor includes washrooms, laboratories, classrooms, and staff rooms. Additionally, the campus features a small canteen. A total of 1374 students from UG and PG courses, 69 teaching staff and 56 non-teaching staff exist in the college.

The source of waste generation is from 97 locations including all labs, classrooms, washrooms, staffrooms and canteen.

SN	Waste source	Data
1	Number of buildings	2
2	Number of floors	7
3	Number of labs	10
4	Number of classrooms	41
5	Number of washrooms	25
6	Number of staffrooms	10
7	Number of canteen	1
8	Number of xerox	1
9	Number of office/ admin	8
10	Medical emergency room	1

Table 1: Source of waste generation

2. Method:

The waste audit of the institute was conducted through an on-site campus visit. During this visit, a comprehensive inspection was performed across various waste generation points, including classrooms, laboratories, the canteen, and washrooms. This assessment focused on the types of waste produced, how it is segregated, collected, and managed. Additionally, the audit reviewed current waste disposal methods, recycling initiatives, and overall waste management practices. The inspection also provided valuable insights to identify potential areas for improvement in the institute's waste management system. A Waste Management Committee is formed to monitor the current practices.

3. Assessment:

3.1 General Waste Types in Academic Institutions

The types of waste generated at academic institutions is given in the table below,

SL No.	Waste type	Materials
1	Wet waste	Leftover food waste, fruits and vegetable scrap, garden waste, leaf
2	Dry waste	Paper, cardboard, plastic, glass, bottles, paper cup, tissue etc
3	Biomedical waste	Infected cotton, syringe, band aid, sanitary pad
4	Hazardous waste	Broken glass piece, blades, pins, paint and other chemicals
5	E waste	Batteries, chargers, computer, printer, CPU etc
6	Bulky waste	Broken chair, table, desk etc
7	Inert waste	Dust and hair from sweeping

Table 2: Waste generated at academic institutions

3.2 Current Management Practices

3.2.1 Paper / Cardboard

The college currently follows the practice of segregating paper and cardboard waste in line with recommended guidelines. A total of 515 kgs of paper and cardboard waste was collected from various areas on campus, including laboratories, classrooms, staff rooms, offices, and photocopy centers. This waste was handed over to **ITC's "Wellbeing Out of Waste" (WOW)** initiative, ensuring that it is properly recycled. This practice reflects the institution’s commitment to responsible waste management and adherence to established norms for paper waste segregation and recycling.

3.2.2 Other Dry Waste

The college generates approximately 3 to 5 kgs of miscellaneous dry waste daily, including plastic items, wrappers, tissues, and other non-recyclable materials. Currently, these wastes are collected in general dustbins and handed over to BBMP vehicles for disposal. However, this process could be improved by segregating the waste more efficiently. Ideally, these items should be collected separately in color-coded bins to facilitate proper waste management and should be handed over to authorized waste collectors or recyclers for appropriate treatment and disposal.

3.2.3 E-Waste

The college accumulated a total of 172.85 kgs of e-waste, generated from various sources such as laboratories, staff rooms, and office rooms. This e-waste was responsibly handed over to **E-Hasiru**, an authorized recycler, for proper recycling and disposal in January 2024, in compliance with established e-waste management norms. This practice demonstrates the college's adherence to regulatory standards and its commitment to sustainable waste management practices.

3.2.4 Wet Waste

The wet waste generated on campus, primarily from the canteen, staff rooms, and occasional events, is currently collected in general dustbins and handed over to BBMP vehicles for disposal. However, this waste, which includes food scraps and organic material, is not segregated and quantified on the campus. Ideally, this type of waste could be composted on-site, which would contribute to a more sustainable waste management system and reduce the burden on municipal waste collection. Implementing composting practices within the campus would be a valuable step towards achieving better waste segregation and resource recovery.

3.2.5 Hazardous Waste

The college also generates hazardous waste, including broken glass, blades, pins, paint, and other chemicals, primarily from laboratories and ongoing construction activities. Currently, these hazardous materials are collected along with other dry and wet wastes and handed over to BBMP vehicles for disposal. However, this practice does not adhere to proper hazardous waste management protocols. Ideally, these materials should be segregated and collected in color-coded bins designed specifically for hazardous waste and handed over to authorized collectors for safe and compliant disposal. Implementing this practice would ensure safer handling of hazardous materials and improve the overall waste management process.

