



SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

(An Autonomous Institution)
Kalavakkam – 603 110

SELF STUDY REPORT

7.1.3 Degradable and Non-degradable Waste management

Submitted to

The National Assessment and Accreditation Council

February 2024

Declaration

This is to certify that the documents available related to this metric is more than 5MB. Hence, sample documents are given in the upcoming pages. Further, other supporting documents are provided in the weblink. All links/Pictures/Documents/ others are verified and authenticated.

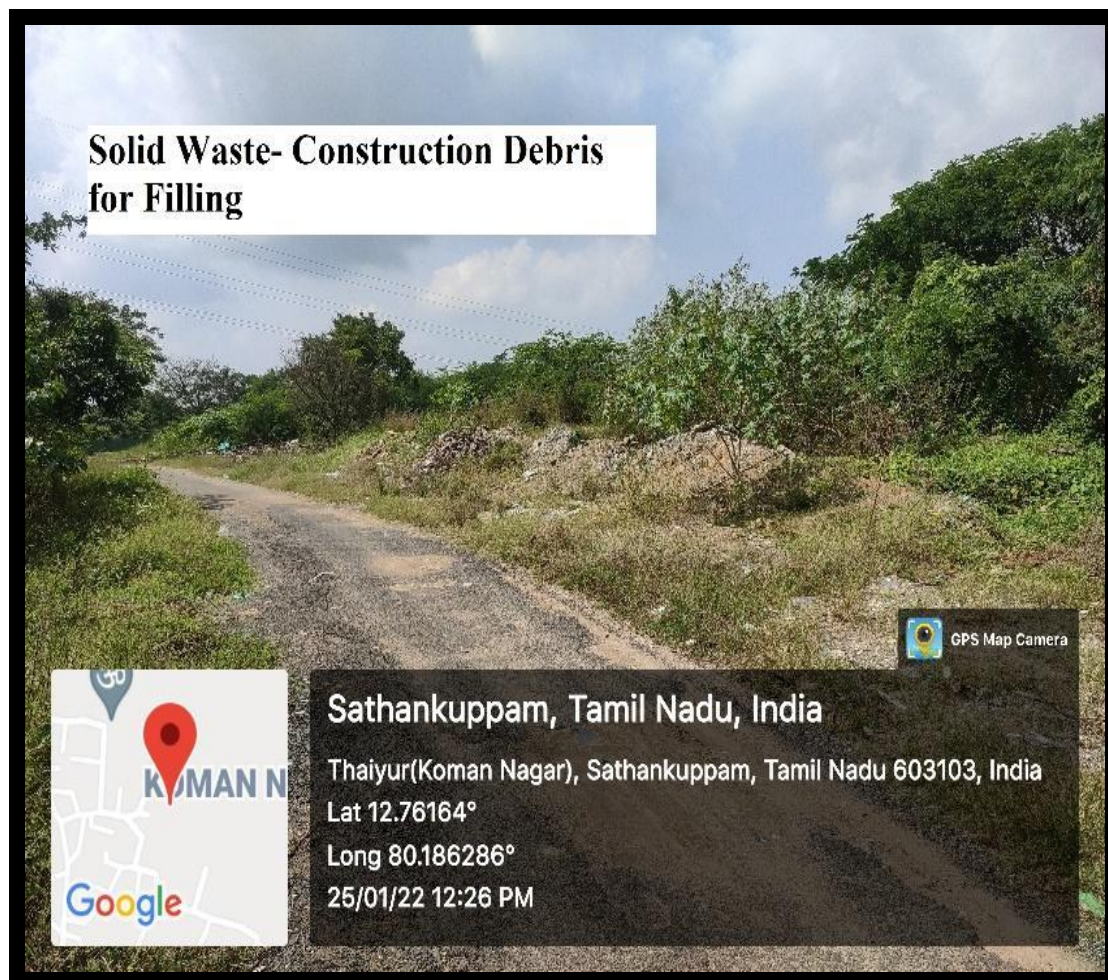
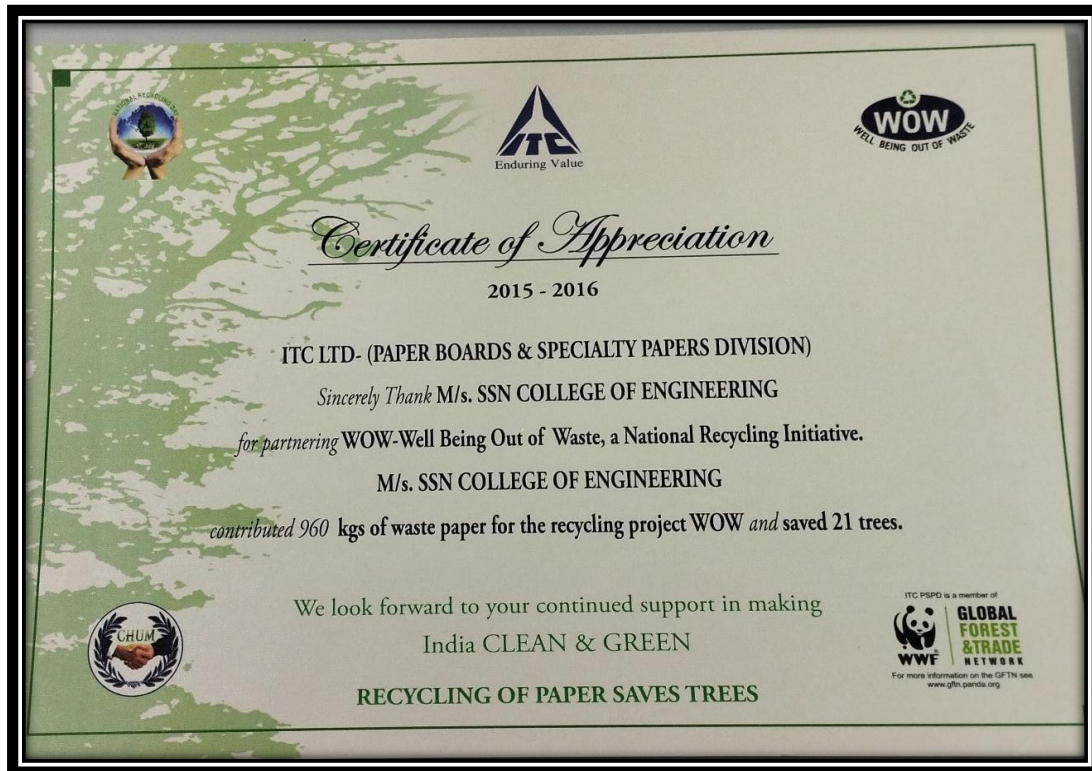
1. SOLID WASTE MANAGEMENT

