ABOUT

Bamboo-based construction technology is increasingly accessible across various regions of India. Currently, this innovative approach is often utilized in isolation and falls under the category of non-engineered construction. The Global Housing Technology Challenge-India (GHTC-I) is dedicated to advancing technological innovation in construction materials and methods. Its mission is to showcase and provide ready-to-occupy homes in the shortest possible time and at the lowest cost, all while ensuring high-quality and sustainable construction practices. This initiative aims to nurture promising future technologies through incubation support and accelerator workshops, thereby creating a vibrant research and development ecosystem in the country.

IIT Kharagpur has been tasked with providing incubation support for the “Bamboo Low Cost Housing Technology” in collaboration with the Drishtee Foundation in Nasik. This project has established technical standards and benchmarks for using bamboo as a viable construction material, employing a “Field to Lab” methodology. As part of this initiative, a full-scale demonstration building has been constructed at the IIT Kharagpur STEP Golapi site. Currently, IIT Kharagpur is set to conduct a series of workshops aimed at building confidence and raising awareness among local villagers, serving as a vital capacity-building effort.

PROGRAM SCHEDULE

One-day on-site (in-person) course.

December **12**, 2024.
From **10:00** AM to **05:00** PM.

Venue: **Science Technology Entrepreneurship Park (STEP), Gopali, Indian Institute of Technology Kharagpur**

LOCAL CONTACT

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LOW-COST BAMBOO HOUSING

(FOR PERI-URBAN AREA)

CENTRE OF EXCELLENCE IN URBAN PLANNING AND DESIGN AND DEPT. OF CIVIL ENGINEERING

IIT KHARAGPUR

PROGRAM OUTLINE

1. Sensitization of local rural community for Bamboo intensive housing.

2. Delivering the lectures in local languages (Bengali and Hindi) about the material handling and construction process.

3. Demonstration of stages of construction through Video clippings.

4. One to one interaction with the community participant and obtaining the feedback.

5. Distribution of leaflet containing the technical details.

6. Prepare the participants for advanced hands on training program in future.

PROGRAM SCHEDULE

1. General Introduction of the course, participants and resource persons (IIT Kgp) individual introductions (10:00am-10:30am)
2. Introduction to the Ministry of Housing and Urban Affairs (MoHUA) mission. Innovative construction technologies initiatives through the Global Housing Technology Challenge-India (GHTC-I) to meet the goal of PMAY-U (10:30am-11:15am)
3. Tea Break (11:15am – 11:30am)
4. National and International projects on Bamboo intensive construction. (Particular emphasis on Malaysian, Vietnam, Indonesia and Mexico projects) (11:30am-12:15pm)
5. Bamboo: Selection, Splitting and Treatment (12:15pm-01:00pm)
6. Lunch Break (01:00pm-01:45pm)
7. Bamboo Reinforcement Foundation and Plinth (02:00pm-02:45pm)
8. Bamboo Wall Panel and Column Construction (02:45pm-03:30pm)
9. Bamboo Roof Truss and Roof covering Installation (03:30pm – 04:30pm)
10. Cost Effective Solution and Sustainability (04:00pm-04:15pm)
11. Feedback Session and Valedictory (04:45pm – 05:00pm).

TEAM

Prof. Subrata Chattopadhyay
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Sr. Executive Engineer

Mr. Satyan Mishra
DRISHTEE FOUNDATION
(Incubation Team)