



## JIPMER International School of Public Health (JISPH)

<b>Location</b>	: Puducherry
<b>Site Area</b>	: 12,826 m <sup>2</sup>
<b>Built-up Area</b>	: 11,934 m <sup>2</sup>
<b>Energy Consumption Reduction</b>	: 71% reduction in Energy Consumption compared to GRIHA benchmark
<b>EPI</b>	: 47.75 kWh/ m <sup>2</sup> /year
<b>GRIHA Provisional Rating</b>	: 4 Star Rating (Version: 3.1)
<b>Year of Completion</b>	: 2019

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

### 🔗 Sustainable Site Planning:

- Out of 69 existing mature trees, 26 trees were cut and 550 new trees were planted.
- Air pollution control measures such as site barricading, covering of fine aggregates with fabric and other appropriate measures were strictly adhered to during construction.
- The shadow from the building does not obstruct the solar access to neighboring buildings.
- Project has been designed such that all the transportation and service corridors have been minimized. Utility corridors have been aggregated and consolidated to minimize site disruption.

### 🔗 Water Management:

- Reduction of 72.19% from the GRIHA base case has been demonstrated in the building water demand by installing water efficient fixtures.
- Reduction of 52.5% from the GRIHA base case has been demonstrated in the landscape water demand.
- Gunny bags were used for curing of columns and ponding technique was used for curing of slabs.

### 🔗 Energy Optimization and Occupant Comfort:

- For achieving visual comfort:
  - » 28% of the total living area is day-lit and meets the daylight factor as prescribed by NBC 2005.
  - » Digital timer control has been provided for 100% of the outdoor lighting system.
- For achieving thermal comfort:
  - » EPI reduction of 71% from the GRIHA base case has been demonstrated through the integration of high performance systems.
  - » Window to wall ratio has been limited to 14.1% in the project.

### 🔗 Renewable Energy Technology installed on site:

- Rooftop solar photovoltaic system of capacity 5 kWp has been installed on-site for complying with the mandatory clause.

### 🔗 Sustainable Building Materials:

- Pozzolana Portland cement with 30% fly-ash content by weight has been used in plaster and masonry mortar.
- Ceramic tiles with recycled content, vitrified tiles, granite and IPS flooring have been used as a flooring material in the project.
- 75% of the products used for doors, windows and frames are low-energy.
- 100% of paints, adhesives and sealants are low VOC.

### 🔗 Waste Management:

- Multi-colored bins have been provided at every floor to collect and segregate waste at source.
- Segregated waste is transported to resource recovery park within the JIPMER campus from where non-biodegradable waste is sent to waste recyclers. Bio-medical waste is managed as per Bio-medical waste management rules, 2016.

### Integrated Design Team:

<b>Client</b>	: Dr. K C Premarajan
<b>Principal Architect</b>	: Mr. S. Krishnamoorthy, EDRC, L&T Constructions
<b>Landscape Architect</b>	: Mr. Arun KH, EDRC, L&T Constructions
<b>Structural Consultant</b>	: Dr. Justin S., EDRC, L&T Construction
<b>Electrical Consultant</b>	: Mr. Ramesh Ramasubramanian, EDRC, L&T Construction
<b>Green Building Design and Certification</b>	: Mr. Ebenezer G.R