



SGT UNIVERSITY



GREEN AUDIT REPORT

PREPARED BY
EHS ALLIANCE SERVICES

|| CONTENT

AUDIT CERTIFICATE	2
ACKNOWLEDGEMENT	3
DISCLAIMER	4
CONTEXT & CONCEPT	5
INTRODUCTION	6
OVERVIEW OF SGT UNIVERSITY	7
AUDIT PARTICIPANTS	15
EXECUTIVE SUMMARY	16
GREEN AUDIT ANALYSIS	16
1.1 GENERAL INFORMATION	16
1.2 WASTE MINIMIZATION AND RECYCLING	17
1.3 GREENING THE CAMPUS	19
1.4 WATER & WASTEWATER MANAGEMENT	20
1.5 ANIMAL WELFARE	21
1.6 CARBON FOOTPRINTS	21
INITIATIVES TAKEN BY SGT UNIVERSITY	23
RECOMMENDATIONS	26
CONCLUSION	27
REFERENCE	27
ANNEXURE I – PLANTATION DRIVE DETAILS	28
ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS	30

CERTIFICATE



CERTIFICATE

PRESENTED TO

M/S SGT UNIVERSITY

Budhera, Gurugram-Badli Road, Gurugram(Haryana)-122505

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

GREEN AUDIT

The green initiatives carried out by the institution have been verified on the report submitted and was found to be satisfactory.

The efforts taken by the management and the faculty towards environment and sustainability are appreciated and noteworthy.



SIGNATURE



31.05.2022
DATE OF AUDIT

|| ACKNOWLEDGEMENT

EHS Alliance Services would like to thank the management of SGT University, Gurugram for assigning this important work of Green Audit. We appreciate the co-operation to the teams for completion of assessment.

We would like to specially thank **Prof.(Dr.) Joginder Yadav, Registrar, SGT University** for giving us an opportunity to evaluate the environmental performance of the campus.

We would also like to thank **Dr. Satish Kumar Sharma, Director IQAC, SGT University** for his continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

Dr. Archana Chaudhary	Environmental Committee Chairperson
Mr. Gaurav Choudhary:	Environmental Committee Member
Prof.(Dr.) Manish Gupta:	Environmental Committee Member
Dr. Bijender Sindhu:	Environmental Committee Member
Dr. Simranjeet Singh:	Environmental Committee Member
Mr. Ramesh Semwal:	Environmental Committee Member
Mr. Gopal Rana:	Environmental Committee Member
Mr. Umesh Kothari:	Environmental Committee Member
Mr. Arvind:	Environmental Committee Member
Mr. Sripal:	Environmental Committee Member

DISCLAIMER

EHS Alliance Services Audit Team has prepared this report for SGT University based on input data submitted by the representatives of SGT University complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived 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.

EHS Alliance, 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.

EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.



Signature

LEAD AUDITOR

|| CONCEPT AND CONTEXT

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In view of the NAAC circular regarding Green auditing, the university management decided to conduct an external environment assessment study by a competent external professional auditor. The green audit aims to examine environmental practices within and outside the SGT campus, which impact directly or indirectly on the atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of university/college environment. It was initiated with the intention of reviewing the efforts within the institutions whose exercises can cause risk to the health of inhabitants and the environment.

Through the green audit, a direction as how to improve the structure of environment and inclusion of several factors that can protect the environment can be commenced. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the institution. The concepts, structure, objectives, methodology, tools of analysis, objectives of the audit are discussed below.



|| INTRODUCTION

Now days, the educational institutions are becoming more thoughtful towards the environmental aspects and as a result new and innovative concepts are being introduced to make them sustainable and eco-friendly. To preserve the environment within the institution, a number of viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the saving the energy, waste recycle, water consumption reduction, water harvesting and many more...

The activities carried out by the institution can also create adverse environmental impacts. Green audit is defined as an official inspection of the effects a university has on the environment. Green Audit is conducted to evaluate the actual scenario at the institution campus. Green audit can be a useful tool for a college/university to determine how and where they are using the most of the energy or water or resources; the college can then decide how to implement changes and make savings. It can also be used to determine the nature and volume of waste, which can be used for a recycling project or to improve waste minimization plan.

Green auditing and the application of mitigation measures is a win-win situation for all the institutions, the learners and the mother earth. It can also result in health awareness and can promote the environmental awareness, values and beliefs. It provides a better understanding to staff and students about the Green impact on institution. Green auditing also upholds financial savings through reduction of resource usage. It gives an opportunity to the students and teachers for the development of ownership of the personal and social responsibility. The audit process involves primary data collection, site walk through with the team of College/University including the assessment of policies, activities, documents and records.



OVERVIEW OF THE UNIVERSITY

SGT (Shree Guru Gobind Singh Tricentenary) University, Gurugram, which spreads over 70 acres of lush green campus enveloped with serene beauty and environment. The University is situated at Chandu-Bhudera on the outskirts of Gurgaon; it is less than five kilometers from Delhi border at Daurala and has an easy and convenient access from I.G International Airport.



SGT University came into existence by the Haryana Private Universities (Amendment) Act No. 8 of 2013 making educational opportunities available to all segments of the society under the parasol of Dashmesh Educational Charitable Trust, which was founded in 1999 with the holly cause of propagating the message of Shree Guru Gobind Singh Ji, the great philosopher and social reformer which says “spread of learning is the best service to mankind”. In fact, the seeds for its magnificent growth were sown way back in 2002 with the establishment of the SGT Dental College.

