



RAJIV GANDHI NATIONAL AVIATION UNIVERSITY ACADEMIC BLOCK

Location	: Fursatganj, Uttar Pradesh
Site Area	: 25,575 m ²
Built-up Area	: 12,562 m ²
Typology	: Institutional building
Energy Consumption Reduction	: 68% reduction in Energy Consumption compared to GRIHA benchmark
EPI	: 44.77 kWh/m ² /year
GRIHA Provisional Rating	: 3 Star Rating (Version: 3.1)
Year of Completion	: 2021

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

- 📍 **Sustainable Site Planning:**
 - Air pollution control measures such as site barricading, wheel washing facility and other appropriate measures were strictly adhered to during construction.
 - 221 new trees of native species were planted on site.
 - 1,011 m³ of fertile top soil was preserved on site and reused for landscaping.
- 📍 **Water Management:**
 - Reduction of 61.93% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
 - Reduction of 42.26% from the GRIHA base case has been demonstrated in the landscape water demand by installing efficient irrigation systems.
 - 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:
 - » 84% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
 - » Automatic timer control has been provided for 100% of the outdoor lighting system.
 - For achieving thermal comfort:
 - » EPI reduction of 68% from the GRIHA base case has been demonstrated through the integration of high performance systems.
- 📍 **Renewable Energy Technology installed on site:**
 - Solar photovoltaic system of capacity 30 kWp has been installed.
- 📍 **Sustainable Building Materials:**
 - Vitrified tiles, granite, kota stone and carpet have been used as flooring materials in the project.
 - 81.14% of low energy material has been used for false ceiling and paneling.
- 📍 **Waste Management:**
 - Multi-colored bins have been provided for segregation of biodegradable and non-biodegradable waste.
 - Central waste collection area has been provided for storage of segregated waste on site.
 - Fluidized aerobic bio reactor (FAB) type STP of 80 KLD capacity has been installed.

Integrated Design Team:

Client	: Rajeev Gandhi National Aviation University
Principal Architect	: Axis Consultants
Landscape Architect	: Axis Consultants
Electrical Consultant	: Axis Consultants
Structural Consultant	: Axis Consultants
Green Building Design and Certification	: Passive Design Consultants