



Indian Institute of Science (IISc), Ladies Hostel Block-C, Bangalore



Location	: Bengaluru, Karnataka
Site Area	: 3,403 sqm.
Built up Area	: 5,473.44 sqm.
Typology	: Residential (Hostel)
Rating Category	: GRIHA Provisional Rating
Version	: Version 2015
Year of Award	: 2022
Client	: Indian Institute of Science
Integrated Design Team	: Advani Associates
Green Building Consultant	: Mindwagon Sustainable Design

The following strategies were adopted by the project team to reduce the building impact on the environment:

Sustainable Site Planning:

- 100% of the existing mature native trees were preserved on site.
- Building design strategies such as courtyards for enhanced ventilation and mutual shading were adopted to reduce building envelope heat gain.

Energy:

- The project was able to offset 44.4% of annual HVAC and internal lighting energy consumption through the solar PV system.
- 90% of the regularly occupies spaces have achieved required daylight factors as per NBC 2005.
- EPI reduction of 60.59% from the GRIHA base case has been demonstrated through the integration of high performance systems.

Water Management:

- Native and adaptive species have been used for landscaping.
- Reduction in the annual landscape water demand was achieved by adopting strategies such as planting native landscape species.
- Campus level sewage treatment plant with 500 KLD of capacity with Membrane Bioreactor (MBR) technology was installed on site.

Renewable Energy Technology installed on site:

- Solar photovoltaic system of 35 kWp of capacity has been installed.
- Solar hot water system of 6000 LPD capacity with heat pump was installed.

Sustainable Building Materials:

- AAC blocks have been used for walling in the project.
- Embodied energy reduction of 38.06% was achieved from the base case.
- 100% of the materials such as granite, composite wood products, ceramic tiles were used for corridors, cupboards and toilets respectively.

Waste Management:

- 6 types of Multi-colored bins such as blue, yellow, white, green, red, black were provided to segregate paper waste, plastic waste, E-waste, glass, metal and organic waste respectively.