The most valuable investment any educational institution can make is “Nurturing Future Leaders”. With the continuous rise in expectation of essential leadership standards, SGT University torch bearers have taken a responsibility for this investment to nurture the Next-Gen leaders with a vision to bridge the existing skill gap. With a firm step forward to attain an academic excellence, several Centers of Excellence, laboratories, incubation cell and industry-academia associations have been setup at the SGT University in association with global leaders.

With dedicate Corporate Resource Center, Centers of Excellence and academic associations like Apple, Laerdal-Jhpiego, SAP Next-Gen, UNESCO Bioethics, IBM, ORACLE, University of California –Berkley, Nobel Biocare, Trimble, Intel, NSE, Tally India, OISTAT, SMC India, CIMA & German Academy for Digital Education we are committed to develop naturally confident young innovative leaders who will weave career advancement opportunities through continuous learning & development support and experience they gain. With the continuously changing nature of work and the war for talent wages, at SGT University we Foster a Culture of Continous Learning to develop future innovative leaders of international repute, who

are quick to learn & implement, understand changing customer needs, highly comfortable & creative with change, are able to revamp operations modestly with an appreciable ROI.



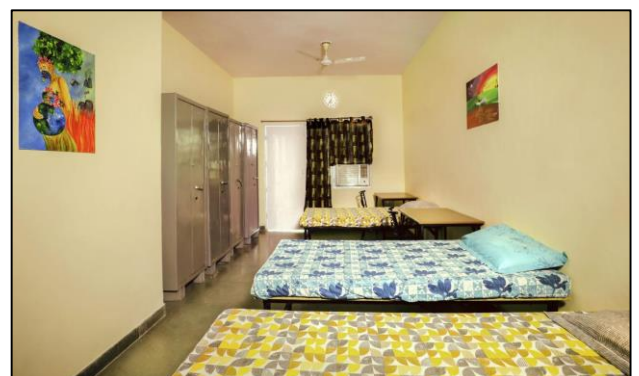
The modern infrastructure and learner centric andragogy at SGT University extend full support to the learners and we are focused to invest more in “Nurturing Future Leaders” to produce much more resourceful and productive employee for each level in the organization be it a “Green Graduates” or a “Tenured Senior Managers”. To map the galloping pace of innovations blended with changing technology and HR systems.

We are determined to inculcate Domain Specific Skills and Soft Skills to our emerging innovative leaders and make them future ready. At SGT University, we are focused to inculcate skills and behaviours for a good cultural fit along with right academic background.

Facilities

Hostel

SGT University has separate hostels for girls and boys with round the clock security arrangements, each hostel has separate dining rooms, recreation rooms and study rooms.



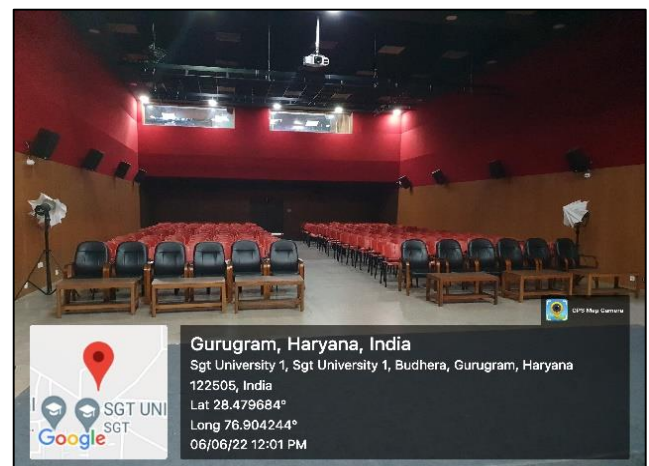
Transport Services

SGT University has 60 buses that ply on several routes across NCR and its neighbouring areas, serving both students and staff. Bus facilities are also available to hostellers for visits to the city. Students are charged on the basis of actual.



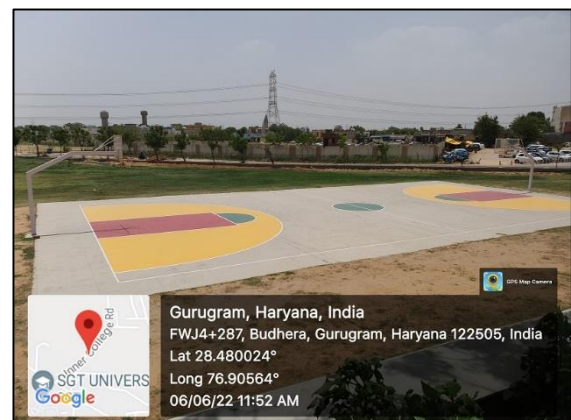
Seminar Hall

The Seminar Hall is the ideal venue for seminars and medical professional members to talk and deliver lectures to the students of our SGT University to provide them with a better and closer insight into the working of their different fields. These conferences and lectures not only provide the students with first-hand information about the working of various fields but also give them an opportunity to get their doubts cleared by asking questions from our guests. The guests initially deliver their lecture telling the students about their work, the challenges they face, the difficulties they overcome and so on, and after that the students are given an opportunity to ask questions and clear their doubts if any.



Play Grounds

The SGT University provides all kinds of sports activities and encourages students to take part in games and to ensure their all-round development. All facilities and playgrounds are available for Basket Ball, VolleyBall, Foot Ball, Table Tennis, Cricket, Badminton etc.



Library

The Library of the college has fully air conditioned excellent Health Sciences library with state of the art facilities. The library has been carefully designed to have more space & natural lighting for the comfort of readers. It can accommodate 450 users at a time. It covers an extensive set of features with a simple user interface. It is well equipped with modern facilities and resources in the form of CD-ROM, online databases, books, journals, back volumes of journals, thesis, WHO publications etc.