3.2.6 Biomedical Waste

The college generates biomedical waste from washrooms and the medical emergency room, which is currently collected in general bins and handed over to BBMP vehicles for disposal. This approach does not align with best practices for handling biomedical waste. Ideally, this type of waste should be collected and stored separately in color-coded bins specifically designated for biomedical waste, and then transferred to authorized biomedical waste (BMW) collectors for proper disposal. Adopting these measures would ensure that biomedical waste is managed in accordance with regulatory standards, thereby enhancing safety and environmental protection.

3.3 Quantification of Waste

Quantifying waste is a vital aspect of a waste audit, as it provides detailed data on the types and volumes of waste generated. This information is crucial for identifying primary waste streams, assessing the effectiveness of current waste management practices, and locating opportunities for waste reduction or recycling. By measuring waste quantities, organizations can establish clear targets, monitor progress over time, and devise more effective strategies to mitigate environmental impact. Accurate waste quantification also enables cost analysis, highlighting potential savings and optimizing resource utilization. Currently, only paper waste and e-waste are quantified separately. Moving forward, all waste types are to be segregated and measured to provide a comprehensive overview of the waste management process. A Waste Management Committee has been established to oversee waste segregation, quantification, and the development of an ongoing monitoring system.

3.4 Waste Handling

Effective waste management is crucial for safeguarding environmental safety and public health. It involves a systematic approach to managing waste from its generation to its final disposal, with a focus on minimizing risks associated with hazardous materials. This process encompasses proper segregation, labeling, and storage of waste, ensuring that hazardous and non-hazardous wastes are distinctly categorized and handled in compliance with relevant regulations.

Sl No.	Process Management	Current practices
1	Placement of bins	Bins are not placed strategically
2	Littering	No littering was observed
3	Quantification of waste	Being done for few categories
4	Color coded bins	Color coded bins are not used

5	Storage of waste	Waste is stored at a point outside the building for pickup by BBMP
6	Extent of segregation	Waste is not being segregated except – paper/ cardboard and e waste
7	Separate storage of hazardous waste	Hazardous waste is currently not stored separately
8	Bin liners being used	Black bin liners are being used for all bins

Table 3: Waste management process assessment

4. Recommendations

The institute has made progress in managing paper, cardboard, and e-waste; however, other waste streams have not yet been systematically addressed. To enhance overall waste management, the campus should adopt a structured approach with both short-term and long-term goals. Short-term objectives could include implementing clear sorting and disposal protocols for various waste types and improving staff training on proper waste handling practices. Long-term goals may involve developing comprehensive waste reduction strategies, such as source reduction and expanding recycling programs.

4.1 Placement of Bins

To enhance waste management on campus, it is recommended that sufficient dustbins be color-coded and labeled, and strategically placed throughout the campus to ensure easy access and visibility. The recommended color scheme is blue for dry waste, green for wet waste, red for hazardous waste, and black for e-waste. Regular awareness sessions should be conducted for both students and staff to ensure everyone is informed about the color codes and bin locations. Additionally, designated personnel should handle the bins and quantify the waste before its disposal. It is advised to avoid using black liners in the bins, as they are non-recyclable and may end up in landfills. Implementing these measures will improve waste segregation and support more effective waste management practices.

4.2 Quantification of Waste

It is advised to implement regular monitoring of waste segregation and to quantify each type of waste systematically. This approach will provide valuable insights into waste generation trends, helping to identify opportunities for waste reduction and resource recovery. By understanding these trends, the institute can explore potential cost reductions and discover opportunities for generating additional revenue through resource recovery. Regular monitoring and quantification

will support more informed decision-making and contribute to more effective waste management strategies.

