

Energy- Efficient Buildings

Nims University Rajasthan, Jaipur

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KEY FEATURES

1. **Solar Energy Integration**
2. **LED Lighting Systems**
3. **Natural Ventilation and Lighting**
4. **Rainwater Harvesting and Water Recycling**
5. **Sustainable Construction Materials**
6. **Green Landscaping**

Energy-Efficient Buildings

At Nims University, sustainability is a cornerstone of our infrastructure development. Our energy-efficient buildings are a testament to our commitment to creating an environmentally friendly and resource-conscious campus. These structures combine advanced technology, thoughtful design, and innovative practices to achieve optimal energy efficiency, reducing environmental impact while enhancing functionality and comfort.

1. Solar Energy Integration

Rooftop solar panels are installed on 09 buildings, converting sunlight into a significant portion of the campus's electricity supply. This renewable energy initiative helps reduce dependency on non-renewable resources and minimizes greenhouse gas emissions.



Solar Panels installed at Terraces of various colleges of Nims University

2. LED Lighting Systems

All buildings on campus are equipped with energy-efficient LED lighting, which consumes far less energy than traditional lighting solutions. This transition has substantially decreased electricity consumption while ensuring bright, effective illumination.



LED lighting in offices & colleges

3. Natural Ventilation and Lighting

Our buildings are designed with large windows and open spaces to maximize natural light and ventilation. This reduces the need for artificial lighting and air conditioning, particularly during daylight hours.



Natural lighting in order to save electricity in colleges

4. Rainwater Harvesting and Water Recycling

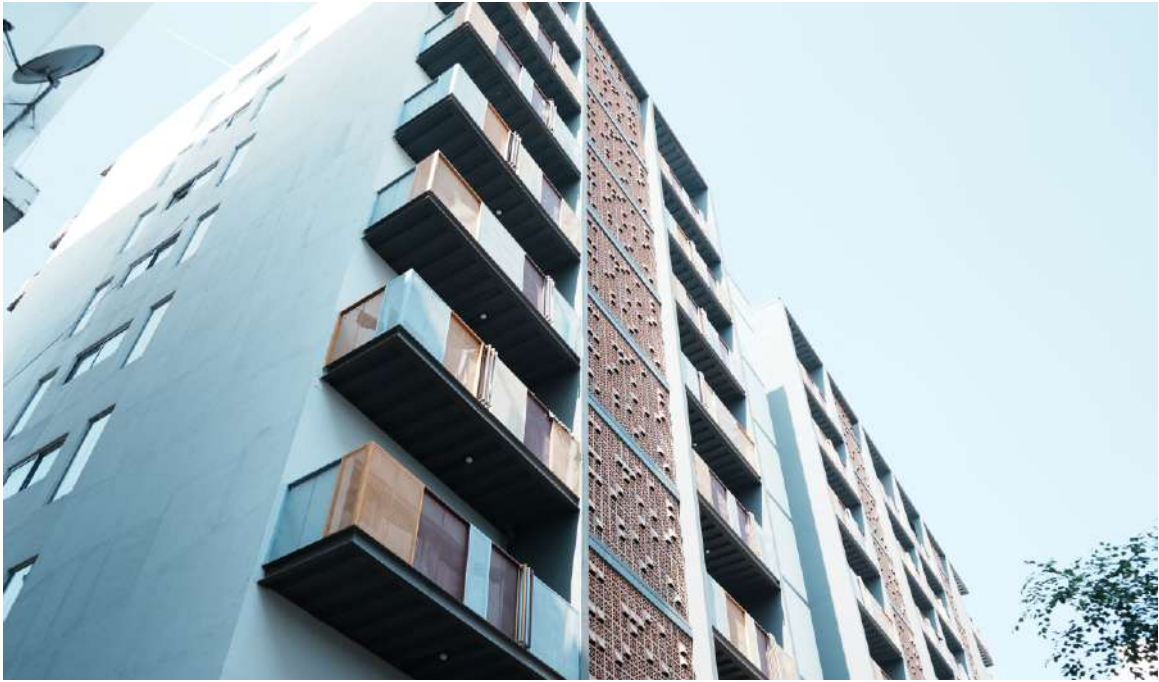
Rainwater harvesting systems are installed to collect and store rainwater for non-potable uses, such as irrigation and cleaning. Additionally, greywater recycling systems ensure water is reused effectively, minimizing wastage.



5. Sustainable Construction Materials

Our infrastructure incorporates eco-friendly materials, such as high-performance insulation and double-glazed windows, to maintain indoor temperatures while reducing energy consumption. **Fly Ash Bricks** are used for construction which reduces waste.

- Fly ash bricks are made from industrial waste products like fly ash, a by-product of coal combustion. Using fly ash bricks instead of clay bricks reduces the amount of waste sent to landfills.
- Reduce carbon footprint
- Reduce energy requirements
- Fly ash bricks are more cost-effective than traditional clay bricks because they require less energy and raw materials to produce.
- Improve indoor temperature regulation
- Fly ash bricks have excellent thermal insulation properties, which help regulate indoor temperatures. This can lead to reduced energy costs for heating and cooling.



Emerald Boys Hostel built of fly ash

6. Green Landscaping

Lush greenery surrounding the buildings acts as a natural insulator, reducing heat absorption. This contributes to a cooler, more comfortable environment while promoting biodiversity on campus.



Lush greenery at Nims University