Canteen

The SGT University has a spacious cafeteria that offers a wide variety of snacks to students and staff at reasonable rates.



Labs

The Highlights of Department of Anatomy, SGT Medical College, Hospital and Research Institute is its Museum, Dissection Hall and Research Lab. The Dissections hall is well equipped with embalming facility, deep freezer, cadaver storage tank, body cutting machine for making specimens for the museum. The research lab is well equipped with the facility of tissue processing, special staining, research microscope with digital camera, facilities for basic research in genetics, anthropometrical studies and egg incubator for research in embryology.



Gym

SGT University has well equipped gym for fitness both in girls and boys hostel



Vision & Mission

Vision

To nurture individual's excellence through value based, cross-cultural, integrated and holistic education adopting the contemporary and advanced means blended with ethical values to contribute in building a peaceful and sustainable global civilization.

Mission

- To impart higher education at par with global standards that meets the changing needs of the society
- To provide access to quality education and to improve quality of life, both at individual and community levels with advancing knowledge in all fields through innovations and ethical research.
- To actively engage with and promote growth and welfare of the surrounding community through suitable extension and outreach activities
- To develop socially responsible citizens, fostering ethical values and compassion through participation in community engagement, extension and promotion activities.

- To create competitive and coordinated environment wherein the individual develop skills and a lifelong learning attitude to excel in their endeavours.
- To develop Centers of Excellence culminating in achieving the cutting-edge technology in all fields.

Core Values

1. Innovation
2. Leadership
3. Ethics
4. Social responsibility

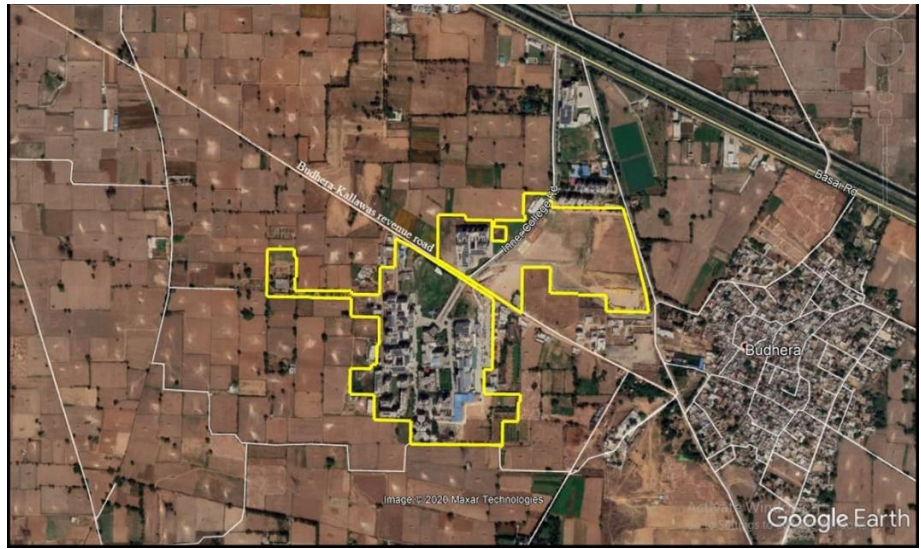


Presently, SGT University offers around 160+ courses featuring a wide selection of undergraduate, postgraduate and PhD courses. SGT University has 18 faculties namely:

Faculty of Mass Communication & Media Technology	Faculty of Hotel & Tourism Management	Faculty of Fashion & Design	Faculty of Commerce & Management
Faculty of Engineering & Technology	Faculty of Agricultural Sciences	Faculty of Education	Faculty of Law
Faculty of Science	Faculty of Indian Medical System	Faculty of Naturopathy and Yogic Sciences	Faculty of Allied Health Sciences
Faculty of Behavioral Sciences	Faculty of Dental Sciences	Faculty of Nursing	Faculty of Medicine & Health Sciences
	Faculty of Physiotherapy	Faculty of Pharmacy	

SGT University is also emphasising a lot on new and upcoming technologies and has set up dedicated centres of excellence for Artificial Intelligence & Machine Learning, Big Data Analytics, Cloud computing, Internet of Things, Blockchain technology, etc following industry standards.

Geo Location
Geo Coordinates from Google maps:
28.478609989761843,
76.9039393658016679



AUDIT PARTICIPANTS

On behalf of SGT University

Name	Designation/Department
Prof.(Dr.) Joginder Yadav	Registrar, SGT University
Dr. Archana Chaudhary	Environmental Committee Chairperson, SGT University
Mr. Gaurav Choudhary	Environmental Committee Member, SGT University
Prof.(Dr.) Manish Gupta	Environmental Committee Member, SGT University
Dr. Bijender Sindhu	Environmental Committee Member, SGT University
Dr. Simranjeet Singh	Environmental Committee Member, SGT University
Mr. Gopal Rana	Environmental Committee Member, SGT University
Mr. Umesh Kothari	Environmental Committee Member, SGT University
Mr. Arvind	Environmental Committee Member, SGT University
Mr. Sripal	Environmental Committee Member, SGT University
Mr. Ramesh Semwal	Environmental Committee Member, SGT University

On behalf of EHS Alliance Services

Name	Position	Qualifications
Dr. Uday Pratap	Lead-Auditor	Ph.D. , PDIS, Lead Auditor ISO 14001:2015, QCI – WASH, Field expert
Mr. Puneet Kaushik	Co-Auditor	M.Sc. M.Tech (Environment Science & Engineering), PGDISM, Lead Auditor ISO 14001:2015, OHSAS 18001:2007
Mr. Shamsher Kharab	Co-Auditor	M.Sc., M.Tech in Environment Sciences, Field Expert, Post Diploma in Industrial Safety Management



EXECUTIVE SUMMARY

Green auditing is an essential step to identify and determine whether the institutions practices are sustainable and ecological. Traditionally, we were upright and efficient users of natural resources. But over the period of time, excessive usage of resources like water, electricity, petrol, etc. have become habitual for everyone especially, in urban and semi-urban areas. It is actually the right time to check if we (our process) are consuming more than required resources? Whether we are using resources sensibly?

