

PALLAVARAM - CHENNAI ACCREDITED BY NAAC WITH 'A' GRADE INSTITUTION WITH UGC 12B STATUS Marching Beyond 30 Years Successfully

## **CRITERION 7 – INSTITUTIONAL VALUES AND BEST PRACTICES**

#### 7.1. INSTITUTIONAL VALUES AND SOCIAL RESPONSIBILITIES

# 7.1.6. QUALITY AUDITS ON ENVIRONMENT AND ENERGY REGULARLY UNDERTAKEN BY THE INSTITUTION AND ANY AWARDS RECEIVED FOR SUCH GREEN CAMPUS INITIATIVES

Criterion Number	7
Metric	7.1.6
Details	Supporting Documents for Green Audit
Pages	1 to 237



INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS) (Deemed to be University Estd. u/s 3 of the UGC Act, 1956) PALLAVARAM - CHENNAI ACCREDITED BY NAAC WITH 'A' GRADE INSTITUTION WITH UGC 12B STATUS Marching Beyond 30 Years Successfully

# **GREEN AUDIT REPORT**

# (2022-2023, 2021-2022, & 2020-2021)

Campus : Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai - 600 117. INDIA. Phone : (91-44) 2266 2500 / 2266 2501 / 2266 2502 / 2266 2503, Fax : (91-44) 2266 2513 Email : vels@vistas.ac.in Website : www.vistas.ac.in Admin. Office : 521/2, Anna Salai, Nandanam, Chennai - 600 035. Tele Fax : 2431 5541 / 2431 5542





18th Apr 2023

## TO WHOM IT MAY CONCERN

This is to certify that VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS) has conducted a detailed Green Audit (Environment, Energy, Water, and Waste Management) for their campus Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the VISTAS have been verified based on the report submitted for the period April 2022 to March 2023 and were found to be satisfactory and complied with applicable requirements. The efforts taken by the Management, faculty, and students toward the environment and sustainability are highly appreciated and commendable.

For Pragnaa Shree Venture India Pvt. Ltd

Authorized Signatory Name: Murali Radhakrishnan Designation: Director



#### CIN. U74999TN2017PTC115875

Pragnaa Shree Venture India Pvt. Ltd

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E-Mail: info@pragnaa.in





15<sup>th</sup> Jun 2023

#### TO WHOM IT MAY CONCERN

This is to certify that VELS MEDICAL COLLEGE AND HOSPITAL (VMCH) has conducted a detailed Green Audit for their campus located at Uthukottai Taluk, Tiruvallur District – 601 102, Tamil Nadu, India and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the VELS MEDICAL COLLEGE AND HOSPITAL (VMCH) have been verified based on the report submitted for the period July 2022 to June 2023 and were found to be satisfactory and complied with applicable requirements. The efforts taken by the Management, faculty, and students towards the environment and sustainability are highly appreciated and commendable.

For Pragnaa Shree, Venture India Pvt. Ltd

Authőrized Signatory Name: Murali Radhakrishnan Designation: Director



CIN. U74999TN2017PTC115875

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# Green Audit Report (2022-23)



# VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS)

Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India

Audit Date: 3rd April 2023



Pragnaa Shree Venture India Pvt. Ltd Door No. 4 & 5, Flat No. F-2, Daya Garden, First Floor, 2nd Cross Street, New Colony, Chrompet, Chennai – 600 044

# INDEX

S. No	Contents	Page No
1	Executive Summary	3
2	Introduction to VISTAS	5
3	General Information of VISTAS	11
4	Facilities	15
5	VISTAS Layout	17
6	Vision, Mission and Core Values	18
7	Management Commitment	20
8	Scope and Goals of Green Audit	21
9	Benefits of Green Audit	22
10	Target Areas of Green Audit	23
11	Methodology	24
12	Auditing Green Campus	26
13	Participation and Consultation	41
14	Best Practices / Initiatives	69
15	Conclusion	72
16	List of Recommendations	73
17	Disclaimer	74

## **Section 1: Executive Summary**

Educational institutions now a day are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of energy savings, recycling of waste, water reduction, water harvesting etc... The activities pursued by the university can also create a variety of adverse environmental impacts. Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. The green audit is defined as an official examination of the effects a University has on the environment. As a part of such practice, an internal audit (Green Audit) is conducted to evaluate the actual scenario at the campus.

The green audit can be a useful tool for a University to determine how and where they are using the most energy or water or resources; the University can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. Green auditing and the implementation of mitigation measures is a win-win situation for all the University, the learners and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of Green impact on campus. Green auditing promotes financial savings through the reduction of resource use. It allows the development of ownership and personal and social responsibility for the students and teachers.

The audit process involved Initial Data Collection at, Site walkthrough with the team of VISTAS with the views management including the policies, activities, documents and records.

This was followed by staff and student interviews, collection of data, review of records, observation of practices and observable outcomes.

The baseline data collected from Vels University, VISTAS, Pallavaram, and Chennai are analyzed and conclusions made.

We thank the Management of VISTAS, Dr. R. A. Kalaivani, Dean School of Basic Sciences and Dr. Shanmugasundaram, Dean School of pharmacy and other team members for supporting the complete audit process.

We are happy to submit this green audit report to the VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS).

Mr. S.K. Srinivasan Mr. R. Murali Mr. S. Babu

Pragnaa Shree Venture India Pvt. Ltd

## Section 2: Introduction to VISTAS

Vels Group of Institutions run by the Vael's Educational Trust, a charitable, nonprofitable organization was established in 1992 by Dr Ishari K.Ganesh to commemorate the fond memory of his father Shri. Isari Velan, the Former Deputy Minister in the popular Govt. of Dr M.G.R was also associated with the film industry. Taking education to the humble thresholds of first-generation learners and weaker sections of society has ever been the objective of Vael's Trust. The vision of Vael's is to inculcate self-reliance and discipline among the youth and also to improve the quality of higher education.

The multifaceted, need-based, magnificent Vels Group of Institutions under Vaels Educational Trust highlight the commitment and dedication toward the noble cause of higher education. Lighting the lamp of education on countless thresholds hidden in the folds and crevices of India, Vael's holds high the blazing beacon of quality Education

Indeed this institution of higher learning and excellence is a leviathan in the everexpansive ocean of education. The moving spirit behind Vels success story is the founder Chairman and Managing Trustee Dr.Ishari K.Ganesh. Believing staunchly in the philosophy of work, placed on the pedestal of worship, he is a visionary and inspiring academician, who breathed into generations and generations of students, the unsullied breath of quality education, tempered by discipline and enlivened by dedication.

Vels College of Pharmacy was started in 1992. Subsequently, Vels College of Physiotherapy (1993) and Vels College of Science (1993) were started. The Deemed to be University status was conferred, to the above different colleges, after fulfilling all the procedures on 04.06.2008 by the MHRD, Govt. of India with the registered name **VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES** (**VISTAS**). The Head Office of the VISTAS has located at Pallavaram around 2 km. south of Pallavaram railway station and nearly 4 km away from Chennai Airport. The Deemed University status has been conferred by UGC after taking into account the

rich experience accumulated by the Management and the Quality maintained in the field of Higher education.

VISTAS has blossomed into a multi-disciplinary Institute offering more than 100 UG & PG programs, besides Doctoral programs, through 16 Schools and 45 Departments. Programs have the approval of the relevant Statutory Regulating Agencies such as UGC, AICTE, PCI, BCI, NCTE, DGS etc. VISTAS have a student strength of close to 14500 and a faculty strength of close to 709 with 348 of them having a doctorate. The School of Maritime Studies was awarded an "A1" grade by the Indian Register of Shipping (IRS) in Nov-2019. VISTAS has been accredited by NAAC with a CGPA of 3.01 / 4 (A) grade in March 2019. B.E., Mechanical Engineering, B.E., Computer Science & Engineering, Master of Business Administration, B. Pharmacy, B.E., Marine Engineering, B.E. Electronics and Communication Engineering, B.E., Electrical & Electronics Engineering, B.E., Biomedical Engineering & B. Tech IT (Cloud and Mobile based Application Development) programs have been accredited by the NBA.

VISTAS is also recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. VISTAS has improved infrastructure, modernized laboratories, increased hostel accommodation and improved sports facilities. Since becoming a deemed university, syllabi have been revamped periodically in all disciplines. There has been a significant increase in the enrolment of students and more so among women students. The Deemed University is well equipped with ICT facilities such as Smart classrooms, Video Conferencing, Online courses and Vels Knowledge Resource Centre. VISTAS has a Centre for Fish Immunology, Incubation Centre, Central Instrumentation Laboratory, Centre for Energy and Alternative Fuels, Centre for Artificial Intelligence, Centre for Automation and Power Conservation, Centre for Material Research, Centre for Excellence in Pharmaceutical Research & Drug Testing, Centre for Elephant Research, Centre for Bioengineering, Centre of Excellence in Cloud Computing with IBM, Centre of Excellence in Business Analytics with IBM, Centre for Intellectual Property Rights (IPR), Centre for Advanced Research & Development (CARD), Centre for Multimedia Research, Centre for Transfer of Technology, Centre of Excellence in Constitutional Law and Centre of Excellence in MAT Lab.

#### **OUR VISION**

**To make the Institute an epitome of excellence in higher education** by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

#### OUR MISSION

- Effectively **imparting knowledge and** inculcating innovative **thinking**
- Facilitating skill enhancement through add-on courses and hands-on training.
- Doing original, socially relevant, high-quality research.
- Facilitating appropriate co-curricular, extracurricular and extension activities
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

The structure of Governance in VISTAS facilitates Autonomy, Transparency and Accountability through the participation of various stakeholders. It provides the differentiation and integration of various activities in VISTAS. The Organizational structure has been designed as per UGC Regulation. The Regulatory bodies of VISTAS include the Board of Management, Academic Council, Planning and Monitoring Board, Board of Studies and Finance committee. They have been functioning as per guidelines of UGC and Memorandum of Association and they meet periodically. The various key stakeholders of VISTAS, which include faculty, students, parents, industry experts, academic peers and alumni, are involved in decision making at every level. For smooth functioning of VISTAS, several sub-committees comprising the faculty and student representatives have been constituted. In order to decentralize administrative/academic machinery, the authority has been delegated by setting up of Deans for various Schools, Admissions, Academics, Research, Student Affairs, Faculty, IQAC, etc., For transparent functioning, the Admission, Academics, Administration, Accounts and Examination processes are automated by using ERP.

An enriched teaching, learning and evaluation process is carried out in VISTAS catering to the diversity of students and faculty. Students entering VISTAS enjoy a multivariate learning process. Bridge Courses are conducted to prepare the students for their respective study environments. The entire Teaching-Learning process is student-centric focusing on LMS, KMS, and E-Learning resources. Interactive and instructional lectures, focused discussions, classroom deliberations, practical classes, hands-on training, projects, presentations, workshops and guest lectures help students to hone their technical skills. Comprehensive lesson plans are prepared regularly by faculties for effective teaching. Independent, Interactive, Collaborative and Participatory learning is encouraged and the required facilities are available for students in terms of SMART Classrooms, Wi-Fi-enabled Campus, Industrial Interactions, Projects and visits. Video lectures of VISTAS were recorded using EduTech, NPTEL, EDX and other MOOCs to enhance student learning. Virtual learning through the AVIEW and Moodle programs of IIT are available. VISTAS employ an effective Mentor-Mentee system for guidance and counselling students on regular basis. Class committee meetings are conducted regularly for all types of learners. Remedial and tutorial classes are conducted for slow learners to enhance their learning. Fast learners are involved in NPTEL courses, industrial problems and projects. All the programs offered by VISTAS have clearly defined POs, PSOs and COs and the outcomes are assessed through direct and indirect methods. VISTAS adopt a Continuous Assessment System, where both formative and summative assessments are ensured to measure the attainment of course outcomes.

VISTAS core values are aligned with its vision and mission and are reflected in the curricular and professional growth of the VISTAS community. With Equity as its premier value and a Women's Forum as its mouthpiece, VISTAS promote gender sensitivity among all stakeholders. Girls are given special counselling to overcome depression, abnormal behaviour etc. VISTAS have a well-defined Environment policy. The campus is green, serene and pleasant. Steps have also been taken to conserve energy and reduce carbon footprint by installing three windmills and solar street lamps. VISTAS has been adhering to the best practices such as Herbal Garden, Tobacco-Free Campus, Green Campus, Bio-gas plant, Rain Water Harvesting, Renewable energy and carbon neutrality. The E-waste is again sold back to the contractors for disposal. Recently a modern waste processing machine has been installed on the

campus, for converting biodegradable waste into manure. Being situated in the heart of the city, VISTAS enjoys the privilege of creating direct and indirect employment opportunities for the local unemployed youth. Good connectivity and the presence of industries in the vicinity are major advantages. The core values and the developments stated above are displayed on the Institute's website. Promoting a cosmopolitan culture, VISTAS observes National festivals and birth/death anniversaries of great Indian personalities.

VISTAS follows the Best practices such as Outcome Based Education, Student Mentoring, External Academic and Administration Audit, ERP in all the activities, NSS Unit-Swachh Bharat Abhiyan, Student's Feedback about Teachers, MHRD Digital Initiatives, Research culture, Institution-Industry Interaction, Use of Renewable Energy, Internship for Students, Parent Corner in the Website etc. The Industry-Institution relationship is very strong at VISTAS. Industries are busy developing products at the Incubation Centre. Some academic programs such as B. Tech and MBA are run in collaboration with M/s IBM. Experienced Professors are active in solving industrial problems as part of consultancy projects. Our vision is to provide quality education. Hence, as part of ensuring quality, an External Academic and Administrative Audit is performed in all the departments every year.

A centre, named, "Centre for Advanced Research and Development (CARD)" has been established to promote research. Besides 12 advanced dedicated research labs in various schools, a Central Instrumentation lab is set up housing advanced instruments such as BET Surface Area Analyzer, Field Emission Scanning Electron Microscope, High-Performance Thin-Layer Chromatography, X-Ray Diffractometer, Particle Size and Zeta Potential Analyzer, Raman Spectrometer, etc. Research scholars from nearby universities also use the VISTAS lab for research. Due to strong Industry – Institutional tie-up, senior faculty are busy solving industrial problems as consultancy projects. Ten industries are active at Incubation Centre in developing products useful to the society. Staff members are given incentives to publish papers and attend seminars. During the last three years, 1374 research papers have been published in the UGC listed journals. *Turnitin* software is available to eliminate plagiarism. Under the Unnat Bharath Abhiyan program, VISTAS has initiated the promotion of institutional social responsibility through activities undertaken in the neighbourhood rural community. Generic Medicines are made available to the Society through Pradhan Mantri Jan-Aushadhi Yojana Scheme.

The road map of VISTAS is well-drawn. Our vision is to make this an International Institute wherein students from all the countries will assemble to enrich themselves in terms of knowledge. We want to provide physical and academic infrastructure including lab facilities which will create a "reverse flow" of students. Our ambition is to have at least 100 crores worth of research projects by 2030.

Several are the paths and avenues to be explored and exploited. Countless are the feathers to be added to the Vels cap of success. The endeavours continue with determination, "to strive, to seek, to find and not to yield". On the whole, the Institute is committed to excellence in every activity, intelligent planning of each activity and ensuring focused effect on each of them for attaining excellence. WE HAVE ACHIEVED A LOT, STILL, WE FEEL WE HAVE MILES TO GO AND OUR JOURNEY IN HIGHER EDUCATION CONTINUES...

# Section 3: General Information

S. No	Description (2022-23)	Male	Female
1	Students	10126	3720
2	Teaching Staff	420	414
3	Non-Teaching Staff	255	246
4	Total	10,801	4,380

Students	Male	Female	Total
Total UG Students	8674	3055	11729
Total PG Students	1452	665	2117
No. of Students	10126	3720	13846

S. No	Name of the School	Male	Female	Total
1	School of Management Studies & Commerce	2503	781	3284
2	School of Computing Sciences	1860	403	2263
3	School of Life Sciences	258	307	565
4	School of Mass Communication	472	67	539
5	School of Maritime Studies	505	15	520
6	School of Engineering	1862	304	2166
7	School of Basic Sciences	105	85	190
8	School of Hotel & Catering Mgmt.	132	22	154
9	School of Pharmaceutical Sciences	395	250	645
10	School of Physiotherapy	189	322	511
11	School of Ocean Engineering	103	7	110
12	School of Law	1273	581	1854
13	School of Languages	52	65	117
14	School of Education	26	207	233
15	School of Music & Fine Arts	29	21	50
16	School of Ancient Indian Studies	43	65	108
17	School of Agriculture	21	12	33
18	Vel Nursing College	85	115	200
19	Dept. of Aviation	213	91	304
	Total	10126	3720	13846

# Number of Students - School wise

# **Teaching Staff**

Teaching Staff	Male	Female	Total
Number of Teaching Staff	420	414	834

# School wise

S. No	Name of the School	Male	Female	Total
1	School of Management Studies & Commerce	82	76	158
2	School of Computing Sciences	28	58	86
3	School of Life Sciences	25	21	46
4	School of Mass Communication	21	9	30
5	School of Maritime Studies	31	6	37
6	School of Engineering	116	66	182
7	School of Basic Sciences	13	15	28
8	School of Hotel & Catering Mgmt.	10	3	13
9	School of Pharmaceutical Sciences	18	29	47
10	School of Physiotherapy	13	16	29
11	School of Ocean Engineering	11	5	16
12	School of Law	20	35	55
13	School of Languages	8	21	29
14	School of Education	7	17	24
15	School of Music & Fine Arts	2	4	6
16	School of Ancient Indian Studies	2	4	6
17	School of Agriculture	5	3	8
18	Vel Nursing College	-	23	23
19	Dept. of Aviation	8	3	11
	Total	420	414	834

# Non-Teaching Staff

Non-Teaching Staff	Male	Female	Total
Number of Non-Teaching Staff	255	246	501

Category	Male	Female	Total
Category –A	15	6	21
Category –B	60	25	85
Category – C	63	43	106
Category – D	88	60	148
Library	11	4	15
House Keeping & Security	18	108	126
Total	255	246	501

# Section 4: Facilities Available

- Boys Hostels
- Girls Hostels
- Staff Quarters
- Three air-conditioned auditoria with a capacity of 1200, 250 & 120
- Three air-conditioned seminar halls with a seating capacity of 150
- Main Canteen is available which can cater to 200 persons at a time and Three smaller canteens are also available
- Bank with ATM
- Pharmacy
- RO Plant
- Transport facilities
- Nine Diesel Generators
- Three Wind Mills
- Waste Management
- Solar Plant
- Insurance for all students and staff members

VISTAS have three playgrounds and other facilities such as:

- Football Field
- Volleyball Court
- Basketball Court
- Ball Badminton Court
- Badminton Courts (Outdoor)
- Throwball Court
- Tennikoit Court
- Taekwondo
- Cricket Practice Pitch (nets)
- Kabaddi Court
- Swimming Pool (25mtsX14 mts)

# **Facilities Available**

- 200 Mtrs Track
- Fitness Centre (gymnasium)
- Indoor hall to play Table Tennis, Carrom and Chess
- All the Fire Safety Equipment are provided on the premises
- Having necessary Wheel Chairs and Ramps in all the buildings on the campus.
- The institution is having adequate toilet facilities for physically challenged persons.
- Lift facilities are available
- All members of staff (Teaching, Non-teaching & Students) are covered through accident cum hospitalization insurance.
- Two separate Health Clinics are available One for Boys and One for Girls.
- One Male Medical Officer and One lady Medical Officer are available.
- Tie-up with nearby hospitals namely Kamatchi Hospital, and Parvathy Hospital.
- Apollo Shine Clinic is located within the campus.
- 24 Hrs Ambulance facility
- Nursing Assistants



# Section 6: Vision, Mission and Core Values

#### Vision

• To make the Institute an epitome of excellence in higher education by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

#### Mission

- Effectively **imparting knowledge** and inculcating **innovative thinking**.
- Facilitating skill enhancement through add on courses and hands-on training.
- Doing original, socially relevant, high-quality research.
- Facilitating appropriate co-curricular, extracurricular and extension activities.
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

## **Core Values**

#### VISTAS believe that:

- VISTAS students and scholars should be well-founded on the pursuit of knowledge through, teaching and learning research, with fellowships required based on intellectual merit, ability and the potential for excellence.
- Perspectives, arising from diverse knowledge backgrounds, that redefine our identities, deepen scholarly inquiry and enrich path-breaking newer knowledge horizons.
- Cherish the key values of academic freedom, creative and innovative thought, ethical standards and integrity, accountability and social justice, and nurturing an open mind and open society.
- Foster inquiry-led and evidence-based approach to creative knowledge; facilitate a vibrant academic ambience to nurture the intellectual climate.

## Section 7: Management's Commitment

The Management of the VISTAS has shown a commitment to green auditing during the audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environmentally friendly such as awareness programs on the environment, campus farming, planting more trees on the campus etc., after the green auditing. The management of the University was willing to improve policies based on the green auditing report.

## Section 8: Scope and Goals of Green Auditing

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Green Audit is the most efficient and ecological way to manage environmental problems. It is a kind of professional care that is the responsibility of each individual who is part of economic, financial, social, and environmental factors. It is necessary to conduct the green audit on the University campus because students become aware of the green audit, its advantages to saving the planet and they become good citizens of our country. Hence, a Green audit becomes necessary at the university level.

# Section 9: Benefits of the Green Auditing

- More efficient resource management
- o To provide a basis for improved sustainability
- To create a green campus
- To enable waste management through reduction of waste generation, solidwaste and water recycling
- To create a plastic-free campus and evolve health consciousness among the stakeholders
- o Recognize the cost-saving methods through waste minimizing and managing
- o Point out the prevailing and forthcoming complications
- o Authenticate conformity with the implemented laws
- o Empower the organizations to frame a better environmental performance
- o Enhance the alertness to environmental guidelines and duties
- Impart environmental education through a systematic environmental management approach and Improve environmental standards
- o Benchmarking for environmental protection initiatives
- o Financial savings through a reduction in resource use
- Development of ownership, personal and social responsibility for the University and its environment
- o Enhancement of University profile
- o Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the University.

## Section 10: Target Areas of Green Auditing

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of the educational institute". Eco-campus focuses on the reduction of contribution to emissions, procuring a costeffective and secure supply of energy, encouraging and enhancing energy use conservation, promoting personal action, reducing the institute's energy and water consumption, reducing wastes to landfill, and integrating environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, and Environment.

## Section 11: Methodology of Green Auditing

The purpose of the audit was to ensure that the practices followed on the campus are by the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

 Data Collection – In the preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, surveys communicating with responsible persons and measurements.

