

Sathyabama Institute of Science and Technology



Green Audit June 2025-May 2026

Prepared by

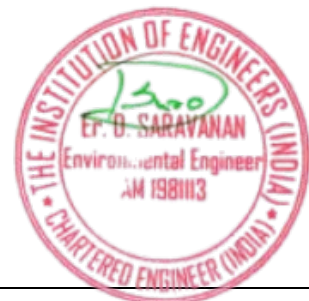


Centre for Waste Management

Audited by




E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



EXECUTIVE SUMMARY

Environmental sustainability has become a fundamental responsibility of higher educational institutions, which play a significant role in promoting resource conservation, environmental stewardship, and sustainable development. By integrating environmentally responsible practices into academic, research, and administrative activities, institutions contribute to national and global sustainability goals while fostering environmental awareness among students and stakeholders.

The Green Audit of Sathyabama Institute of Science and Technology was conducted to evaluate the institution's environmental performance, assess the effectiveness of its resource management practices, and identify opportunities for continuous improvement. The audit examined various aspects of campus sustainability, including green cover management, water conservation, waste management, biodiversity conservation and environmental awareness programmes.

The Green Audit involved a comprehensive assessment of the institution's environmental practices through field inspections, stakeholder interactions, review of institutional records, questionnaire-based surveys, and evaluation of existing green infrastructure. Particular emphasis was placed on assessing campus biodiversity, vegetation, water reuse practices, waste management systems, landscaping initiatives, and sustainable agricultural practices implemented within the campus.

The findings indicate that Sathyabama Institute of Science and Technology has established a strong foundation for sustainable campus management through its extensive green cover, conservation of natural ecosystems, wastewater recycling, composting initiatives, rainwater harvesting, renewable energy adoption, environmental research activities, and active participation of students and faculty in sustainability programmes. The institution has also demonstrated its commitment to environmental protection through awareness programmes, outreach activities, research collaborations, and innovative projects that promote circular economy principles and responsible resource utilization.

The baseline information generated through this audit provides a valuable framework for monitoring environmental performance, benchmarking sustainability initiatives, and planning future green campus developments. The recommendations presented in this report are intended


Er. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113

Email: enviroersarav@gmail.com
Mobile: 9840342113



to further strengthen the institution's environmental management practices, improve resource efficiency, and support continuous progress towards achieving long-term sustainability objectives.

Overall, the Green Audit reaffirms Sathyabama Institute of Science and Technology's commitment to environmental excellence and sustainable campus development. Continued implementation of the recommended measures will further enhance the institution's environmental performance while creating a healthier, resource-efficient, and environmentally responsible learning environment for present and future generations.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroensarav@gmail.com
Mobile: +91-94870 01907.



CHAPTER 1

INTRODUCTION

1.1 About Sathyabama Institute of Science and Technology

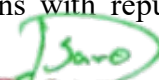
Sathyabama Institute of Science and Technology is one of India's premier multidisciplinary institutions, recognized for its excellence in higher education, research, innovation, and societal development. Since its establishment under Section 3 of the University Grants Commission (UGC) Act, 1956, the institution has consistently maintained high academic standards while fostering innovation, sustainability, and global engagement.

The institution offers a wide spectrum of undergraduate, postgraduate, doctoral, and research programmes across Engineering, Science, Technology, Law, Dental Sciences, Pharmacy, Nursing, Management, Arts and Science, and Allied Health Sciences. Its academic ecosystem is supported by highly qualified faculty, modern pedagogical practices, advanced laboratories, research centres, and state-of-the-art infrastructure that promote interdisciplinary learning and research excellence.

Sathyabama Institute of Science and Technology has been accredited with the highest '**A++**' **Grade** by the National Assessment and Accreditation Council (NAAC), reflecting its commitment to academic quality, research productivity, innovation, and institutional governance. The university continuously adopts contemporary teaching methodologies, outcome-based education, digital learning platforms, and industry-oriented curricula to prepare students for global careers.

The institution has earned significant recognition at both national and international levels. It has consistently secured a position among the leading universities in India in the National Institutional Ranking Framework (NIRF) and has received prestigious rankings from globally recognized agencies such as Times Higher Education (THE) and QS World University Rankings. Furthermore, Sathyabama has been acknowledged among the country's leading institutions for innovation through the Atal Ranking of Institutions on Innovation Achievements (ARIIA).