Green audit standardizes all such practices and provides an efficient way to use natural resources. In the time of climate change and resource exhaustion it is necessary to re-check the processes and convert it in to green and sustainable. Green audit provides an approach for it. It also increases overall awareness among the individuals working in institution towards the eco-friendly environment.

This is the second attempt to conduct a green audit of the SGT campus for fulfilment of NAAC criteria. This audit was mainly focused on greening indicators like consumption of energy in terms of electricity and fossil fuel, quality of soil, water usage, vegetation, waste management practices and carbon foot print of the campus. Initially a questionnaire was shared to know about the existing resources of the campus and resource consumption pattern of the students and staffs in the SGT University.

GREEN AUDIT – ANALYSIS

1.1 GENERAL INFORMATION

1. Does any Green Audit conducted earlier?

Yes, This is second time SGT University has gone for External Green Audit in a systematic way of monitoring their environmental eminence.

2. What is the total strength (people count) of the Institute?

Students

Male: 3931 Female: 4143 Total: 8074

Teachers (including guest faculty)

Male: 343 Female: 345 Total: 688

Non-Teaching Staff

Male: 1090 Female: 342 Total: 1442

Total Strength

Male: 5364 Female: 4830 Total: 10194

3. What is the total number of working days of your campus in a year?

There are one hundred eighty working days in a year.

4. Where is the campus located?

The campus is located at Budhera, Gurugram-Badli Road, Gurugram(Haryana)-122505

5. Which of the following are available in your institute?

<i>Garden area</i>	<i>Available</i>
<i>Playground</i>	<i>Available</i>
<i>Kitchen</i>	<i>Available</i>
<i>Toilets</i>	<i>Available</i>
<i>Garbage Or Waste Store Yard</i>	<i>Available</i>
<i>Laboratory</i>	<i>Available</i>
<i>Canteen</i>	<i>Available</i>
<i>Hostel Facility</i>	<i>Available</i>
<i>Guest House</i>	<i>Available</i>

6. Which of the following are found near your institute?

<i>Municipal dump yard</i>	<i>Not in vicinity of institute</i>
<i>Garbage heap</i>	<i>No Garbage heaps</i>
<i>Public convenience</i>	<i>Public convenience is available</i>
<i>Sewer line</i>	<i>Approximately 4 KM sewer line within campus</i>
<i>Stagnant water</i>	<i>No stagnant water</i>
<i>Open drainage</i>	<i>No</i>
<i>Industry – (Mention the type)</i>	<i>No</i>
<i>Bus / Railway station</i>	<i>Budhera Bus stand, Garhi Hashru Railway station</i>
<i>Market / Shopping complex</i>	<i>Available</i>

1.2 WASTE MINIMIZATION AND RECYCLING

1. Does your institute generate any waste? If so, what are they?

Yes, Solid waste, Canteen waste, paper, plastic, horticulture, electronic waste, BMW waste, etc.

2. What is the approximate amount of waste generated per day? (in KG approx.)



Biodegradable waste – 50 Kg
Non-biodegradable waste - 50 Kg
Hazardous Waste - 10 Kg (BMW)
E-waste - 2 Kg

3. How is the waste generated in the institute managed? By Composting, Recycling, Reusing, Others (specify)

- Single use plastic is banned on the campus
- Composting is done for horticulture waste management.
- Biotic Waste Limited. Is managing BMW of SGT University.
- Solid waste (Both dry and wet) is managed by Gurugram Waste Management System Pvt Ltd
- Oil and hazardous waste is managed by Shiv Shakti Oil and Lubricants and Gujarat Enviro Protection and Infrastructure (Haryana) Pvt. Ltd
- Greenobin is managing paper waste by doing bulk recycling.
- SGT University is in collaboration with Earth Zone Recycling. They collect e-waste (computers, mobile, printers, servers, printers) in the campus, and send for recycling.
- They recycle used paper on the campus.
- Bi-annual one week collection drive is organized by campus.

4. Do you use recycled paper in institute?

Yes, SGT University collaborate with third party recycle vendor for management of the used paper

5. How would you spread the message of recycling to others in the community?

- Seminars and add-on courses for students and faculty
- Nukkar-Natak by Students to increasing awareness
- Part of Environment education
- MoUs with NGOs
- Reuse waste paper for poster makings

6. Can you achieve zero garbage in your institute? If yes, how?

Not yet achieved. SGT University is in process to achieve zero garbage. SGT University converts the biodegradable garden and kitchen waste into compost. The dry waste is reduced by using digital medium to circulate messages rather than printed paper.

1.3 GREENING THE CAMPUS

1. Is there a garden in your institute?

Yes, about 111869.78 Sq meters areas are developed as Gardens.

2. Do students spend time in the garden?

Yes, students spend around 2-4 Hours during winters.