The following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- Data Analysis Detailed analysis of data collected includes calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- Recommendation Based on the results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. The use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University were evaluated through a questionnaire circulated among the students for data collection.

The following data was collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management

## Section 12: Auditing for Green Campus Management

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, overconsumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings. Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees on our campus impact our mental health and enabling environment as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

**576 Trees** and ornamental plants are planted inside the campus along with the medicinal plants.

# **Greenery - Medicinal Plants**

S. No	Common Name	Botanical Name	Tamil Name
1	Balloon Vine	Cardiospermum halicacabum	முடக்கத்தான் கீரை
2	Shameplant	Mimosa pudica	தொட்டாச்சுருங்கி
3	Butterfly Pea	Citorea ternatea	சங்கு கன்னிக்கொடி
4	Turmeric	Curcuma longa	மஞ்சள்
5	Indian Aloe	Aloe vera	கற்றாழை
6	Kachnar	Bauhinia variegata	மந்தாரை
7	Malabar nut	AdhatodaVasica	ஆடாதொடை
8	Mango	Mangifera indica	மாங்காய்'
9	Chikoo	Manilkara zapota	சப்போட்டா
10	Senna	Cassia angustifolia	ஆவாரை
11	Nerium.	Nerium oleander	அரளிப்பூ
12	Tulsi	Ocimum sanctum	துளசி
13	Jasmine	Jasminum sambac	மல்லிகை
14	Pencil tree	Euphorbia tirucalli	கள்ளி
15	Cassia	Cinnamomum cassia	இலவங்கப்பட்டை
16	Curry leaves	Murraya koenigi	கருவேப்பிலை
17	Thuthi	Abutilon indicum	துத்தி
18	Hibiscus	Hibiscus rosa-sinensis	செம்பருத்தி
19	Indian lilac	Melia azedarach	மலைவேம்பு
20	Black plum	Syzygium cumini	நாவல்
21	Indian beech tree	Pongamia pinnata	புங்கை
22	Keezhanelli	Phyllanthus nirruri	கீழாநெல்லி
23	Bhringraj	Eclipta prostrate	வெண்கரிசாலை

S. No	Common Name	Botanical Name	Tamil Name
24	Punamava	Boerhavia diffusa	மூக்கரட்டிசாரை
25	Snake-needle grass	Oldenlandia diffusa	இன்புறாவேர்
26	Llilac chaste tree	Vitex negundo	காட்டுநொச்சி
27	Vinca	Catharanthus roseus	நித்திய கல்யாணி
28	Neem	Azadirachta indica	வேம்பு
29	Henna	Lawsonia inermis	மருதாணி
30	Datura	Datura stramonium	ஊமத்தை
31	Arugambul	Cynodon dactylon	அருகம்புல்
32	Amla	Phyllanthus emblica	நெல்லிக்காய்
33	Guava	Psidum guajava	கொய்யாப் பழம்
34	Parijatham	Nyctanthes arbor-tristis	பவழமல்லி
35	Vallarai	Centella asiatica	வல்லாரை
36	Vetrilai	Piper bettle	வெற்றிலை
37	Omavalli	Plectranthus amboinicus	கற்பூரவல்லி
38	Cissus	Cissus quadrangularis	பிரண்டை
39	Calotropis	Calotropis gigantea	நீல எருக்கு
40	Thumbai	Leucas aspera	தும்பை
41	Chrysanthe -mum	Chrysanthemum morifolium	மல்லிகை
42	Kesavardhini	Eclipta prostrate	செம்பனை எண்ணெய்
43	Capsicum	Capsicum annuum	குடைமிளகாய்
44	Pomegranate	Punica grantum	மாதுளை
45	Seenthil	Tinospora cordifolia	சீந்தில்
46	Brahmi	Bacopa monnieri	நீர்ப்பிரமி
47	Indian copper leaf	Acalypha indica	குப்பைமேனி

S. No	Common Name	Botanical Name	Tamil Name
48	Indian long pepper	Piper longum	திப்பிலி
49	Rose	Rosa damascene	ரோஜா
50	Sweet Basil	Ocimum basilicum	திருநீற்றுப் பச்சிலை

# Variety and Number of Trees

S.N O	COMMON NAME	BOTANICAL NAME	TAMIL NAME	FAMILY	PLANT TYPE	No's
1	HOLY BASIL	Ocimumtenuiflu rm	TULASI	LAMIACEAE	Tender plant	4
2	BETAL	Piper bette	VETTRILAI	PIPERACEA E	Vine	5
3	MATURE TEA TREE	Senna auricalata	AAVARAM POO	FABACEAE	Herb/ Shrub tree	5
4	KARIYAT	Andrographispa niulate	SIRIYA NANGAI	ACANTHACE AE	Erect annual herb	8
5	INDIAN TULIP TREE	Thespesiapopul nea	PAVARASCE	MALVACEAE	Tree	3
6	HORSESH OE VITEX	Vitexnegundo	CHINDUVAR AM	LAMIACEAE	Large aromati c shrub	2
7	GOLDEN PENDA	Xanthostemonc hrysanthus		MYRATACE AE	Tree	2
8	VINCA	Catharanthusro secus	NITHYA KALYANI	APOCYNAC EAE	Shrub	6
9	ALOE	Aloe vera	KATRARAI	LILIACEAE	Succule nt plant	10
10	PONGAM	Milletia pinnate	PUNGAI	LEGUMINOS AE	tree	2
11	MILLETS	Penniseumglac um	THAANIYAN GAL	POCUEAE	Small seeded grass	6
12	TOUCH ME NOT	Mimosa pudica	THOTASILU NGI	MIMOSACEA E	Annual perenni al flowerin g plant	11
13	CALOTROP IS	Calotropisgigan	YARUGU	ASCLEPIAD EACEAE	Flowerin g plant	04
14	SWEET FLAG	Acoruscalamus	VASAMBU	ACORACEA E	herb	11

S.N O	COMMON NAME	BOTANICAL NAME	TAMIL NAME	FAMILY	PLANT TYPE	No's
15	BRAHMI	Bacopamonnier i	NEERA BRAHMI	PLANTAGIN ACEAE	Creepin g herb	09
16	LEMON BALM	Melissa officinalis	PARCIKAL CANKORI	LAMIACEAE	herb	18
17	LEMON	Citrus lemon	ELUMICCAI	RUTECEAE	Evergre en tree	5
18	CURRY TREE	Murrayekoenigr i	KARUVEPPI LAI	RUTECEAE	Small tree	6
19	CLIMBING BRINJAL	Solanamtrilobat um	THOODHUV Alai	SOLANACEA E	Herb	11
20	BALLON PLANT	Cardiospermu mhalicacabum	MUDAKATH AM	SAPINDACE AE	Herb	14
21	LAVANGAN I PATTAI	Cinnamomumz eylcamicum		LAURACEA	Tree	5
22	INDIAN BORAGE	Coleus ambonicus	KARPURAVA LLI	LAMIACEAE	Pubesc ent herb	6
23	INDIAN LILAC	Meliaazedarach	MALAIVAMB U	MELIACEAE	Tree	3
24	THORN APPLE	Daturastrominu m	UMATTAI	SOLANACEA E	Branchi ng herb	14
25	NEEM TREE	Azadirachtaindi ca	VAPPAM	MELIACEAE	Tree	5
26	SEED UNDER LEAF	Phyllanthusniru si	KEEZHA NELLI	PHYLLANTH ACEAE	Herb	5
27	DEVILS BACK BONE	Cissusquadran guleris	PERANDI	VITACEAE	Perenni al plant	5
28	HOG WEED	Boerhaviadiffus a	MUKARATIK ERAL	NYCTAGINA CEAE	Creeper	12
29	FALSE DIARY	Eclitta alba	KARISILANG ANNI	ASTERACEA E	Prostrat e herb	5
30	DEVILS WEED	Tribulustenestri s	NERUNJIL	ZYGOPHYLL ACEAE	Herbace ous perenni al plant	07
31	INDIAN MALLOW	Abutilon indicum	ТНИТНІ	MALVACEAE	Herb,sh rub and tree	2
32	INDIAN COPPER LEAF	Acaluphaindica	KUPPAIMAE NI	EUPHORBIA CEAE	Annual herb	14
33	INDIAN BORAGE	Plectranthusam boinicus	KARUPURA VALLI	LAMIACEAE	Succule nt	19

S.N O	COMMON NAME	BOTANICAL NAME	TAMIL NAME	FAMILY	PLANT TYPE	No's
					perenni al plant	
34	SWEET BASIC	Ocimumbasilicu m	THIRUNEET RUPACHANI	LAMIACEAE	herb	04
35	AGATHI	Serbaniagrandif fera	SEMAI AGATHI	Fabaceae	Small tree	10
36	ASOKA	Saracaeasica	ASOKA	Fabaceae	tree	3
37	ARUGAMB UL	Cynodondactyl on	ARUGAMBU L	Poaceae	shrub	5
38	ELUMICHA N TULASI	Ocimumgratissi mum	ELUMICHAN TULASI	Lamiaceae	herb	8
39	KARUPPU RA VALLI	Anisochiluscarn osus	KARUPPUR A VALLI	-	herb	7
40	LAIYANA MURUNGAI	Erythrinavaricg ata	KALYANA MURUNGAI	Fabaceae	Tree	6
41	PUDHINA	Menthes arvensis	PUDHINA	Lamiaceae	Plant	13
42	PULIYARAI	Oxalis corniculata	PULIYARAI	Oxalidaceae	Plant	09
43	GAUVA	Psidiumguajava	GOIYAA	Myrtaceae	Tree	05
44	SAAMAND HIPOO	Chrysanthemu m indicum	SAAMANDHI POO	Asteraceaee	Flowerin g plant	05
45	CINTHIL	Tinosaporacord ifolia	CINTHIL	Menispermac eae	Climbin g shrub	07
46	PEA EGG PLANT	Solanumforvum swarts	SUNDAI	Solanaceae	Spiny perenni al plant	6
47	SAMBARU THI	Gossypiumarbr oum	SAMBARUT HI	Malvaceae	Flowerin g plant	05
48	THUMBAI	Leucasaspera	THUMBAI	lamiaceae	Annual herbal shrub	05
49	CRAPE JASMINE	Taberneemonta nadivaricata	NANDHIYAV ATHAI	Apocynaceae	Evergre en shrub	11
50	PILKUNARI	Premnawilldto mentosa	PILKUNARI	Verbenaceae	Tree	03
51	FROG FRUIT	Lippie nodiflora	PODHUTHAL AI	Verbenaceae	Prostate perenni al plant	4
52	JASMINE	Jasminumsamb ac	MALLI	Oceaeceae	Evergre en shrub	17

| P a g e 32 of 74
S.N O	COMMON NAME	BOTANICAL NAME	TAMIL NAME	FAMILY	PLANT TYPE	No's
53	CAPSICUM	Capsicum annum	MILAGAI	Solanaceae	Froast perenni al	01
54	DRUMSTIC K	Moringaoleifera	MURUNGAI	Moringaceae	Tree	06
55	CENTALLA ASIATIC	Centellaasiatic	VALLARAI	Apiaceae	Creepin g shrub	11
56	WHITE GULMOHA R	Delonixelata	VADHANAR AYANAN	Fabaceae	Erect tree	13
57	PUNARNA VA	Boerhaaviadiffu sa	MUTHIRATH AI	Nyctanginace ae	Spreedi ng shrub	28
58	VATPALAI	Wrightia- tinctoria	VATPALAI	Apocynaceae	Shrub or tree	09
59	PUNNAI	Calophyllum Linn.	PUNNAI	Calophyllace ae	Tree or shrub	06
60	INDIAN TULIP TREE	Thespesiapopul nea	POOVARAS U	Malvaceae	Tree	06
61	PONNANG ANI	Alternantherase ssilis	PONNANGA NI	amaranthace ae	Perenni al herb	07
62	POMEGRA NANTE	Punca	MATHULAI	Lythraceae	tree	15
63	PARAKIPA THAI	Similax china	PARANKIP PATTAI	Smilaceae	Small tree	08
64	JAVA OLIVE TREE	Sterculia	PINARIMAR AM	Malvaceae	tree	19
65	MOUNTAIN KNOT GRASS	Aervalanata	PILAI	Amaranthace ae	shrub	04
66	GYMNAMA	Gymnemasylve stre	SIRUKENUJJ AN	Apocyanacea e	Perenni al herb	05
67	KODIVALLI	Plumbagoindic a	KODUVELI	Plumbaginac eae	Evergre en shrub	04
68	PEANUT	Arachishyposa eae	KADALAI	Fabaceae	Spreadi ng herb	03
69	YELLOW BERRIEDNI GHT SHADE	Solanumxantho carpum	KANDENKAT HIRI	Solanaceae	shrub	03

# Greenery at the University





|Page 34 of 74



|Page 35 of 74



| P a g e 36 of 74





| P a g e 37 of 74



|Page 38 of 74





| P a g e 40 of 74

### Section 13: Participation of Teams

In VISTAS the green auditing was done with the help of Pragnaa Shree Venture India Pvt. Ltd involves different student groups, teaching and non-teaching staff. The green audit began with the teams walking through all the different facilities at the college, determining the different types of appliances and utilities (lights, taps, toilets, fridges, etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and their impacts. The staff and learners were interviewed to get details of usage, frequency or general characteristics of certain appliances. Data collection was done in the sectors such as Energy, Waste, Greening, Carbon footprint and water use. College records and documents were verified several times to clarify the data received through surveys and discussions.

The following Committees have been constituted to facilitate smooth functioning and administrate the affairs of the University for 2022-2023.

#### Committee as per Statutory Requirements:

- 1. Anti-Ragging Committee
- 2. Grievance Redressal Committee
- 3. SC/ST/OBC Grievance Committee
- 4. Internal Complaint Committee (ICC)
- 5. Gender Sensitization Cell.

#### Other Internal Committees:

- 6. Students Affairs Advisory Committee
- 7. Disciplinary Committee
- 8. Counselling and Guidance Committee
- 9. Examination Malpractice Enquiry Committee
- 10. Central Admission Committee
- 11. Fee Fixation Committee
- 12. Library Committee
- 13. Central Purchase and Stores Committee
- 14. Transport Committee
- 15. Extension Activities Committee
- 16. National Service Scheme Advisory Committee
- 17. Rotract Advisory Committee
- 18. Youth Red Cross Advisory Committee
- 19. Sports & Games Committee
- 20. Building Committee
- 21. Equivalency Committee
- 22. Cultural Committee
- 23. Hostel Advisory Committee
- 24. Women Welfare Committee
- 25. Equal Opportunity Cell.

# Anti-Ragging Committee

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3	Mr. Sheldon Mark Jarrett Mobile : 9962236774 Email: <u>Jarrett.sylvester@gmail.com</u>	Media Artist Sterio Scopic Division L.V.Prasad Studio Saligramam,Chennai – 600 093
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#### **Grievance Redressal Committee**

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#### SC/ST/OBC Grievance Committee

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# Internal Complaint Committee (ICC)

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8	Ms. Valliammai V Ph : 9342640695	B.COM (A& F) – II year
9	Ms Daisy Priya  P Ph : 9150925350	Pharm D – III Year
10	Mr . Diwaker T Ph : 9884787924	MBA General – I year

### Gender Sensitization Cell

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3.	Dr.K.Karthickeyan	Professor & Head Department of Pharmacy Practice School of Pharmaceutical Sciences	
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9.	Mr.Vignesh. S	II year B.Tech. Biotechnology	
10.	Ms. Mohana Priya	l year M.Sc. Chemistry	

## Student Affairs Advisory Committee

S. No	Name	Designation		
	Chairman			
1	Dr. A.Subramanian	Dean Student Affairs		
	Me	mbers		
2	Capt.N.Kumar	Director , School of Maritime Studies		
3	Dr. Kathireshan A.K	Director School of Life Science		
4	Dr.T.S.Shanmugarajan	Professor & Head, Department of Pharmaceutics School of Pharmaceutical Sciences,		
5	Dr. Sivasankar.V	Professor and Head School of Languages (Tamil)		
6	Dr. Vennila Shree.S	Professor & Head Dept. of Commerce (CS) School of Management Studies & Commerce		
7	Dr. Perumal.S	Professor & Head Dept. of Computer Science School of Computing Sciences		
8	Dr.P.Sri Jothi	Professor & Head Dept. of Visual Communication School of Mass Communication		
9	Dr. Sivaganesan.S	Associate Professor Department of Mechanical Engg. School of Engineering		
10	Dr. Ulaga Priya.K	Associate Professor Dept. of CSE School of Engineering		
11	Mr. Rohan Kumar.D	Assistant Professor and Head (i/c) School of Law		
12	Dr.A.Ganesamurthy	Deputy Librarian, Dept. of Library		
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3.	Dr.P.Shanmugasundaram	Director, School of Pharmaceutical Sciences
4.	Dr. Kathireshan A.K	Director, School of Life Sciences
5.	Dr.C.Dhanasekaran	Professor & HOD, Dept. of Mechanical School of Engineering
6.	Dr. Sivasankar.V	Professor and HOD School of Languages (Tamil)
7.	Mr.S.Thambusami	Director Discipline & Safety, VISTAS

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3	Dr. S.Prasanna Ph:9884014466 Email: <u>prasanna.scs@velsuniv.ac.in</u>	Professor & Head, Dept. of MCA & BCA (Hons.) School of Computing Sciences		
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5	Dr.T.Jaya Ph:9941156806 Email: jaya.se@velsuniv.ac.in	Associate Professor, Department of ECE School of Engineering		
6	Dr.T.Ilango Ph:8903120517 Email: hodcivil@velsuniv.ac.in	Assistant Professor & Head(i/c) Dept. of Civil, School of Engineering		
7	Mr.M.S.Chithan Ph: 9940285920 Email: <u>placement@velsuniv.ac.in</u>	Chief Placement Officer Placement Cell		
8	Ms.V.S.Amala Ph. 9444293154 Email: <u>studentcounsellor@velsuniv.ac.in</u>	Student Counsellor		

# Examination Malpractice Enquiry Committee

S. No	Name	Designation
	Chairma	an
1.	Dr. A. Udhaya Kumar	Controller of Examinations
	Member	rs
2.	Chief Superintendent of Respective University Examinations	Chief Superintendent
3.	Dr.M.Chandrasekaran	Dean Academic Courses Director of Mechanical Engg. School of Engineering
4	Dr. S.Ambika Kumari	Dean School of Law
5	Dr. Kathireshan A.K	Director School of Life Science
6	Dr. P.Sujatha	Professor & Head Dept. of BCA School of Computing Sciences

S.No.	Name	Designation	
	Chairman		
1	Dr.M.Chandrasekaran	Dean Academic Courses Director of Mechanical Engg. School of Engineering	
	N	lembers	
2	Dr.R.A.Kalaivani	Dean School of Basic Sciences	
3	Dr.T.S.Shanmugarajan, Ph : 9566049808 Email: smrajan.sps@velsuniv.ac.in	Professor & Head, School of Pharmaceutical Sciences,	
4	Dr. Anandan.R	Professor & Head Department of CSE School of Engineering	
5	Dr. Vennila Shree.S	Professor Dept. of Commerce (CS) School of Management Studies & Commerce	
6	Dr. V.Jayalakshmi	Professor, Department of MCA, School of Computing Sciences	

### **Central Admission Committee**

#### Members of Fee Fixation Committee

S. No	Name	Designation	
	Chairman		
1.	Thiru.K.Ramaswamy	Former District and Sessions Judge, 38, LB Road, Judges Avenue, Kamaraj Nagar, Thiruvanmiyur, Chennai – 600 041.	
Members			
2.	Mr.B.Kalyanakumar	Finance Director	
3.	Thiru.T.Pitchandi	IAS (Retd) Former Secretary & Commissioner HR&CE, Govt. of Tamil Nadu	
4.	Dr Rajendran N 044-22358637	Professor & Head , Department of Chemistry Anna University, Chennai,	
5.	Capt.N.Kumar	Director, School of Maritime Studies	
6.	Dr. R.A.Kalaivani	Dean School of Basic Sciences,	
General Secretary			
7.	Dr.M.Chandrasekaran	Dean Academic Courses Director of Mechanical Engg. School of Engineering	

# Library Committee

S. No	Name	Designation	
	Chairman		
1	Dr. Arun.S	Director, IQAC Professor, Dept. of CSE School of Engineering	
	Ν	/lembers	
2	Dr.M.Chandrasekaran	Dean Academic Courses Director of Mechanical Engg. School of Engineering	
3	Dr. S.Ambika Kumari	Dean, School of Law	
4	Capt.N.Kumar	Director, School of Maritime Studies	
5	Dr.P.Shanmugasundaram	Director, School of Pharmaceutical Sciences	
6	Dr. Kathireshan A.K	Director, School of Life Science	
7	Dr.S.Prasanna	Professor & Head Department of MCA&BCA (Hons.) School of Computing Sciences	
Member Secretary			
8	Dr.A.Ganesamurthy	Deputy Librarian Dept. of Library	

## Central Purchase and Stores Committee

S. No	Name	Designation	
	Chairman		
1	Dr.C.Dhanasekaran	Professor & HOD Dept. of Mechanical Engg. School of Engineering	
Members			
2	Mr.V.Sriraman	Asst. Professor Dept. of Chemistry School of Basic Sciences	
3	Ms. Sudha Babulnath	Chief Human Resource Officer HR Department	
4	Mr. Sreedhar. B	Senior Purchase Manager Purchase Department	
5	Mr.Y.S.Pradeep Kumar	Stores Manager	
6	Mr.Arumugam.P	Asst. Section Officer Purchase Department	

## Transport Committee

S. No	Name	Designation	
	Chairperson		
1	Dr. K.Sheeba Mobile No: 9444162954 hodintegrated.sedu@velsuniv.ac.in	Associate Professor & Head(i/c) School of Education	
Members			
2	Dr.K.Kamala Mobile No.8939090553 <u>kkamaladr@gmail.com</u>	Professor, Department of Tamil School of Languages	
3	Dr.A. Akila Mobile No. 9840627801 <u>akila.scs@velsuniv.ac.in</u>	Associate Professor Dept of Computer Science School of Computing Sciences	
4	Dr.P.Vijayalakshmi Mobil No.9884748820 Viji.se@velsuniv.ac.in	Associate Professor Dept of ECE School of Engineering	
5	Mr.S.Vaidhyanathan Mobile No: 9884679355	Administrative Officer	
6	Mr.S. Venkatesh Mobile No.9962506230 Vemkat.the.don18@gmail.com	Transport Incharge Dept. of Transport	