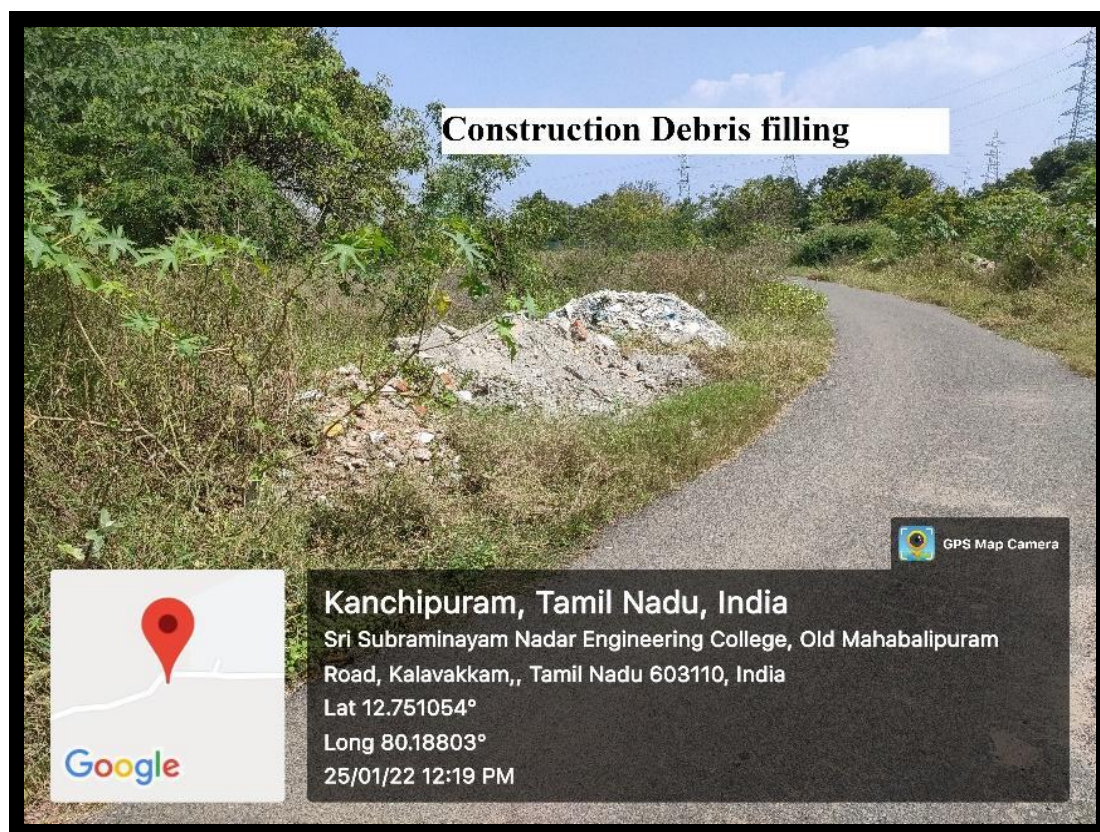
Solid waste is segregated as biodegradable and non-degradable and handed over to Thirupporur Town Panchayat as a part of Swachh Bharat initiative and Clean and Green Campus. All bio-degradable waste (food waste) fed to the Bio compost machine and reused for Gardening purpose. The use of plastic carry bags, cups and laminated paper plates are prohibited on the campus. Students and staff are advised to bring cloth bags. Workshops and awareness programmes were organized in the campus.

