KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade

Carbon Reduction program

Our University has set a goal to reduce carbon emissions by 70% by the year 2050. To reach this goal, Various greenhouse gas (GHG) emission reduction programs are followed by KARE to mitigate the environmental impact and promote sustainability to reduce Greenhouse gas emission. The institution has established a system for the management of various wastes produced in the campus, to provide a clean environment through the concept of Reduce, Recycle, Reuse which in turn creates wealth and also supports wellbeing of students, faculty and staff and to enhance the quality of life within the campus and to the society. Wherever possible, the institution is committed to recycling those materials.

Here are some common programs and initiatives followed by KARE:

1. KARE is cutting down greenhouse gas (GHG) emissions within **Scope 1** by using biogas for heating. They are also reducing the need for electricity in cooling by using common **ventilation systems**. To lower emissions from transportation, the university operates common bus facility for faculty and staffs along with public transportation. Additionally, vehicle traffic within the campus is carefully controlled. These efforts help to minimize **transportation-related greenhouse gas emissions**, contributing to a cleaner and more sustainable campus environment. Additionally, solar panels on campus provide some of the energy needed.

2. KARE is situated in an area where a large **solar power plant** supplies electricity. This means that while KARE benefits from solar energy in the region, the electricity it uses isn't entirely purchased, the renewable is still involved in generating a portion of it. **(Scope 2)**

3. As part of the university's **zero waste program**, KARE aims to reduce emissions from solid waste. Through STP plan, the sewage water is utilized for garden irrigation and flushing the toilets. Through these initiatives, KARE is actively working to reduce its environmental impact and promote sustainability across various areas, including waste management, water usage, and transportation. **(Scope 3)**

Description:

Scope 1

1. KARE has established a public **transport policy** to facilitate the travel of students, staff using university operated vehicles. Two wheelers and 4 wheelers are prohibited from entering the campus except EV's to promote the use of bicycles or on foot at a short distance within the University to reduce fuel consumption and reduce carbon dioxide emissions.

   https://kalasalingam.ac.in/wp-content/uploads/2021/11/Transportation-Policy.pdf

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION
(Deemed to be University)
Anand Nagar: Krishnankoil 626 126

No: KARE/TPT/Circular/095/2019/02 Date: 12.06.2019

CIRCULAR

In continuation to circular No: KARE/TPT/Circular/095/2018/01 dated 11.06.2018, all motorized vehicles of faculty and staff will be permitted only up to the temple. Taxis, auto-rickshaws and other outside vehicles are not permitted within the campus. The security team should ensure compliance with this circular. Faculty and staff members are encouraged to their electric vehicles.

In addition, students, faculty and staff members can utilize the battery-powered vehicle facility available in the campus.

VICE CHANCELLOR

Copy submitted to the Chancellor and Vice President-for kind information
Copy to Registrar and Controller of Examinations
Cc: Directors, Deans, Heads of Departments and Chief Warden – for circulation
Cc: to Transport Officer
Cc: to Estate Officer and ASO
Cc: to Principals of all sister institutions

Circular for Restricted Entry of Vehicles inside the campus (Scope 1)

Vehicle Entry Restricted Barricade

2. **Explicit policy on energy management.**

   KARE sees the importance of energy, which the university has a **policy on energy management**, as well as providing training to educate people about energy management to personnel, including students, to be aware and to comply correctly according to the principles. As a result, the University started use renewable energies through **solar plant, solar street lights, biogas.**

3. A plan to set up solar energy generation and battery storage charging stations for electric vehicles on campus.

Scope 2:

1. **<u>Utilization of Solar Energy in KARE (Energy Conservation)</u>**

To conserve electrical energy and to utilize it effectively, KARE has installed solar PV panels to the tune of 1124 kW in building rooftops. Power from solar PV panels shares about 45% of the total power consumption of KARE. As of now solar PV Panels generates about 39,10,216 kWh of energy. 4357 tons of CO_2 emissions are stopped, because of the installation of solar PV panels.

In addition, the setting up of 32 solar street lights of 25 watts and 120 solar street lights of 74 watts are also provides an environmentally friendly atmosphere. The details of the energy consumption of these solar installations in the KARE campus are given as follows:

Rooftop Solar plant

Solar street lighting arrangement in KARE

Scope 3:

Solid Waste Recycling System

Solid waste generated in the campus, is collected at various points as degradable and non-degradable waste using separate bins for collection. Sufficient number of collection bins is present throughout the campus. They are collected and brought to a central location by designated workers using trucks.

Food and Agricultural Waste Management

- **Vermicomposting:** Degradable agricultural residues and food wastes are converted into fertilizer using vermicomposting technology and it is being used for agriculture purposes. On an average 1.1 tons of waste per day is being recycled resulting in about 12 tons of compost. The institution uses this compost in the agriculture farm and also sells to the farmers at a nominal cost.
- **Door Panel from Waste Materials:** Coconut sheath fibers are used in preparing composite materials that can be moulded to prepare door panels which can be a replacement for plywood.
- **Biogas Plant:** Part of the hostel kitchens waste are used to feed the biogas plants and the biogas produced is used in cooking conserving the use of LPG.

Wood Waste Management

Waste Wood Ash generated is being used as a carrier for microbial inoculants that are used as bio fertilizers. This work is supported by a project sanctioned by DST through DST-SEED-STI Hub.

Construction Waste Management

Fly ash, marble dust, granite dust, Ground Granulated Blast-furnace Slag (GGBS), paper burnt ash and sugarcane bagasse ash are used as source materials for the manufacture of eco-friendly construction products such as concrete bricks and paver blocks.

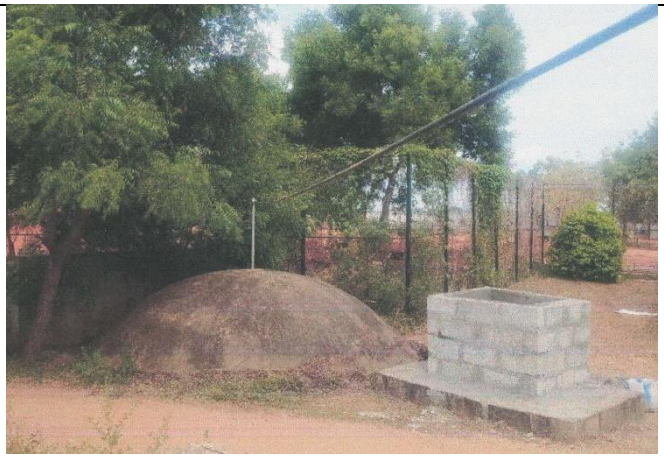
Paper Waste Management

KARE is also partnering in WoW (Well-being Out of Waste), a National Recycling Initiative, by the ITC Ltd, by contributing 21,110 kg of paper waste for the recycling project, amounting to saving of 464 trees in a year.

Sanitary Napkin Incinerators

Sanitary Napkin Incinerators are provided in girls' common rooms and hostel rest rooms. They help in disposing the used napkins in an eco-friendly manner.

Vermicomposting



Biogas Plant

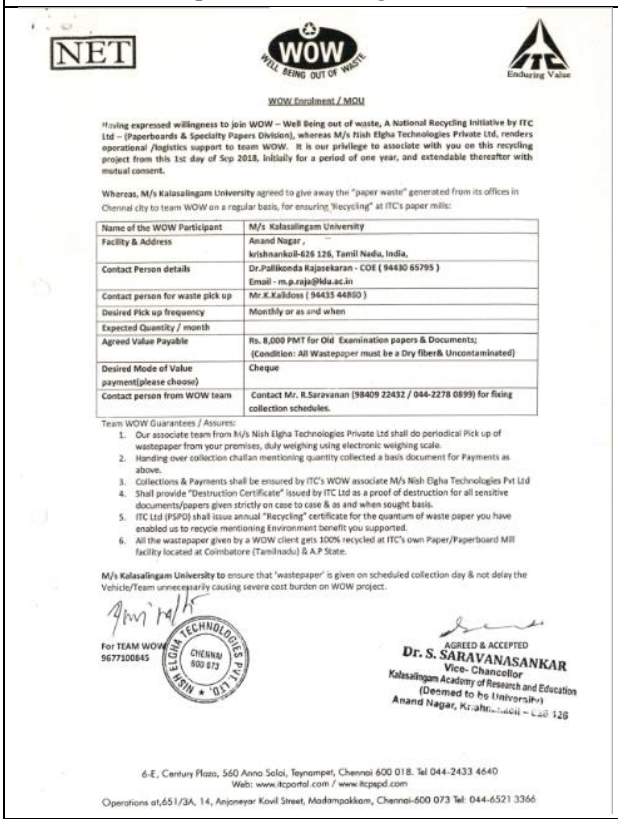
	
Side Door Panel Made from Waste Materials	Side Door Panel Made from Waste Materials Fixed in Door
	
Fermenter used to Produce Microbial Inoculants	Solid Biofertilizer
	
Geopolymer Intervention	Concrete Mixer

Concrete Paver Block Machine

Concrete Drop Weight Impact Testing Machine

Compression Testing Machine

Concrete Bricks in Different Models



WOW Enrolment / MOU

Having expressed willingness to join WOW – Well Being out of waste, A National Recycling Initiative by ITC Ltd – (Paperboards & Specialty Papers Division), whereas M/s Nish Elgha Technologies Private Ltd, renders operational /logistics support to team WOW. It is our privilege to associate with you on this recycling project from this 1st day of Sep 2018, initially for a period of one year, and extendable thereafter with mutual consent.

Whereas, M/s Kalasalingam University agreed to give away the "paper waste" generated from its offices in Chennai city to team WOW on a regular basis, for ensuring 'Recycling" at ITC's paper mills:

Name of the WOW Participant	M/s Kalasalingam University
Facility & Address	Anand Nagar, krishnankoil-626 126, Tamil Nadu, India.
Contact Person details	Dr.Pallikonda Rajasekaran - COE (94430 65795) Email - m.p.raja@klu.ac.in
Contact person for waste pick up	Mr.K.Kalidoss (94435 44850)
Desired Pick up frequency	Monthly or as and when
Expected Quantity / month	
Agreed Value Payable	Rs. 8,000 PMT for Old Examination papers & Documents; (Condition: All Wastepaper must be a Dry fiber& Uncontaminated)
Desired Mode of Value payment(please choose)	Cheque
Contact person from WOW team	Contact Mr. R.Saravanan (98409 22432 / 044-2278 0899) for fixing collection schedules.