### Extension Activities Committee

S. No	Name	Designation	
	Chairman		
1.	Dr. P. Jagadeesan	Professor & Head, Dept. of Commerce (G) School of Management Studies & Commerce	
	Ν	<i>l</i> embers	
2	Dr. M. Chandrasekaran	Dean Academic Courses Director of Mechanical Engg. School of Engineering	
3	Dr.P.Shanmugasundaram	Director, School of Pharmaceutical Sciences	
4	Dr. Hemalatha.R.J	Associate Professor and Head Dept of Bio Medical Engineering School of Engineering	
5	Dr.N.Shanmuga Sundaram	Associate Professor & Head i/c, Department of EEE School of Engineering	
6	Dr. S.Preetha	Professor, Department of MBA School of Management Studies	
7	Dr. Sivasankar.V	Professor and HOD School of Languages (Tamil)	
8	Dr.P.Sri Jothi	Professor & Head School of Mass Communication	
9	Dr.S.Jerritta	Professor & Head, Dept. of ECE School of Engineering	
10	Dr.V.Girija	Associate Professor School of Education	
11	Dr.M.Prabhakaran	Assistant Professor Dept. of Tamil School of Languages	

# National Service Scheme (NSS) Advisory Committee

S. No	Name	Designation
CHAIRM	1AN	
1.	Dr. P. Jagadeesan	Professor & Head, Dept. of Commerce - (General) School of Management Studies & Commerce
MEMBE	ERS	
2.	Dr. Kathireshan A.K	Director, School of Life Science Dept. of Microbiology
3	Dr. M. Prabhakaran	NSS Co-ordinator Assistant Professor, Dept. of Tamil School of Languages
4	Dr. Karunakaran.K	Associate Professor Dept of Mechanical School of Engineering
5	Dr. A. Manikandan UNIT – I	Assistant Professor Department of CSE School of Engineering
6	Dr. V. Maheswari UNIT - II	Associate Professor, Dept. of Mathematics School of Basic Science
7	Dr.P.Vijayalakshmi UNIT - III	Associate Professor Department of ECE School of Engineering
8	Dr. I. Somasundaram UNIT - IV	Associate Professor Sch. of Pharm. Sciences

## Rotract Advisory Committee

S. No	Name	Designation	
	Chair	rperson	
1.	Dr.M.Thaiyalnayaki	Professor, Dept. of Commerce (A&F) School of Management Studies &Commerce	
	Members		
2.	Dr.P.Jagadeesan	Professor & Head, Dept. of Commerce - (General) School of Management Studies & Commerce	
3	Dr. Prakash.B	Associate Professor & Head Dept. of Bio Technology School of Life Science	
4	Dr.V. Maheswari	Associate Professor, Dept. of Mathematics School of Basic Science	
5	Dr. T. llango	Assistant Professor and Head i/c Dept. of Civil, School of Engineering	
6	Dr. Poornima Srinivasan	Assistant Professor, Dept. of Hindi School of Languages	
7	Dr. Jeyanthi.R	Assistant Professor School of Education	

## Youth Red Cross Advisory Committee

S. No	Name	Designation	
	Chairman		
1.	Dr.S.Chandra Chud	Professor, Dept. of Economics School of Management Studies & Commerce	
	Members		
2	Dr. Radha Mahendran	Professor & Head, Dept. of Bioinformatics School of Life Sciences	
3.	Dr.M.Vijey Aanandhi	Professor & Head, Dept. of Chemistry & Analysis School of Pharmaceutical Sciences	
4	Dr.A.S.Arunachalam	Associate Professor, Dept. of Computer Science School of Computing Sciences	
5	Dr.T.Ilango	Assistant Professor and Head i/c Dept. of Civil Engg. School of Engineering	
6	Dr. Hemalatha.R.J	Associate Professor and Head Dept. of Bio Medical Engineering School of Engineering	
7	Mr.M. Prabhakar Christopher David	Assistant Professor, Dept. of BBA School of Management Studies & Commerce	

## Sports & Games Committee

S. No	Name	Designation	
	Chairman		
1	Dr. A.Subramanian	Dean Student Affairs	
	M	embers	
2	Dr.S.N. Sugumar	Professor & Head, Dept. of Economics School of Management Studies & Commerce	
3	Mr.S.Thambusami	Director Discipline & Safety, VISTAS	
4	Dr.A.K.Kathireshan	Director School of Life Sciences	
5	Dr.C.Dhanasekaran	Professor & HOD Dept. of Mechanical Engg. School of Engineering	
6	Dr.P.Senthil Selvam	Professor & Head School of Physiotherapy	
7	Dr. S.Nangaiyar Karasi	Assistant Professor School of Education	
8	Dr.S.Sivaganesan	Associate Professor, Dept. of Mech. Engg. School of Engineering	
9	Dr.S.Perumal	Professor & Head, Dept. of Computer .Science School of Computing Sciences	
10	Dr.C.Shanthi	Associate Professor, Department of BCA & IT School of Computing Sciences	
Students			
11	Mr.Sarathi Amarnath. S	M.B.A. Innovation Entrepreneurship and Venture Development - I Year / A Sec.	
12	Ms.Divya Dharshini. N	B.A. Economics II Year / A Sec.	

S. No	Name	Designation
Member Secretary		
13	Dr.A.Arangannal	Physical Director

#### **BUILDING COMMITTEE**

S. No	Name	Designation	
Chairman			
1.	Dr. T. Ilango	Assistant Professor and Head i/c Department of Civil, School of Engineering	
Members			
2	Mr.B.Kalyanakumar	Finance Director Department of Finance	
3	Dr.N.Shanmuga Sundaram	Associate Professor & Head i/c, Department of EEE School of Engineering	
4	Mr.Gunasekaran. P	Residential Director Hostel (Men & Women)	
5	Mr. Siva Perumal.P	Civil Engineer, Department of Maintenance	
Member Secretary			
6.	Dr. R.Sridhar	Associate Professor Dept. of Mechanical Engg. School of Engg.	

## Equivalency Committee

S. No	Name	Designation	
Chairman			
1.	Dr.A. Udhaya Kumar Ph : 996250624	Controller of Examinations	
Members			
2	Dr. M. Chandrasekaran Ph : 9962506351	Dean Academic Courses Director of Mechanical Engg. School of Engineering	
3	Dr.R.A.Kalaivani Ph: 9962506223	Dean School of Basic Sciences	
4	Dr. Arun.S Ph: 9787115195	Director, IQAC Professor, Dept. of CSE School of Engineering	
5	Dr.G. Rajini Ph :9443377437	Professor & Head Department of MBA (General) School of Management Studies	
6	Dr.V.Jeyalakshmi Ph : 9884830831	Professor Department of MCA School of Computing Sciences	

### **Cultural Committee**

S. No	Name	Designation
Chairperson		
1.	Dr.R.A.Kalaivani	Dean School of Basic Sciences
Members		
2	Dr.A.A.Jayashree Prabhakar	Associate Professor & Head i/c Dept. of English School of Languages
3	Dr. Sridhar.R	Associate Professor, Department of Mechanical School of Engineering
4	Dr. Madhumita.G	Associate Professor Dept. of MBA LSCM School of Management Studies
5	Dr.M. Prabhakaran	Assistant Professor, Dept. of Tamil School of Languages
6	Mr. Thulasi Bharathi.M	Assistant Professor Dept of Animation School of Mass Communication
7	Mr.Sheldon Mark Jarret	Assistant Professor, Department of Animation, School of Mass Communication
8	DrM.Monisha	Assistant Professor Dept. of ECE School of Engineering
Students		
9	Mr.Bernatsha G	B.Tech IT- III year
10	Ms.Nivedha	MBA -I year
11	Mr.Joel A	BA Music – II year
12	Mr.Usaman S	B.Sc (CS)- III year
13	Ms.Roshna M D	B.Sc Micro Biology – I year
14	Mr.Lingaraj. G	B.Com – II year
15	Mr.Ferosh	BA LLB – II year

|Page 65 of 74

## Hostel Advisory Committee

S. No	Name	Designation	
Chairman			
1.	Dr. A.Subramanian	Dean Student Affairs	
MEMB	ERS		
2	Dr.C.Dhanasekaran	Professor & Head Department of Mechanical Engg. School of Engineering	
3	Dr.Jagadeesan.P	Professor & Head, Dept. of Commerce (General) School of Management Studies & Commerce & Warden – Men's Hostel	
4	Ms.G.Suganthi	Assistant Professor Physical Education	
5	Mr.P.Gunasekaran	Residential Director Hostel(Men & Women)	
Residential Warden			
6	Dr.K.S.Thirunaukkarasu	Deputy Warden – Emerald Boys Hostel	
7	Mr.Anandhu Rajeev	Deputy Warden – Diamond Boys Hostel	
8	Mr.Sasikumar	Deputy Warden – Sapphire Boys Hostel	
9	Ms.Parvathavarthini	Deputy Warden – Ruby Girls Hostel	
10	Dr.Kalpana.G, B.Com. General	Deputy Warden, Pearl Girls Hostel	
Students			
11	Mr. Beroz Sherim. J	B.A. LL.B (Honours) II Year / A Sec. Hostel: Sapphire Boys Hostel Mobile: +91 8925175495	
12	.Mr. Narayana Naveen Kumar S	B.Tech (CS- ML) – II year Hostel: Emerald Boys Hostel Mobile - 9363049738	
13	Ms.Gobikaa. T	B.Com. General II Year / B Sec. Hostel: Ruby Girls Hostel	

#### Women Welfare Committee

S. No	Name	Designation	
Chairperson			
1	Dr.R.A.Kalaivani	Dean School of Basic Sciences,	
Members			
2.	Dr.Maheswari.P	Associate Professor School of Pharmaceutical Sciences	
3	Dr.G.R.Jothilakshmi.G.R	Associate Professor, Department of ECE, School of Engineering	
4	Dr.Meenakshi .S	Associate Professor & Head, Department of Mathematics School of Basic Sciences	
5	Dr. Rajini.G	Professor &Head Dept. of MBA School of Management Studies	
6	Dr. S. Vasantha	Professor & Head Dept. of MBA School of Management Studies	
7	Dr.G.Gayathri	Associate Professor Dept. of Microbiology School of Life Sciences	
8	Ms.M.S.Vijayalakshmi	Deputy Registrar Administration	
Students			
9	Ms. Harshitha.B	Pharm. D, I Year	
10	Ms. Rajeswari R	MBA IEV - I year	

Equal Opportunity Cell			
S No	Name	Designation	
0.110	Name	Designation	
	Chairperson		
1.	Dr. S. Vasantha	Professor & Head	
		Department of MBA(LSM)	
		School of Management Studies	
	Members		
		Professor,	
2	Dr. V. Muthuraman	Dept. of Mechanical Engg.	
		School of Engineering	
	Dr.Gunasekaran.K	Associate Professor & Head	
3		Dept. of BBA	
5		School of Management Studies and	
		Commerce	
	Dr. N. Kumar	Professor	
4		Department of CSE	
		School of Engineering	
	Dr. S. Kamalakannan	Associate Professor,	
5		Dept. of BCA & IT	
		School of Computing Sciences	
	Dr.Maheswari.V	Associate Professor	
6		Department of Mathematics	
		School of Basic Science	
Parent & Student Name			
7	Ms. Roopa Latha.S	MBA (LSM) I-Year	
8	Ms. S. Kamrunisha	BBA I-Year	
## Section 14: Best Practices / Initiatives done by the University;

## **Rain Water Harvesting**







- o Biogas plant erected
- Machinery is installed for the conversion of biodegradable solid waste into manure.
- Water harvesting and effective waste management.
- Extensive green covering of campus
- Energy Audit, Safety Audit, and Green Audit are being conducted regularly.
- The Institution has initiated an eco-club consisting of students and faculty to identify places for planting trees and to take care of soil fertility. Plantation and maintenance of saplings have become the rudimentary activities towards realizing the "go green" vision of the Institution.
- Pradhan Mantri Bhartiya Janaushadhi Kendra (PMBJK) is an initiative to ensure the availability of quality medicines at affordable prices to all. Based on the vision of the Prime Minister, PMBJK was inaugurated by Dr S Manivanan, Deputy Drugs Controller, CDSCO on 19th March 2018. This generic medical store provides quality medicines at an affordable cost to the public.
- Green areas and lung spaces are well maintained and the university has conducted a green audit of its campus
- The University identified areas of environmental pollution and initiated steps toward reducing the same.
- Green generators are installed to overcome the energy crises.
- o A dedicated Medicinal plants garden is maintained.
- Smoking is prohibited on the campus and the campus is a non-smoking campus.
- Tree plantation is done periodically and the greenery is maintained on the campus.
- $\circ~$  Our green cover is around 30% of the total surface area.
- Only Bharath 3 fuel-efficient vehicles are used and vehicles are allowed to park only in the selected area and not within the campus.
- o Genset usage is restricted and is used only sparingly.
- Minimization of paper usage by adopting online communications and ERP systems.
- The Herbal Garden is maintained by the School of Pharmaceutical Sciences.
- Adequate measures have been taken to protect the trees in and around the campus.

- $\circ$  The campus is well maintained with trees and ornamental plants.
- Tree planting is the popular scheme adopted by our NSS students and "Go Green" is another slogan to motivate our students to go for tree planting.
- $\circ$  New trees are planted regularly as and when required.
- The inverter is used when there is power shut down for a short duration instead of operating generators.
- The LED lamps are progressively used in the place of other lamps.

## Section 15: Conclusion

The green audit assists in the process of monitoring and verifying the performance in the environmental arena and is fast becoming an indispensable aid to decision making in VISTAS.

The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the University. Hope that the results presented in the green auditing report will serve as an opportunity to improve the environment-related practices and resource usage at the university as well as new activities and innovative practices. A few recommendations are added to waste management using eco-friendly and scientific techniques. This may lead to a prosperous future in the context of Green Campus and thus sustainable environment and community development.

It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to the audited organization. An outside view, perspective and opinion often help staff who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various stakeholders who need to be convinced that things are running smoothly and that systems and procedures are coping with natural changes and modifications that occur.

## Section 16. List of Recommendations

## Common Recommendations

- Strengthening of existing environmental policy for the overall University
- Upscaling the water, waste and energy management systems

## Section 17: Disclaimer

Pragnaa Shree Venture India Pvt. Ltd has prepared this report for Vels University based on input data submitted by the representatives of the University.

It is further informed that the conclusions are arrived at following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

Pragnaa Shree Venture India Pvt. Ltd, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

# Green Audit Report (2022-23)



## VELS MEDICAL COLLEGE AND HOSPITAL

[Under VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS)] Uthukottai Taluk, Tiruvallur District – 601 102

Audit Date: 12th June 2023



Pragnaa Shree Venture India Pvt. Ltd Door No. 4 & 5, Flat No. F-2, Daya Garden, First Floor, 2nd Cross Street, New Colony, Chrompet, Chennai – 600 044

#### INDEX

S. No	Contents	Page No
1	Executive Summary	3
2	Introduction to VISTAS & VMCH	5
3	Vision and Mission – VMCH	9
4	General Information	10
5	Facilities	11
6	VMCH Layout	12
7	Management Commitment	13
8	Scope and Goals of Green Audit	14
9	Benefits of Green Audit	16
10	Target Areas of Green Audit	17
11	Methodology	18
12	Auditing Green Campus	20
13	Participation and Consultation	26
14	Best Practices / Initiatives	35
15	Conclusion	40
16	List of Recommendations	41
17	Disclaimer	42

#### **Executive Summary**

A green audit is a systematic process that identifies, quantifies, records, reports, and analyzes the environmental aspects of various establishments. The audit aims to assess the environmental practices within a site and their impact on creating an eco-friendly environment.

Green audits are valuable tools for colleges. They help determine how and where resources like water and energy are used the most. This information allows colleges to implement changes for sustainable resource use. Green audits can also inform recycling projects and improve waste minimization plans.

Additionally, green audits can create health consciousness and promote environmental awareness, values, and ethics. They provide staff and students with a better understanding of the importance of a green campus.

Institutional self-evaluation is a natural and necessary part of a quality educational institution. Therefore, it's crucial for colleges to assess their contributions to a sustainable future. As environmental sustainability becomes increasingly important for national development, the role of higher educational institutions in promoting it becomes even more prevalent.

Educational institutions are now becoming more sensitive to environmental factors, introducing concepts to make them eco-friendly. To preserve their campuses, various educational institutes apply viewpoints to solve environmental problems. These solutions include promoting energy savings, recycling waste, reducing water usage, and water harvesting.

The activities pursued by a university can also create a variety of adverse environmental impacts. Environmental auditing is a process that tests an organization's environmental performance against its policies and objectives. A green audit is an official examination of a university's environmental effects. As part of this practice, an internal green audit is conducted to evaluate the actual situation on campus.

The green audit can be a valuable tool for a university to determine how and where it uses the most energy, water, or resources. The university can then consider implementing changes to make savings. It can also be used to determine the type and volume of waste, which can inform a recycling project or improve the waste minimization plan.

Green auditing and implementing mitigation measures create a win-win situation for the university, learners, and the planet. It can also create health consciousness and promote environmental awareness, values, and ethics. It provides staff and students with a better understanding of the green impact on campus. Green auditing promotes financial savings through reduced resource use and allows for the development of ownership and personal and social responsibility for students and teachers.

The audit process involved initial data collection, a site walkthrough with the VISTAS team to review policies, activities, documents, and records. This was followed by staff and student interviews, data collection, record review, observation of practices, and observable outcomes.

We thank the Management of VISTAS, VMCH Management and Dr, Kumar and other team members for supporting the entire audit process.

We are pleased to submit this green audit report to the VELS Medical College and Hospital (VMCH)..

We are happy to submit this green audit report to the VELS MEDICAL COLLEGE AND HOSPITAL (VMCH).

Mr. S.K. Srinivasan Mr. R. Murali Mr. S. Babu

Pragnaa Shree Venture India Pvt. Ltd

### Introduction to VISTAS

Vels Medical College & Hospital (VMCH) is an integral part of the VELS Institute of Science, Technology, and Advanced Studies (VISTAS), founded in 2018. VISTAS is located on Periyapalayam Road, in Manjankaranai Village, Uthukottai Taluk, Tiruvallur District, Tamil Nadu.

#### About VELS Institute of Science, Technology, and Advanced Studies (VISTAS):

The Vels Group of Institutions is run by the Vael's Educational Trust, a charitable, non-profit organization established in 1992 by Dr. Ishari K. Ganesh. The trust was founded to commemorate the memory of his father, Shri. Isari Velan, a former Deputy Minister in the government of Dr. M.G.R. Shri. Isari Velan was also associated with the film industry.

Vael's Educational Trust has always strived to take education to first-generation learners and underprivileged communities. Their vision is to instill self-reliance and discipline in the youth and to improve the quality of higher education.

The multifaceted Vels Group of Institutions under Vael's Educational Trust highlights the organization's commitment and dedication to the noble cause of higher education. By lighting the lamp of education for countless students across India, Vael's holds high the torch of quality education.

This institution of higher learning and excellence stands as a leviathan in the everexpanding ocean of education. Dr. Ishari K. Ganesh, the founder, Chairman, and Managing Trustee, is the driving force behind Vels' success story.

A firm believer in the philosophy of hard work, Dr. Ganesh is a visionary and inspiring academician. He has instilled in generations of students a love for quality education, one that is tempered by discipline and enlivened by dedication.

Vels Institute of Science, Technology and Advanced Studies (VISTAS) began its journey with Vels College of Pharmacy in 1992. Vels College of Physiotherapy (1993) and Vels College of Science (1993) were established soon thereafter. In recognition of its achievements, the Ministry of Human Resource Development (MHRD), Government of India, conferred the esteemed Deemed University status upon these institutions collectively under the registered name VISTAS on June 4, 2008. The UGC (University Grants Commission) granted the Deemed University status considering the institute's rich experience and commitment to quality in higher education.

The VISTAS head office is located in Pallavaram, Chennai, about 2 kilometers south of Pallavaram Railway Station and nearly 4 kilometers from Chennai Airport.

VISTAS has flourished into a multi-disciplinary institute offering over 100 undergraduate (UG) and postgraduate (PG) programs, in addition to doctoral programs. These programs are delivered through 16 schools and 45 departments. All programs have the approval of relevant statutory regulatory agencies such as UGC, AICTE, PCI, BCI, NCTE, DGS, etc. VISTAS boasts a student body of nearly 14,500 and a faculty of nearly 709, with 348 holding doctoral degrees.

VISTAS has further distinguished itself by being recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. The institute boasts improved infrastructure, modernized laboratories, expanded hostel facilities, and enhanced sports facilities.

Since becoming a deemed university, VISTAS has undertaken a periodic review and revamp of syllabi across all disciplines. This has resulted in a significant increase in student enrollment, particularly among women students. The university is well-equipped with cutting-edge ICT facilities, including smart classrooms, video conferencing capabilities, online courses, and the Vels Knowledge Resource Centre.

#### About Vels Medical College & Hospital (VMCH):

VMCH provides services across various medical specialties, including General Medicine, Respiratory Medicine, Psychiatry, Obstetrics & Gynaecology, Paediatrics, Diabetology, Nephrology, Cardiology, and surgical disciplines such as ENT, General Surgery, Paediatric Surgery, Orthopaedics, Ophthalmology, Cardiothoracic Surgery, and Urology. Additionally, VMCH offers ambulatory care services such as Anaesthesiology, Emergency & Trauma Care, and more.

VMCH fulfils the healthcare needs of the local population by providing diagnostic, preventive, and curative healthcare services. Nestled in a serene 40-acre campus, VMCH offers top-notch facilities, cutting-edge infrastructure, and a well-equipped library featuring the latest medical literature and journals.

Key features of the hospital include:

- 600 Inpatient Beds
- 9 Major Operation Theatres and 5 minor operation theatres
- 24-hour Laboratory & Pharmacy
- Outpatient Department Rooms
- Dedicated Dialysis unit with 5 beds
- Advanced diagnostic facilities like CT, USG, ECHO, X-Ray, Treadmill, and PFT
- Dedicated Ambulances and a 24-hour Vels Hospital Emergency, Accident & Trauma line
- High-end Intensive Care Unit (ICU)
- 24-hour Pediatric Intensive Care Unit (PICU) and Neonatal Intensive Care Unit (NICU)
- 24-hour Obstetrics & Gynaecology (Labour Ward)

To ensure comprehensive care, Vels Medical College and Hospital have an experienced team of faculty members and consultants specializing in various medical and surgical disciplines. The hospital also has a dedicated nursing staff and paramedics. Moreover, it is equipped with state-of-the-art life support systems and cutting-edge technology to provide the best possible medical care. The eco-friendly campus, along with the optimal use of information technology, is ideally suited for academic pursuits and greatly enhances teaching and learning activities.

