



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

POLICY ON ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability refers to the responsible use of natural resources to meet the needs of the present without compromising the ability of future generations to meet their own needs. Policies on environmental sustainability typically focus on reducing environmental impact, conserving resources, and promoting practices that protect the environment. Specific policies can vary widely by region and organization, but some common elements include:

- **Renewable Energy:** Encouraging the use of renewable energy sources like solar and wind power to reduce reliance on fossil fuels.
- **Waste Reduction:** Implementing recycling programs and reducing waste generation to minimize landfill contributions.
- **Conservation:** Protecting natural habitats, biodiversity, and ecosystems
- **Transportation:** Supporting public transportation, electric vehicles, and alternative transportation methods to reduce emissions.
- **Energy Efficiency:** Encouraging energy-efficient technologies and practices in buildings, industries, and transportation.
- **Green Building:** Promoting the construction of eco-friendly and energy-efficient buildings.
- **Carbon Reduction:** Setting targets for reducing greenhouse gas emissions and adopting strategies to achieve them.
- **Water Conservation:** Implementing water-saving measures in agriculture, industry, and households.
- **Policy Instruments:** Using regulations, incentives, and taxes to promote sustainable practices and discourage harmful ones.

Vel Tech is effectively operating with a focus on environmental sustainability through several strategies and initiatives:

Sustainability Policies to develop and implement sustainability policies that outline the Institution's commitment to environmental responsibility.

Green Campus Design campuses incorporating energy-efficient buildings, green spaces, and sustainable transportation options.

Renewable Energy to Invest in renewable energy sources like solar panels or wind turbines to reduce carbon emissions and energy costs.

Waste Reduction in the process of including recycling and composting

Sustainable Transportation in Promote biking, walking, using public transportation to reduce the carbon reduction in the campus.

Curriculum Integration by Introducing courses in Environmental Sustainability into the curriculum.

Research Initiatives in the process of supporting research projects and initiatives that focus on environmental sustainability.

Energy Efficiency by fostering energy-efficient technologies and encouraging energy conservation.

Student Engagement by way of engaging students through sustainability clubs, events, and initiatives, fostering a culture of environmental responsibility.

Community Outreach by Collaborating with the local community to address environmental challenges and share resources for sustainability efforts.

Monitoring and Reporting by continuously monitoring and assessment of the Institution's environmental impact, and report progress on sustainability goals.

Vel Tech is effectively implementing environmentally sustainable sourcing practices for food and supplies through the following means:

1. Identifying the suppliers or the lease contractors who prioritize environmentally friendly and ethical practices.
2. Prioritizing the contractors who have awareness on Environmental sustainability
3. Entering into Agreements with Contractors to maintain Eco Friendly atmosphere while they are running business inside the campus
4. Entering into Agreements with Contractors for not using plastic cups, plates, straws etc. and encouraging them to use stainless steel utensils
5. Ascertaining food and supply products with certifications such as USDA Organic, Fair Trade, Forest Stewardship Council (FSC), or other relevant eco-labels
6. Reducing food waste through proper planning, portion control, and composting.
7. Implementing water-saving measures in kitchens and cafeterias, such as low-flow faucets and water-efficient dishwashers.

8. Educating staff and students about the importance of sustainable sourcing and provide training on sustainable practices9. Educating the staff and students about the importance of avoidance of food wastage.

The Institution waste disposal management involves several key features to ensure the safe and environmentally responsible handling of waste:

1. Waste Segregation: Segregating waste into categories such as organic, recyclable, hazardous, and non-recyclable to facilitate proper disposal and recycling.
2. Collection Systems: * Establishing efficient collection systems that consider the types of waste generated, the frequency of collection, and the use of appropriate containers and vehicles.
3. Recycling Programs: Implementing recycling initiatives to divert recyclable materials from landfills. Provide recycling bins and educate the stake holders about what can be recycled.
4. Hazardous Waste Handling: Developing specialized protocols for the safe handling, storage, and disposal of hazardous materials and chemicals.
5. Waste Reduction Programs: Encouraging waste reduction at the source through initiatives like product design for recyclability, bulk purchasing, and minimizing packaging.
6. Waste-to-Energy Conversion: Exploring waste- to energy technologies that can convert certain types of waste into energy, reducing landfill waste and producing clean energy.
7. Public Awareness and Education: Educating the community about proper waste disposal methods, the importance of recycling, and the hazards of illegal dumping.
8. Legislation and Regulations: Adhering to local, regional, and national waste management regulations, and ensure compliance with environmental standards.
9. Innovation and Technology: Exploring innovative waste management technologies, such as waste sorting robots or smart waste bins, to improve efficiency.
10. Continuous Improvement: Regularly reviewing and updating waste management practices to stay current with best practices and evolving technologies.