5. Annexures

5.1 Annexure 1: Certificate issued by Waste Recyclers

Form - 6
(See rule19)

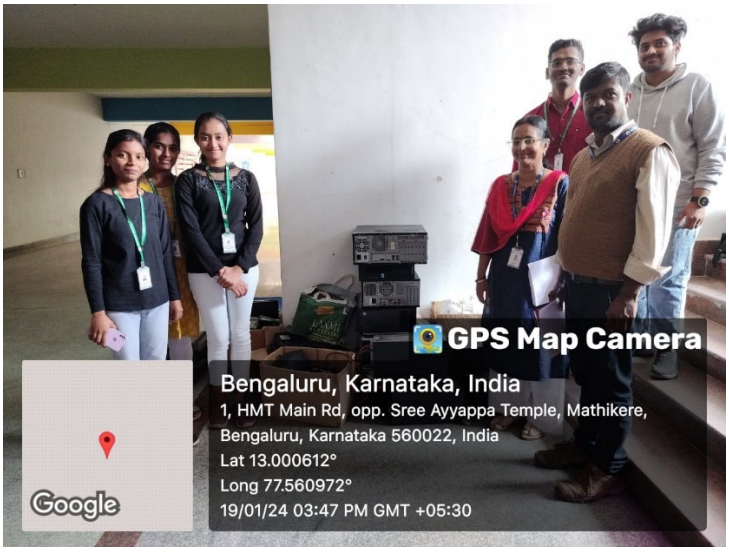
E - WASTE MANIFEST

1.	Sender's Name & Mailing Address (including phone No.)	Soundarya Institute of Management and Science. Soundarya Nagar, Sidedahalli, Bangalore 9845687875
2.	Sender's authorisation No. if applicable	
3.	Manifest Document No.	PCB/195/E-Waste/2015/2022-23/7122 dt. 21/1
4.	Transporter's Name & Address (including Phone No.)	e hasiru # 168/B, 1st Floor, 7th Main Road, 3rd Phase, Peenya Industrial Area, Bengaluru-560 058. Ph: 080 32525250. E-mail: info@ehasiru.com
5.	Type of Vehicle (Truce or Tanker or Special Vehicle)	Tata ACE (Truck or Tanker or Special Vehicle)
6.	Transporter's Registration No:	
7.	Vehicle Registration No:	KA01 AC 2422
8.	Receiver's Name & Address:	E-Hasiru.
9.	Receiver's authorisation No. If applicable.:	PCB/195/E-Waste/2015/2022-23/7122.
10.	Description of E- WASTE (Item, Weight/ Numbers):	172.85 Kgs
11.	Name and Stamp of Sender* (Manufacture or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler Name and Stamp: Signature: Month 01 Day 19 Year 2024	
12.	Transporter Acknowledgment of receipt of E-Wastes Name and Stamp: Signature: Month 01 Day 19 Year 2024	
13.	Receiver* (Collection Centre or Refurbisher or Dismantle or Recycler) certification of receip of E -Waste Name and Stamp: Signature: Month 01 Day 19 Year 2024	

*As applicable

5.2 Annexure 2: Photos

1. E-waste pickup



2. Bin placement without color coding – Bins placement randomly in corridors & passage without labels




About FERNSS:

The **Foundation for Education & Research in Nature Science & Sustainability (FERNSS)** is a registered trust headquartered in Bengaluru, with operations extending across Karnataka. FERNSS focuses on biodiversity, environmental management, sustainable living, and Education for Sustainable Development. The foundation undertakes research projects that generate data to support effective decision-making and natural resource management. Additionally, FERNSS conducts environmental audits for schools, colleges, and residential complexes to promote sustainability. The foundation offers a range of educational programs on wildlife, sustainable living practices (including water, energy, waste, and carbon footprint), and manages CSR projects aimed at enhancing environmental awareness, improving environmental conditions, and fostering better living standards

Invoice

Invoice No: 20240006

Date: 09/09/2024

Foundation for Education & Research
In Nature Science & Sustainability
#30, 1st Floor, Manjunatha Block,
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JP Nagar 8th Phase, Bangalore
560078
+91 80505 37477

Sl No	Particulars	Amount (INR.)
1	Advance payment towards Green Audit of SIMS campus	55000
	Total	**55000**
	Amount in Words: Rupees Fifty Five thousand only	

Regards,

Vrijulal MV

PAN#: AABTF0316P

Account Details:
Bank: Yes Bank
A/c Type: Current
Name: Foundation for Education & Research in Nature Science & Sustainability
A/c No.: 065388700000133
Branch: Jayanagar II
IFSC Code: YESB0000653