Research forms one of the core strengths of the institution. Sathyabama has established collaborations with reputed national and international universities, research organizations,


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113

Email: enviroensarav@gmail.com



industries, and government agencies, enabling the execution of several multidisciplinary research projects in emerging areas of science and technology. The institution has successfully completed numerous sponsored research programmes funded by national and international organizations, contributing significantly to scientific advancement and technological innovation.

A landmark achievement in the institution's journey was the successful launch of **SATHYABAMASAT**, developed in collaboration with the Indian Space Research Organisation (ISRO), demonstrating its capability in advanced research and space technology. Such accomplishments exemplify the institution's dedication to promoting innovation, entrepreneurship, and research that address real-world challenges.

Under the visionary leadership of its management, Sathyabama Institute of Science and Technology continues to create an inclusive academic environment that nurtures excellence, creativity, ethical values, and social responsibility. The institution remains committed to producing globally competent graduates while actively contributing towards sustainable development through education, research, innovation, and community engagement.

1.1.1 Vision

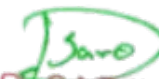
Be a leading multidisciplinary University, producing world class talents to address global challenges

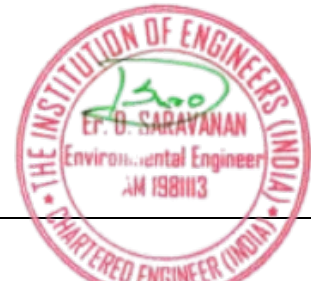
1.1.2 Mission

- To attain excellence in Education and Research through effective collaboration with Industries and other International/National organisations
- To consistently remain an attractive ecosystem for students and employees, a hub of innovation for researchers and an incubating platform for entrepreneurs
- To create an inclusive environment that caters to all forms of diversity
- To engage in outreach and community development activities, creating an impact on the society

1.1.3 Objectives of the Institution

The institution is dedicated to developing competent professionals equipped with technical knowledge, ethical values, leadership qualities, and social responsibility. Its primary objectives are to:


Dr. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



- Deliver quality education that meets global academic and industrial standards.
- Foster scientific inquiry, critical thinking, innovation, and entrepreneurship.
- Promote interdisciplinary research addressing national and global challenges.
- Encourage lifelong learning, professional excellence, and continuous skill development.
- Develop socially responsible graduates committed to sustainable development and community welfare.
- Strengthen collaborations with industries, research organizations, and international institutions to enhance academic and research excellence.

1.1.4 Core Values

Sathyabama Institute of Science and Technology upholds the following core values that guide all academic, research, and administrative activities.

Integrity

The institution maintains the highest standards of ethics, transparency, accountability, honesty, and professionalism in all its academic, research, and administrative practices.

Excellence

The institution strives for excellence through quality education, innovative teaching methodologies, impactful research, and continuous institutional improvement.

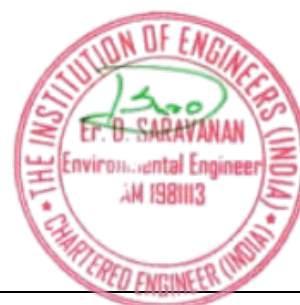
Innovation

Innovation is encouraged across all disciplines by promoting creative thinking, research-driven solutions, entrepreneurship, and technology development.

Sustainability

The institution is committed to environmental conservation and sustainable development through responsible resource management, green campus initiatives, renewable energy adoption, and environmentally conscious practices.


Dr. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870-01907



Collaboration

The institution actively promotes partnerships with industries, research organizations, government agencies, and international universities to strengthen education, research, and innovation.

Inclusion and Diversity

An inclusive academic environment is maintained where individuals from diverse cultural, social, and economic backgrounds are provided equal opportunities to learn, grow, and succeed.

Social Responsibility

The institution actively contributes to societal development through outreach programmes, environmental initiatives, community engagement, and technology-driven solutions that improve quality of life.

1.2 Audit Team

The Green Audit was conducted by the Centre for Waste Management and validated by _____. The audit team comprised experienced environmental professionals, faculty members, researchers, and technical staff representing multiple academic departments.

The multidisciplinary composition of the audit team ensured comprehensive assessment of environmental practices, energy management systems, campus infrastructure, biodiversity conservation, waste management, water conservation, and sustainability initiatives implemented across the institution.