Regular continuing education programs and faculty development programs contribute immensely to updating knowledge and improving teaching skills.

#### Our Vision and Mission Statements

#### Vision

VELS Medical College & Hospital (VMCH) started with a vision to be a model for medical education, research, and to serve the people, with a special focus on the rural population. The aim is to provide the underprivileged with highly advanced medical facilities and educate them about prevention from illness.

#### Mission

To develop one of the best health care professionals who are compassionate, and committed to providing the highest standards of patient care through:

- Student-centered innovative teaching methodologies equip them to develop critical thinking skills and to become lifelong learners committed to continuous improvement of skills and knowledge.
- Clinical transformation, as Healthcare Professionals, who are ethical, responsive, and accountable to patients, community, and profession and make a valuable contribution to patients and healthcare as individuals and as responsible members of society.
- Igniting innovative learning habits in young minds to reach their fullest potential.
- Acquiring team building and communication skills to enrich their healthcare practice in any setting and make them globally competent healthcare professionals.
- Promoting original research in basic and clinical sciences among students and faculty bound by good ethical practice.

## **General Information**

S. No	Description (2022-23)	Male	Female
1	Students	130	159
2	Teaching Staff	63	67
3	Non-Teaching Staff	207	134
4	Total	400	360

## Number of Students - School-Wise

S. No	Name of the School	Male	Female	Total
1	Bachelor of Medicine, Bachelor of Surgery (MBBS)	67	83	150
2	B. Sc (Nursing)	54	46	110
3	B. Sc (Operation Theatre And Anesthesia Technology)	6	24	30
4	B. Sc (Radiology and Imaging Technology)	3	3	6
5	B. Sc (Optometry)	0	3	3
	Total	130	159	299

## Facilities Available

College		
College Block	Examination Hall	
Lecture Hall	Board Room	
Demo Rooms	Cafeteria	
Lab	Anatomy	
Dissection Hall	Bio Chemistry	
Histology Lab	Community Medicine	
Museum	Forensic	
Microbiology	Pathology	
Pharmacology	Physiology	

Hospital		
OPD	IPD	
Labour Room	ОТ	
Blood Bank	MRD	
CSSD	Laundry	
MHC	ENT	

Accommodation		
Boys Hostel	Girls Hostel	
Dining Hall	Resident Quarters - Male	
Resident Quarters - Female	Staff Quarters	
Dean Quarters	MS Quarters	



#### Management's Commitment

During the audit meeting, the Management of VMCH demonstrated their commitment to green auditing by expressing their readiness to encourage all green activities. As a result of the green audit, they decided to promote environmentally friendly initiatives such as environmental awareness programs, campus farming, planting more trees on campus, and installing solar panels. The management was also willing to improve policies based on the green auditing report.

#### Scope of Green Auditing

- Resource Utilization: This includes assessing the institution's water, energy, and other natural resources consumption. The audit evaluates how efficiently these resources are being used and identifies opportunities for conservation.
- Waste Management: The audit looks at how the institution handles solid waste, liquid waste, and hazardous waste. It examines if there are proper disposal and recycling mechanisms in place to minimize environmental impact.
- Biodiversity and Green Cover: This aspect focuses on the campus's greenery. The audit assesses the number and health of trees, the presence of gardens, and overall efforts to promote biodiversity within the institution.
- **Compliance:** The audit ensures the institution adheres to relevant environmental regulations set by the government.
- Green Initiatives: This includes programs and practices the institution has adopted to promote a sustainable campus. This could involve using renewable energy sources, rainwater harvesting, paperless initiatives, or green transportation options.

#### Green Audit Goals

- Evaluate Environmental Performance: Assess how efficiently a VMCH utilizes natural resources like water and energy, along with its waste management practices. This helps identify areas for improvement.
- **Promote Sustainability:** Encourage VMCH to adopt sustainable practices by analyzing their current environmental impact.
- **Improve Environmental Compliance:** Ensure universities comply with environmental regulations set forth by the government.
- **Reduce Environmental Impact:** By highlighting areas of improvement, green audits help universities minimize their environmental footprint.
- Enhance Reputation: A positive green audit report can improve a university's reputation and attract environmentally conscious students and faculty.
- **Cost Savings:** Green initiatives often lead to cost savings through reduced resource consumption and improved waste management.
- Educate the Community: The green audit process raises awareness about environmental issues among students, faculty, and staff.

#### Benefits of the Green Auditing

- o More efficient resource management
- o To provide a basis for improved sustainability
- o To create a green campus
- To enable waste management through reduction of waste generation, solid- waste and water recycling
- To create a plastic-free campus and evolve health consciousness among the stakeholders
- o Recognize the cost-saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- o Authenticate conformity with the implemented laws
- o Empower the organizations to frame a better environmental performance
- o Enhance the alertness to environmental guidelines and duties
- Impart environmental education through a systematic environmental management approach and Improve environmental standards
- o Benchmarking for environmental protection initiatives
- Financial savings through a reduction in resource use
- Development of ownership, personal and social responsibility for the VMCH and its environment
- o Enhancement of VMCH profile
- Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the VMCH.

#### **Target Areas of Green Auditing**

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of the educational institute". Eco-campus focuses on the reduction of contribution to emissions, procuring a cost-effective and secure supply of energy, encouraging and enhancing energy use conservation, promoting personal action, reducing the institute's energy and water consumption, reducing wastes to landfill, and integrating environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, and Environment.

## Methodology of Green Auditing

#### Purpose:

The purpose of the audit was to ensure that the practices followed on campus comply with the Green Policy adopted by the VMCH.

#### Methodology:

The criteria, methods, and recommendations used in the audit were based on the identified risks. The methodology included:

- Preparation and completion of questionnaires.
- Physical inspection of the campus.
- Observation and review of documents
- Interviews with responsible persons
- Data analysis, measurements, and recommendations.

The methodology adopted for this audit was a three-step process:

#### Data Collection:

In the preliminary data collection phase, an exhaustive data collection effort was undertaken using various tools such as observation, surveys, communication with responsible persons, and measurements.

The following steps were taken for data collection:

- Site Visit
- Data about general information was collected through observation and interviews.
- Power consumption of appliances was recorded, with average values

#### Data Analysis:

Detailed analysis of the collected data included calculating energy consumption, analyzing the campus's latest electricity bill, and assessing water consumption, waste generation, and greenery management.

#### **Recommendations:**

Based on the results of data analysis and observations, recommendations were made to reduce power and water consumption. Proper waste treatment methods were also suggested. Additionally, the report recommended reducing the use of fossil fuels for the sake of community health.

#### Auditing for Green Campus Management

Biodiversity faces serious threats from habitat loss, pollution, overconsumption, and invasive species. Species are disappearing at an alarming rate. Each disappearance affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings.

Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere.

Trees play an important ecological role within the urban environment, supporting improved public health. They also provide aesthetic benefits to cities.

In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. A single tree produces enough oxygen to meet the daily needs of one person.

So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us.

Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which is a big deal, considering many students are under significant stress.

**1930 Trees** are planted inside the campus along with the medicinal plants.

Greenery				
S. No	Types of trees	Location	No of Trees	
1	Neem Tree,Portia Tree	Library area,ER Opposite, Temple back side	300	
2	Almond Tree,Babool Tree,Bead Tree,Neem Tree	Nursing College Opposite	576	
3	Babool Tree	ER Opposite	200	
4	Bead Tree,Dates Tree	Temple back side	126	
5	Portia Tree,Almond Tree	Nursing Boys Hostel	147	
6	Mango Tree,Neem Tree,Almond Tree	Ground area	78	
7	Dates Tree	Library area	25	
8	Neem Tree, Almond Tree	MBBS Boys Hostel Back side	84	
9	Almond Tree	MBBS Girls Hostel Area	75	
10	Babool Tree,Portia Tree	Residency Back side	120	
11	Bead Tree,Almond Tree	Mess Block back side	106	
12	Portia Tree,Dates Tree	2Bhk Area	63	
13	Total		1900	

## Greenery at the University









| P a g e 24 of 42



#### **Participation of Teams**

A green audit was conducted with the assistance of Pragnaa Shree Venture India Pvt. Ltd. The audit involved different student groups, teaching and non-teaching staff. The audit began with the teams walking through all the different facilities at the college, determining the different types of appliances and utilities (lights, taps, toilets, fridges, etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap). They also identified relevant consumption patterns (such as how often an appliance is used) and their impacts. Staff and students were interviewed to gather details on appliance usage frequency and general characteristics. Data collection focused on key areas: energy, waste, greening, carbon footprint, and water use. College records and documents were verified several times to clarify the data received through surveys and discussions.

The following Committees have been constituted to facilitate smooth functioning and administrate the affairs of the University for 2022-2023.

## College Council Committee

Chairperson	:	Dean
Co-Chairman	:	Medical Superintendent
Council Secretary	:	Dr. Prince Johnson Samuel (Vice Principal)
Members	:	All HODs
Council Secretary Members	:	Dr. Prince Johnson Samuel (Vice Princip All HODs

## Curriculum Committee

S. No	Name	Designation	Appointed as
1	Dr. Kumudha Lingaraj	Dean	Chairperson
2	Dr. Arun Kumar	Medical Director	Co-Chairman
2	Dr. Lalitha Shanmugam	Professor Physiology	Coordinator
3	Dr. Prince Johnson Samuel	Professor & HOD Physiology	Member
4	Dr. Shankar	Professor & HOD General Medicine	Member
5	Dr. S. S. M. Uma mageswari	Professor & HOD Microbiology	Member
6	Dr. Maignana Kumar	Professor & HOD Pharmacology	Member
7	Dr. Bhaskar	Professor & HOD Community medicine	Member
8	Dr. C. Subbulakshmi	Professor & HOD, Paediatrics	Member
9	Dr. A. R. Subhashree	Professor & HOD Pathology	Member
10	Dr. A. Vikram	Professor & HOD, General Surgery	Member
11	Dr. N.S. Thirumaran	Professor & HOD ENT	Member
12	Dr. Vijaya Bhaskar Reddy	Professor & HOD Orthopaedics	Member
13	Dr. Gandhimathi	Professor & HOD Anaesthesia	Member
14	Dr. Murali	Professor & HOD Radiology	Member
15	Dr. Lokeshwari	Asso prof in OBG	Member
16	Dr.Yasaswini	Assistant prof in Ophthalmology	Member

#### ANTI-RAGGING COMMITTEE

Name of The Staff	Designation	Depts	
Dr.Kumudha Lingaraj	Dean	Chairperson	
Dr. Arun Kumar	Medical Director	Co-Chairman	
Dr.Pandyaraj	Medical Superintendent	General Surgery	
Dr. Prince Johnson Samuel	VP (Academics)	Member	
Dr.S.Bhasker	HOD and Prof Com., Medicine	Convener	
Dr.Vishali	Asso Prof., anatomy	Member	
Dr. Ilamathi	Asso Prof., Pharmacology	Member	
Dr. Muthuraman	Asso Prof, General Surgery	Member	
Dr. Ramasamy	Asst Prof Forensic Medicine	Member	
Mrs. Esakkimmal	Tutor in Anatomy	Member	
Mr. Srinivasan	Administrative Officer	Member	
Dr. Udesh Ganapathy	Chief warden (Boys & Girls)	Member	
Ms. Sangeetha	Deputy Warden	Member	
Ms. Dharaneshwari	Police	Member	
Mr. Sheldon Mark Jerrett	Media	Member	
Mr. Rangarajan. AL	NGO	Member	

## Gender Harassment Committee/ Internal Complaint Committee

S.No	Name of the Member	Designation
1	Dr. Kumudha Lingaraj	Chairperson
2	Dr. C. Uma Maheswari	Convener
3	Dr. C. Subbulakshmi	Professor & HOD, Paediatrics
4	Dr. Lokeshwari	Associate Professor OBG
5	Dr. Karthi Sundar	Associate Professor Orthopedics
6	Dr. Sushil George	Assistant Professor Psychiatry
7	Mr. Srinivasan	Administrative Officer
8	Mrs. Shakuthala	Nursing Superintendent
9	Mrs. Hema	Chief Pharmacist Manager
10	Mrs. Charaniya	Admin
11.	Mr. Rangarajan	NGO

## **Disciplinary Committee**

S.No	Name of The Faculties	Designation
1	Dr. Kumudha Lingaraj, DEAN	Chairperson
2	Dr. Hemalatha Shanker, ARMO	Convener
3	Dr. C. Subbulakshmi, HOD of Pediatrics	Member
4	Dr. Lokeshwari, Asso Professor in OBG	Member
6	Dr. Karthi Sundar, Asso Professor in Emergency Medicine	Member
7	Dr. Sushil George, Asso Professor in Psychiatry	Member
8	Mr. Srinivasan, Administrative Officer	Member

## Mortality & Morbidity Committee

Chairperson Convener Coordinator	: Dean : Medical Superintendent : RMO
Co- coordinator	: Assistant Medical Superintendent
Members	: HOD – Medicine
	HOD – Surgery
	HOD – Paediatrics
	HOD – Orthopaedics
	HOD – OBG & HODs of medical allied and surgical allied depts.
Member Secretary	: MRO
# Institutional Human Ethics Committee

Name	Designation
Dr. Usha Sadhasivam, MD, Ph.D, Prof & HOD Pharmacology (Sri Lalithambigai Medical College, Maduravoyal, Chennai – 600 095.	Chairperson
Dr. S.S. M. Uma Mageshwari, MBBS, MD Prof & HOD of Microbiology, VMCH	Member Secretary
Dr.Archana settu MBBS,MD, SR in Pharmacology	Basic Medical Scientist
Dr. Shankar, MD, Prof & HOD in General Medicine, VMCH	Clinicians
Dr. Vedantha Srinivas J. MD, Senior Medical Officer, Clinical research SIMS, vadapalani	Clinicians
Dr. Gandhimathy, Prof & HOD in Anaesthesiology	Clinicians
Dr.Sivaanusuya,MD, SR in Community Medicine	Scientific Member
Dr. K. Karthikeyan, M.Pharm, ph.D.,	Scientific Member
Mr. T.L. Sankaran, Msc, M. Phil, B. Ed.	Social Scientist
Mrs. Rohini, B.Sc. MSW	Social Scientist
Mr. V. Karthikeyan, BL, LLM	Legal Expert
Mrs. Revathy	Lay Person

	Hospital Infection Control Committee					
S. No	Name	Designation	Appointed as	Mobile Number	Email ID	
			Administratio	n Control		
1.	Dr. Kumudha Lingaraj	Dean	Chairperson	9444015622	dean@velsmedicalcollege.com	
2.	Dr.S.S.M.Uma mageswari	Professor & HOD Microbiology	Member Secretary	9941110053		
			Core Com	mittee		
1	Dr. Sugantha valli	Assistant Professor Microbiology	Infection Control Officer	9940150650	Dr.msv86@gmail.com	
2.	Ms. Priyanka	Staff nurse	Infection Control Nurse	6382067241	Priyankaa3498@gmail.com	
3.	Ms. Preetha	Lab Technician	Infection Control Committee	7094549669	ppreethaj@gmail.com	
4.	Ms. Priya	Data Entry Operator	Data Entry Operator	8939004772	Priyajessy1994@gmail.com	
			Memb	er		
1.	Dr. Shanker	Prof & HOD General Medicine	Member	94445312601	shankermd@gmail.com	
2	Dr. A. Vikram	Prof & HOD General Surgery	Member	9841045284	drvikramsrmc@yahoo.co.in	
3	Dr. Subbulakshmi	Prof & HOD Paediatrics	Member	9790354118	c.subbulawrance@yahoo.com	
4.	Dr. Gandhimathi	Prof & HOD Anaesthesia	Member	9840115385	dganaes@gmail.com	

# Hospital Safety Committee

- 1. Dean
- 2. Medical Superintendent
- 3. RMO
- 4. Assistant Medical Superintendent
- 5. All HODs
- 6. Nursing Superintendent
- 7. Assistant General Medicine
- 8. Civil Engineer
- 9. Electrical Department
- 10. Bio Medical Engineer

#### Pharmacovigilance Committee Constitution

S. No.	Name	Designation
01	Dr. Kumudha Lingaraj, Dean, VMCH	Chairman
02	Dr. Maignana Kumar, Prof & Head, Pharmacology, VMCH	Convener
03	Dr. R. Shanker, Prof & Head, General Medicine, VMCH	Member
04	Dr. C. Subbulakshmi, Prof & Head, Paediatrics, VMCH	Member
05	Dr. Vishnu Priya, Assistant Professor, Dermatology, VMCH	Member
06	Dr. D. Gandhimathi, Prof & Head, Anaesthesia, VMCH	Member
07	Ms. S. Hema, Chief Pharmacist, VMCH	Member
08	Ms. Olive Haloma , Deputy Nursing Superintendent, VMCH	Member
09	Dr. Archana Settu, Resident, Pharmacology, VMCH	Member Secretary

# Pharmacy and Therapeutic Committee

Name - Faculty	Designation	Departments
Dr. Gandhimathi	Convener	Anesthesiology
Dr.R.Shanker	Professor & HOD	General Medicine
Dr. Maignana Kumar	Professor & HOD	Pharmacology
Dr. Udesh Ganapathy	Professor & HOD	General Surgery
Dr.Vijaya Bhaskar Reddy	Professor & HOD	Orthopaedics
Dr.C.Subbulakshmi,	Professor & HOD	Pediatrics
Dr.Lokeshwari MD	Associate Professor	Obstetrics & Gynecology
Mrs. Alice Kanthimathi	Nursing Superintendent	Matron
Mrs. Hema	Chief Pharmacist	Pharmacy

# Best Practices / Initiatives done by the University;

The following Best Practices for Green Energy and Environmental areas are in place VELS Medical College and Hospital

We are pleased to present the comprehensive measures taken by VELS Medical College and Hospital towards promoting sustainability, reducing carbon footprint, and fostering a healthy environment for our students, faculty, and staff. Our commitment to environmental stewardship is reflected in various initiatives implemented across our campus, as outlined below:

College Infrastructure:

#### 1. Layout and Buildings:

- We have meticulously evaluated the layout and design of our buildings to maximize natural light and ventilation, thereby reducing dependency on artificial lighting and HVAC systems.
- Sustainable building materials and construction techniques have been incorporated into our infrastructure to enhance energy efficiency and durability, aligning with our long-term sustainability goals.

#### 2. Landscaping:

- Extensive green spaces have been allocated for planting trees and plants, contributing to enhanced greenery and improved air quality within our campus.
- Our rainwater harvesting systems efficiently collect and utilize rainwater for landscaping purposes, thereby reducing reliance on municipal water sources.

#### 3. Energy Conservation:

- LED lights and energy-efficient appliances have been installed throughout our campus to minimize electricity consumption and lower operational costs.
- Energy-conserving facilities such as motion sensor lighting and programmable thermostats have been implemented to optimize energy usage without compromising on comfort and functionality.

#### 4. Access Control and Signage:

- Limited entry points to buildings have been established to regulate energy usage and enhance security measures across our campus.
- Proper signage has been strategically placed to educate students and staff about energysaving practices and waste management protocols, fostering a culture of sustainability within our community.

#### 5. Equipment and Utilities:

#### 5.1 Maintenance and Service:

- A comprehensive Annual Maintenance Contract (AMC) is in place for all equipment and utilities to ensure regular servicing and optimal performance.
- Standard Operating Procedures (SOPs) have been developed for equipment usage and maintenance to prolong lifespan and minimize energy wastage.

#### 5.2 Energy-Efficient Appliances:

- Outdated equipment has been replaced with energy-efficient alternatives, significantly reducing energy consumption and operating costs.
- Regular assessments are conducted to identify opportunities for upgrading appliances and optimizing energy usage, ensuring continued efficiency and sustainability.

#### 6. Waste Segregation and Recycling:

#### 6.1 Waste Management Systems:

- Robust waste segregation practices have been implemented to divert recyclable materials from landfills, contributing to our waste reduction efforts.
- Recycling stations are strategically located across our campus to facilitate convenient disposal of paper, plastic, glass, and other recyclables, promoting a circular economy within our community.
- Biomedical waste is disposed through a Govt. authorized vendor.

#### 6.2 Water Conservation:

- Water-saving measures such as low-flow toilets and water-efficient fixtures have been installed to minimize water consumption and conserve valuable resources.
- Wastewater recycling systems treat and reuse greywater for non-potable purposes, further reducing our environmental impact and promoting sustainable water management practices.

#### 6.3 Rainwater Harvesting:

- Our rainwater harvesting infrastructure captures and stores rainwater for irrigation and nonpotable uses, reducing reliance on municipal water sources and conserving water resources.
- Integrated water sprinkler systems enhance the efficiency of rainwater harvesting by distributing water for landscaping and irrigation in a sustainable manner.

VMCH is taking initiatives to identify appropriate **tools and technologies for adoption and is introducing innovative methods for sustainability** through the use of additional innovative methods and tools.

#### Innovative Methods:

**Blended Learning**: This combines traditional classroom instruction with online learning activities, giving students more flexibility and control over their learning pace.

**Flipped Classroom**: In this approach, students learn new material independently online (often through videos or lectures) and use classroom time for interactive activities and discussions.

**Project-Based Learning:** Students delve into real-world problems and collaboratively work on projects, developing critical thinking, problem-solving, and teamwork skills.

**Microlearning:** Bite-sized learning modules delivered through short videos or online lessons allow students to learn in small chunks, improving information retention.

#### Impact and Benefits:

These tools and methods hold immense potential for improving education. They can:

**Boost Engagement:** Interactive elements and gamification make learning fun and capture student attention.

**Personalized Learning:** Adaptive platforms and differentiated instruction cater to individual student needs and learning styles.

**Collaboration and Communication:** Online tools and project-based learning foster teamwork and communication skills.

**Digital Literacy:** Students become comfortable with technology, a crucial skill in today's world.

Accessibility: Online resources and blended learning can make education more accessible to students in remote locations or with disabilities.

The healthcare industry is undergoing a green revolution! While patient care remains its primary focus, there is a growing awareness of the environmental impact of traditional practices.

These methods encompass a wide range, from reducing waste and pollution to harnessing digital tools for more efficient care delivery. They address not just environmental concerns but also social and economic aspects, making healthcare more equitable and resource-conscious.

