



Lokmanya Tilak Jankalyan Shikshan Sanstha's

Lokmanya Tilak College of Engineering

Sector-4, Vikas Nagar, Koparkhairane, Navi Mumbai



(Approved by AICTE, Affiliated to University of Mumbai, & Accredited by NAAC)

**GREEN CAMPUS,
ENVIRONMENTAL,
ALTERNATIVE
ENERGY,
WASTE
MANAGEMENT,
WATER
CONSERVATION,
DIVYANGAN
POLICY**



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ENERGY CONSERVATION POLICY

Preamble:



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Energy plays an important role in the development of nation as well as organization. Out of various costs, energy cost is one of the major one. Energy intensity of our country is 3.7 times of Japan, 1.55 times of USA, 1.47 times of Asia and 1.5 times of world average. Energy intensity indicates development stage of a country and efficiency of energy use. Our country is not energy secure country and energy requirement is met through import of coal and petroleum products. Around 70% of country's energy requirement is met through electricity generation using thermal power plants. Use of fossil fuels lead to environmental pollution. Energy conservation Act 2001 was enacted to improve energy efficiency and reduce energy intensity. For sustainable development, it is necessary to provide focus on energy, environment and ecology. Energy management is judicious and effective use of energy without curtailing requirement to maximize profit and minimize environmental degradation. There is substantial potential to conserve energy by implementation of energy management program in all sectors of economy. Energy conservation awareness at all level is important to engage, involve all stakeholders in energy management program. Engineering colleges play significant role in creating awareness about energy management program among engineering students, schools and society and guide industry in the area of energy management. Energy audit is one of the important tools to identify energy conservation potential. Energy audit would give positive orientation about energy cost reduction. Energy audit is translation of energy conservation into realities taking into consideration techno commercial aspects.

INTRODUCTION

LTCE is one of the leading engineering institutions offering engineering education at UG and PG level plays an important role in development of economy by providing quality engineering professionals.



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Our Mission:

- Our mission is to minimize energy consumption by using energy efficient equipment and maximum use of sunlight, natural ventilation and energy substitution.
- Maximize use of renewable energy.
- Create awareness about energy conservation.

This we plan to achieve:

- Manage efficiently utilization of energy resources by use of cleaner and more efficient technologies.
- Train the faculties, students and staffs to make Institute the pace setter in the field of energy conservation.
- Promote awareness related to energy conservation.
- Carry out regular internal energy audit to identify energy conservation opportunities.
- To ensure maximum utilization of solar energy in the campus.
- To phase out conventional light sources and replace them by LED's.
- Follow steps for energy efficiency, i.e. reduce, reuse and recycle wherever possible.
- To conduct webinars seminars and conferences on issues related to environment and energy conservation.

Objective of Energy Management:

- Improvement in energy efficiency to reduce energy consumption and cost.
- Eliminate wastage by use of good practices.
- Minimize environmental degradation.
- To ensure conservation of energy in the campus.
- To use sustainable sources of energy.

Energy Management Principles:

- Procure energy at lowest cost.
- Use energy at highest possible efficiency.
- Use of low investment technologies.
- Reduce, reuse and recycle.
- Use of renewable energy.



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Types and Use of Energy:

S. No.	Type of Energy	Energy Usage
1.	Electrical Energy	Indoor and outdoor illumination, Ventilation Air conditioning, Water pumping Computer labs Laboratory equipment Workshop equipment
2.	LPG	Mess and canteen for food preparation Laboratory experiment
3.	Solar Energy	Wheeling to the grid

Electrical Supply System:

Electrical supply to campus is through MAHADISCOM.

Backup Power Supply:

Backup supply arrangement is provided to the entire campus by installation of Diesel Generator.

Save Energy Tips for Students and Staffs:

- Unplug all appliances.
- Use LED.
- Whenever possible, shut down the system rather than logging off.
- Turn off unnecessary lights and use daylight instead.
- Switch off the lights and fans in classrooms, lecture halls, laboratories, seminar halls when not in use.
- Use air conditioner only when needed.



