



Solar™
Decathlon
India

NetZero Building Challenge

Accelerated Pathway to
India's 2070 Net-Zero goal



Why is Solar Decathlon India a Game Changer?



Net zero energy buildings (NZEBS) are crucial to realising India's Panchamrit Sutra for Climate Action by 2070. **What is the current landscape?**

- Buildings currently account for about a third of India's total energy consumption
- NZEBs can reduce building energy demand by as much as 50%
- By 2030, India will double its floorspace with new buildings

There is a huge business opportunity in the area of climate action that will establish industry leaders within the next 10 years. **Where is the challenge?**

We face a severe capacity constraint. Almost none of the country's 500,000 building sector professionals graduating each year can deliver NZEBs.

What is the roadmap?

Solar Decathlon India is a challenge where students from Indian institutions learn and develop cost-effective net-zero-energy-water solutions for real, live projects floated by building owners and developers. It engages with faculty members and the building industry across the country to transform perspectives.

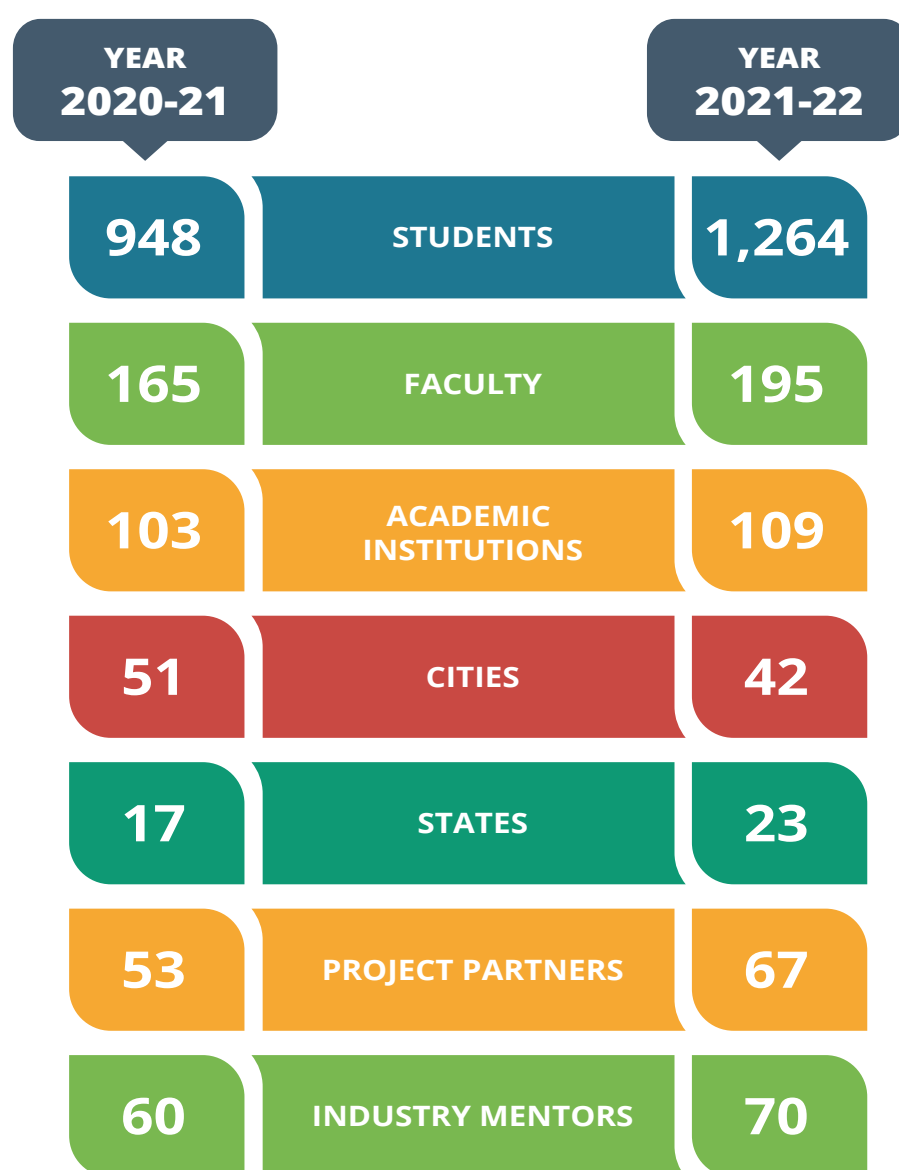
Prasad Vaidya