The waste Management of VEL TECH is based on the waste disposal environmental management system and standard.

Recycle resources and achieve the policy goals of pollution prevention and pollution emission reduction.

1. General Waste: other than recyclable waste, such as toner, wax paper, plastic glossy advertising paper, plastic-coated covers, outer envelopes etc.
2. Paper: newspapers, books, magazines, paper cups, packaging cartons, and non-greasy waste paper, etc.
Used Clothes (individuals should recycle clothes through recycling vehicles or used clothes recycling bins outside the Institution).
Styrofoam: instant noodle boxes and shockproof Styrofoam cushioning materials, etc.
3. Plastic Bags: clean plastic bags of various materials.
4. Food Waste (cooked food waste should be placed in the kitchen waste recycling bin of each building; raw food waste are placed in the food court kitchen waste bin or disposed of as general garbage)

According to the government's environmental protection laws, the Maintenance and Services Department monitors the Canteen and food courts with respect to restriction in the use of disposable tableware, Plastic bags, disposable chopsticks, disposable spoons, and other products are not provided.

Stalls / food courts opened on a daily basis are strictly advised not to provide disposable plastic straws and other regulations to reduce the use of plastic bags and plastic products.

Advertisement through educational promotion and publicity such as "eating out but not taking out," and "no littering," reduces the amount of garbage generated on campus;

Activities including promotional posters, propaganda, and encouraging self-prepared (meal box) instead of disposable (tableware) motivate the faculty and students to reduce waste production.

The food court is advised to fix environmentally-friendly grading price strategy for all kinds of foods sold.

The primary objective of this Deemed to be Institution is to prevent the generation of waste. There is a strict policy on generation and disposal of all kinds of waste viz, food, hazardous, paper, electronic, plastic, etc.

Vel Tech is keen to reduce, reuse and recycle plastic items, particularly bottles as well as disposable coffee cups. Deemed to be Institution also considers end-of-life disposal costs and environmental impact when making procurement decisions including the construction of new or refurbished buildings.

The Institution engages private firms through contract for running the food stalls/courts and they maintain food and environmental hygiene and safety of catering according to the "Food Safety and Hygiene Management Law" of the Ministry of Health and Welfare, "Guidelines for Good Food Hygiene Practices," "Institute Hygiene Law,"

The Institution's Maintenance and Services Department has supervision team, which supervises the manufacturer's diet, hygiene, food quality, etc. at any time.

The team puts forward suggestions for improvement in writing, and the lessee should make improvements within 3 days after receiving the written comments.

To promote environmental sustainability and implement green procurement, VEL TECH purchases software and hardware equipment, consumables, and construction engineering materials.

Priority is given to manufacturers that provide the five green label products including environmental protection labels, energy-saving labels, water-saving labels, green building materials labels, and carbon labels. Vendors that have not obtained the environmental protection-related mark or certificate number may follow the ISO50001 for the supply of products, and equipment to this Institution for different purposes.

The waste treatment unit of the Institution is controlled by the waste disposal law of the ISO14001

The recycling resources implemented on campus include PET bottles, iron, and aluminum cans, aluminum foil bags, paper, waste batteries, toner cartridges, optical discs, kitchen waste, fallen leaves compost, large discarded furniture, and laboratory waste, etc.

The resource garbage collection points of each building and the garbage bags of the resource recycling bins of the outdoor garbage collection sites are provided by the Office of General Affairs.

The cleaning and transportation companies are entrusted to the Institution to carry the garbage within a fixed time. The amount of waste generated by the Institution is 666,381 kg, of which recyclables account for 15.02% of the total waste.