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Green campus initiatives

POLICY DOCUMENT ON GREEN CAMPUS ENVIRONMENT

Preamble:

LTCE has adopted many green cover initiatives, there by embellishing the eco-friendly ambience of the campus. LTCE plays an active role in protecting the environment and encouraging sustainable development. A green campus is a place where environmentally friendly practices and education combine to promote sustainable and eco-friendly practices to the campus. Faculty members, staff members and students are directed to prevent pollution, avoid wastage of water and conserve energy by adopting various sustainable measures for the wellbeing of individual and society.

Introduction:

The green campus concept offers the Institution an opportunity to take the lead in redefining its environmental culture and developing new pattern by creating sustainable solution to environmental, social and economic need of mankind. With these objectives, the Institution creates this policy document to give the green campus initiative greater clarity and authenticity. The document spells out the action points to make the campus green environment friendly and carry out measures for energy conservation.

Objective:

The objective of green initiative implementation within the campus are:

- Enriching greenery inside the campus by planting saplings.
- Sustaining a clean environment by practicing 3R's approach (Reduce, Reuse and Recycle).
- Involvement of students in various environmental awareness program like Swachh Bharat Abhiyan etc.
- Usage of environment-friendly products such as paper, cloth and jute bags.
- Diminishing the amount of single use items like plastics, coated paper cups and straws.
- Production of biogas from food scraps and human excreta to minimize LPG fuel consumption at canteen.
- Improvisation of energy saving process by installation of solar panels, LED bulbs and sensor-based systems within the campus.
- To ensure environment friendly practice



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- Maintaining rainwater harvesting system in the campus.
- To implement green campus initiative in a time bound way.
- To reduce waste in any form.
- To ensure proper waste disposal.

Action Plan:

- Conduct Environmental Audit, Energy Audit, Green Campus Audit in the campus to identify targets for improvements.
- To carry out green campus awareness campaign and activities
- To carry out awareness programs for environment friendly practices.
- To carry out campaign for awareness of energy conservation measures.
- Ensure proper waste disposal.
- To ensure maximum utilization of solar energy in the campus
- To encourage tree plantation drive.
- To ensure rainwater harvesting to recharge the ground water.

Green Campus Initiative in the Campus:

- Installation of solar panels on the roof top
- Tree plantation drive
- Cleanliness drive
- E-waste management
- Plastic free campus
- Rainwater harvesting
- Avoid use of disposable plastic bottles.



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POLICY FOR DISABLED FRIENDLY

The Government of India formulated the national policy for persons with disabilities in February 2006 which deals with educational rehabilitation of persons with disabilities, therefore in view of this LTCE has implemented these policies in the teaching and learning process. The LTCE's policy recognizes that persons with disabilities are valuable human resource for the institution and seeks to create an environment that provides equal opportunities, protection of their rights and full participation in the academic environment.

The right to Education mainly focuses on the importance and need to have inclusive education, i.e., educating those students who have some identified disabilities or learning difficulties, even those students can fulfill their educational needs. LTCE intends to have an inclusive comprehensive teaching and learning environment in which any incapacitated students, or any employees are not treated obstructively. The authorities of LTCE are always endeavoring in order to forward a helping hand towards the differently abled students and employees.

The main focus of the institution policy is on the following:

- To plan activities, programs and services that can be easily used and accessed by Divangjan students.
- To provide assistance and opportunities to the differently abled students and in the learning process apart from regular class hours.
- To conduct awareness programs for all the teaching staffs, non-teaching staffs and students to brief about the issues of accessibility.
- To ensure that the classrooms for the differently abled students are located in the ground floor and also, they have easy access to the laboratory, library etc.
- To ensure that restrooms are barrier free and easily accessible for all type of differently-abled persons.
- To provide chair and table of a specific make to accommodate the special requirement of students and employees.
- To ensure that the design of the building such as ramp/ lift should be according to the disabled persons.
- Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading.