Shiv Nadar Institution of Eminence

Policy of Enhancing Energy Efficiency in Buildings

Objective: Shiv Nadar Institution of Eminence (Shiv Nadar IoE) is committed to creating an energy efficient and sustainable university campus. We ensure all renovations and buildings are following energy efficiency standards while the existing buildings are upgraded to enhance energy efficiency. The buildings and infrastructure are strategically designed, maintained and renovated to promote the optimal utilization of natural and renewable resources as well as to enhance energy efficiency.

Scope: The Institution has a system for continually reviewing campus energy use and identifying opportunities for improvement for enhancing energy efficiency and to update our energy consumption analysis and conservation plan. The policy document covers all energy-efficient activities on the campus, including building design, construction, ongoing operations, and maintenance activities that encompass academic blocks, recreational areas, cafeterias, and residential blocks. The policy is communicated to all relevant interested parties and is deployed through the engagement of students, teaching and non-teaching staff, vendors, and other relevant interested parties, including community representatives.

Enhancing Energy Efficiency

There are systems and processes in place for continually reviewing campus energy use and identifying opportunities for improvement to update our energy consumption analysis and conservation plan. As a part of our Energy Consumption Analysis and Conservation Plan, we review our energy use continually to identify opportunities for improvement. To document the energy consumption of each building, electricity meters are installed in every building, and a complete analysis of energy consumption is reported every month in the "Energy Performance Index Report." This helps to check waste continuously and enhance efficiency.

1. Many energy-efficient appliances have been incorporated, such as:

- Energy Optimization Monitors in our LEED and IGBC- Gold certified building with integrated sensors, IoT devices, and automation systems for optimized energy use and reduced overall environmental impact.
- Modular sewage treatment plant technology is installed on campus and has a capacity of 734 KLD. The STP currently treats 550 KLD of water from the entire campus, including campus housing.
- Monitoring platforms installed to track energy usage, waste generation, water consumption, and other sustainability metrics to enable informed decisions for continuous improvement

- Energy-saving policy embraced, replacing 11 KV grid power with a 33 KV grid power supply and removing the need to run standby power through diesel generators.
- Replacement of the conventional fans consuming 70 watts with new BLDC (Brass-less Direct Current) ceiling fans, which consume about 30 watts.
- Maintenance of the capacitor bank to ensure a high-power factor.
- Replacement of street lights with less energy-consuming options while maintaining the same lux level.
- Water efficiency initiatives in the buildings under construction include:
    - Installation of prismatic taps.
    - Installation of occupancy and motion sensors in the washrooms of the academic blocks and hostels.

2. Energy Conservation Initiatives

- Plans for energy conservation and reduction of greenhouse gas emissions at the university include:
- Provision of PNG connections for all residents, dining halls, clubs, etc.
- Review, analysis, and refurbishment of labs for the safety of operations and environmental conservation.
- Revival and enhancement of the organic compost plant capacity from 200 kg to 400 kg.
- Wastepaper recycling and product development.
- Tree plantation and sequestration.
- Undertook carbon footprint determination and analysis of changes in trend to identify further opportunities for improvement and roll out projects

3. Clean Energy

- We have undertaken an initiative to transition to clean energy sources on campus. As part of this, a 1.6 MW solar power plant is installed and commissioned on campus that takes care of as much as 26 percent of the needs of the campus. The goal is to go to 30 percent and beyond.
- Solar panels are installed on campus across academic and residential blocks to transition from complete captive power and generate clean, sustainable energy on campus

Certifications – Sustainable Building Design


IGBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

FACULTY HOUSING,VILLAS AND CLUB HOUSE

Shiv Nadar University, Dadri

(IGBC Registration No. GH161098)

has successfully achieved the Green Building Standards required for the following level of certification under the

IGBC Green Homes Rating System

Gold

March 2020

This certification is valid for 3 years.

Sharukh Mistry, Chair, IGBC Green Homes
V Suresh, Chairman, IGBC
S Raghupathy, Deputy Director General, CII
K S Venkatagiri, Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University

Indoor Sports Centre, Dadri

(IGBC Registration No: NBO 15 0496)

has successfully achieved the Green Building Standards required for the following level of certification under the IGBC Green New Buildings Rating System

IGBC Green New Buildings Rating System Gold

Owner-occupied Building

June 2017

C N Raghavendran
Chairman, IGBC Green New Buildings

Dr Prem C Jain
Chairman, IGBC

K S Venkatagiri
Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University-Library

Dadri, Distt.: Gautam Budha Nagar, UP 201301

(IGBC Registration No: NC 09 1133)

has successfully achieved the Green Building Standards required for the following level of certification under the Leadership in Energy and Environment Design (IGBC's LEED) for India Green Building Rating System

IGBC's LEED India New Construction Gold

December 2016

C N Raghavendran
Chairman, LEED India

Dr Prem C Jain
Chairman, IGBC

K S Venkatagiri
Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University-Research Block

Dadri, Distt.: Gautam Budha Nagar, UP 201301

(IGBC Registration No: NC 09 1133)

has successfully achieved the Green Building Standards required for the following level of certification under the Leadership in Energy and Environment Design (IGBC's LEED) for India Green Building Rating System

IGBC's LEED India New Construction Gold

December 2016

C N Raghavendran	Dr Prem C Jain	K S Venkatagiri
Chairman, LEED India	Chairman, IGBC	Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University-Academic Block-D

Dadri, Distt.: Gautam Budha Nagar, UP 201301

(IGBC Registration No: NC 09 1133)

has successfully achieved the Green Building Standards required for the following level of certification under the Leadership in Energy and Environment Design (IGBC's LEED) for India Green Building Rating System

IGBC's LEED India New Construction Gold

December 2016

C N Raghavendran	Dr Prem C Jain	K S Venkatagiri
Chairman, LEED India	Chairman, IGBC	Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University-Academic Block-A

Dadri, Distt.: Gautam Budha Nagar, UP 201301

(IGBC Registration No: NC 09 1133)

has successfully achieved the Green Building Standards required for the following level of certification under the Leadership in Energy and Environment Design (IGBC's LEED) for India Green Building Rating System

IGBC's LEED India New Construction Gold

December 2016

C N Raghavendran	Dr Prem C Jain	K S Venkatagiri
Chairman, LEED India	Chairman, IGBC	Executive Director, CII-Godrej GBC

CII
Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Shiv Nadar University

Academic Blocks (A,B,C,D, R and Library)

Dadri, Distt.: Gautam Budha Nagar, UP 201301

(IGBC Registration No: NC 09 1133)

has successfully achieved the Green Building Standards required for the following level of certification under the Leadership in Energy and Environment Design (IGBC's LEED) for India Green Building Rating System

IGBC's LEED India New Construction Gold

December 2016

C N Raghavendran	Dr Prem C Jain	K S Venkatagiri
Chairman, LEED India	Chairman, IGBC	Executive Director, CII-Godrej GBC