The audit methodology included document review, stakeholder consultations, field inspections, data verification, questionnaire-based assessment, and evaluation of environmental management practices. The collaborative approach adopted during the audit enabled objective assessment of institutional performance and formulation of practical recommendations for continual environmental improvement.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



The Centre for Waste Management coordinated all audit activities with active support from faculty members, research scholars, technical staff, and student volunteers, reflecting the institution's commitment to participatory environmental management and sustainable campus development. Following are the members associated in the Audit

Centre for Waste Management

Dr.Dawn S S

Dr.Nirmala N

Dr.J.Arun

Dr.P.Priyadharsini

Dr.A.Santhosh

Dr.S.Sujithra

Mr.J.Jayakanth

Ms.A.Bhuvaneswari

Ms.S.V.Sivasankari

Mr.A.Silambarasan

Ms.J.Merlin

The team functions with the designated audits. The team has undergone Green, Energy and Environmental Audit training in July 2020 and are upgrading the skills as per requirement. Wasmanpro Environmental Solutions LLP, Chennai provided Audit training. Since then the team pursues the internal Green, Energy and Environmental Audits periodically.

1.3 Periodicity of Audit

The internal audit team initiated the audit for 2025 – 2026 period in June 2025. Inventories to pursue the audit were revised based on the recommendations given by the external audit team in the previous year's audit report. Each member of the internal audit team is allotted with a particular audit and is supported by student volunteers. The audit takes place during the third week of every month, and compilation of the inventories is done by the in-charge and reviewed by the Lead Internal Auditor. The review of the audit happens quarterly by the External Audit team before the Final Audit report is validated in May every year. The external audit was undertaken by Enviroworks Pvt.Ltd for the year June 2025 to May 2026.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



CHAPTER 2

GREEN AUDIT

2.1 Introduction

A Green Audit is a systematic evaluation of an institution's environmental performance, sustainability initiatives, and resource management practices. It provides a structured framework for assessing the effectiveness of environmental conservation measures, identifying areas requiring improvement, and promoting sustainable campus development. Green auditing enables educational institutions to evaluate their environmental footprint while encouraging responsible utilization of natural resources and compliance with environmental best practices.

As centres of education and innovation, higher educational institutions have a significant responsibility in promoting environmental stewardship among students, faculty members, and the surrounding community. Sustainable campus management not only conserves natural resources but also creates awareness regarding climate change mitigation, biodiversity conservation, pollution prevention, waste minimization, and efficient utilization of energy and water resources.

The Green Audit at Sathyabama Institute of Science and Technology was undertaken to comprehensively assess the environmental initiatives implemented across the campus and evaluate their effectiveness in achieving sustainable development goals. Periodic audits were planned from June 2025 to May 2026 to see variations in the green coverage.

The audit examined various components of campus sustainability, including

- green cover
- biodiversity conservation
- water management
- waste management
- composting practices
- sustainable agriculture
- environmental awareness programmes and
- student participation in environmental initiatives




E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroensarav@gmail.com
Mobile: +91-94870 01907.

The audit also assessed the institution's contribution towards reducing environmental impacts through

- plantation drives
- rainwater harvesting
- wastewater recycling
- organic farming
- green infrastructure development and
- sustainable landscaping practices

Emphasis was placed on documenting existing environmental assets, identifying best practices, and recommending measures to further strengthen the institution's environmental management system.

The findings of this Green Audit serve as a valuable baseline for monitoring environmental performance, supporting informed decision-making, and planning future sustainability initiatives. Furthermore, the audit contributes towards enhancing institutional compliance with environmental standards while supporting accreditation requirements and national sustainability objectives.

2.2 Methodology Adopted for Green Audit

The Green Audit was carried out using a systematic and evidence-based methodology to ensure comprehensive evaluation of the institution's environmental performance. The methodology consisted of the following stages:

Preliminary Assessment

A preliminary review was conducted to understand the campus layout, environmental infrastructure, existing sustainability initiatives, and institutional environmental policies. Relevant documents, records, and reports were examined before initiating field inspections.

On-site Survey

Detailed field visits were conducted across the campus to evaluate:

- Green cover and landscape management




E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113

Email: enviroensarav@gmail.com
Mobile: +91-94870 01907

- Tree census and biodiversity
- Medicinal and ornamental plantations
- Water bodies and marshland ecosystem
- Irrigation systems
- Waste management facilities
- Composting units
- Vegetable gardens
- Rainwater harvesting structures
- Environmental awareness facilities

Biodiversity Assessment

An inventory of trees, shrubs, medicinal plants, ornamental plants, and other vegetation was prepared. Scientific names of plant species were verified, and their ecological significance was documented.

