

7.2.1 (II)

Development of Green & Environment Friendly Campus (Gurukul of Modern Education)

1. Title of the Practice:

Development of Green & Environment Friendly Campus (Gurukul of Modern Education)

<http://sliet.ac.in/wp-content/uploads/2012/02/About-SLIET-Longowal-Career360.pdf>

<http://sliet.ac.in/wp-content/uploads/2022/12/Media-Coverage-of-the-Institute.pdf>

2. Objectives of the Practice:

- take the lead to develop new paradigms of education with sustainable solutions to environmental, social and economic needs of the mankind.
- Establish and develop high quality institutions in dis-advantaged/rural areas (NEP 10.3, 10.8)

3. The Context:

NEP-2020 (Clause 10.3, 10.8) has pointed about priority to establish high quality institution in dis-advantaged circumstances/rural areas.

Our institution SLIET, established on the same concept, fulfills the above context. **It is a fully residential campus away from home, with natural beauty, away from other distraction, OFFERS IDEAL ENVIRONMENT FOR EDUCATION.**

Green campus is all about sweeping away wasteful inefficiencies. To ensure the same institute adopted best practices of steady switch to renewable energy sources to meet daily power needs, use of energy efficient light fixtures and replacement of conventional lights, correct disposal handling, purchase of environment friendly supplies and effective recycling system.

SLIET Longowal is committed to work out these time bound strategies to implement green campus initiatives. These strategies have been incorporated into the institutional planning and budgeting processes with the aim to develop a CLEAN AND GREEN CAMPUS.

4. The Practice:

Following initiatives showcase the suitable adoption of practices and commitment of the institute for adoption of sustainable environmentally friendly practices:

Installation of 1 MW Grid Connected Solar Power Plant under RESCO model

In an effort, to switch on renewable energy a 1 MW Rooftop Solar Power Plant is in operation w.e.f. April 2021. In addition to savings in financial terms, institute is able to reduce significant amount of carbon footprint. During the tenure of April 2021 to

September 2022, total generated units are 21,55,358 kWh, with a saving of Rs. 1,00,65,522/-, as shown below:

Sr. No.	Duration	Energy Produced (kWh)	Rate (Rs/U nit)	Amount paid to SAEL (Rs.)	Avg unit rate of PSPCL (Rs.)	Cost of energy @ PSPCL rate (Rs.)	Saving (Rs.)
A	B	C	D	E	F	G	H
						C x F	G-E
1	Apr 21 to Sept 22	21,55,358	3.33	71,77,341/-	8	1,72,42,864/-	1,00,65,522/-

<http://iqac.sliet.ac.in/files/2022/12/Geo-tagged-photographs-Solar-Energy.pdf>

Replacement of Streetlight and Other Internal Light Fixtures with Energy Efficient Fixtures

Institute has adopted a practice to replace the conventional streetlights and other internal lights with LED energy efficient lights and fixtures, in a phased manner. The detail of same is shown below:

S. No.	Item	Qty.	Duration
1.	LED Tube Light, 18 Watt	2096	2018 to 2022
2.	LED Lamp	647	
3.	Street Light	854	
4.	Area Light	170	
5.	LED Panel Light 2'x2'	319	

Procurement of Energy Efficient ACs and Ceiling Fans

To save energy, Energy efficient Air Conditioners and Ceiling Fans are being procured having star rating as per BEE norms, as given below:

S. No.	Item	Qty.	Duration
1.	Ceiling Fan (Energy Efficient)	847	2018 to 2022
2.	Air Conditioners (Energy efficient)	209	

Say No to Plastic: There is ban of single use plastic in the campus. Various awareness programs are being organized in the institute from time to time for the same.

<http://iqac.sliet.ac.in/files/2022/12/Notice-Phasing-out-single-use-plastic-1.pdf>

Notices to shopkeepers : <http://iqac.sliet.ac.in/files/2022/12/Notices-to-Shopkeepers-for-not-to-use-plastic-carry-bags.pdf>

No Motor Vehicle Day on Every Friday: In order to promote Save Fuel, Save Environment and Fitness concept, No Motor Vehicle Day is observed in the institute on every Friday. This practice is followed in the institute since 2017-18.

