



JIPMER Phase III, Puducherry

Location	: Puducherry, Tamilnadu
Site Area	: 20,080 m ²
Built-up Area	: 22,071 m ²
Air-Conditioned Area	: 7,729m ²
Non-Air-Conditioned Area	: 14,342 m ²
Energy Consumption Reduction	: 64% reduction in the energy consumption compared to GRIHA benchmark
EPI	: 98.8 kWh/m ² /year
GRIHA provisional rating	: 4 Star Rating (Version: 3.1)
Year of completion	: 2019

The following strategies were adopted to reduce the building impact on the natural environment:

🌿 Sustainable Site Planning:

- Out of 114 existing mature trees, 74 trees were cut and 950 new trees were transplanted.
- Air pollution control measures such as site barricading, coverage of dusty material and other appropriate measures were strictly adhered to during construction.
- 736 m³ of top soil was reused in landscaping and the remaining has been stored for future use.

🌿 Water Management:

- Reduction of 62.32% from the GRIHA base case has been demonstrated in building water demand by installing water efficient fixtures.
- Reduction of 54% from the GRIHA base case has been demonstrated in the landscape water demand.
- Gunny bags/hessian cloth was used for curing of columns and ponding technique was used for curing of slabs.

🌿 Energy Optimization

- For achieving visual comfort:
 - » 51.25% of the habitable spaces in the building are day lit and meet the daylight factors as prescribed by NBC 2005.
 - » The lux level of interior lighting is designed as per NBC 2005.
- EPI reduction of 64% from GRIHA benchmark has been demonstrated.

🌿 Renewable Energy Technology installed on site:

- Solar Photovoltaic system of capacity 15 kWp is installed on-site.

🌿 Sustainable Building Materials:

- More than 15% of the cement is substituted with fly ash by weight for structural concrete application.
- 87% of the total materials used in the building for false ceiling, internal partitions and in-built furniture are low-energy.
- Granite and vitrified tiles were used as a flooring material in the building.

Integrated Design Team:

Client	: Dr. K C Premarajan
Project Coordinator	: Dr. Rajkumar S (L&T Construction)
Principal Architect	: Mr. S. Krishnamoorthy, EDRC, L&T Constructions
Landscape Architect	: Mr. Arun KH, EDRC, L&T Constructions
Structural Consultant	: Dr. Justin S., EDRC, L&T Construction
Electrical Consultant	: Mr. Ramesh Ramasubramanian, EDRC, L&T Construction
Planning Manager	: Mr. G.Tamilarasan
Green Building Design and Certification	: Mr. Ebenezer G.R