Stakeholder Interaction

Discussions were conducted with faculty members, administrative personnel, technical staff, gardeners, Eco Club members, and student volunteers to understand existing environmental practices and institutional sustainability initiatives.

Questionnaire-Based Survey

A structured questionnaire was administered to collect information regarding green campus initiatives, water conservation practices, biodiversity conservation, waste management, and environmental awareness activities.

Documentation and Data Analysis

The collected information was analyzed to evaluate the effectiveness of existing environmental practices. Observations were compared with recognized environmental management principles to identify strengths, gaps, and opportunities for improvement.


Dr. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870 01907.



2.3 Green Audit Questionnaire

A structured questionnaire was developed to assess the institution's environmental performance under various sustainability indicators. The assessment covered the following aspects:

- Campus green cover and landscaping
- Botanical diversity and tree inventory
- Plantation programmes
- Vegetable and medicinal gardens
- Organic farming practices
- Water consumption for gardening
- Utilization of treated wastewater
- Composting facilities
- Student participation in environmental activities
- Biodiversity conservation
- Environmental awareness programmes
- Nature clubs and Eco Club activities
- Irrigation practices
- Conservation of marshland and natural habitats
- Indoor and outdoor green infrastructure
- Sustainable landscaping initiatives
- Future scope for environmental improvement

The questionnaire served as an important tool for documenting institutional practices and identifying opportunities for enhancing campus sustainability.

2.4 Green Audit – Key Findings

The Green Audit revealed that Sathyabama Institute of Science and Technology has successfully established a comprehensive environmental management system supported by active participation from faculty members, students, administrative staff, and management.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



Green Cover

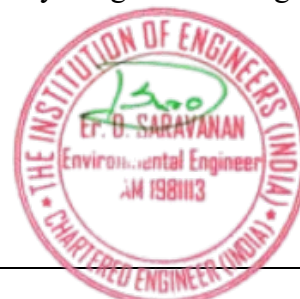
The campus possesses an extensive green landscape comprising a wide variety of native, ornamental, medicinal, and fruit-bearing plant species. The institution has maintained substantial tree cover that contributes to carbon sequestration, reduction of ambient temperature, biodiversity conservation, and improvement of overall environmental quality.

Table 1 Plant Species and CO₂ capture in 2025-2026

S.No	Botanical Names	No. of plants (2025)	kg of CO ₂ per year
1	<i>Acacia auriculiformis</i>	45	4500 (@100 kg per plant per year)
2	<i>Saraca asoca</i>	75	442.5 (@5.90 kg per plant per year)
3	<i>Bambusa arundinacea</i>	90	13500 (@100 to 200 kg per plant per year)
4	<i>Bougainvillea</i>	75	375 (@3 to 6 kg of CO ₂ per plant per year)
5	<i>Millettia pinnata</i>	45	6300 (@80 to 200 kg of CO ₂ per plant per year)
6	<i>Terminaliacatappa</i>	60	1500 (@ 20 to 30 kg of CO ₂ per plant per year)
7	<i>Hibiscus rosa-sinensis</i>	95	475 (@ 3.5 to 6.5 kg of CO ₂ per plant per year)
8	<i>Citrus limon</i>	45	1260 (@ 22 kg to 32 kg of CO ₂ per plant per year)
9	<i>Jasminum officinale</i>	75	188 (@ 2.0 to 3.0 kg of CO ₂ per plant per year)
Total			28,540.5 kg CO₂ per year

Initiatives are being consistently taken to increase the CO₂ capture by the green coverage.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroensarav@gmail.com
Mobile: +91-94670 01907.






E. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870 01907.





Fig.1 Green canopy in the campus

Student Plantation Initiatives

Students actively participate in plantation programmes organized through the Eco Club, National Service Scheme (NSS), Environment Day celebrations, and various sustainability campaigns. These initiatives have significantly contributed to enhancing the campus green cover while promoting environmental awareness among students.

Sustainable Agriculture

The institution has developed vegetable cultivation facilities that include microgreens, tomatoes, chillies, bananas, lemons, and other horticultural crops. These activities serve both educational and demonstration purposes while promoting sustainable agricultural practices.