Solid waste management- Construction & Renovation related debris are collected and filled in sunken area like water stagnation. – approximately 146 metric tonnes of waste generated per year and 58 metric tonnes of waste per year was reused (i.e. around 40% of waste is reused.)









2. LIQUID WASTE MANAGEMENT

Students are made aware that conserving water is equivalent to conserving their future. Drinking water from the tap, and refilling bottles as often as the students need is one of the best practices followed at college. Sustainable liquid waste treatment is adopted in campus through bioremediation using microorganism metabolism which helps to minimize the chemical and biological load of domestic sewage and is good for gardening purposes. Disposal of used oils through authorized vendors.

3. BIOMEDICAL WASTE MANAGEMENT

In the college biomedical waste is produced in the labs where animals are used for research purposes. In general, the quantity of biomedical waste will be 5% to 10% of total waste generated from the campus. Though the amount of waste is a very negligible amount, the carcass of the animals is stored in the -20°C for the time being. After sufficient amounts of carcass are accumulated, College hands over to Thirupporur Town Panchayat for Biomedical waste management. Workshops on Bio Medical Waste Management Rules, procedures were conducted in the College.

Used Sanitary napkins, masks & gloves are disposed through incinerator.



4. E-WASTE MANAGEMENT

E-wastes are generated from computer laboratories, electronic labs, Physics Labs, Chemistry Lab, Biotech Labs, Academic and Administrative Offices. The e-waste includes out of order equipment or obsolete items like lab instruments, circuits, desktops, laptops and accessories, printer, charging and network cables, Wi-Fi devices, cartridges, sound systems, display units, UPS, Biometric Machine, scientific instruments etc. All these wastes are put to optimal use. All such equipment which cannot be reused or recycled is being disposed-off through authorized vendors. Instead of a new procurement Buy-Back option is preferred for technology up gradation. E Waste collected is stored and disposed-off annually. Students are also made aware of E-Waste issues and its safe disposal.

