

COLONIZE

CALL FOR IDEAS:

Sustainable, energy efficient and cost effective house design competition

Techfest, IIT Bombay is pleased to announce The Sustainable House Student Design Competition for the 2016-2017 academic year, under Team Shunya's venture – Project solarize. The program is to engage young professionals and students to put effort in advancing the design of sustainable, net positive energy, healthy, and affordable homes for future smart cities of India.

THE OPPORTUNITY:

We are looking for development and delivery of innovative - sustainable building solutions. Solutions that will minimize the negative impact of residential sector construction on the environment, reduce the energy and resource consumption and increase the over-all sustainability of future Indian smart cities.

Vision

To improve the sustainability of communities by supporting the development and delivery of innovative building solutions.

Strategy

To engage youth of India in the pursuit of sustainable housing.

Outcomes

A reduction in the impact of residential sector construction on the environment and an increase in the social, environmental and economic sustainability of future cities in India.

COMPETITION CHALLENGE:

Aim of this competition is to design sustainable, energy efficient and cost effective home.

The competition will have 3 primary areas of focus:

- The inclusion of passive and active solar design techniques that can be affordably implemented
- The inclusion of sustainable building materials and efficient layout accordingly
- Designs should focus on innovative and sustainable building solutions. Competitors are encouraged to use creativity in their designs

The house should be designed for optimal functionality in the student's local climate zone.

The finished area of the house should be at least 120 m² but shall not exceed 200 m².

Finished area can be calculated as defined by ANSI Z765-2003

There is no restriction on the number of floors for the villa.

ELIGIBILITY:

Students from any field of engineering or architecture, or recently graduated students or interns are eligible to participate in the competition. Entries will be accepted for individual as well as team solutions. Teams must be limited to a maximum of 5 individuals.

JUDGING CRITERIA:

In addressing the specific issues of the design challenge, submissions must clearly demonstrate the design solution's response to the following requirements:

- Integrated use of passive and active solar techniques
- Strength of the argument and the proposal's ability to support the concept for the design
- An articulate mastery of design concepts and aesthetic values
- A capability to integrate functional aspects of the problem in an architectural manner
- How your context/design philosophy ties with the house design
- Conceptual sketches supporting your design

TIMELINE:

1. Last date of Registration: 12th November 2016
2. Schematic Design Summary: Till 12th November 2016
3. Final submission: 5th December

Minor Improvements would be allowed after 5th December till 3 days before Techfest. In case of any improvements the team should mail the organizers.

DELIVERABLES

1. Schematic Design Summary

Schematic design has to be submitted in the form of PDF document. [This document is basic set of drawings and writeups to describe your project]

Architectural concept design.

This should contain conceptual sketches/ diagrams of building, conceptual plans, sections and elevation which will describe schematic form of building, along with architectural

design narrative, mission statement and design strategy. **[Sketches and diagrams can be handmade or software generated.]**

Submit **climate data** of your climatic zone in a separate document for judging of your design

Climate data should have all necessary data of sun path – sun angles, temperature & humidity etc.

The document (PDF format) has to be mailed to colonize@techfest.org with the subject "Colonize Submission : <team ID>". Also the document should be having the respective team ID in the file name.

2. **Final Design submission**

- A4 size project document with all final drawings plans, sections, elevations and 3D renders along with detailed writeups of design narratives [500 words], design strategy [based on need of the project] and elements of design. [based on need of the project]

[Sketches and diagrams can be handmade or software generated.]

Max 40 pages

Note: This document will be displayed to the public during Techfest. Hence, prepare accordingly

- A0 size panel for jury. Approx. 2'x4' panel [Panel should have information necessary to explain teams' project to its best]
- Physical model for house. Scale : 1:50
- Softcopy presentation for the jury (can be of any presentation based software)

TOP 5 teams will be selected based on their design and innovations after first deliverable.

The selected teams will present their designs in front of respected jury.

The announcement of top 3 will be based on the jury presentation.

PRIZE:

1. All the top 5 teams will be awarded **INR 4,000**
2. Top team will be awarded **INR 15,000**

3. Runners up team will be awarded **INR 10,000**