3. Total number of Plants in Campus?

Plant type with approx. count

<i>Full grown Trees</i>	<i>2064</i>
<i>Small Trees</i>	<i>27842</i>
<i>Hedge Plants</i>	<i>195061</i>
<i>Grass Cover SQM</i>	<i>111869.78 Sq meters</i>

4. Is the SGT campus having any Horticulture Department? (If yes, give details)

*Yes, Total 57 staff deployed in horticulture
1 - Head
4 – Supervisor
52 – gardeners*

5. How many Tree Plantation Drives organized by campus per annum?

- Various Plantation Drives are organized by campus in last Financial Year 2021-2022. A total 104471 plants were planted (Details of the same are provided in annexure 1)*
- Plantation by the distinguished guest during event.*

6. How many trees and plants were planted in last drive? And, what is the survival rate?

Total 104471 trees and hedge plants planted in this Financial Year with more than 70% survival rate.

7. Is there any Plant Distribution Program for Students and Community?

The SGT University has a practice where all guests are given a planter as a gift rather than a bouquet of flowers

8. Is there any Plant Ownership Program?

Yes

1.4 WATER AND WASTEWATER MANAGEMENT

1. List uses of water in your institute

Basic use of water in campus:

Drinking – 232.72 KL/month

Gardening – 0 KL/month, SGT University uses STP treated water

Kitchen and Toilets – 1533.33 KL/month

Hostel – 3302.10 KL/Month

Others – 652.73 KL/month

Total = 5720.81 KL/Month

2. How does your institute store water? Are there any water saving techniques followed in your institute?

SGT University relies on tanker for water supply as a primary source and 3 bore wells as a secondary source. 4 Overhead Water Tanks and 03 Underground Water tanks installed for storage of water.

SGT University ensures regular maintenance of water tanks and checking of water quality standards on the campus. The water tanks and water coolers are checked every 3 months, and RO systems are regularly changed.

Saving Techniques

- *SGT University ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages.*

- *SGT University has also initiated the installation of auto push taps to reduce water wastage.*

3. Locate the point of entry of water and point of exit of waste water in your institute.

Entry – SGT University uses tankers for water and have bore wells as a secondary source

Exit – From Canteen, Toilets, bathrooms and Hostels through covered drainage which is connected to sewage

4. Write down ways that could reduce the amount of water used in your institute

Basic ways:

- Close the taps after usage
- Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage
- The SGT University ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages.
- The SGT University has initiated the installation of auto push taps to reduce water wastage.

1.5 ANIMAL WELFARE

1. List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)

Approx. 5 Dogs, 3 cats, 100+ Squirrels, 20+ species of Birds including peacock, and Butterflies are found in campus. A variety of bird's species and other flora and fauna available, so institute is doing their bit for bio diversity conservation.

2. Does your institute have a Biodiversity Program or a KARUNA CLUB?

Yes SGT environment committee actively participates in activities including feeding the birds, planting fruit based plants for birds, organizes biodiversity awareness campaigns, etc.

1.6 CARBON FOOTPRINT - EMISSION & ABSORPTION

1. Electricity used per year - CO2 emission from Electricity

(electricity used per year in kWh/1000) x 0.84
 $4656510 \text{ kWh}/1000 \times 0.84$
 $= 4656510/1000 \times 0.84$
 $= 3911.47 \text{ tons}$

2. LPG/PNG used per year - CO2 emission from LPG/PNG

(LPG/PNG used per year in kg/1000) x 2.99
49096 kg /1000 x 2.99
 =*49096/1000 x 2.99*
 =*146.80 tons*

3. Diesel used per year - CO2 emission from HSD (Diesel)

(diesel used per year in litre/1000) x 2.68
126144/1000 x 2.68
 = *126144 /1000 x 2.68*
 = *283.98 tons*

4. Transportation per year (car) CO2 emission from transportation (Bus and Car)

SGT University has 11 buses and 15 cars which runs on diesel 11X1X2x180/100x0.01
+15x2x2x180/100x0.02
 = *0.40 + 2.16*
 = *2.56 tons*

Total CO2 emission per year cumulative by electricity usage + bus and car transportation
 (3911.47 + 146.80 + 283.98 + 2.56 = 4344.81 tons)

Carbon absorption by flora in the institution

There are 2064 full grown trees and 27842 semi grown trees of different species and approximately 195061 shrubs/hedge plants.

Carbon absorption capacity of one full grown tree 22 kg CO2 Therefore Carbon absorption capacity of 2064 full-grown trees 2064 x 22 kg CO2 =45.41 tons of CO2. The carbon absorption capacity of 27842 semi-grown trees is 50% of that of full-grown trees. Hence the carbon absorption 27842 x 6.8 kg of CO2 = 189.33 tons of CO2