Disposal of unused electronic items such as monitors, CPU through authorized vendors. The institution's electronic trash, broken and non-usable hardware, is disposed of through e-waste vendors periodically. No hazardous chemicals are utilized, except a few that are disposed of properly after adequate dilution, and no radioactive waste is generated on the college campus.

	TRITECH SYSTEMS E-Waste - Certified by Tamilnadu Pollution Control Board	
Registration No: E-Waste [TNPCB] Regn-B-199/F-40702/2014		
CERTIFICATE OF DESTRUCTION & DISMANTLING		
Certificate No.-366		
Name: SSN COLLEGE OF ENGINEERING, Address: RAJIV GANDHI SALAI (OMR), KALAVAKKAM, CHENGALPET- 603110.		
Material: E-Waste (Scrapped – CPUS (203 Nos.) - 610Kgs., MONITORS (309 Nos.) - 800Kgs., OTHERS (431 Nos.) - 2070Kgs., And Its Accessories)		
Quantity: 3480Kgs. (TOTAL NO OF QUANTITY – 943 NOS).		
This is to certify that the defective material collected from your premises on the date 07-11-2023 has been processed in accordance to all applicable local, State and Federal laws in an environmentally controlled way, eliminating waste to landfills.		
Reference: Form-6 No. 1697, DATE: 12-07-2023		
INVOICE No. TI -2023-24-00344, DATE: 07-11-2023		
Issue date:18-11-2023		
<small>ABDUL AZEED MOHAMMAD ABDULLA</small> <small>Digitally signed by ABDUL AZEED MOHAMMAD ABDULLA Date: 2023.11.18 14:28:56 +05'30'</small>		
A Mohammad Abdulla Proprietor Tritech Systems 9003077866, 9444036557, 6383311445		
		
<small>55/AP 941, 96th Street, 11th Sector, K.K.Nagar, Chennai - 78. Mobile : 94440 36557, 94444 05910, e-mail : tri_abdulla@yahoo.com, abdulla@ewastetritech.com, ramesh@ewastetritech.com visit : www.ewastetritech.com</small>		



TRITECH SYSTEMS
E-Waste - Certified by Tamilnadu Pollution Control Board



Registration No: E-waste[TNPCB] Regn-B-199/F-40702/2014

**CERTIFICATE OF
DESTRUCTION & DISMANTLING**

Certificate No-258

**Name: SSN TRUST,
Address: Rajiv Gandhi Salai (O M R),
Kalavakkam - 603110.**

**Material: E-waste (Scrap CPU - 171 Nos., Monitors - 206 Nos., and
Other Peripherals - 882 Nos.)**

Quantity: 2940 Kgs. (171 CPUS, 206 MONITORS, OTHER ITEMS - 882)

This is to certify that the defective material collected from your premises on the 05-05-2022 date, has been processed in accordance to all applicable local, State and Federal laws in an environmentally controlled way, eliminating waste to landfills.

Reference: Invoice No. SALES/01/SSNCE/2022-23

Date: 05-05-2022

Issue date: 21-06-2022

ABDUL AZEEZ
MOHAMMAD ABDULLA
Digitally signed by ABDUL AZEEZ
MOHAMMAD ABDULLA
Date: 2022.06.21 22:41:55 +05'30'



A Mohammad Abdulla

Proprietor

Tritech Systems

9003077866, 9444036557, 6383311445

55/AP 941, 66th Street, 11th Sector, K.K. Nagar, Chennai - 78, Mobile: 94440 36557, 94444 05910,
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TRITECH SYSTEMS
E-Waste - Certified by Tamilnadu Pollution Control Board



Registration No: E-waste[TNPCB] Regn-B-199/F-40702/2014

**CERTIFICATE OF
DESTRUCTION & DISMANTLING**

Certificate No-123

**Name: SSN COLLEGE OF ENGINEERING,
Address: #211/95, V M Street,
Mylapore, Chennai - 600004**

Material: E-waste (Scrap CPU, Monitors, Dot-matrix & Laser Printers and other peripherals)

Quantity: 1898 Kgs. (160 CPUS, 111 MONITORS, OTHER ITEMS - 137)

This is to certify that the defective material collected from your premises on the 04-12-2019 date, has been processed in accordance to all applicable local, State and Federal laws in an environmentally controlled way, eliminating waste to landfills.