Dr. D. Sarav
Dr. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870 01907.





(a)



(b)



(c)



(d)



(e)



(f)

Microgreens of (a) Fenugreek, (b) Green gram, (c) Amaranth, (d) Black Channa (e) Red radish (f) Corn



Daro
Er. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroensarav@gmail.com
 Mobile: +91-94870 01907.





Spinach Cultivation in Hydroponics Framework: NFT Channels

Water Conservation

Approximately **50–60 KLD** of treated wastewater generated from the Sewage Treatment Plant (STP) is reused for landscape irrigation. The reuse of treated wastewater significantly reduces dependence on freshwater resources and demonstrates the institution's commitment to sustainable water management.



Daro
Er. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870 01907.





Sewage Treated water used for landscaping

Organic Farming

Chemical fertilizers have largely been replaced with bio-compost and organic manure prepared within the campus. The institution emphasizes soil health improvement through environmentally friendly agricultural practices.

Composting Practices

Organic waste generated from vegetable gardens, landscaping activities, and campus maintenance is processed through an accelerated composting system utilizing microbial consortia. The composting technology substantially reduces composting duration while producing high-quality organic manure for campus plantations. As a requirement of the project execution, vegetable market waste has been successfully converted into bio compost. Trial

growth of plants inside campus have been done following the recommendations given in the earlier audits. The full fledged use of vegetable waste derived biocompost facility will be established in the institution so as to use the accelerated biocompost for growth of plants inside campus. By doing so the institution will march towards aligning with GHG protocols and contribute to the reduction of institutional carbon foot print by enhancing green coverage and managing waste for value added product recovery.



Biocomposting Facility initiated at Cuddalore (Sathyabama CWM-DST STI Hub)

Green Entrepreneurship

The institution promotes sustainable entrepreneurship through Science Technology and Innovation (STI) Hub projects and startup initiatives involved in the production and marketing of hydroponically grown microgreens, sprouts, and bio-compost products. These initiatives integrate research, innovation, and environmental sustainability.


Er. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.





SCIENCE TECHNOLOGY & INNOVATION HUB

A Joint Initiative of

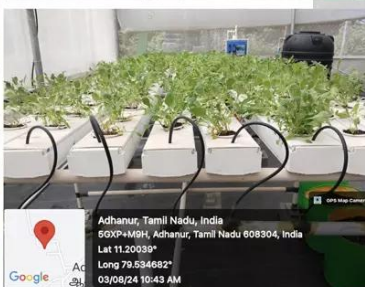
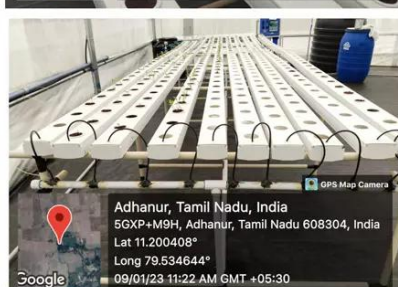
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI

&

DEPARTMENT OF SCIENCE AND TECHNOLOGY, Government of India



Hydroponics : NFT channel monitoring



SCIENCE TECHNOLOGY & INNOVATION HUB

A Joint Initiative of

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI

&

DEPARTMENT OF SCIENCE AND TECHNOLOGY, Government of India



Hydroponics : Spinach Cultivation



Er. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



Medicinal Plant Conservation

A dedicated greenhouse has been established for the cultivation and conservation of medicinal and aromatic plant species. The facility supports research, academic activities, and awareness regarding the therapeutic and environmental significance of medicinal plants.

Biodiversity Conservation

The campus supports a rich diversity of flora and fauna. The naturally occurring marshland ecosystem functions as an important ecological habitat supporting resident and migratory bird species while contributing to groundwater recharge and microclimatic regulation.

Environmental Awareness

The institution regularly conducts seminars, workshops, awareness campaigns, training programmes, and outreach activities focusing on environmental conservation, carbon footprint reduction, waste management, composting technologies, biodiversity conservation, hydroponics, and sustainable agriculture.




E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.



Apart from the hydroponics research pursued in the institution at the Centre for Waste Management, this sustainable agriculture technique was also promoted for livelihood enhancement of identified women beneficiaries in Aadhanur village, Kattumannarkoil Taluk , Cuddalore district through Science Technology and Innovation hub. Hands on training on HYDROPONICS: SOILLESS CROP PRODUCTION TECHNIQUE were also given periodically for the benefit of the students and research community. The training introduced the participants to the Techniques in hydroponics, growing media used, nutrient solution formulation and usage etc.,

Agriculture being the major occupation, cultivation and harvesting of produce lead to generation of enormous agricultural waste which is potentially tapped for the Science technology intervention proposed.