The waste treatment department of VEL TECH is based on the waste disposal law with the ISO14001

Recyclables include: PET bottles, iron, and aluminum cans, aluminum foil bags, paper, waste batteries, toner cartridges, optical discs, and kitchen waste, fallen leaves compost, large-scale discarded furniture, such as laboratory waste liquid, etc., are recycled through recycling pipes to avoid sending them directly to appropriate places for further usage.

The resource garbage collection points of each building and the garbage bags of the resource recycling bins of the outdoor garbage collection sites are provided by the Office of General Affairs, and the cleaning and transportation companies are entrusted to the Institution to carry the garbage within a fixed time.

Recyclables include PET bottles, iron, and aluminum cans, aluminum foil bags, paper, waste batteries, toner cartridges, optical discs, and kitchen waste, compost of fallen leaves, large-scale discarded furniture, and laboratory waste liquid, etc., all regenerated through recycling channels

The proportion of recyclable waste: 15.02%

Amount of waste generated: 666,381 (kg Amount of recycled waste: 100,10 (kg)
Amount of waste shipped to landfill: 0

Waste Assessment and Planning of the Institution includes:

Conducting a waste assessment to understand the types and quantities of waste generated on campus.

Developing a waste management plan that outlines goals, strategies, and timelines for waste reduction and disposal.

Providing clearly labeled waste bins for different waste streams, including recycling, organic waste, and non-recyclables.

Educating students, faculty, and staff on the importance of proper waste segregation.

Establishment of recycling stations across campus for paper, cardboard, glass, plastic, and metal.

Promoting recycling through awareness campaigns and educational materials.

Implementing composting programs for organic waste from dining facilities and landscaping - compost in campus gardens and landscaping projects.

Safely management and disposal of hazardous materials used in laboratories and maintenance areas according to regulations.

Conduct of regular hazardous waste training for relevant personnel.

Encouragement for the use of reusable items like water bottles, coffee cups, and food containers.

Minimization of paper use through digital document sharing and double-sided printing.

Establishment of efficient waste collection routes and schedules.
Consideration of the use of compactors or other waste reduction equipment for non-recyclable waste.

Periodically conducting waste audits to assess the effectiveness of waste reduction efforts and identify areas for improvement.

Implementation of a program for the proper disposal of electronic waste, including old computers, printers, and other electronic devices.

Collaborating with local waste management agencies, recycling facilities, and non-profit organizations to enhance waste management efforts.

ACHIEVEMENTS OF VEL TECH IN THE PROCESS OF ENSURING ENVIRONMENT SUSTAINABILITY

E-WASTE MANAGEMENT

1. All obsolete electrical and electronic wastes are disposed of as e-waste to vendors for proper destruction, without damaging the environment, and certificates are obtained
2. Electronic waste that is disposed of includes TVs, Computer Monitors, Printers, Scanners, Keyboards, Mouse, Phones, Fax, Photocopy machines, cables, memory chips, motherboards, compact discs, cartridges, etc.,
3. Hazardous E-waste are handed over to the authorized processors and a certificate of destruction is obtained.
4. Handling e-waste as per SOP
5. The Institution ensures that generated e-wastes are not disposed of, along with the other solid wastes generated.
6. The institution has partnered with a company for effective collection and disposal of all the E-waste.
7. The Scrap disposal committee has the responsibility to remove the e-waste and other unusable materials then and there through the existing procedures





SOLID WASTE MANAGEMENT (SWM)

1. It is practiced to convert the waste generated at the campus, by way of segregation as organic waste, recyclable waste, and converting the same into another reusable form.
2. The Collected and segregated waste will be unloaded at the waste processing yard and processed as per SWM management practices
3. Recyclable waste is further segregated and disposed of through vendors on need basis

4. Bio-degradable waste is duly composted and used for gardening purposes
5. Sanitary napkins waste is safely disposed of using disposable machines
6. Food waste is appropriately disposed
7. Several SWM training and awareness programs are conducted
8. The institution has partnered with ITC for effective collection of waste papers and convert into green forms