#### Sustainable practices in curriculum and teaching:

- Incorporating case studies and discussions on the environmental impact of healthcare.
- Exploring the use of digital learning resources to reduce paper consumption.
- Encouraging research on sustainable healthcare solutions.
- Sustainable operations and facilities management:
- Implementing energy-efficient practices and infrastructure upgrades.
- Reducing waste generation through responsible procurement and recycling programs.
- Utilizing eco-friendly cleaning products and materials.
- Promoting a culture of sustainability:
- Engaging students, faculty, and staff in sustainability initiatives.
- Partnering with local environmental organizations.
- Creating a green campus environment.

#### Focus on travel:

- Sustainable Travel Practices
- Traveling Sustainably
- Eco-Friendly Travel Options

#### Focus on initiatives:

- Sustainable Travel Initiatives
- Initiatives for Sustainable Travel
- Promoting Sustainable Travel Through Initiatives



Electric buggies, also known as electric golf carts, can be a sustainable transportation option, especially compared to gas-powered vehicles. Here's why:

Zero Emissions: Electric buggies run on batteries and have electric motors, meaning they produce no emissions directly from the vehicle. This helps reduce air pollution and greenhouse gases that contribute to climate change.

Reduced Noise Pollution: Electric motors are significantly quieter than gasoline engines. This is a benefit in noise-sensitive areas like resorts, parks, and campuses.

Energy Efficiency: Electric buggies are known for their efficiency in converting electricity into movement. They require less energy to operate compared to gas-powered vehicles, especially for short trips.

#### Conclusion

The green audit assists in the process of monitoring and verifying the performance in the environmental arena and is fast becoming an indispensable aid to decision making in VMCH.

The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the University. Hope that the results presented in the green auditing report will serve as an opportunity to improve the environment-related practices and resource usage at the university as well as new activities and innovative practices. A few recommendations are added to waste management using eco-friendly and scientific techniques. This may lead to a prosperous future in the context of Green Campus and thus sustainable environment and community development.

It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to the audited organization. An outside view, perspective and opinion often help staff who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various stakeholders who need to be convinced that things are running smoothly and that systems and procedures are coping with natural changes and modifications that occur.

# List of Recommendations

#### Common Recommendations

- Strengthening of existing environmental policy for the overall Hospital Area.
- o Communicating Environmental Commitment to Visiting Public
- $\circ$   $\;$  Upscaling the water, waste and energy management systems

#### Criteria Wise Recommendations

# Greenery

• More Trees may be planted for a Sustainable Future.

#### Disclaimer

Pragnaa Shree Venture India Pvt. Ltd has prepared this report for VMCH based on input data submitted by the representatives of the University.

It is further informed that the conclusions are arrived at following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

Pragnaa Shree Venture India Pvt. Ltd, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.





15<sup>th</sup> Apr 2022

#### TO WHOM IT MAY CONCERN

This is to certify that VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED **STUDIES (VISTAS)** has conducted detailed **Green Audit** (Environment, Energy, Water and Waste Management) for their campus Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted for the period **April 2021 to March 2022** and was found to be satisfactory. The efforts taken by the faculty and students towards environment and sustainability is highly appreciated and commendable.

For Pragnaa Shree Venture India Pvt. Ltd

Authorised Signatory Name: Murali Radhakrishnan Designation: Director



CIN. U74999TN2017PTC115875Pragnaa Shree Venture India Pvt. Ltd

Registered Office: Door No. 4 & 5, Flat No. F-2, Daya Garden, 1<sup>st</sup>Floor, 2<sup>nd</sup>Cross Street, New Colony, Chrompet, Chennai – 600 044 Phone: +91 98400 20278/ 044-45502266 website:<u>www.pragnaa.in</u> Admin Office: # 12-A, First Floor, Rathinasamy Nadar Road, Near Income Tax Office, Bibikulam, Madurai – 625 002 Phone: 97903 68982 E-Mail:accounts@pragnaa.in





7th Jul 2022

#### TO WHOM IT MAY CONCERN

This is to certify that VELS MEDICAL COLLEGE AND HOSPITAL (VMCH) has conducted a detailed Green Audit for their campus located at Uthukottai Taluk, Tiruvallur District – 601 102, Tamil Nadu, India and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the VELS MEDICAL COLLEGE AND HOSPITAL (VMCH) have been verified based on the report submitted for the period July 2021 to June 2022 and were found to be satisfactory and complied with applicable requirements. The efforts taken by the Management, faculty, and students towards the environment and sustainability are highly appreciated and commendable.

For Pragnaa Shree Venture India Pvt. Ltd

Authorized Signatory Name: Murali Radhakrishnan Designation: Director



CIN. U74999TN2017PTC115875

Pragnaa Shree Venture India Pvt. Ltd

**Registered Office:** 

Door No. 4 & 5, Flat No. F-2, Daya Garden, 1<sup>st</sup> Floor. 2<sup>nd</sup> Cross Street. New Colony. Admin Office: Plot No. 1 (South), Ayyanar Nagar, Panangadi. Kulamangalam Main Road.

# Green Audit Report (2021-22)



# VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS)

Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India

Audit Date: 5th April 2022



Pragnaa Shree Venture India Pvt. Ltd Door No. 4 & 5, Flat No. F-2, Daya Garden, First Floor, 2nd Cross Street, New Colony, Chrompet, Chennai – 600 044

# INDEX

S. No	Contents	Page No
1	Executive Summary	3
2	Introduction to VISTAS	5
3	General Information of VISTAS	11
4	Facilities	12
5	VISTAS Layout	14
6	Vision, Mission and Core Values	15
7	Management Commitment	17
8	Scope and Goals of Green Audit	18
9	Benefits of Green Audit	19
10	Target Areas of Green Audit	20
11	Methodology	21
12	Auditing Green Campus	23
13	Participation and Consultation	32
14	Best Practices / Initiatives	35
15	Conclusion	38
16	List of Recommendations	39
17	Disclaimer	40

# Section 1: Executive Summary

Educational institutions now a day are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of energy savings, recycling of waste, water reduction, water harvesting etc... The activities pursued by the university can also create a variety of adverse environmental impacts. Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. The green audit is defined as an official examination of the effects a University has on the environment. As a part of such practice, an internal audit (Green Audit) is conducted to evaluate the actual scenario at the campus.

The green audit can be a useful tool for a University to determine how and where they are using the most energy or water or resources; the University can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. Green auditing and the implementation of mitigation measures is a win-win situation for all the University, the learners and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of Green impact on campus. Green auditing promotes financial savings through the reduction of resource use. It allows the development of ownership and personal and social responsibility for the students and teachers.

The audit process involved Initial Data Collection at, Site walkthrough with the team of VISTAS with the views management including the policies, activities, documents and records.

This was followed by staff and student interviews, collection of data, review of records, observation of practices and observable outcomes.

The baseline data collected from Vels University, VISTAS, Pallavaram, and Chennai are analyzed and conclusions made.

We thank the Management of VISTAS, Dr. Kalaivani and Dr. Sathish and other team members for supporting the complete audit process.

We are happy to submit this green audit report to the VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS).

Mr. S.K. Srinivasan Mr. R. Murali Mr. S. Babu

Pragnaa Shree Venture India Pvt. Ltd

# Section 2: Introduction to VISTAS

Vels Group of Institutions run by the Vael's Educational Trust, a charitable, nonprofitable organization was established in 1992 by Dr Ishari K.Ganesh to commemorate the fond memory of his father Shri. Isari Velan, the Former Deputy Minister in the popular Govt. of Dr M.G.R was also associated with the film industry. Taking education to the humble thresholds of first-generation learners and weaker sections of society has ever been the objective of Vael's Trust. The vision of Vael's is to inculcate self-reliance and discipline among the youth and also to improve the quality of higher education.

The multifaceted, need-based, magnificent Vels Group of Institutions under Vaels Educational Trust highlight the commitment and dedication toward the noble cause of higher education. Lighting the lamp of education on countless thresholds hidden in the folds and crevices of India, Vael's holds high the blazing beacon of quality Education

Indeed this institution of higher learning and excellence is a leviathan in the everexpansive ocean of education. The moving spirit behind Vels success story is the founder Chairman and Managing Trustee Dr.Ishari K.Ganesh. Believing staunchly in the philosophy of work, placed on the pedestal of worship, he is a visionary and inspiring academician, who breathed into generations and generations of students, the unsullied breath of quality education, tempered by discipline and enlivened by dedication.

Vels College of Pharmacy was started in 1992. Subsequently, Vels College of Physiotherapy (1993) and Vels College of Science (1993) were started. The Deemed to be University status was conferred, to the above different colleges, after fulfilling all the procedures on 04.06.2008 by the MHRD, Govt. of India with the registered name **VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES** (VISTAS). The Head Office of the VISTAS has located at Pallavaram around 2 km. south of Pallavaram railway station and nearly 4 km away from Chennai Airport. The Deemed University status has been conferred by UGC after taking into account the

rich experience accumulated by the Management and the Quality maintained in the field of Higher education.

VISTAS has blossomed into a multi-disciplinary Institute offering more than 100 UG & PG programs, besides Doctoral programs, through 16 Schools and 45 Departments. Programs have the approval of the relevant Statutory Regulating Agencies such as UGC, AICTE, PCI, BCI, NCTE, DGS etc. VISTAS have a student strength of close to 14500 and a faculty strength of close to 709 with 348 of them having a doctorate. The School of Maritime Studies was awarded an "A1" grade by the Indian Register of Shipping (IRS) in Nov-2019. **VISTAS has been accredited by NAAC with a CGPA of 3.01 / 4 (A) grade in March 2019. B.E., Mechanical Engineering, B.E., Computer Science & Engineering, Master of Business Administration, B. Pharmacy, B.E., <b>Biectrical & Electronics Engineering, B.E., Biomedical Engineering & B. Tech IT (Cloud and Mobile based Application Development) programs have been accredited by the NBA.** 

VISTAS is also recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. VISTAS has improved infrastructure, modernized laboratories, increased hostel accommodation and improved sports facilities. Since becoming a deemed university, syllabi have been revamped periodically in all disciplines. There has been a significant increase in the enrolment of students and more so among women students. The Deemed University is well equipped with ICT facilities such as Smart classrooms, Video Conferencing, Online courses and Vels Knowledge Resource Centre. VISTAS has a Centre for Fish Immunology, Incubation Centre, Central Instrumentation Laboratory, Centre for Energy and Alternative Fuels, Centre for Artificial Intelligence, Centre for Automation and Power Conservation, Centre for Material Research, Centre for Excellence in Pharmaceutical Research & Drug Testing, Centre for Elephant Research, Centre for Bioengineering, Centre of Excellence in Cloud Computing with IBM, Centre of Excellence in Business Analytics with IBM, Centre for Intellectual Property Rights (IPR), Centre for Advanced Research & Development (CARD), Centre for Multimedia Research, Centre for Transfer of Technology, Centre of Excellence in Constitutional Law and Centre of Excellence in MAT Lab.

# **OUR VISION**

**To make the Institute an epitome of excellence in higher education** by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

# OUR MISSION

- Effectively imparting knowledge and inculcating innovative thinking
- Facilitating skill enhancement through add-on courses and hands-on training.
- Doing original, socially relevant, **high-quality research**.
- Facilitating appropriate co-curricular, extracurricular and extension activities
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

The structure of Governance in VISTAS facilitates Autonomy, Transparency and Accountability through the participation of various stakeholders. It provides the differentiation and integration of various activities in VISTAS. The Organizational structure has been designed as per UGC Regulation. The Regulatory bodies of VISTAS include the Board of Management, Academic Council, Planning and Monitoring Board, Board of Studies and Finance committee. They have been functioning as per guidelines of UGC and Memorandum of Association and they meet periodically. The various key stakeholders of VISTAS, which include faculty, students, parents, industry experts, academic peers and alumni, are involved in decision making at every level. For smooth functioning of VISTAS, several sub-committees comprising the faculty and student representatives have been constituted. In order to decentralize administrative/academic machinery, the authority has been delegated by setting up of Deans for various Schools, Admissions, Academics, Research, Student Affairs, Faculty, IQAC, etc., For transparent functioning, the Admission, Academics, Administration, Accounts and Examination processes are automated by using ERP.

An enriched teaching, learning and evaluation process is carried out in VISTAS catering to the diversity of students and faculty. Students entering VISTAS enjoy a multivariate learning process. Bridge Courses are conducted to prepare the students

for their respective study environments. The entire Teaching-Learning process is student-centric focusing on LMS, KMS, and E-Learning resources. Interactive and instructional lectures, focused discussions, classroom deliberations, practical classes, hands-on training, projects, presentations, workshops and guest lectures help students to hone their technical skills. Comprehensive lesson plans are prepared regularly by faculties for effective teaching. Independent, Interactive, Collaborative and Participatory learning is encouraged and the required facilities are available for students in terms of SMART Classrooms, Wi-Fi-enabled Campus, Industrial Interactions, Projects and visits. Video lectures of VISTAS were recorded using EduTech, NPTEL, EDX and other MOOCs to enhance student learning. Virtual learning through the AVIEW and Moodle programs of IIT are available. VISTAS employ an effective Mentor-Mentee system for guidance and counselling students on regular basis. Class committee meetings are conducted regularly for all types of learners. Remedial and tutorial classes are conducted for slow learners to enhance their learning. Fast learners are involved in NPTEL courses, industrial problems and projects. All the programs offered by VISTAS have clearly defined POs, PSOs and COs and the outcomes are assessed through direct and indirect methods. VISTAS adopt a Continuous Assessment System, where both formative and summative assessments are ensured to measure the attainment of course outcomes.

VISTAS core values are aligned with its vision and mission and are reflected in the curricular and professional growth of the VISTAS community. With Equity as its premier value and a Women's Forum as its mouthpiece, VISTAS promote gender sensitivity among all stakeholders. Girls are given special counselling to overcome depression, abnormal behaviour etc. VISTAS have a well-defined Environment policy. The campus is green, serene and pleasant. Steps have also been taken to conserve energy and reduce carbon footprint by installing three windmills and solar street lamps. VISTAS has been adhering to the best practices such as Herbal Garden, Tobacco-Free Campus, Green Campus, Bio-gas plant, Rain Water Harvesting, Renewable energy and carbon neutrality. The E-waste is again sold back to the contractors for disposal. Recently a modern waste processing machine has been installed on the campus, for converting biodegradable waste into manure. Being situated in the heart of the city, VISTAS enjoys the privilege of creating direct and indirect employment opportunities for the local unemployed youth. Good connectivity and the presence of

industries in the vicinity are major advantages. The core values and the developments stated above are displayed on the Institute's website. Promoting a cosmopolitan culture, VISTAS observes National festivals and birth/death anniversaries of great Indian personalities.

VISTAS follows the Best practices such as Outcome Based Education, Student Mentoring, External Academic and Administration Audit, ERP in all the activities, NSS Unit-Swachh Bharat Abhiyan, Student's Feedback about Teachers, MHRD Digital Initiatives, Research culture, Institution-Industry Interaction, Use of Renewable Energy, Internship for Students, Parent Corner in the Website etc. The Industry-Institution relationship is very strong at VISTAS. Industries are busy developing products at the Incubation Centre. Some academic programs such as B. Tech and MBA are run in collaboration with M/s IBM. Experienced Professors are active in solving industrial problems as part of consultancy projects. Our vision is to provide quality education. Hence, as part of ensuring quality, an External Academic and Administrative Audit is performed in all the departments every year.

A centre, named, "Centre for Advanced Research and Development (CARD)" has been established to promote research. Besides 12 advanced dedicated research labs in various schools, a Central Instrumentation lab is set up housing advanced instruments such as BET Surface Area Analyzer, Field Emission Scanning Electron Microscope, High-Performance Thin-Layer Chromatography, X-Ray Diffractometer, Particle Size and Zeta Potential Analyzer, Raman Spectrometer, etc. Research scholars from nearby universities also use the VISTAS lab for research. Due to strong Industry – Institutional tie-up, senior faculty are busy solving industrial problems as consultancy projects. Ten industries are active at Incubation Centre in developing products useful to the society. Staff members are given incentives to publish papers and attend seminars. During the last three years, 1374 research papers have been published in the UGC listed journals. *Turnitin* software is available to eliminate plagiarism.

Under the Unnat Bharath Abhiyan program, VISTAS has initiated the promotion of institutional social responsibility through activities undertaken in the neighbourhood

rural community. Generic Medicines are made available to the Society through Pradhan Mantri Jan-Aushadhi Yojana Scheme.

The road map of VISTAS is well-drawn. Our vision is to make this an International Institute wherein students from all the countries will assemble to enrich themselves in terms of knowledge. We want to provide physical and academic infrastructure including lab facilities which will create a "reverse flow" of students. Our ambition is to have at least 100 crores worth of research projects by 2030.

Several are the paths and avenues to be explored and exploited. Countless are the feathers to be added to the Vels cap of success. The endeavours continue with determination, "to strive, to seek, to find and not to yield". On the whole, the Institute is committed to excellence in every activity, intelligent planning of each activity and ensuring focused effect on each of them for attaining excellence. WE HAVE ACHIEVED A LOT, STILL, WE FEEL WE HAVE MILES TO GO AND OUR JOURNEY IN HIGHER EDUCATION CONTINUES...

# Section 3: General Information

S. No	Description (2021-22)	Male	Female
1	Students	10184	4389
2	Teaching Staff	360	384
3	Non-Teaching Staff	251	227
4	Total	10795	5000

Students & Staff School Wise			
S. No	Description	Male	Female
1	School of Management Studies & Commerce	2493	777
2	School of Computing Sciences	1596	350
3	School of Life Sciences	257	352
4	School of Mass Communication	521	64
5	School of Maritime Studies	575	12
6	School of Engineering	1805	282
7	School of Basic Sciences	130	110
8	School of Hotel & Catering Mgmt.	150	24
9	School of Pharmaceutical Sciences	381	244
10	School of Physiotherapy	189	320
11	School of Ocean Engineering	107	11
12	School of Law	1011	473
13	School of Languages	69	70
14	School of Education	26	268
15	School of Music & Fine Arts	34	18
16	Dept. of Aviation	193	58
17	School of Ancient Indian Studies	26	39
18	Ph.D	621	917
19	M.Phil	-	-

# Section 4: Facilities Available

- Boys Hostels
- Girls Hostels
- Staff Quarters
- Three air-conditioned auditoria with a capacity of 1200, 250 & 120
- Three air-conditioned seminar halls with a seating capacity of 150
- Main Canteen is available which can cater to 200 persons at a time and Three smaller canteens are also available
- Bank with ATM
- Pharmacy
- RO Plant
- Transport facilities
- Nine Diesel Generators
- Three Wind Mills
- Waste Management
- Solar Plant
- Insurance for all students and staff members

VISTAS have three playgrounds and other facilities such as:

- Football Field
- Volleyball Court
- Basketball Court
- Ball Badminton Court
- Badminton Courts (Outdoor)
- Throwball Court
- Tennikoit Court
- Taekwondo
- Cricket Practice Pitch (nets)
- Kabaddi Court
- Swimming Pool (25mtsX14 mts)

# **Facilities Available**

- 200 Mtrs Track
- Fitness Centre (gymnasium)
- Indoor hall to play Table Tennis, Carrom and Chess
- All the Fire Safety Equipment are provided on the premises
- Having necessary Wheel Chairs and Ramps in all the buildings on the campus.
- The institution is having adequate toilet facilities for physically challenged persons.
- Lift facilities are available
- All members of staff (Teaching, Non-teaching & Students) are covered through accident cum hospitalization insurance.
- Two separate Health Clinics are available One for Boys and One for Girls.
- One Male Medical Officer and One lady Medical Officer are available.
- Tie-up with nearby hospitals namely Kamatchi Hospital, and Parvathy Hospital.
- Apollo Shine Clinic is located within the campus.
- 24 Hrs Ambulance facility
- Nursing Assistants





# Section 6: Vision, Mission and Core Values

#### Vision

 To make the Institute an epitome of excellence in higher education by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

#### Mission

- Effectively imparting knowledge and inculcating innovative thinking.
- Facilitating skill enhancement through add on courses and hands-on training.
- Doing original, socially relevant, high-quality research.
- Facilitating appropriate co-curricular, extracurricular and extension activities.
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

## **Core Values**

## VISTAS believe that:

- VISTAS students and scholars should be well-founded on the pursuit of knowledge through, teaching and learning research, with fellowships required based on intellectual merit, ability and the potential for excellence.
- Perspectives, arising from diverse knowledge backgrounds, that redefine our identities, deepen scholarly inquiry and enrich path-breaking newer knowledge horizons.

- Cherish the key values of academic freedom, creative and innovative thought, ethical standards and integrity, accountability and social justice, and nurturing an open mind and open society.
- Foster inquiry-led and evidence-based approach to creative knowledge; facilitate a vibrant academic ambience to nurture the intellectual climate.

# Section 7: Management's Commitment

The Management of the VISTAS has shown a commitment to green auditing during the audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environmentally friendly such as awareness programs on the environment, campus farming, planting more trees on the campus etc., after the green auditing. The management of the University was willing to formulate policies based on the green auditing report.

# Section 8: Scope and Goals of Green Auditing

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Green Audit is the most efficient and ecological way to manage environmental problems. It is a kind of professional care that is the responsibility of each individual who is part of economic, financial, social, and environmental factors. It is necessary to conduct the green audit on the University campus because students become aware of the green audit, its advantages to saving the planet and they become good citizens of our country. Hence, a Green audit becomes necessary at the university level.

# Section 9: Benefits of the Green Auditing

- More efficient resource management
- o To provide a basis for improved sustainability
- To create a green campus
- To enable waste management through reduction of waste generation, solidwaste and water recycling
- To create a plastic-free campus and evolve health consciousness among the stakeholders
- o Recognize the cost-saving methods through waste minimizing and managing
- o Point out the prevailing and forthcoming complications
- o Authenticate conformity with the implemented laws
- o Empower the organizations to frame a better environmental performance
- Enhance the alertness to environmental guidelines and duties
- Impart environmental education through a systematic environmental management approach and Improve environmental standards
- o Benchmarking for environmental protection initiatives
- o Financial savings through a reduction in resource use
- Development of ownership, personal and social responsibility for the University and its environment
- o Enhancement of University profile
- o Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the University.

# Section 10: Target Areas of Green Auditing

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of the educational institute". Eco-campus focuses on the reduction of contribution to emissions, procuring a costeffective and secure supply of energy, encouraging and enhancing energy use conservation, promoting personal action, reducing the institute's energy and water consumption, reducing wastes to landfill, and integrating environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, and Environment.