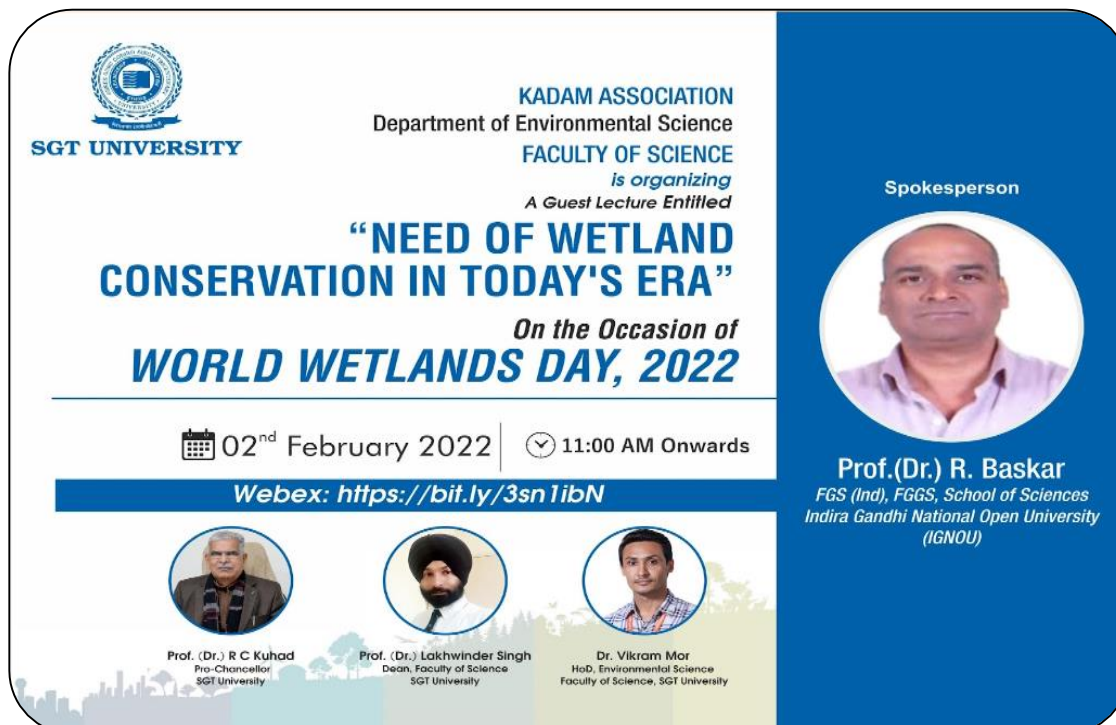
There are approximately Hedge Plants 195061 of various species being raised in the gardens and grown in the areas where no buildings are built Carbon absorption of bush plants varies widely with their species. Certain bushes absorb very high level of CO2 where as some others absorb very low level of CO2. In the absence of a detailed scientific study, 200g of CO2, absorption is taken per bush (in consultation with Environmental Science specialists). Based on this, total carbon absorption of bushes is 195061 x 200 g = 39.01 tons of CO2

The lawns on the campus have buffalo grass, Mexican grass and indigenous grass species and cover a total area of 542758 sq. ft. Carbon absorption capacity of a 10 sq. ft. area of lawn is 1 g per day Therefore, carbon absorption by lawn area 542758 x 365 x 0.1 g CO2 = 19.81 tons of CO2

Grand total of carbon absorption capacity of the campus is 293.56 tons.

GREEN INITIATIVES BY CAMPUS

- **Renewable Energy** - Solar power plant of capacity 910 KW is installed on building roof that will supply approx. 20 % of total power in campus. Also, the SGT University is using solar lights for street lights.
- **Tree Plantation Drives** - Various plantation drives were carried out in the current year in the Campus.
- **Air Pollution Reduction** - Personal Vehicles (Students) are not allowed in the campus to reduce the air pollution
- **Solid Waste Management** – Waste management is done by composting. There is ban on single plastic use and plastic crockery in the campus.
- **SGT Environment Committee** – SGT University has an environment committee. Below are the highlights of their work on environment consciousness.



SGT UNIVERSITY

KADAM ASSOCIATION
Department of Environmental Science
FACULTY OF SCIENCE
is organizing
A Guest Lecture Entitled

**“NEED OF WETLAND
CONSERVATION IN TODAY'S ERA”**

*On the Occasion of
WORLD WETLANDS DAY, 2022*

02nd February 2022 | 11:00 AM Onwards

Webex: <https://bit.ly/3sn1ibN>

Spokesperson

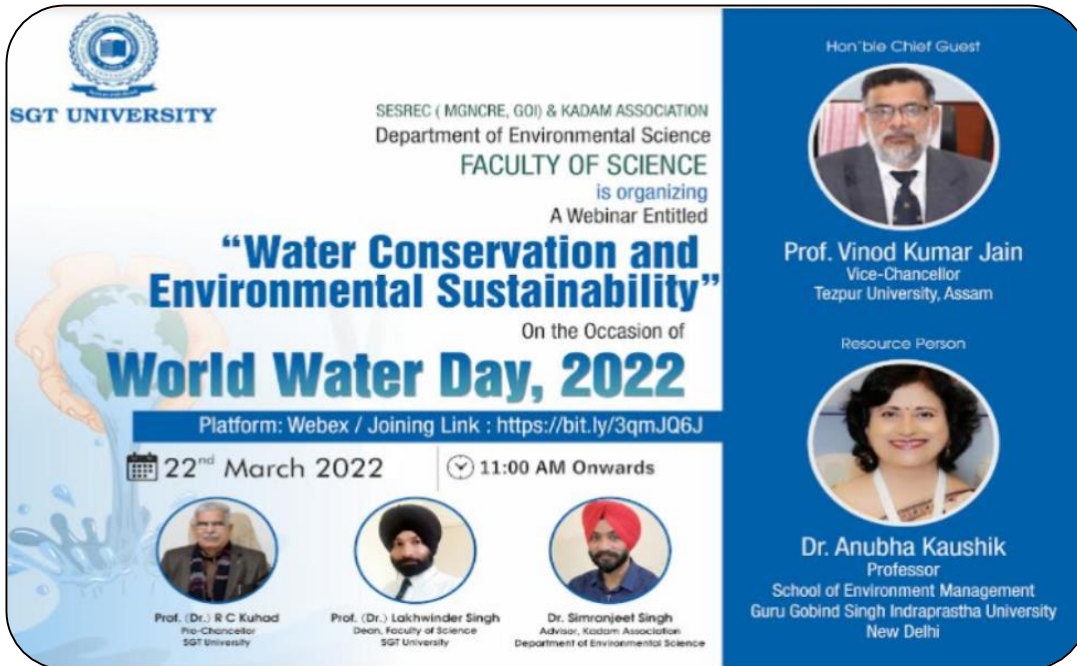
Prof.(Dr.) R. Baskar
FGS (Ind), FGGS, School of Sciences
Indira Gandhi National Open University
(IGNOU)