1. Hydroponics: Hydroponics techniques will be introduced to them which require less space, less water for the cultivation but provide high yield. With proper balanced nutrients and control of ambient conditions this technique can produce more yields at a lesser space and time when compared to the usual natural growth in soil. Also, it requires less water consumption. Common plants such as lettuce, tomatoes, spinach, turmeric, ginger, pepper, cucumber can be grown efficiently and effectively with this Hydroponics. The plants and vegetables produced by this technique will be free from pesticides and have good nutritional values. Hydroponics will be fully automated and the parameters required for effective farming will be monitored and controlled. The ambient conditions that are required to be controlled are light, humidity, temperature and water circulatory system. In addition, there is a necessity to monitor and control the nutrients in the water to have an optimized growth of the plant and vegetables. The proper ratio of the nutrients for plant/vegetables can be measured using pH and electrical conductivity of the nutrient solution.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.





Hydroponics Polyhouse

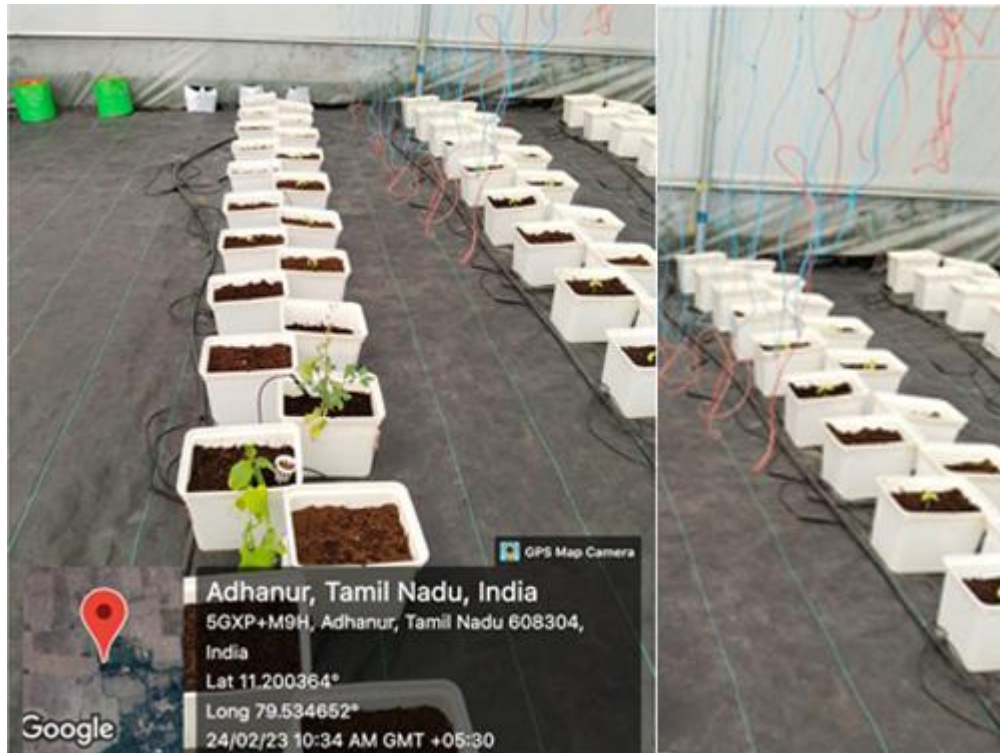


Adhanur, Tamil Nadu, India
 5GXP+M9H, Adhanur, Tamil Nadu 608304, India
 Lat 11.20041°
 Long 79.53464°
 28/01/23 09:57 AM GMT +05:30

Nutrient Film Technique

Daro
Er. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroensarav@gmail.com
 Mobile: +91-94870 01907.





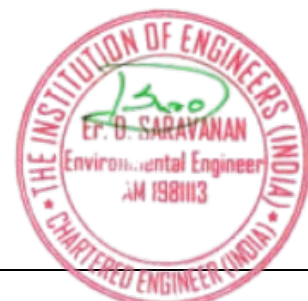
Dutch Bucket grow system

Student Participation

Students play an active role in monitoring plant growth, maintaining green spaces, participating in environmental research projects, managing composting facilities, and implementing Eco Club activities, thereby strengthening experiential learning and environmental stewardship.