# Section 11: Methodology of Green Auditing

The purpose of the audit was to ensure that the practices followed on the campus are by the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

 Data Collection – In the preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, surveys communicating with responsible persons and measurements.

The following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- Data Analysis Detailed analysis of data collected includes calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- Recommendation Based on the results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. The use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University were evaluated through a questionnaire circulated among the students for data collection.

The following data was collected for the following areas during the assessment.

- 1. Environment & Waste Management
- 2. Energy Management
- 3. Water Management
## Section 12: Auditing for Green Campus Management

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, overconsumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings. Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

**404 Trees** are planted inside the campus along with the medicinal plants.

## **Greenery - Medicinal Plants**

S. No	Common Name	Botanical Name	Tamil Name
1	Balloon Vine	Cardiospermum halicacabum	முடக்கத்தான் கீரை
2	Shameplant	Mimosa pudica	தொட்டாச்சுருங்கி
3	Butterfly Pea	Citorea ternatea	சங்கு கன்னிக்கொடி
4	Turmeric	Curcuma longa	மஞ்சள்
5	Indian Aloe	Aloe vera	கற்றாழை
6	Kachnar	Bauhinia variegata	மந்தாரை
7	Malabar nut	AdhatodaVasica	ஆடாதொடை
8	Mango	Mangifera indica	மாங்காய்'
9	Chikoo	Manilkara zapota	சப்போட்டா
10	Senna	Cassia angustifolia	ஆவாரை
11	Nerium.	Nerium oleander	அரளிப்பூ
12	Tulsi	Ocimum sanctum	துளசி
13	Jasmine	Jasminum sambac	மல்லிகை
14	Pencil tree	Euphorbia tirucalli	கள்ளி
15	Cassia	<u>Cinnamomum cassia</u>	இலவங்கப்பட்டை
16	Curry leaves	Murraya koenigi	கருவேப்பிலை
17	Thuthi	Abutilon indicum	துத்தி
18	Hibiscus	Hibiscus rosa-sinensis	செம்பருத்தி
19	Indian lilac	Melia azedarach	மலைவேம்பு
20	Black plum	Syzygium cumini	நாவல்
21	Indian beech tree	Pongamia pinnata	புங்கை
22	Keezhanelli	Phyllanthus nirruri	கீழாநெல்லி

| P a g e 24 of 40

S. No	Common Name	Botanical Name	Tamil Name
23	Bhringraj	Eclipta prostrate	வெண்கரிசாலை
24	Punamava	Boerhavia diffusa	மூக்கரட்டிசாரை
25	Snake-needle grass	Oldenlandia diffusa	இன்புறாவேர்
26	Llilac chaste tree	Vitex negundo	காட்டுநொச்சி
27	Vinca	Catharanthus roseus	நித்திய கல்யாணி
28	Neem	Azadirachta indica	வேம்பு
29	Henna	Lawsonia inermis	மருதாணி
30	Datura	Datura stramonium	ஊமத்தை
31	Arugambul	Cynodon dactylon	அருகம்புல்
32	Amla	Phyllanthus emblica	நெல்லிக்காய்
33	Guava	Psidum guajava	கொய்யாப் பழம்
34	Parijatham	Nyctanthes arbor-tristis	பவழமல்லி
35	Vallarai	Centella asiatica	வல்லாரை
36	Vetrilai	Piper bettle	வெற்றிலை
37	Omavalli	Plectranthus amboinicus	கற்பூரவல்லி
38	Cissus	Cissus quadrangularis	பிரண்டை
39	Calotropis	Calotropis gigantea	நீல எருக்கு
40	Thumbai	Leucas aspera	தும்பை
41	Chrysanthe -mum	Chrysanthemum morifolium	மல்லிகை
42	Kesavardhini	Eclipta prostrate	செம்பனை எண்ணெய்
43	Capsicum	Capsicum annuum	குடைமிளகாய்
44	Pomegranate	Punica grantum	மாதுளை
45	Seenthil	Tinospora cordifolia	சீந்தில்
46	Brahmi	Bacopa monnieri	நீர்ப்பிரமி

S. No	Common Name	Botanical Name	Tamil Name
47	Indian copper leaf	Acalypha indica	குப்பைமேனி
48	Indian long pepper	Piper longum	திப்பிலி
49	Rose	Rosa damascene	ரோஜா
50	Sweet Basil	Ocimum basilicum	திருநீற்றுப் பச்சிலை

## Greenery at the University



| P a g e 27 of 40



| P a g e 28 of 40





| P a g e 29 of 40





|Page 31 of 40

## Section 13: Participation of Teams

In VISTAS the green auditing was done with the help of Pragnaa Shree Venture India Pvt. Ltd involves different student groups, teaching and non-teaching staff. The green audit began with the teams walking through all the different facilities at the college, determining the different types of appliances and utilities (lights, taps, toilets, fridges, etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and their impacts. The staff and learners were interviewed to get details of usage, frequency or general characteristics of certain appliances. Data collection was done in the sectors such as Energy, Waste, Greening, Carbon footprint and water use. College records and documents were verified several times to clarify the data received through surveys and discussions.

## Hostel Advisory Committee

S.No. Name		Designation		
CHAIRMAN				
1	Dr. A.Subramanian	Dean Student Affairs		
	MEMBERS			
2	Capt.N.Kumar	Director, School of Maritime Studies		
3	Dr. Kathireshan A. K	Professor & Head, Dept of Microbiology School of Life Science		
4	Dr. Satheeshkumar.S	Professor & Head, School of Pharmaceutical Sciences,		
5	Dr. Sivasankar.V	Associate Professor and HOD School of Languages (Tamil)		
6	Dr. Vennila Shree.S	Professor Dept. of Commerce (A&F) School of Management Studies & Commerce		
7	Dr.P.Sri Jothi	Assistant Prof.& Head School of Mass Communication		
8	Dr. Sivaganesan.S	Asst. Professor Department of Mechanical Engg. School of Engineering		
9	Dr. Perumal.S	Asst. Professor Dept. of Computer Science School of Computing Sciences		
10	Mr. Rohan Kumar.D	Assistant Professor and Head (IC) School of Law		
11	Ms. Ulaga Priya.K	Asst. Professor Dept. of CSE School of Engineering		
12	Dr. S. Vilochanan Thampi	Librarian Dept. of Library		
13	Mr.A.Arangannal	Physical Director Dept. of Physical Education		

S. No	Name	Function	Designation
1	Dr. Jino.R	Chairman	Assistant Professor Dept. of Civil School of Engineering.
2	Dr. Satheeshkumar.S	Member	Professor & Head, School of Pharmaceutical Sciences
3	Dr. Gavaskar.D	Member	Assistant Professor Dept. of Chemistry School of Basic Sciences.
4	Mr. Sriraman.M	Member	Assistant Professor Dept. of Civil School of Engineering.
5	Mr. Siva Perumal.P	Member	Site Engineer Dept. of Maintenance.
6	Monish Ram J B	Student	Civil Department 3 <sup>rd</sup> Year
7	K. Mohamed Attaul Haseeb	Student	Civil Department 3 <sup>rd</sup> Year
8	Rashika	Student	Civil Department 3 <sup>rd</sup> Year

#### **Greenery Committee**

## Section 14: Best Practices / Initiatives done by the University;

## Terrace Organic Farming





## **Rain Water Harvesting**





| P a g e 35 of 40

#### **Bio Composter**



- The waste is segregated at each level and source.
- The Maintenance workers on each floor collect, clean, segregate and compile the waste in the dustbins (Green and Blue) provided on each floor.
- The institution has contacted an authorized vendor who collects the waste from the designated place, segregates them, recycles them and disposes them at the landfills authorized by the government.
- Normal conversion of biodegradable solid waste into manure takes 20 days

- o Biogas plant erected
- Machinery is installed for the conversion of biodegradable solid waste into manure.
- o Extensive green covering of campus
- The Institution has initiated an eco-club consisting of students and faculty to identify places for planting trees and to take care of soil fertility. Plantation and maintenance of saplings have become the rudimentary activities towards realizing the "go green" vision of the Institution.
- VISTAS is selected as one of the HEIs to actively take part in Unnath Bharath Abhiyam Program.
- Green areas and lung spaces are well maintained and the university has conducted a green audit of its campus
- The University identified areas of environmental pollution and initiated steps toward reducing the same.
- Sprinkles are used for watering lawns.
- o Green generators are installed to overcome the energy crises.
- A dedicated Medicinal plants garden is maintained.
- Smoking is prohibited on the campus and the campus is a non-smoking campus.
- Only non-toxic paints and eco-friendly cleaning materials are used.

- Tree plantation is done periodically and the greenery is maintained on the campus.
- $\circ~$  Our green cover is around 30% of the total surface area.
- Only Bharath3 fuel-efficient vehicles are used and vehicles are allowed to park only in the selected area and not within the campus.
- The Herbal Garden is maintained by the School of Pharmaceutical Sciences.
- Campus cleaning day is observed periodically with the help of NSS.
- Emphasize is on paperless governance.
- Adequate measures have been taken to protect the trees in and around the campus.
- The campus is well maintained with trees and ornamental plants.
- Tree planting is the popular scheme adopted by our NSS students and "Go Green" is another slogan to motivate our students to go for tree planting.
- $\circ$  New trees are planted regularly as and when required.
- The inverter is used when there is power shut down for a short duration instead of operating generators.
- The LED lamps are progressively used in the place of other lamps.
- The Biogas Plant is in operation and the Biogas produced from food waste, decomposable organic materials and kitchen wastes is used in Hostel.

## Section 15: Conclusion

The green audit assists in the process of monitoring and verifying the performance in the environmental arena and is fast becoming an indispensable aid to decision making in VISTAS.

The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the University. Hope that the results presented in the green auditing report will serve as an opportunity to improve the environment-related practices and resource usage at the university as well as new activities and innovative practices. A few recommendations are added to waste management using eco-friendly and scientific techniques. This may lead to a prosperous future in the context of Green Campus and thus sustainable environment and community development.

It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to the audited organization. An outside view, perspective and opinion often help staff who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various stakeholders who need to be convinced that things are running smoothly and that systems and procedures are coping with natural changes and modifications that occur.

## Section 16. List of Recommendations

## **Common Recommendations**

- Establishing environmental policy for the overall University
- $\circ~$  Establish water, waste and energy management systems

## Section 17: Disclaimer

Pragnaa Shree Venture India Pvt. Ltd has prepared this report for Vels University based on input data submitted by the representatives of the University.

It is further informed that the conclusions are arrived at following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

Pragnaa Shree Venture India Pvt. Ltd, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

# **Green Audit Report** (2021-22)



## **VELS MEDICAL COLLEGE AND HOSPITAL**

[Under VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS)] Uthukottai Taluk, Tiruvallur District - 601 102

Audit Date: 04<sup>th</sup> July 2022



Pragnaa Shree Venture India Pvt. Ltd **Pragnaa** Door No. 4 & 5, Flat No. F-2, Daya Garden, First Floor, 2nd Cross Street, New Colony, Chrompet, Chennai - 600 044

#### INDEX

S. No	Contents	Page No
1	Executive Summary	3
2	Introduction to VISTAS & VMCH	5
3	Vision and Mission – VMCH	9
4	General Information	10
5	Facilities	11
6	VMCH Layout	12
7	Management Commitment	13
8	Scope and Goals of Green Audit	14
9	Benefits of Green Audit	16
10	Target Areas of Green Audit	17
11	Methodology	18
12	Auditing Green Campus	20
13	Participation and Consultation	26
14	Best Practices / Initiatives	35
15	Conclusion	37
16	List of Recommendations	38
17	Disclaimer	39

#### **Executive Summary**

A green audit is a systematic process that identifies, quantifies, records, reports, and analyzes the environmental aspects of various establishments. The audit aims to assess the environmental practices within a site and their impact on creating an eco-friendly environment.

Green audits are valuable tools for colleges. They help determine how and where resources like water and energy are used the most. This information allows colleges to implement changes for sustainable resource use. Green audits can also inform recycling projects and improve waste minimization plans.

Additionally, green audits can create health consciousness and promote environmental awareness, values, and ethics. They provide staff and students with a better understanding of the importance of a green campus.

Institutional self-evaluation is a natural and necessary part of a quality educational institution. Therefore, it's crucial for colleges to assess their contributions to a sustainable future. As environmental sustainability becomes increasingly important for national development, the role of higher educational institutions in promoting it becomes even more prevalent.

Educational institutions are now becoming more sensitive to environmental factors, introducing concepts to make them eco-friendly. To preserve their campuses, various educational institutes apply viewpoints to solve environmental problems. These solutions include promoting energy savings, recycling waste, reducing water usage, and water harvesting.

The activities pursued by a university can also create a variety of adverse environmental impacts. Environmental auditing is a process that tests an organization's environmental performance against its policies and objectives. A green audit is an official examination of a university's environmental effects. As part of this practice, an internal green audit is conducted to evaluate the actual situation on campus.

The green audit can be a valuable tool for a university to determine how and where it uses the most energy, water, or resources. The university can then consider implementing changes to make savings. It can also be used to determine the type and volume of waste, which can inform a recycling project or improve the waste minimization plan.

Green auditing and implementing mitigation measures create a win-win situation for the university, learners, and the planet. It can also create health consciousness and promote environmental awareness, values, and ethics. It provides staff and students with a better understanding of the green impact on campus. Green auditing promotes financial savings through reduced resource use and allows for the development of ownership and personal and social responsibility for students and teachers.

The audit process involved initial data collection, a site walkthrough with the VISTAS team to review policies, activities, documents, and records. This was followed by staff and student interviews, data collection, record review, observation of practices, and observable outcomes.

We thank the Management of VISTAS, VMCH Management and Dr, Kumar and other team members for supporting the entire audit process.

We are pleased to submit this green audit report to the VELS Medical College and Hospital (VMCH)..

We are happy to submit this green audit report to the VELS MEDICAL COLLEGE AND HOSPITAL (VMCH).

Mr. S.K. Srinivasan Mr. R. Murali Mr. S. Babu

Pragnaa Shree Venture India Pvt. Ltd

#### Introduction to VISTAS

Vels Medical College & Hospital (VMCH) is an integral part of the VELS Institute of Science, Technology, and Advanced Studies (VISTAS), founded in 2018. VISTAS is located on Periyapalayam Road, in Manjankaranai Village, Uthukottai Taluk, Tiruvallur District, Tamil Nadu.

#### About VELS Institute of Science, Technology, and Advanced Studies (VISTAS):

The Vels Group of Institutions is run by the Vael's Educational Trust, a charitable, non-profit organization established in 1992 by Dr. Ishari K. Ganesh. The trust was founded to commemorate the memory of his father, Shri. Isari Velan, a former Deputy Minister in the government of Dr. M.G.R. Shri. Isari Velan was also associated with the film industry.

Vael's Educational Trust has always strived to take education to first-generation learners and underprivileged communities. Their vision is to instill self-reliance and discipline in the youth and to improve the quality of higher education.

The multifaceted Vels Group of Institutions under Vael's Educational Trust highlights the organization's commitment and dedication to the noble cause of higher education. By lighting the lamp of education for countless students across India, Vael's holds high the torch of quality education.

This institution of higher learning and excellence stands as a leviathan in the everexpanding ocean of education. Dr. Ishari K. Ganesh, the founder, Chairman, and Managing Trustee, is the driving force behind Vels' success story.

A firm believer in the philosophy of hard work, Dr. Ganesh is a visionary and inspiring academician. He has instilled in generations of students a love for quality education, one that is tempered by discipline and enlivened by dedication.

Vels Institute of Science, Technology and Advanced Studies (VISTAS) began its journey with Vels College of Pharmacy in 1992. Vels College of Physiotherapy (1993) and Vels College of Science (1993) were established soon thereafter. In recognition of its achievements, the Ministry of Human Resource Development (MHRD), Government of India, conferred the esteemed Deemed University status upon these institutions collectively under the registered name VISTAS on June 4, 2008. The UGC (University Grants Commission) granted the Deemed University status considering the institute's rich experience and commitment to quality in higher education.

The VISTAS head office is located in Pallavaram, Chennai, about 2 kilometers south of Pallavaram Railway Station and nearly 4 kilometers from Chennai Airport.

VISTAS has flourished into a multi-disciplinary institute offering over 100 undergraduate (UG) and postgraduate (PG) programs, in addition to doctoral programs. These programs are delivered through 16 schools and 45 departments. All programs have the approval of relevant statutory regulatory agencies such as UGC, AICTE, PCI, BCI, NCTE, DGS, etc. VISTAS boasts a student body of nearly 14,500 and a faculty of nearly 709, with 348 holding doctoral degrees.

VISTAS has further distinguished itself by being recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. The institute boasts improved infrastructure, modernized laboratories, expanded hostel facilities, and enhanced sports facilities.

Since becoming a deemed university, VISTAS has undertaken a periodic review and revamp of syllabi across all disciplines. This has resulted in a significant increase in student enrollment, particularly among women students. The university is well-equipped with cutting-edge ICT facilities, including smart classrooms, video conferencing capabilities, online courses, and the Vels Knowledge Resource Centre.

#### About Vels Medical College & Hospital (VMCH):

VMCH provides services across various medical specialties, including General Medicine, Respiratory Medicine, Psychiatry, Obstetrics & Gynaecology, Paediatrics, Diabetology, Nephrology, Cardiology, and surgical disciplines such as ENT, General Surgery, Paediatric Surgery, Orthopaedics, Ophthalmology, Cardiothoracic Surgery, and Urology. Additionally, VMCH offers ambulatory care services such as Anaesthesiology, Emergency & Trauma Care, and more.

VMCH fulfils the healthcare needs of the local population by providing diagnostic, preventive, and curative healthcare services. Nestled in a serene 40-acre campus, VMCH offers top-notch facilities, cutting-edge infrastructure, and a well-equipped library featuring the latest medical literature and journals.

Key features of the hospital include:

- 600 Inpatient Beds
- 9 Major Operation Theatres and 5 minor operation theatres
- 24-hour Laboratory & Pharmacy
- Outpatient Department Rooms
- Dedicated Dialysis unit with 5 beds
- Advanced diagnostic facilities like CT, USG, ECHO, X-Ray, Treadmill, and PFT
- Dedicated Ambulances and a 24-hour Vels Hospital Emergency, Accident & Trauma line
- High-end Intensive Care Unit (ICU)
- 24-hour Pediatric Intensive Care Unit (PICU) and Neonatal Intensive Care Unit (NICU)
- 24-hour Obstetrics & Gynaecology (Labour Ward)

To ensure comprehensive care, Vels Medical College and Hospital have an experienced team of faculty members and consultants specializing in various medical and surgical disciplines. The hospital also has a dedicated nursing staff and paramedics. Moreover, it is equipped with state-of-the-art life support systems and cutting-edge technology to provide the best possible medical care.

The eco-friendly campus, along with the optimal use of information technology, is ideally suited for academic pursuits and greatly enhances teaching and learning activities.

Regular continuing education programs and faculty development programs contribute immensely to updating knowledge and improving teaching skills.

#### **Our Vision and Mission Statements**

#### Vision

VELS Medical College & Hospital (VMCH) started with a vision to be a model for medical education, research, and to serve the people, with a special focus on the rural population. The aim is to provide the underprivileged with highly advanced medical facilities and educate them about prevention from illness.

#### Mission

To develop one of the best health care professionals who are compassionate, and committed to providing the highest standards of patient care through:

- Student-centered innovative teaching methodologies equip them to develop critical thinking skills and to become lifelong learners committed to continuous improvement of skills and knowledge.
- Clinical transformation, as Healthcare Professionals, who are ethical, responsive, and accountable to patients, community, and profession and make a valuable contribution to patients and healthcare as individuals and as responsible members of society.
- Igniting innovative learning habits in young minds to reach their fullest potential.
- Acquiring team building and communication skills to enrich their healthcare practice in any setting and make them globally competent healthcare professionals.
- Promoting original research in basic and clinical sciences among students and faculty bound by good ethical practice.

## **General Information**

S. No	Description (2022-23)	Male	Female
1	Students	112	138
2	Teaching Staff	41	49
3	Non-Teaching Staff	103	77
4	Total	256	264

## Number of Students - School Wise

S. No	Name of the School	Male	Female	Total
1	Bachelor of Medicine, Bachelor of Surgery (MBBS)	69	81	150
2	B. Sc (Nursing)	43	57	100
3	B. Sc (Operation Theatre and Anaesthesia Technology)	-	-	-
4	B. Sc (Radiology and Imaging Technology)	-	-	-
5	B. Sc (Optometry)	-	-	-
	Total	112	138	250

## **Facilities Available**

College		
College Block	Examination Hall	
Lecture Hall	Board Room	
Demo Rooms	Cafeteria	
Lab	Anatomy	
Dissection Hall	Bio Chemistry	
Histology Lab	Community Medicine	
Museum	Forensic	
Microbiology	Pathology	
Pharmacology	Physiology	

Hospital		
OPD	IPD	
Labour Room	ОТ	
Blood Bank	MRD	
CSSD	Laundry	
MHC	ENT	

Accommodation			
Boys Hostel	Girls Hostel		
Dining Hall	Resident Quarters - Male		
Resident Quarters - Female	Staff Quarters		
Dean Quarters	MS Quarters		



#### Management's Commitment

During the audit meeting, the Management of VMCH demonstrated their commitment to green auditing by expressing their readiness to encourage all green activities. As a result of the green audit, they decided to promote environmentally friendly initiatives such as environmental awareness programs, campus farming, planting more trees on campus, and installing solar panels. The management was also willing to improve policies based on the green auditing report.

#### Scope of Green Auditing

- Resource Utilization: This includes assessing the institution's water, energy, and other natural resources consumption. The audit evaluates how efficiently these resources are being used and identifies opportunities for conservation.
- Waste Management: The audit looks at how the institution handles solid waste, liquid waste, and hazardous waste. It examines if there are proper disposal and recycling mechanisms in place to minimize environmental impact.
- Biodiversity and Green Cover: This aspect focuses on the campus's greenery. The audit assesses the number and health of trees, the presence of gardens, and overall efforts to promote biodiversity within the institution.
- **Compliance:** The audit ensures the institution adheres to relevant environmental regulations set by the government.
- Green Initiatives: This includes programs and practices the institution has adopted to promote a sustainable campus. This could involve using renewable energy sources, rainwater harvesting, paperless initiatives, or green transportation options.