Team WOW Guarantees / Assures:

1. Our associate team from M/s Nish Elgha Technologies Private Ltd shall do periodical Pick up of wastepaper from your premises, duly weighing using electronic weighing scale.
2. Handing over collection challan mentioning quantity collected a basis document for Payments as above.
3. Collections & Payments shall be ensured by ITC's WOW associate M/s Nish Elgha Technologies Pvt Ltd
4. Shall provide "Destruction Certificate" issued by ITC Ltd as a proof of destruction for all sensitive documents/papers given strictly on case to case & as and when sought basis.
5. ITC Ltd (PSPD) shall issue annual "Recycling" certificate for the quantum of waste paper you have enabled us to recycle mentioning Environment benefit you supported.
6. All the wastepaper given by a WOW client gets 100% recycled at ITC's own Paper/Paperboard Mill facility located at Coimbatore (Tamilnadu) & A.P State.

M/s Kalasalingam University to ensure that 'wastepaper' is given on scheduled collection day & not delay the Vehicle/Team unnecessarily causing severe cost burden on WOW project.

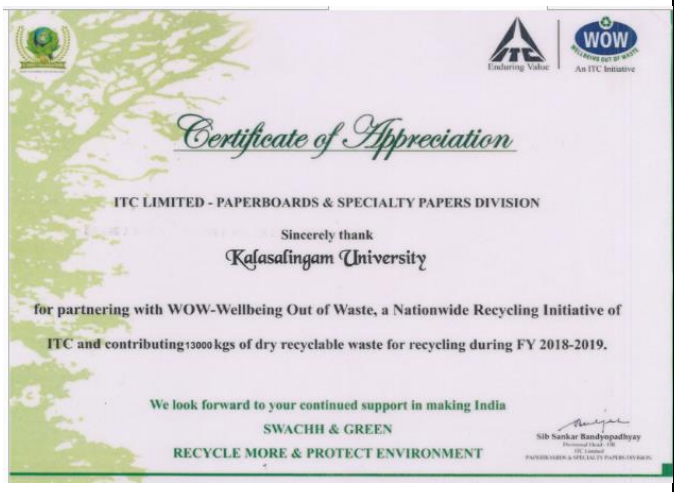
For TEAM WOW
9677100845

NISH ELGHA TECHNOLOGIES PVT LTD. CHENNAI 600 073

AGREED & ACCEPTED
Dr. S. SARAVANASANKAR
Vice- Chancellor
Kalasalingam Academy of Research and Education
(Deemed to be University)
Anand Nagar, Krishnankoil – 626 126

6-E, Century Plaza, 560 Anna Salai, Teynampet, Chennai 600 018. Tel 044-2433 4640
Web: www.itcportal.com / www.itcpspd.com
Operations at,651/3A, 14, Anjaneyar Kovil Street, Madampakkam, Chennai-600 073 Tel: 044-6521 3366

MoU copy on Paper waste management



Certificate of Appreciation

ITC LIMITED - PAPERBOARDS & SPECIALTY PAPERS DIVISION

Sincerely thank

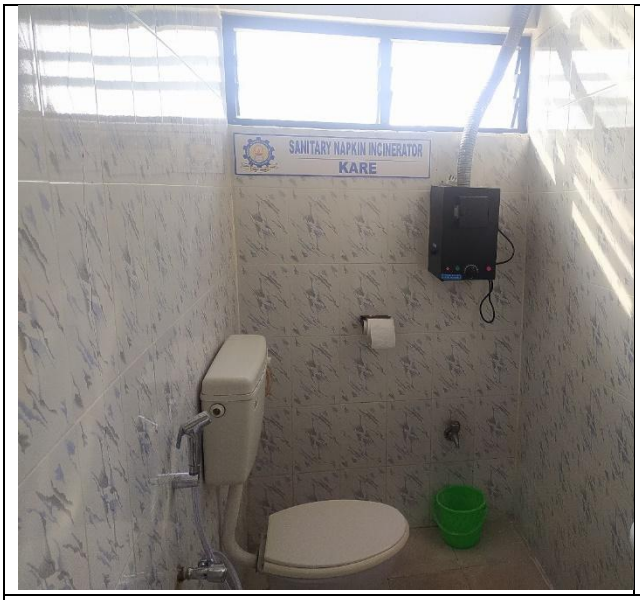
Kalasalingam University

for partnering with WOW-Wellbeing Out of Waste, a Nationwide Recycling Initiative of ITC and contributing 13000 kgs of dry recyclable waste for recycling during FY 2018-2019.

We look forward to your continued support in making India
SWACHH & GREEN
RECYCLE MORE & PROTECT ENVIRONMENT

Sib Sankar Bandyopadhyay

Appreciation certificate for Recycling of Paper waste



Sanitary Napkin Incinerators