Prof. (Dr.) R C Kuhad
Pro-Chancellor
SGT University

Prof. (Dr.) Lakhwinder Singh
Dean, Faculty of Science
SGT University

Dr. Vikram Mor
HoD, Environmental Science
Faculty of Science, SGT University

On the occasion of World Wetlands Day, A webinar was organised by Kadam Association, Department of Environmental Science, FOSC on the topic *“Need of Wetland Conservation in Today’s Era”*, for all the students of UG and PG, SGT University



SGT UNIVERSITY

SESREC (MGNCRE, GOI) & KADAM ASSOCIATION
Department of Environmental Science
FACULTY OF SCIENCE
is organizing
A Webinar Entitled

“Water Conservation and Environmental Sustainability”
On the Occasion of
World Water Day, 2022

Platform: Webex / Joining Link : <https://bit.ly/3qmJQ6J>


22nd March 2022 | 11:00 AM Onwards

Prof. (Dr.) R C Kuhad
Pro-Chancellor
SGT University

Prof. (Dr.) Lakhwinder Singh
Dean, Faculty of Science
SGT University


Dr. Simranjeet Singh
Advisor, Kadam Association
Department of Environmental Science

Hon'ble Chief Guest



Prof. Vinod Kumar Jain
Vice-Chancellor
Tezpur University, Assam

Resource Person



Dr. Anubha Kaushik
Professor
School of Environment Management
Guru Gobind Singh Indraprastha University
New Delhi

A webinar was organised by Kadam Association and SESREC, on the topic *“Water Conservation and Environmental Sustainability”* on the occasion of World Water Day for all the students of UG and PG, SGT University



SGT UNIVERSITY

Prodigy-A Science Association
Faculty of Science
Under the aegis of
SESREC (Social Entrepreneurship, Swachhta & Rural Engagement Cell)
& IQAC SGTU
is organising a

WEBINAR on
the Occasion of
World Environment Day -2021

GEO-INFORMATICS FOR ENVIRONMENTAL CONSERVATION AND MANAGEMENT

<https://bit.ly/3agw7rk>

05th June 2021 | 11:00 AM to 12:00 PM | Click webex

Expert



Prof. (Dr.) P.K. Joshi
School of Environmental Sciences
&
Chairperson, Special
Centre for Disaster Research
(SCDR), J.N.U Delhi
(Former Scientist ISRO,
Dehradun)

On the Occasion of World Environment Day -2021 Prodigy A Science Association under the aegis of SESREC (Social Entrepreneurship, Swachhta & Rural Engagement Cell), Faculty of Science, organizing an

expert talk on *Geo-informatics for Environmental Conservation and Management* on 05 June 2021. More than 165 participants participated in this event.



Kadam Association,
Department of Environmental Science
Faculty of Science
is organizing

“Tree Plantation Drive”
on the occasion of
“World Environment Day 2022”

Plant species
Mangifera indica (Mango), Morus alba (Mulberry) & Syzygium cumini (Indian Black Berry)

SGT UNIVERSITY
SHREE GURU GOBIND SINGH TRICENTENARY UNIVERSITY
(UGC & AICTE Approved) Gurugram, Delhi-NCR

Prof. (Dr.) Lakhwinder Singh
Dean
Faculty of Science

Chief Guest
Prof. O. P. Kalia
Vice-Chancellor
SGT University

Dr. Simranjeet Singh
Advisor
Kadam Association
Dept. of Environment Science
Faculty of Science

Dr. Vikram Mor
Head
Dept. of Environment Science
Faculty of Science

3rd June 2022 | 10:00 AM Onward | Venue: Adjacent Ground, A Block, SGT University

Plantation drive of native plants: Students and Faculty members have actively participated in tree plantation on the occasion of World Environment Day with Kadam Association, Department of Environmental Science (FOSC).



SGT UNIVERSITY
SHREE GURU GOBIND SINGH TRICENTENARY UNIVERSITY
(UGC & AICTE Approved) Gurugram, Delhi-NCR

Kadam Association
Department of Environmental Science and
Community Outreach Team, Faculty of Science
is organizing

“Best out of Waste”
activities on the occasion of
“World Environment Day 2022”

SAMAJIK VIKAS, SGT KA PRAYAS
Venue: Sanshil Foundation (Orphanage Home), Sec-50, Gurugram

Anu Kumari
Co-Advisor
Dept. of Environment Science
Faculty of Science

Dr. Simranjeet Singh
Advisor, Kadam Association
Dept. of Environment Science
Faculty of Science

Dr. Archana Choudhary
Outreach Activity Coordinator
Dept. of Environment Science
Faculty of Science

Dr. Vikram Mor
Head
Dept. of Environment Science

3rd June 2022 | 11:00 AM Onward

The Best out of Waste: Mrs. Anu, Department of Environmental Science and Mrs. Nidhi Hooda of Community Outreach along with 10 students carried out Best out of Waste Activities at Senshil

Foundation-An orphanage home, Sector 50, Gurugram. Students of Faculty of Science have prepared some items out of waste paper and other waste materials which were demonstrated to the kids of orphanage. The main objective of the activity was to create Environment awareness, solid waste management and how to reuse these waste to make many usable items. Near 100 kids participate in this and show their enthusiasm to save Environment.