Reference: invoice no. SSN/SL/1920/019

Date: 03-12-2019

Issue date: 18-01-2020

For TRITECH SYSTEMS
A. Mohammad Abdulla
Proprietor

A Mohammad Abdulla

Proprietor

Tritech Systems

9003077866, 9444036557

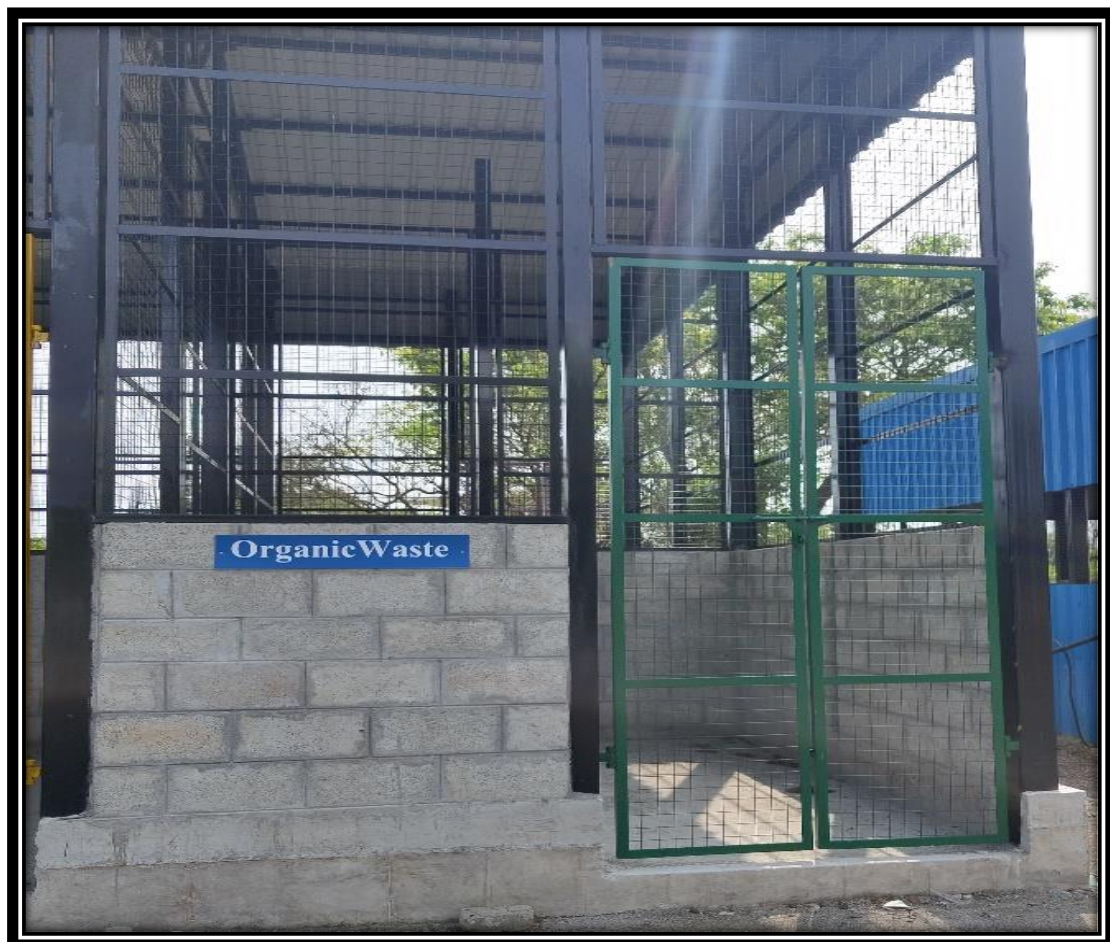
55/AP 941, 66th Street, 11th Sector, K.K. Nagar, Chennai - 78, Mobile: 94440 36557, 94444 05910, 90030 77866
E-mail: trl_abdullah@yahoo.com, abdulla@ewastetritech.com, raman@ewastetritech.com visit: www.ewastetritech.com