#### Green Audit Goals

- Evaluate Environmental Performance: Assess how efficiently a VMCH utilizes natural resources like water and energy, along with its waste management practices. This helps identify areas for improvement.
- **Promote Sustainability:** Encourage VMCH to adopt sustainable practices by analyzing their current environmental impact.
- **Improve Environmental Compliance:** Ensure universities comply with environmental regulations set forth by the government.
- **Reduce Environmental Impact:** By highlighting areas of improvement, green audits help universities minimize their environmental footprint.
- Enhance Reputation: A positive green audit report can improve a university's reputation and attract environmentally conscious students and faculty.
- **Cost Savings:** Green initiatives often lead to cost savings through reduced resource consumption and improved waste management.
- Educate the Community: The green audit process raises awareness about environmental issues among students, faculty, and staff.

#### Benefits of the Green Auditing

- o More efficient resource management
- o To provide a basis for improved sustainability
- o To create a green campus
- To enable waste management through reduction of waste generation, solid- waste and water recycling
- To create a plastic-free campus and evolve health consciousness among the stakeholders
- o Recognize the cost-saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- o Authenticate conformity with the implemented laws
- o Empower the organizations to frame a better environmental performance
- o Enhance the alertness to environmental guidelines and duties
- Impart environmental education through a systematic environmental management approach and Improve environmental standards
- o Benchmarking for environmental protection initiatives
- Financial savings through a reduction in resource use
- Development of ownership, personal and social responsibility for the VMCH and its environment
- o Enhancement of VMCH profile
- o Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the VMCH.

#### **Target Areas of Green Auditing**

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of the educational institute". Eco-campus focuses on the reduction of contribution to emissions, procuring a cost-effective and secure supply of energy, encouraging and enhancing energy use conservation, promoting personal action, reducing the institute's energy and water consumption, reducing wastes to landfill, and integrating environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, and Environment.

## Methodology of Green Auditing

#### Purpose:

The purpose of the audit was to ensure that the practices followed on campus comply with the Green Policy adopted by the VMCH.

#### Methodology:

The criteria, methods, and recommendations used in the audit were based on the identified risks. The methodology included:

- Preparation and completion of questionnaires.
- Physical inspection of the campus.
- Observation and review of documents
- Interviews with responsible persons
- Data analysis, measurements, and recommendations.

The methodology adopted for this audit was a three-step process:

#### Data Collection:

In the preliminary data collection phase, an exhaustive data collection effort was undertaken using various tools such as observation, surveys, communication with responsible persons, and measurements.

The following steps were taken for data collection:

- Site Visit
- Data about general information was collected through observation and interviews.
- Power consumption of appliances was recorded, with average values
#### Data Analysis:

Detailed analysis of the collected data included calculating energy consumption, analyzing the campus's latest electricity bill, and assessing water consumption, waste generation, and greenery management.

#### **Recommendations:**

Based on the results of data analysis and observations, recommendations were made to reduce power and water consumption. Proper waste treatment methods were also suggested. Additionally, the report recommended reducing the use of fossil fuels for the sake of community health.

## Auditing for Green Campus Management

Biodiversity faces serious threats from habitat loss, pollution, overconsumption, and invasive species. Species are disappearing at an alarming rate. Each disappearance affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings.

Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere.

Trees play an important ecological role within the urban environment, supporting improved public health. They also provide aesthetic benefits to cities.

In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. A single tree produces enough oxygen to meet the daily needs of one person.

So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us.

Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which is a big deal, considering many students are under significant stress.

**1930 Trees** are planted inside the campus along with the medicinal plants.

Greenery				
S. No	Types of trees	Location	No of Trees	
1	Neem Tree,Portia Tree	Library area, ER Opposite, Temple back side	300	
2	Almond Tree,Babool Tree,Bead Tree,Neem Tree	Nursing College Opposite	576	
3	Babool Tree	ER Opposite	200	
4	Bead Tree,Dates Tree	Temple back side	126	
5	Portia Tree,Almond Tree	Nursing Boys Hostel	147	
6	Mango Tree,Neem Tree,Almond Tree	Ground area	78	
7	Dates Tree	Library area	25	
8	Neem Tree, Almond Tree	MBBS Boys Hostel Back side	84	
9	Almond Tree	MBBS Girls Hostel Area	75	
10	Babool Tree,Portia Tree	Residency Back side	120	
11	Bead Tree,Almond Tree	Mess Block back side	106	
12	Portia Tree,Dates Tree	2Bhk Area	63	
13	Total		1900	

## Greenery at the University









| P a g e 24 of 39



## **Participation of Teams**

A green audit was conducted with the assistance of Pragnaa Shree Venture India Pvt. Ltd. The audit involved different student groups, teaching and non-teaching staff. The audit began with the teams walking through all the different facilities at the college, determining the different types of appliances and utilities (lights, taps, toilets, fridges, etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap). They also identified relevant consumption patterns (such as how often an appliance is used) and their impacts. Staff and students were interviewed to gather details on appliance usage frequency and general characteristics. Data collection focused on key areas: energy, waste, greening, carbon footprint, and water use. College records and documents were verified several times to clarify the data received through surveys and discussions.

The following Committees have been constituted to facilitate smooth functioning and administrate the affairs of the University for 2022-2023.

## College Council Committee

hairperson	:	Dean
o-Chairman	:	Medical Superintendent
ouncil Secretary	:	Dr. Prince Johnson Samuel (Vice Principal)
Members	:	All HODs
o-Chairman ouncil Secretary Members	: : :	Medical Superintendent Dr. Prince Johnson Samuel (Vice Princi All HODs

## Curriculum Committee

S. No	Name	Designation	Appointed as
1	Dr. Kumudha Lingaraj	Dean	Chairperson
2	Dr. Arun Kumar	Medical Director	Co-Chairman
2	Dr. Lalitha Shanmugam	Professor Physiology	Coordinator
3	Dr. Prince Johnson Samuel	Professor & HOD Physiology	Member
4	Dr. Shankar	Professor & HOD General Medicine	Member
5	Dr. S. S. M. Uma mageswari	Professor & HOD Microbiology	Member
6	Dr. Maignana Kumar	Professor & HOD Pharmacology	Member
7	Dr. Bhaskar	Professor & HOD Community medicine	Member
8	Dr. C. Subbulakshmi	Professor & HOD, Paediatrics	Member
9	Dr. A. R. Subhashree	Professor & HOD Pathology	Member
10	Dr. A. Vikram	Professor & HOD, General Surgery	Member
11	Dr. N.S. Thirumaran	Professor & HOD ENT	Member
12	Dr. Vijaya Bhaskar Reddy	Professor & HOD Orthopaedics	Member
13	Dr. Gandhimathi	Professor & HOD Anaesthesia	Member
14	Dr. Murali	Professor & HOD Radiology	Member
15	Dr. Lokeshwari	Asso prof in OBG	Member
16	Dr.Yasaswini	Assistant prof in Ophthalmology	Member

## ANTI-RAGGING COMMITTEE

Name of The Staff	Designation	Depts
Dr.Kumudha Lingaraj	Dean	Chairperson
Dr. Arun Kumar	Medical Director	Co-Chairman
Dr.Pandyaraj	Medical Superintendent	General Surgery
Dr. Prince Johnson Samuel	VP (Academics)	Member
Dr.S.Bhasker	HOD and Prof Com., Medicine	Convener
Dr.Vishali	Asso Prof., anatomy	Member
Dr. Ilamathi	Asso Prof., Pharmacology	Member
Dr. Muthuraman	Asso Prof, General Surgery	Member
Dr. Ramasamy	Asst Prof Forensic Medicine	Member
Mrs. Esakkimmal	Tutor in Anatomy	Member
Mr. Srinivasan	Administrative Officer	Member
Dr. Udesh Ganapathy	Chief warden (Boys & Girls)	Member
Ms. Sangeetha	Deputy Warden	Member
Ms. Dharaneshwari	Police	Member
Mr. Sheldon Mark Jerrett	Media	Member
Mr. Rangarajan. AL	NGO	Member

## Gender Harassment Committee/ Internal Complaint Committee

S.No	Name of the Member	Designation
1	Dr. Kumudha Lingaraj	Chairperson
2	Dr. C. Uma Maheswari	Convener
3	Dr. C. Subbulakshmi	Professor & HOD, Paediatrics
4	Dr. Lokeshwari	Associate Professor OBG
5	Dr. Karthi Sundar	Associate Professor Orthopedics
6	Dr. Sushil George	Assistant Professor Psychiatry
7	Mr. Srinivasan	Administrative Officer
8	Mrs. Shakuthala	Nursing Superintendent
9	Mrs. Hema	Chief Pharmacist Manager
10	Mrs. Charaniya	Admin
11.	Mr. Rangarajan	NGO

## **Disciplinary Committee**

S.No	Name of The Faculties	Designation
1	Dr. Kumudha Lingaraj, DEAN	Chairperson
2	Dr. Hemalatha Shanker, ARMO	Convener
3	Dr. C. Subbulakshmi, HOD of Pediatrics	Member
4	Dr. Lokeshwari, Asso Professor in OBG	Member
6	Dr. Karthi Sundar, Asso Professor in Emergency Medicine	Member
7	Dr. Sushil George, Asso Professor in Psychiatry	Member
8	Mr. Srinivasan, Administrative Officer	Member

#### Mortality & Morbidity Committee Chairperson : Dean Convener : Medical Superintendent Coordinator : RMO : Assistant Medical Superintendent Co- coordinator Members

- : HOD Medicine
  - HOD Surgery
  - HOD Paediatrics
  - HOD Orthopaedics

HOD – OBG  $\overset{\cdot}{\&}$  HODs of medical allied and surgical allied depts. : MRO

Member Secretary

## Institutional Human Ethics Committee

Name	Designation
Dr. Usha Sadhasivam, MD, Ph.D, Prof & HOD Pharmacology (Sri Lalithambigai Medical College, Maduravoyal, Chennai – 600 095.	Chairperson
Dr. S.S. M. Uma Mageshwari, MBBS, MD Prof & HOD of Microbiology, VMCH	Member Secretary
Dr.Archana settu MBBS,MD, SR in Pharmacology	Basic Medical Scientist
Dr. Shankar, MD, Prof & HOD in General Medicine, VMCH	Clinicians
Dr. Vedantha Srinivas J. MD, Senior Medical Officer, Clinical research SIMS, vadapalani	Clinicians
Dr. Gandhimathy, Prof & HOD in Anaesthesiology	Clinicians
Dr.Sivaanusuya,MD, SR in Community Medicine	Scientific Member
Dr. K. Karthikeyan, M.Pharm, ph.D.,	Scientific Member
Mr. T.L. Sankaran, Msc, M. Phil, B. Ed.	Social Scientist
Mrs. Rohini, B.Sc. MSW	Social Scientist
Mr. V. Karthikeyan, BL, LLM	Legal Expert
Mrs. Revathy	Lay Person

	Hospital Infection Control Committee				
S. No	Name	Designation	Appointed as	Mobile Number	Email ID
			Administratio	n Control	
1.	Dr. Kumudha Lingaraj	Dean	Chairperson	9444015622	dean@velsmedicalcollege.com
2.	Dr.S.S.M.Uma mageswari	Professor & HOD Microbiology	Member Secretary	9941110053	
			Core Com	mittee	
1	Dr. Sugantha valli	Assistant Professor Microbiology	Infection Control Officer	9940150650	Dr.msv86@gmail.com
2.	Ms. Priyanka	Staff nurse	Infection Control Nurse	6382067241	Priyankaa3498@gmail.com
3.	Ms. Preetha	Lab Technician	Infection Control Committee	7094549669	ppreethaj@gmail.com
4.	Ms. Priya	Data Entry Operator	Data Entry Operator	8939004772	Priyajessy1994@gmail.com
			Memb	er	
1.	Dr. Shanker	Prof & HOD General Medicine	Member	94445312601	shankermd@gmail.com
2	Dr. A. Vikram	Prof & HOD General Surgery	Member	9841045284	drvikramsrmc@yahoo.co.in
3	Dr. Subbulakshmi	Prof & HOD Paediatrics	Member	9790354118	c.subbulawrance@yahoo.com
4.	Dr. Gandhimathi	Prof & HOD Anaesthesia	Member	9840115385	dganaes@gmail.com

## Hospital Safety Committee

- 1. Dean
- 2. Medical Superintendent
- 3. RMO
- 4. Assistant Medical Superintendent
- 5. All HODs
- 6. Nursing Superintendent
- 7. Assistant General Medicine
- 8. Civil Engineer
- 9. Electrical Department
- 10. Bio Medical Engineer

S. No.	Name	Designation
01	Dr. Kumudha Lingaraj, Dean, VMCH	Chairman
02	Dr. Maignana Kumar, Prof & Head, Pharmacology, VMCH	Convener
03	Dr. R. Shanker, Prof & Head, General Medicine, VMCH	Member
04	Dr. C. Subbulakshmi, Prof & Head, Paediatrics, VMCH	Member
05	Dr. Vishnu Priya, Assistant Professor, Dermatology, VMCH	Member
06	Dr. D. Gandhimathi, Prof & Head, Anaesthesia, VMCH	Member
07	Ms. S. Hema, Chief Pharmacist, VMCH	Member
08	Ms. Olive Haloma , Deputy Nursing Superintendent, VMCH	Member
09	Dr. Archana Settu, Resident, Pharmacology, VMCH	Member Secretary

#### Pharmacovigilance Committee Constitution

## Pharmacy and Therapeutic Committee

Name - Faculty	Designation	Departments
Dr. Gandhimathi	Convener	Anesthesiology
Dr.R.Shanker	Professor & HOD	General Medicine
Dr. Maignana Kumar	Professor & HOD	Pharmacology
Dr. Udesh Ganapathy	Professor & HOD	General Surgery
Dr.Vijaya Bhaskar Reddy	Professor & HOD	Orthopaedics
Dr.C.Subbulakshmi,	Professor & HOD	Pediatrics
Dr.Lokeshwari MD	Associate Professor	Obstetrics & Gynecology
Mrs. Alice Kanthimathi	Nursing Superintendent	Matron
Mrs. Hema	Chief Pharmacist	Pharmacy

## Best Practices / Initiatives done by the University;

The following Best Practices for Green Energy and Environmental areas are in place VELS Medical College and Hospital

We are pleased to present the comprehensive measures taken by VELS Medical College and Hospital towards promoting sustainability, reducing carbon footprint, and fostering a healthy environment for our students, faculty, and staff. Our commitment to environmental stewardship is reflected in various initiatives implemented across our campus, as outlined below:

College Infrastructure:

#### 1. Layout and Buildings:

- We have meticulously evaluated the layout and design of our buildings to maximize natural light and ventilation, thereby reducing dependency on artificial lighting and HVAC systems.
- Sustainable building materials and construction techniques have been incorporated into our infrastructure to enhance energy efficiency and durability, aligning with our long-term sustainability goals.

#### 2. Landscaping:

- Extensive green spaces have been allocated for planting trees and plants, contributing to enhanced greenery and improved air quality within our campus.
- Our rainwater harvesting systems efficiently collect and utilize rainwater for landscaping purposes, thereby reducing reliance on municipal water sources.

#### 3. Energy Conservation:

- LED lights and energy-efficient appliances have been installed throughout our campus to minimize electricity consumption and lower operational costs.
- Energy-conserving facilities such as motion sensor lighting and programmable thermostats have been implemented to optimize energy usage without compromising on comfort and functionality.

#### 4. Access Control and Signage:

- Limited entry points to buildings have been established to regulate energy usage and enhance security measures across our campus.
- Proper signage has been strategically placed to educate students and staff about energysaving practices and waste management protocols, fostering a culture of sustainability within our community.

#### 5. Equipment and Utilities:

#### 5.1 Maintenance and Service:

- A comprehensive Annual Maintenance Contract (AMC) is in place for all equipment and utilities to ensure regular servicing and optimal performance.
- Standard Operating Procedures (SOPs) have been developed for equipment usage and maintenance to prolong lifespan and minimize energy wastage.

#### 5.2 Energy-Efficient Appliances:

- Outdated equipment has been replaced with energy-efficient alternatives, significantly reducing energy consumption and operating costs.
- Regular assessments are conducted to identify opportunities for upgrading appliances and optimizing energy usage, ensuring continued efficiency and sustainability.

#### 6. Waste Segregation and Recycling:

#### 6.1 Waste Management Systems:

- Robust waste segregation practices have been implemented to divert recyclable materials from landfills, contributing to our waste reduction efforts.
- Recycling stations are strategically located across our campus to facilitate convenient disposal of paper, plastic, glass, and other recyclables, promoting a circular economy within our community.
- Biomedical waste is disposed through a Govt. authorized vendor.

#### 6.2 Water Conservation:

- Water-saving measures such as low-flow toilets and water-efficient fixtures have been installed to minimize water consumption and conserve valuable resources.
- Wastewater recycling systems treat and reuse greywater for non-potable purposes, further reducing our environmental impact and promoting sustainable water management practices.

#### 6.3 Rainwater Harvesting:

- Our rainwater harvesting infrastructure captures and stores rainwater for irrigation and nonpotable uses, reducing reliance on municipal water sources and conserving water resources.
- Integrated water sprinkler systems enhance the efficiency of rainwater harvesting by distributing water for landscaping and irrigation in a sustainable manner.

#### Conclusion

The green audit assists in the process of monitoring and verifying the performance in the environmental arena and is fast becoming an indispensable aid to decision making in VMCH.

The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the University. Hope that the results presented in the green auditing report will serve as an opportunity to improve the environment-related practices and resource usage at the university as well as new activities and innovative practices. A few recommendations are added to waste management using eco-friendly and scientific techniques. This may lead to a prosperous future in the context of Green Campus and thus sustainable environment and community development.

It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to the audited organization. An outside view, perspective and opinion often help staff who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various stakeholders who need to be convinced that things are running smoothly and that systems and procedures are coping with natural changes and modifications that occur.

## List of Recommendations

#### **Common Recommendations**

- Strengthening of existing environmental policy for the overall Hospital Area.
- o Communicating Environmental Commitment to Visiting Public
- $\circ$   $\;$  Upscaling the water, waste and energy management systems

### Criteria Wise Recommendations

## Green

• Planting for More trees.

#### Disclaimer

Pragnaa Shree Venture India Pvt. Ltd has prepared this report for VMCH based on input data submitted by the representatives of the University.

It is further informed that the conclusions are arrived at following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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Pragnaa Shree Venture India Pvt. Ltd, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.



20th Apr 2021

#### TO WHOM IT MAY CONCERN

This is to certify that VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS) has conducted detailed Green Audit (Environment, Energy, Water and Waste Management) for their campus Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted for the period **April 2020 to March 2021** and was found to be satisfactory. The efforts taken by the faculty and students towards environment and sustainability is highly appreciated and commendable.

For Pragnaa Shree Venture India Pvt. Ltd

Authorised Signatory

Name: Murali Radhakrishnan Designation: Director



CIN. U74999TN2017PTC115875

Pragnaa Shree Venture India Pvt. Ltd

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# Green Audit Report (2020-21)



## VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS)

Velan Nagar, P.V. Vaithiyalingam Road, Pallavaram, Chennai-600 117, Tamil Nadu, India

Audit Date: 8th April 2021



Pragnaa Shree Venture India Pvt. Ltd 25, First Floor, 1st Cross Street, New Colony, Chrompet, Chennai – 600 044

## INDEX

S. No	Contents		
1	Executive Summary	3	
2	Introduction to VISTAS	5	
3	General Information of VISTAS	11	
4	Facilities	12	
5	VISTAS Layout	14	
6	Vision, Mission and Core Values	15	
7	Management Commitment	17	
8	Scope and Goals of Green Audit	18	
9	Benefits of Green Audit	19	
10	Target Areas of Green Audit	20	
11	Methodology	21	
12	Auditing Green Campus Management	23	
13	Participation and Consultation	31	
14	Best Practices / Initiatives	33	
15	Conclusion	34	
16	List of Recommendations	35	
17	Disclaimer	36	

## Section 1: Executive Summary

Educational institutions now a day are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of energy savings, recycling of waste, water reduction, water harvesting etc... The activities pursued by the university can also create a variety of adverse environmental impacts. Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. The green audit is defined as an official examination of the effects a University has on the environment. As a part of such practice, an internal audit (Green Audit) is conducted to evaluate the actual scenario at the campus.

The green audit can be a useful tool for a University to determine how and where they are using the most energy or water or resources; the University can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. Green auditing and the implementation of mitigation measures is a win-win situation for all the University, the learners and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of Green impact on campus. Green auditing promotes financial savings through the reduction of resource use. It allows the development of ownership and personal and social responsibility for the students and teachers.

The audit process involved Initial Data Collection at, Site walkthrough with the team of VISTAS with the views management including the policies, activities, documents and records.

This was followed by staff and student interviews, collection of data, review of records, observation of practices and observable outcomes.

The baseline data collected from Vels University, VISTAS, Pallavaram, and Chennai are analyzed and conclusions made.

We thank the Management of VISTAS, Dr. Kalaivani and Dr. Sathish and other team members for supporting the complete audit process.

We are happy to submit this green audit report to the VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS).

Mr. S.K. Srinivasan Mr. R. Murali Mr. S. Babu

Pragnaa Shree Venture India Pvt. Ltd

## Section 2: Introduction to VISTAS

Vels Group of Institutions run by the Vael's Educational Trust, a charitable, nonprofitable organization was established in 1992 by Dr Ishari K.Ganesh to commemorate the fond memory of his father Shri. Isari Velan, the Former Deputy Minister in the popular Govt. of Dr M.G.R was also associated with the film industry. Taking education to the humble thresholds of first-generation learners and weaker sections of society has ever been the objective of Vael's Trust. The vision of Vael's is to inculcate self-reliance and discipline among the youth and also to improve the quality of higher education.

The multifaceted, need-based, magnificent Vels Group of Institutions under Vaels Educational Trust highlight the commitment and dedication toward the noble cause of higher education. Lighting the lamp of education on countless thresholds hidden in the folds and crevices of India, Vael's holds high the blazing beacon of quality Education

Indeed this institution of higher learning and excellence is a leviathan in the everexpansive ocean of education. The moving spirit behind Vels success story is the founder Chairman and Managing Trustee Dr.Ishari K.Ganesh. Believing staunchly in the philosophy of work, placed on the pedestal of worship, he is a visionary and inspiring academician, who breathed into generations and generations of students, the unsullied breath of quality education, tempered by discipline and enlivened by dedication.

Vels College of Pharmacy was started in 1992. Subsequently, Vels College of Physiotherapy (1993) and Vels College of Science (1993) were started. The Deemed to be University status was conferred, to the above different colleges, after fulfilling all the procedures on 04.06.2008 by the MHRD, Govt. of India with the registered name **VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES** (VISTAS). The Head Office of the VISTAS has located at Pallavaram around 2 km. south of Pallavaram railway station and nearly 4 km away from Chennai Airport. The Deemed University status has been conferred by UGC after taking into account the

rich experience accumulated by the Management and the Quality maintained in the field of Higher education.