LIQUID WASTE MANAGEMENT

1. The Institution has set up 7 nos. of Sewage Treatment Plants (STP) of 1000/500 KLD capacity. The sewage is characterized by presence of organic, inorganic solids.
2. The chain of treatment aims to remove such pollutants from the wastewater so that it can be effectively reused.
3. The treatment system consists of preliminary, Primary, and Secondary The Eco-Bio Bricks help in the attachment of bacteria in the treatment system and help in the better removal of organic content from the wastewater.
4. The STP is maintained regularly. Treated water is used for landscaping and flushing purposes
5. Removal of treated water and to transport the same for the gardening purposes under Road Arboriculture of the Highway Road Department









R3 STP
Latitude: 13.10.51.3154999999970
Longitude: 80.5.47.572700000018813



BIOMEDICAL WASTE MANAGEMENT

The biomedical waste management plan has been effectively implemented in the department of Biotechnology. The biomedical waste has been segregated on sight and disposed by the industry associated with the institution.





OTHER ENVIRONMENT-CONSCIOUS INITIATIVES

1. Being a proactive and environment-conscious organization, the Institution adopts rainwater harvesting system to save water
2. Divyangjan Friendly Campus
3. Plastic-Free Campus
4. Paperless Office
5. Pedestrian Friendly roads
6. Green Landscaping
7. Pollution free campus – demarcating vehicle parking areas outside the campus
Encouraging use of Battery powered vehicles by the faculty, staff and students, sanction of loans for the purpose of purchase of electric vehicles are some of the initiative taken by the Institution to ensure Pollution Free campus.
8. Several social awareness programmes like blood donation, tree plantation, saving the environment, making a pollution-free campus, etc., are organized.

SOLAR SYSTEM & ALTERNATIVE ENERGY SOURCES

1. Solar water heaters and street lights using solar panels
2. The campus facilities are designed with environmental consciousness in mind. Dedicated sewage water treatment plant and solar water heaters are effectively utilized.
3. The Institution also has solar street lights at strategic locations. The solar cum wind power plant is installed in the research park which supply power to a research lab. The entire campus is provided 24X7 continuous uninterrupted power supply through EB HT supply and two Diesel power generators as back

up. All hostels are also provided with generator backup for the benefit of students.

4. Institution uses energy saving technologies through installation of solar plants on concessional rates





GREEN CAMPUS INITIATIVES

1. Green Campus with state-of-the-art infrastructure facilities and hygiene amenities
2. The institute is sufficiently well-endowed in terms of physical infrastructure and an area of 66.75 acres of lush green land with 1.5 Lakh sq.m. of built-up area.
3. Restricted entry of automobiles
4. Use of Bicycles/ Battery powered vehicles
5. Pedestrian Friendly pathways

6. Landscaping with trees and plants





CERTIFICATES AWARDED TO VEL TECH FOR ENVIRONMENTAL SUSTAINABILITY





NATURE SCIENCE FOUNDATION

A Unique Research and Development Centre for Society Improvement
(ISO 9001:2015, 14001:2015, 45001:2018 & 50001:2018 Certified Organization
& Ministry of MSME Registered Organisation)
Coimbatore - 641 004, Tamil Nadu, India. [www.nsfonline.org.in]



Certificate of Energy Audit

NSF/ENERGY AUDIT/VTU/2023/04

This is to certify that Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Avadi, Chennai - 600 062, Tamil Nadu has successfully undergone 'Energy Audit' on 19th January 2023 and assessed the electrical energy conservation, energy saving measures and sustainability in compliance with the applicable regulations, policies and standards in the campus were found to be excellent.

This Certificate is valid till 20th January 2025.
Ref. No: ISO/NSF/SER/R/07

Rajiv.

(Dr. S. RAJALAKSHMI JAYASEELAN)
Chairman of NSF
Certified ISO QMS, EMS, EnMS, OHSMS

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Bureau of Energy Efficiency



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Certificate of Best Green Campus Award

NSF/BGCA/VTU/2023/04

This is to certify that Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai - 600 062, Tamil Nadu has been honoured with "Best Green Campus Award" for maintaining the campus as per the "Green and Energy Conservation Building Code". The Organization imparts the thrust of innovating new ideas to accomplish eco-friendly environment to the stakeholders. Energy and Environment Management Audits such as 'Green Campus Audit', 'Environment Audit' and 'Energy Audit' were carried out on 19th January 2023.

This Certificate is valid till 20th January 2025.
Ref. No: ISO/NSF/SER/R/0

Rajiv.

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