5. WASTE RECYCLING SYSTEM

Degradable solid waste collected from cafeteria, Boys and Girls Hostels, Guest Houses and from Residential Quarters are dumped in the Organic waste composter to make some Organic fertilizer which are used for Gardening.

Organic Waste Composter having 200kg/day compost generation and using for garden manure purpose. (Collecting food wastes, dry & wet leaves & recycling). The Organic Waste Compost Machine is installed at the backyard of our SSN campus near Cricket ground for manufacturing natural organic manure from the available wastes from the campus. The materials like vegetable wastes, paper wastes, lawn mowing wastes, dried leaves etc are collected and sent to the Compost machine periodically for preparing organic manure and the prepared manure is taken back and used at our campus for Landscaping purpose. The cycle is rotating daily, and more manure will be prepared in future and the same may be useful for various purposes.





6. HAZARDOUS CHEMICALS AND RADIOACTIVE WASTE MANAGEMENT

Campus is free from any kind of hazardous waste.

Four fundamental principles followed in the labs are -

1. Plan a head: Determine the potential hazards associated without an experiment before beginning.

2. Minimize exposure to chemicals: Do not allow laboratory chemicals to come in contact with skin. Use laboratory chemical hoods and other ventilation devices to prevent exposure to airborne substances whenever possible.

3. Do not underestimate hazards or risk: Assume that any mixture of chemicals will be more toxic than its most toxic component. Treat all new compounds and substances of unknown toxicity as toxic substances.

4. Be prepared for accident: Before beginning an experiment know what specific action to take in the event of accidentally releasing any hazardous substance. Post telephone number to call in an emergency or accident in a prominent location. Know the location of all safety equipment and the nearest fire alarm and telephone.

Be prepared to provide basic emergency treatment. Keep your co-workers informed of your activities so they can respond appropriately.

The chemicals from the Concerned departments are diluted with suitable neutralizing agent through HDPE pipeline after completing the experiments. The waste bins located around campus are coloured so that biodegradable and non-biodegradable waste can be placed in the appropriate bin. Solid waste on campus is separated into biodegradable and non-biodegradable plastics and metals, which are then sorted and sent for recycling. The college has an outsourced agreement with Day & Day in order to keep the campus clean and tidy. Restrooms are cleaned periodically in order to ensure a clean ambiance for the staff and students. In the student restroom, a sanitary napkin vending machine and a napkin disposal incinerator have been placed for the hygienic disposal of sanitary pads. On a regular basis, the corporation collects solid waste that cannot be recycled. An on-campus vermicomposting unit is part of the college's green environmental activities. Leaf litter collected

is turned into compost in the vermicomposting unit which is then utilised as an organic manure for campus plants. The vermicompost unit receives waste from the canteen and mess. The wastewater generated on campus is disposed of in the underground sewage system that uses drainage channels for the corporations' work.

The BME department generate biomedical waste, which is processed locally and incinerated before disposal. The institution has adopted E-Governance and most internal communication is circulated through emails. The use of single-sided paper for writing and printing is standard in all offices to reduce paper waste. The Controller of Examination's office disposes of the answer scripts by pulping and recycling them at the end of their preservation period. Single-use plastic is prohibited on campus, and only a small amount of plastic trash is generated. Steel utensils are used in the canteen and mess to reduce plastic and paper waste. Other non-biodegradable garbage is scrapped and delivered to agents for recycling.