<http://iqac.sliet.ac.in/files/2022/12/Circular-No-Motor-Vehicle-Day.pdf>

Natural Light Day on every Thursday: In order to promote use of natural resources and save energy, institute observe Natural Light Day on every Thursday

<http://iqac.sliet.ac.in/files/2022/12/Circular-Natural-Light-Day.pdf>

Disposal of E-Waste, Biomedical Waste, Chemical Waste and Hazardous Waste: Institute adopted correct and proper system for disposal of various waste(s) as per GFR-2017, and practice the same in true spirit.

<http://iqac.sliet.ac.in/files/2022/12/E-waste-orders.pdf>

Herbal Park Extension and Tree Plantation Drive: Institute established an Herbal Park with around 50 species of medicinal plants. Installation of drip irrigation system is in progress to promote the research in the area. Tree plantation drive(s) are carried out from time to time to sustain the eco-friendly environment campus.

<http://iqac.sliet.ac.in/criteria-7-1-6/>

5. Evidence of Success

- i. Reduced Electricity Bill to the tune of Rs 5 lakhs per month (approx.) by switching to Rooftop Solar Plant of 1 MW Capacity.
- ii. Replacement of the conventional light fixture with energy efficient light fixture have significantly saved energy as evident from the energy audit report.
- iii. Observance of Natural day light practice on every Thursday not only resulted in energy conservation, also make students more aware and responsible.
- iv. Reduction in duty cycle of DG Sets and emphasis on plantation has resulted fuel saving and in reduction of carbon emission.
- v. Recycling of waste
- vi. Water conservation and recycling
- vii. Clean and Green Campus ideal for Education.

6. Problems Encountered and Resources Required

- i. Thoroughfare in the campus that connects Longowal and Dugga villages, pose a big challenge to maintain student movement, discipline, unauthorized entry of outsiders, uncontrolled traffic and a threat to safety & security. Institute has provided access through a separate road but still the villagers prefer to pass through the institute campus.
- ii. Due to lush green campus some animals entered in the campus. Lawns and vegetation is quite often damaged by them (Nilgais and monkeys). Herds of Nilgais can be seen freely wandering in the campus, and causing threat to vegetation and residents.
- iii. Termite problem is a fundamental problem of SLIET campus. For sustainability of green campus, Horticulture authorities has to provide the termite infection treatment to the big shady trees and it causes economic and environmental loss, and drain funds.
- iv. SLIET is surrounded by crop land and the farmers burn stubble (Parali) to get rid of crop residues. It causes environmental and health hazards.
- v. Poor connectivity from highway.

7. NOTES-

Suitability for NEP-2020 to Impart Education with Moral & Ethical Values and Responsibility

- i. Such a large, lush green & clean, fully residential campus concept, away from several disturbances & distractions, with established multi-entry multi-exit modular pattern of education system, institute project itself as a **FUTURE CENTRE of EDUCATION on GURUKUL CULTURE.**
- ii. **Hence, SLIET meets the following vision of NEP 2020, and best suited to take responsibility as a multi-disciplinary institute under Category-II i.e. Teaching University with primary focus on teaching with significant focus on research:**
 - Multi-entry, Multi-exit policy (10.1, 10.2)
 - Priority to establish high quality institution in dis-advantaged circumstances (10.3, 10.8)
 - HEIs to become multi-disciplinary institutions (11.2, 11.3)
- iii. With due emphasis on the waste management, energy conservation, environment concerns, institute impart education future citizens with morals, ethical values and responsibility, and working on the principle of 'Waste to Wealth' in terms of –
 - a. Solid Waste Management (discussed in Q₁M 7.1.3)

Water Conservation through rainwater harvesting (discussed in Q₁M 7.1.3)