VISTAS has blossomed into a multi-disciplinary Institute offering more than 100 UG & PG programs, besides Doctoral programs, through 16 Schools and 45 Departments. Programs have the approval of the relevant Statutory Regulating Agencies such as UGC, AICTE, PCI, BCI, NCTE, DGS etc. VISTAS have a student strength of close to 14500 and a faculty strength of close to 709 with 348 of them having a doctorate. The School of Maritime Studies was awarded an "A1" grade by the Indian Register of Shipping (IRS) in Nov-2019. **VISTAS has been accredited by NAAC with a CGPA of 3.01 / 4 (A) grade in March 2019. B.E., Mechanical Engineering, B.E., Computer Science & Engineering, Master of Business Administration, B. Pharmacy, B.E., <b>Marine Engineering, B.E. Electronics and Communication Engineering, B.E., Electronics and Communication Engineering, B.E., Cloud and Mobile based Application Development) programs have been accredited by the NBA.** 

VISTAS is also recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. VISTAS has improved infrastructure, modernized laboratories, increased hostel accommodation and improved sports facilities. Since becoming a deemed university, syllabi have been revamped periodically in all disciplines. There has been a significant increase in the enrolment of students and more so among women students. The Deemed University is well equipped with ICT facilities such as Smart classrooms, Video Conferencing, Online courses and Vels Knowledge Resource Centre. VISTAS has a Centre for Fish Immunology, Incubation Centre, Central Instrumentation Laboratory, Centre for Energy and Alternative Fuels, Centre for Artificial Intelligence, Centre for Automation and Power Conservation, Centre for Material Research, Centre for Excellence in Pharmaceutical Research & Drug Testing, Centre for Elephant Research, Centre for Bioengineering, Centre of Excellence in Cloud Computing with IBM, Centre of Excellence in Business Analytics with IBM, Centre for Intellectual Property Rights (IPR), Centre for Advanced Research & Development (CARD), Centre for Multimedia Research, Centre for Transfer of Technology, Centre of Excellence in Constitutional Law and Centre of Excellence in MAT Lab.

## **OUR VISION**

To make the Institute an epitome of excellence in higher education by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

## OUR MISSION

- Effectively imparting knowledge and inculcating innovative thinking
- Facilitating skill enhancement through add-on courses and hands-on training.
- Doing original, socially relevant, **high-quality research**.
- Facilitating appropriate co-curricular, extracurricular and extension activities
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

The structure of Governance in VISTAS facilitates Autonomy, Transparency and Accountability through the participation of various stakeholders. It provides the differentiation and integration of various activities in VISTAS. The Organizational structure has been designed as per UGC Regulation. The Regulatory bodies of VISTAS include the Board of Management, Academic Council, Planning and Monitoring Board, Board of Studies and Finance committee. They have been functioning as per guidelines of UGC and Memorandum of Association and they meet periodically. The various key stakeholders of VISTAS, which include faculty, students, parents, industry experts, academic peers and alumni, are involved in decision making at every level. For smooth functioning of VISTAS, several sub-committees comprising the faculty and student representatives have been constituted. In order to decentralize administrative/academic machinery, the authority has been delegated by setting up of Deans for various Schools, Admissions, Academics, Research, Student Affairs, Faculty, IQAC, etc., For transparent functioning, the Admission, Academics, Administration, Accounts and Examination processes are automated by using ERP.

An enriched teaching, learning and evaluation process is carried out in VISTAS catering to the diversity of students and faculty. Students entering VISTAS enjoy a multivariate learning process. Bridge Courses are conducted to prepare the students

for their respective study environments. The entire Teaching-Learning process is student-centric focusing on LMS, KMS, and E-Learning resources. Interactive and instructional lectures, focused discussions, classroom deliberations, practical classes, hands-on training, projects, presentations, workshops and guest lectures help students to hone their technical skills. Comprehensive lesson plans are prepared regularly by faculties for effective teaching. Independent, Interactive, Collaborative and Participatory learning is encouraged and the required facilities are available for students in terms of SMART Classrooms, Wi-Fi-enabled Campus, Industrial Interactions, Projects and visits. Video lectures of VISTAS were recorded using EduTech, NPTEL, EDX and other MOOCs to enhance student learning. Virtual learning through the AVIEW and Moodle programs of IIT are available. VISTAS employ an effective Mentor-Mentee system for guidance and counselling students on regular basis. Class committee meetings are conducted regularly for all types of learners. Remedial and tutorial classes are conducted for slow learners to enhance their learning. Fast learners are involved in NPTEL courses, industrial problems and projects. All the programs offered by VISTAS have clearly defined POs, PSOs and COs and the outcomes are assessed through direct and indirect methods. VISTAS adopt a Continuous Assessment System, where both formative and summative assessments are ensured to measure the attainment of course outcomes.

VISTAS core values are aligned with its vision and mission and are reflected in the curricular and professional growth of the VISTAS community. With Equity as its premier value and a Women's Forum as its mouthpiece, VISTAS promote gender sensitivity among all stakeholders. Girls are given special counselling to overcome depression, abnormal behaviour etc. VISTAS have a well-defined Environment policy. The campus is green, serene and pleasant. Steps have also been taken to conserve energy and reduce carbon footprint by installing three windmills and solar street lamps. VISTAS has been adhering to the best practices such as Herbal Garden, Tobacco-Free Campus, Green Campus, Bio-gas plant, Rain Water Harvesting, Renewable energy and carbon neutrality. The E-waste is again sold back to the contractors for disposal. Recently a modern waste processing machine has been installed on the campus, for converting biodegradable waste into manure. Being situated in the heart of the city, VISTAS enjoys the privilege of creating direct and indirect employment opportunities for the local unemployed youth. Good connectivity and the presence of

industries in the vicinity are major advantages. The core values and the developments stated above are displayed on the Institute's website. Promoting a cosmopolitan culture, VISTAS observes National festivals and birth/death anniversaries of great Indian personalities.

VISTAS follows the Best practices such as Outcome Based Education, Student Mentoring, External Academic and Administration Audit, ERP in all the activities, NSS Unit-Swachh Bharat Abhiyan, Student's Feedback about Teachers, MHRD Digital Initiatives, Research culture, Institution-Industry Interaction, Use of Renewable Energy, Internship for Students, Parent Corner in the Website etc. The Industry-Institution relationship is very strong at VISTAS. Industries are busy developing products at the Incubation Centre. Some academic programs such as B. Tech and MBA are run in collaboration with M/s IBM. Experienced Professors are active in solving industrial problems as part of consultancy projects. Our vision is to provide quality education. Hence, as part of ensuring quality, an External Academic and Administrative Audit is performed in all the departments every year.

A centre, named, "Centre for Advanced Research and Development (CARD)" has been established to promote research. Besides 12 advanced dedicated research labs in various schools, a Central Instrumentation lab is set up housing advanced instruments such as BET Surface Area Analyzer, Field Emission Scanning Electron Microscope, High-Performance Thin-Layer Chromatography, X-Ray Diffractometer, Particle Size and Zeta Potential Analyzer, Raman Spectrometer, etc. Research scholars from nearby universities also use the VISTAS lab for research. Due to strong Industry – Institutional tie-up, senior faculty are busy solving industrial problems as consultancy projects. Ten industries are active at Incubation Centre in developing products useful to the society. Staff members are given incentives to publish papers and attend seminars. During the last three years, 1374 research papers have been published in the UGC listed journals. *Turnitin* software is available to eliminate plagiarism.

Under the Unnat Bharath Abhiyan program, VISTAS has initiated the promotion of institutional social responsibility through activities undertaken in the neighbourhood

rural community. Generic Medicines are made available to the Society through Pradhan Mantri Jan-Aushadhi Yojana Scheme.

The road map of VISTAS is well-drawn. Our vision is to make this an International Institute wherein students from all the countries will assemble to enrich themselves in terms of knowledge. We want to provide physical and academic infrastructure including lab facilities which will create a "reverse flow" of students. Our ambition is to have at least 100 crores worth of research projects by 2030.

Several are the paths and avenues to be explored and exploited. Countless are the feathers to be added to the Vels cap of success. The endeavours continue with determination, "to strive, to seek, to find and not to yield". On the whole, the Institute is committed to excellence in every activity, intelligent planning of each activity and ensuring focused effect on each of them for attaining excellence. WE HAVE ACHIEVED A LOT, STILL, WE FEEL WE HAVE MILES TO GO AND OUR JOURNEY IN HIGHER EDUCATION CONTINUES...

## **Section 3: General Information**

S. No	Description (2020-21)	Male	Female
1	Students	9495	4200
2	Teachers	337	372
3	Non-Teaching Staff	245	221
4	Total	10077	4793

Total Number of Working Days (2020-21)196

School Wise - Students Enrollment & Staff details – 2020-21			
S. No	Name of the School	No. of	No. of
		Students	Staff
1	School of Management Studies & Commerce	2484	726
2	School of Computing Sciences	1349	276
3	School of Life Sciences	259	393
4	School of Mass Communication	511	59
5	School of Maritime Studies	602	7
6	School of Engineering	1538	280
7	School of Basic Sciences	188	165
8	School of Hotel & Catering Mgmt.	128	20
9	School of Pharmaceutical Sciences	377	262
10	School of Physiotherapy	189	324
11	School of Ocean Engineering	108	14
12	School of Law	849	362
13	School of Languages	67	92
14	School of Education	32	291
15	School of Music & Fine Arts	28	21
16	Dept. of Aviation	187	56
17	School of Ancient Indian Studies	-	-
18	PhD	546	766
19	M. Phil	53	86

| P a g e 11 of 36

## Section 4: Facilities Available

- Boys Hostels
- Girls Hostels
- Staff Quarters
- Three air-conditioned auditoria with a capacity of 1200, 250 & 120
- Three air-conditioned seminar halls with a seating capacity of 150
- Main Canteen is available which can cater to 200 persons at a time and Three smaller canteens are also available
- Bank with ATM
- Pharmacy
- RO Plant
- Transport facilities
- Nine Diesel Generators
- Three Wind Mills
- Waste Management
- Solar Plant
- Insurance for all students and staff members

VISTAS have three playgrounds and other facilities such as:

- Football Field
- Volleyball Court
- Basketball Court
- Ball Badminton Court
- Badminton Courts (Outdoor)
- Throwball Court
- Tennikoit Court
- Taekwondo
- Cricket Practice Pitch (nets)
- Kabaddi Court
- Swimming Pool (25mtsX14 mts)

## **Facilities Available**

- 200 Mtrs Track
- Fitness Centre (gymnasium)
- Indoor hall to play Table Tennis, Carrom and Chess
- All the Fire Safety Equipment are provided on the premises
- Having necessary Wheel Chairs and Ramps in all the buildings on the campus.
- The institution is having adequate toilet facilities for physically challenged persons.
- Lift facilities are available
- All members of staff (Teaching, Non-teaching & Students) are covered through accident cum hospitalization insurance.
- Two separate Health Clinics are available One for Boys and One for Girls.
- One Male Medical Officer and One lady Medical Officer are available.
- Tie-up with nearby hospitals namely Kamatchi Hospital, and Parvathy Hospital.
- Apollo Shine Clinic is located within the campus.
- 24 Hrs Ambulance facility
- Nursing Assistants




# Section 6: Vision, Mission and Core Values

#### Vision

 To make the Institute an epitome of excellence in higher education by providing high-quality education and rigorous training in multiple streams of choice with ample scope for all-round development for the betterment of society.

#### Mission

- Effectively imparting knowledge and inculcating innovative thinking.
- Facilitating skill enhancement through add on courses and hands-on training.
- Doing original, socially relevant, high-quality research.
- Facilitating appropriate co-curricular, extracurricular and extension activities.
- Instilling the spirit of integrity, equity, professional ethics and social harmony.

#### **Core Values**

#### **VISTAS** believe that:

- VISTAS students and scholars should be well-founded on the pursuit of knowledge through, teaching and learning research, with fellowships required based on intellectual merit, ability and the potential for excellence.
- Perspectives, arising from diverse knowledge backgrounds, that redefine our identities, deepen scholarly inquiry and enrich path-breaking newer knowledge horizons.

- Cherish the key values of academic freedom, creative and innovative thought, ethical standards and integrity, accountability and social justice, and nurturing an open mind and open society.
- Foster inquiry-led and evidence-based approach to creative knowledge; facilitate a vibrant academic ambience to nurture the intellectual climate.

### Section 7: Management's Commitment

The Management of the VISTAS has shown a commitment to green auditing during the audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environmentally friendly such as awareness programs on the environment, campus farming, planting more trees on the campus etc., after the green auditing. The management of the University was willing to formulate policies based on the green auditing report.

#### Section 8: Scope and Goals of Green Auditing

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Green Audit is the most efficient and ecological way to manage environmental problems. It is a kind of professional care that is the responsibility of each individual who is part of economic, financial, social, and environmental factors. It is necessary to conduct the green audit on the University campus because students become aware of the green audit, its advantages to saving the planet and they become good citizens of our country. Hence, a Green audit becomes necessary at the university level.

## Section 9: Benefits of the Green Auditing

- More efficient resource management
- o To provide a basis for improved sustainability
- To create a green campus
- To enable waste management through reduction of waste generation, solidwaste and water recycling
- To create a plastic-free campus and evolve health consciousness among the stakeholders
- Recognize the cost-saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- o Authenticate conformity with the implemented laws
- Empower the organizations to frame a better environmental performance
- Enhance the alertness to environmental guidelines and duties
- Impart environmental education through a systematic environmental management approach and Improve environmental standards
- o Benchmarking for environmental protection initiatives
- Financial savings through a reduction in resource use
- Development of ownership, personal and social responsibility for the University and its environment
- Enhancement of University profile
- o Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the University.

#### Section 10: Target Areas of Green Auditing

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of the educational institute". Eco-campus focuses on the reduction of contribution to emissions, procuring a costeffective and secure supply of energy, encouraging and enhancing energy use conservation, promoting personal action, reducing the institute's energy and water consumption, reducing wastes to landfill, and integrating environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, and Environment.

#### Section 11: Methodology of Green Auditing

The purpose of the audit was to ensure that the practices followed on the campus are by the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

 Data Collection – In the preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, surveys communicating with responsible persons and measurements.

The following steps were taken for data collection:

- Site Visit
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.
- Data Analysis Detailed analysis of data collected includes calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.
- Recommendation Based on the results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. The use of fossil fuels has to be reduced for the sake of community health.

The above target areas particular to the University were evaluated through a questionnaire circulated among the students for data collection.

The following data was collected for the following areas during the assessment.

- 1. Environmental Audit
- 2. Energy Audit
- 3. Green Audit

## Section 12: Auditing for Green Campus Management

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, overconsumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings. Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

**404 Trees** are planted inside the campus along with the medicinal plants.

# **Greenery - Medicinal Plants**

S. No	Common Name	Botanical Name	Tamil Name	
1	Balloon Vine	Cardiospermum halicacabum	முடக்கத்தான் கீரை	
2	Shameplant	Mimosa pudica	தொட்டாச்சுருங்கி	
3	Butterfly Pea	Citorea ternatea	சங்கு கன்னிக்கொடி	
4	Turmeric	Curcuma longa	மஞ்சள்	
5	Indian Aloe	Aloe vera	கற்றாழை	
6	Kachnar	Bauhinia variegata	மந்தாரை	
7	Malabar nut	AdhatodaVasica	ஆடாதொடை	
8	Mango	Mangifera indica	மாங்காய்'	
9	Chikoo	Manilkara zapota	சப்போட்டா	
10	Senna	Cassia angustifolia	ஆவாரை	
11	Nerium.	Nerium oleander	அரளிப்பூ	
12	Tulsi	Ocimum sanctum	துளசி	
13	Jasmine	Jasminum sambac	மல்லிகை	
14	Pencil tree	Euphorbia tirucalli	கள்ளி	
15	Cassia	<u>Cinnamomum cassia</u>	இலவங்கப்பட்டை	
16	Curry leaves	Murraya koenigi	கருவேப்பிலை	
17	Thuthi	Abutilon indicum	துத்தி	
18	Hibiscus	Hibiscus rosa-sinensis	செம்பருத்தி	
19	Indian lilac	Melia azedarach	மலைவேம்பு	
20	Black plum	Syzygium cumini	நாவல்	
21	Indian beech tree	Pongamia pinnata புங்கை		
22	Keezhanelli	Phyllanthus nirruri கீழாநெல்லி		

| P a g e 24 of 36

S. No	Common Name	Botanical Name	Tamil Name
23	Bhringraj	Eclipta prostrate	வெண்கரிசாலை
24	Punarnava	Boerhavia diffusa	மூக்கரட்டிசாரை
25	Snake-needle grass	Oldenlandia diffusa	இன்புறாவேர்
26	Llilac chaste tree	Vitex negundo	காட்டுநொச்சி
27	Vinca	Catharanthus roseus	நித்திய கல்யாணி
28	Neem	Azadirachta indica	ഖേഥ്പ്പ
29	Henna	Lawsonia inermis	மருதாணி
30	Datura	Datura stramonium	ஊமத்தை
31	Arugambul	Cynodon dactylon	அருகம்புல்
32	Amla	Phyllanthus emblica	நெல்லிக்காய்
33	Guava	Psidum guajava	கொய்யாப் பழம்
34	Parijatham	Nyctanthes arbor-tristis	பவழமல்லி
35	Vallarai	Centella asiatica	வல்லாரை
36	Vetrilai	Piper bettle	வெற்றிலை
37	Omavalli	Plectranthus amboinicus	கற்பூரவல்லி
38	Cissus	Cissus quadrangularis	பிரண்டை
39	Calotropis	Calotropis gigantea	நீல எருக்கு
40	Thumbai	Leucas aspera	தும்பை
41	Chrysanthe -mum	Chrysanthemum morifolium மல்லிகை	
42	Kesavardhini	Eclipta prostrate	செம்பனை எண்ணெய்
43	Capsicum	Capsicum annuum	குடைமிளகாய்
44	Pomegranate	Punica grantum	மாதுளை
45	Seenthil	Tinospora cordifolia சீந்தில்	
46	Brahmi	Bacopa monnieri	நீர்ப்பிரமி

S. No	Common Name	Botanical Name	Tamil Name
47	Indian copper leaf	Acalypha indica	குப்பைமேனி
48	Indian long pepper	Piper longum	திப்பிலி
49	Rose	Rosa damascene	ரோஜா
50	Sweet Basil	Ocimum basilicum	திருநீற்றுப் பச்சிலை

# Greenery at the University



| P a g e 27 of 36



| P a g e 28 of 36





#### Section 13: Participation of Teams

In VISTAS the green auditing was done with the help of Pragnaa Shree Venture India Pvt. Ltd involves different student groups, teaching and non-teaching staff. The green audit began with the teams walking through all the different facilities at the college, determining the different types of appliances and utilities (lights, taps, toilets, fridges, etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and their impacts. The staff and learners were interviewed to get details of usage, frequency or general characteristics of certain appliances. Data collection was done in the sectors such as Energy, Waste, Greening, Carbon footprint and water use. College records and documents were verified several times to clarify the data received through surveys and discussions.

## **Greenery Committee**

S. No	Name	Function	Designation
1	Dr. Jino.R	Chairman	Assistant Professor Dept. of Civil School of Engineering.
2	Dr. Satheeshkumar.S	Member	Professor & Head, School of Pharmaceutical Sciences
3	Dr. Gavaskar.D	Member	Assistant Professor Dept. of Chemistry School of Basic Sciences.
4	Mr. Sriraman.M	Member	Assistant Professor Dept. of Civil School of Engineering.
5	Mr. Siva Perumal.P	Member	Site Engineer Dept. of Maintenance.
6	Monish Ram J B	Student	Civil Department 2 <sup>nd</sup> Year
7	K. Mohamed Attaul Haseeb	Student	Civil Department 2 <sup>nd</sup> Year
8	Rashika	Student	Civil Department2 <sup>nd</sup> Year

## Section 14: Best Practices / Initiatives done by the University;

- Extensive green covering of campus
- The Institution has initiated an eco-club consisting of students and faculty to identify places for planting trees and to take care of soil fertility. Plantation and maintenance of saplings have become the rudimentary activities towards realizing the "go green" vision of the Institution.
- VISTAS is selected as one of the HEIs to actively take part in Unnath Bharath Abhiyam Program.
- Pradhan Mantri Bhartiya Janaushadhi Kendra (PMBJK) is an initiative to ensure the availability of quality medicines at affordable prices to all. Based on the vision of the Prime Minister, PMBJK was inaugurated by Dr S Manivanan, Deputy Drugs Controller, CDSCO on 19th March 2018. This generic medical store provides quality medicines at an affordable cost to the public.
- Green areas and lung spaces are well maintained and the university has conducted a green audit of its campus
- Tree plantation is done periodically and the greenery is maintained on the campus.
- $\circ$  Our green cover is around 30% of the total surface area.
- The Herbal Garden is maintained by the School of Pharmaceutical Sciences.
- o Campus cleaning day is observed periodically with the help of NSS.
- Emphasize is on paperless governance.
- $\circ$  The campus is well maintained with trees and ornamental plants.
- Tree planting is the popular scheme adopted by our NSS students and "Go Green" is another slogan to motivate our students to go for tree planting.
- o New trees are planted regularly as and when required.

## **Section 15: Conclusion**

The green audit assists in the process of monitoring and verifying the performance in the environmental arena and is fast becoming an indispensable aid to decision making in VISTAS.

The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the University. Hope that the results presented in the green auditing report will serve as an opportunity to improve the environment-related practices and resource usage at the university as well as new activities and innovative practices. A few recommendations are added to waste management using eco-friendly and scientific techniques. This may lead to a prosperous future in the context of Green Campus and thus sustainable environment and community development.

It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to the audited organization. An outside view, perspective and opinion often help staff who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various stakeholders who need to be convinced that things are running smoothly and that systems and procedures are coping with natural changes and modifications that occur.

# Section 16. List of Recommendations

## **Common Recommendations**

- o Establishing environmental policy for the overall University
- Conduct more seminars and group discussions on environmental education.
- o Establish water, waste and energy management systems

#### Section 17: Disclaimer

Pragnaa Shree Venture India Pvt. Ltd has prepared this report for Vels University based on input data submitted by the representatives of the University.

It is further informed that the conclusions are arrived at following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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