Dano
Er. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroersarav@gmail.com
Mobile: +91-94870 01907.





2.5 Evaluation of Green Audit Findings

The Green Audit demonstrates that Sathyabama Institute of Science and Technology has successfully integrated environmental sustainability into campus planning, infrastructure development, research, teaching, and community engagement.

Major strengths observed during the audit include:

- Extensive campus green cover and biodiversity.
- Efficient reuse of treated wastewater.
- Well-established composting practices.
- Promotion of organic farming and sustainable agriculture.
- Active student involvement in environmental initiatives.
- Strong institutional support for sustainability research.
- Regular environmental awareness programmes.
- Integration of sustainability into outreach and community development activities.

The institution has established an effective environmental management framework that aligns with the principles of sustainable development and responsible resource utilization.

2.6 Best Practices

The audit identified several noteworthy environmental best practices implemented by the institution:

[Signature]
Dr. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroersarav@gmail.com
 Mobile: +91-94870 01907



- Large-scale plantation drives involving students and staff.
- Conservation of natural marshland ecosystem.
- Rooftop gardening and terrace farming initiatives.
- Accelerated composting technology for organic waste management.
- Production of bio-organic manure using campus waste.
- Hydroponic cultivation of vegetables and microgreens.
- Efficient wastewater recycling for landscape irrigation.
- Rainwater harvesting infrastructure.
- Eco Club-led awareness campaigns.
- Promotion of green entrepreneurship through startup initiatives.
- Research on sustainable agriculture and waste valorization.
- Continuous environmental education programmes.

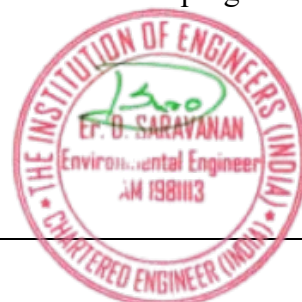
These initiatives demonstrate the institution's commitment towards environmental sustainability and serve as exemplary practices for other higher educational institutions.

2.7 Recommendations

Although the institution has demonstrated commendable environmental performance, the following recommendations may further strengthen its sustainability initiatives:

- Develop a digital Green Inventory for continuous monitoring of campus biodiversity.
- Increase plantation of native and climate-resilient species.
- Expand indoor air-purifying plant installations in academic and administrative buildings.
- Strengthen biodiversity documentation through GIS-based mapping.
- Enhance carbon sequestration assessment and carbon footprint monitoring.
- Promote vertical gardens and green walls wherever feasible.
- Expand composting capacity to accommodate future waste generation.
- Establish a dedicated Green Monitoring Committee for periodic environmental performance evaluation.
- Conduct annual biodiversity surveys and environmental performance benchmarking.
- Strengthen student-led environmental innovation and citizen science programmes.


E. D. SARAVANAN
 CHARTERED ENGINEER (INDIA)
 AM 1981113
 Email: enviroensarav@gmail.com
 Mobile: +91-94870 01907.



2.8 Conclusion

The Green Audit confirms that Sathyabama Institute of Science and Technology has established a robust environmental management framework supported by strong institutional commitment, active stakeholder participation, and continuous investment in sustainable campus development.

The institution has successfully implemented numerous initiatives in biodiversity conservation, water resource management, organic waste recycling, sustainable agriculture, renewable resource utilization, and environmental awareness. The preservation of natural ecosystems, adoption of wastewater reuse, promotion of organic farming, and integration of sustainability into academic and research activities demonstrate the institution's leadership in environmental stewardship.

The audit findings indicate that the institution is well positioned to further strengthen its environmental performance through continuous monitoring, adoption of emerging green technologies, and expansion of sustainable campus initiatives. The recommendations presented in this report provide a strategic roadmap for achieving long-term environmental sustainability while supporting national and global sustainability goals.

Overall, Sathyabama Institute of Science and Technology serves as an exemplary model of a sustainable higher educational institution, demonstrating how academic excellence can be effectively integrated with environmental responsibility, resource conservation, and community engagement.


E. D. SARAVANAN
CHARTERED ENGINEER (INDIA)
AM 1981113
Email: enviroensarav@gmail.com
Mobile: +91-94870 01907.

