



New Building for Department of Computer Science and Engineering for NITK, Surathkal



Location	: Surathkal, Karnataka
Site Area	: 16,984 m ²
Built up Area	: 8,520 m ²
Typology	: Institutional
Rating Category	: GRIHA Provisional Rating
Version	: Version 3.1
Year of Award	: 2021
Client	: NIT Karnataka, Surathkal
Integrated Design Team	: Arkie Atelier Design India [P] Limited
Green Building Consultant	: Green Sketch Consultants, Chennai

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

Sustainable Site Planning:

- Air pollution control measures such as site barricading, wheel washing facility and covering of fine aggregates were strictly adhered to during construction.
- Out of 44 existing mature trees, 8 trees were preserved and 164 new trees were planted.
- 368.5 m³ topsoil was preserved within the site, out of which 190.49 m³ reused for landscaping.

Energy:

- 90.74% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
- EPI reduction of 56.95% from the GRIHA base case has been demonstrated through the integration of high performance systems.
- Digital timer control has been provided for 100% of the outdoor lighting system.

Water Management:

- Reduction of 36% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
- Reduction of 66.75% 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.

Renewable Energy Technology installed on site:

- Solar photovoltaic system of capacity 1 MWp has been installed.

Sustainable Building Materials:

- Cement concrete blocks with flyash (42%) have been used for walling in the project.
- Vitrified tiles, granite and ceramic tiles have been used as flooring materials in the project.

Waste Management:

- Multi-colored bins have been provided for segregation of dry & wet waste.
- Central waste collection area has been provided for storage of segregated waste on site.