Workshop on –Renewable Energy: Mr. Niladri Roy started the workshop on renewable energy resources. Dean, Faculty of Science welcomed today's guest Mr. Shamsheer Kharb with a sapling. Mr. Shamsheer Kharb shared knowledge on renewable energy resources and their applications and also interacted with the students later.

RECOMMENDATIONS

- Water Meter should be installed at every building of institute for monitoring of water consumption per capita.
- Plant distribution program in nearby villages and societies should be initiated periodically.
- SGT University should increase drip irrigation to save water in campus
- Flow rate of taps should be checked, it should not be more than 2.5 litres/minute.

- Eco-friendly parameters should be included in the purchase of articles and goods for the SGT campus.
- Increase plantation drives in nearby villages, local bodies, NGO and Municipal Corporation.
- Arrange training programmes on environmental management system and nature conservation for schools and local people.
- Establish an E-waste collection centre in campus.

|| CONCLUSION

This audit involved extensive consultation with all the teams, interactions with key personnel on wide range of issues related to Environmental aspects. SGT University has Environmental Committee for sustainable use of resources.

Overall 60% of SGT campus is for landscaping. The University is considering the environmental impacts of most of its actions and makes an intensive effort to act in an environmentally responsible manner. Even though the University does perform quite well, the recommendations in this report highlight many ways in which the University can work to improve its actions and become a more sustainable institution.

Few things that are important to initiate includes initiation of drip irrigation and checking of water flow of taps. We also highly recommend for installation of water meters at each building/block and water balancing report.

|| REFERENECE:

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981)
- E-waste management rules 2016

- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

Transparency of Green Audit Report

Green audit report is one of the useful means of demonstrating an organization’s commitment to openness and transparency. If an Organisation believes it has nothing to hide from its stakeholders, then it should feel confident enough to make its green audit reports freely available to those who request them. As a basic rule, green audit reports should be made available to all stakeholders.

ANNEXURE I – PLANTATION DRIVE DETAILS

PLANTS COMMAN NAME	PLANTS BOTANICAL NAME	QTY
Gulmohaar	Delonix regia	16
Lagerstromia speosa	Lagerstromia speiosa	3
Silver oak	Grevillea robusta	8
Molshree	Mimusops elengi	13
Totaa	Mimosa pudica	2
Curesia	Sterculia urens	6
Arjun	Terminalia arjuna	6
Guvava	Posidum guvava	8
Cheku	Manilkara zapota	3
Belpatthar	Aegle marmelos	9
Sahtut	Morus alba	11
Nimbu	citrus nimbu	2
Mango	Mangifera indica	23
Anaar	Punica granatum	11
Jamun	Syzygium cumini	23

Neem	Melia azadirichita	34
Tarmenaliya	Terminaliya mantelana	5
Aadu	Prunus persica	1
Lashoda	Cordia dichotoma	1
Champa	Pulmeria alba	74
Shishaam	Dalbergia sissoo	5
Gulear	Ficus racemosa	10
Pilkhan	Ficus infectoria	15
Paapdii	Lablab purepures	14
Ficus nuda	Ficus nuda	4
Amaltaas	Casia fistula	5
Ticoma gaudichoudi	Ticoma gaudichoudi	700
ticoma capensis	ticoma capensis	1096
Ficus starlight	Ficus starlight	200
Golden durenta	Golden durenta	600
rose	rosa indica	519
Mogra	jasmine sambac	52
Madhumalti	Combretum indicum	25
Lgerstromia indica	Lgerstromia indica	500
Golden cyprush	Golden cyprush	17
Morpankhi	Platyclusus orientalis	7
Eforbia milli	Eforbia milli	2687
Allamanda	Allamanda	500
Cassia gluca	Cassia gluca	500
Clorophytum	Clorophytum	2000
Black grass	Ophiopogon planiscapus	1000
Ribbon grass	Phalaris arundinacea	1000
winter seasonal		90756
Zapranthus lily	Zapranthus lily	2000
Total plantation 2021 to 2022		104471

ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS



Well ventilated building structure



Well maintained SGT campus



Lush green campus



Green Campus



Plantation drive in SGT University



Plantation drive in the campus



Active participation by students and staff in Plantation Drive



Winter Endowment Drive



Plant distribution programme to guests



Guest-Lecture-On-“Value-added-products-from-different-waste



Winter endowment drive -
Asha Bhawan



Winter endowment drive -
Asha Bhawan



Winter Endowment Drive -
Dream Girl Foundation



Winter Endowment Drive -
Dream Girl Foundation



'Reducing Carbon emission'
Awareness campaign in Rural
areas



'Reducing Carbon emission'
Awareness campaign in
Rural areas



Best out of Waste Activities at Senshil Foundation - An orphanage home



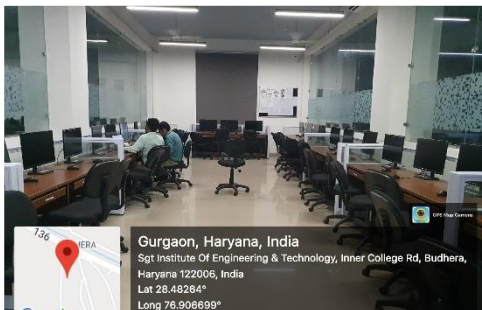
Active participation by students and staff in Best Out of Waste activity



Smart Classrooms



Classrooms as per NBC guidelines with more than 40% window ratio



Spacious and well equipped computer labs



Hi-tech infra for students

***** **END OF THE REPORT** *****