Director, Solar Decathlon India

The Story so Far

Since 2020, Solar Decathlon India has built capacity and enabled collaborations between **2000+ students**, **200+ faculty** members of **150+ academic institutions**, **70+ real estate partners**, and **70+ industry manufacturers**. This ecosystem spans **23 states** and **51 cities** in India.

Student teams have collectively worked on **29 million square feet of new buildings** to make them net-zero energy-water, showing how **15 million tonnes of CO2 emissions** can be abated over the life of these buildings.



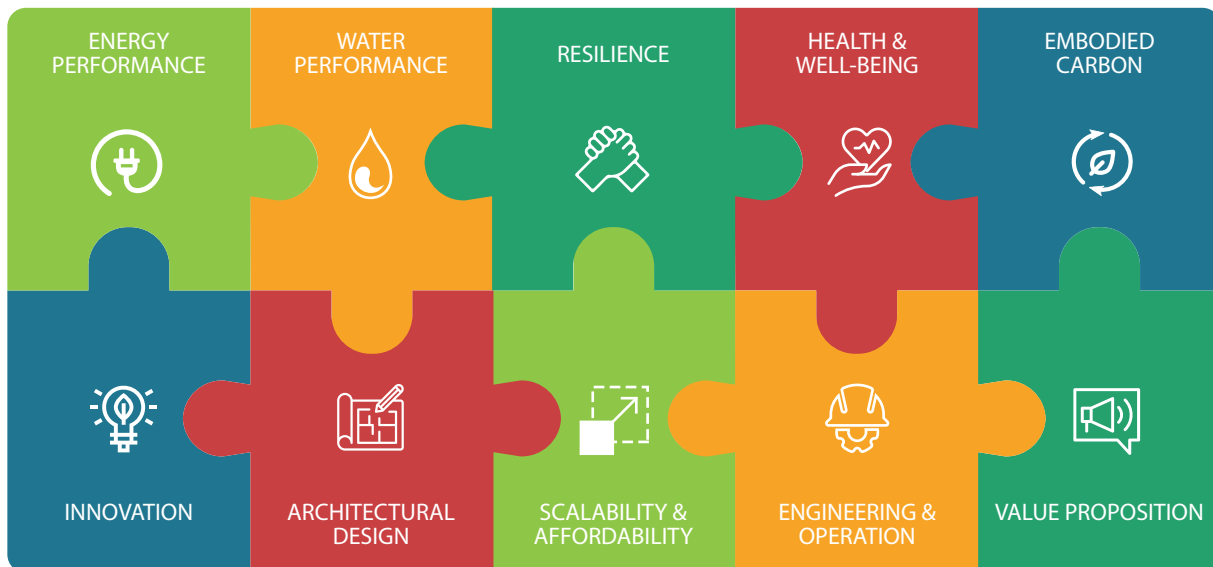
Solar Decathlon India is conducted by the **Indian Institute for Human Settlements (IIHS)** and the **Alliance for an Energy Efficient Economy (AEEE)** under the aegis of the **Indo-US Science and Technology Forum (IUSSTF)**. It is supported by the **Department of Science and Technology, Government of India**.

The Challenge

This is a 9-month long challenge where we invite student teams to innovate future-ready solutions. They partner with the industry and develop resilient, net-zero-energy-water solutions for **real building projects** that are **affordable**, and **market-ready**. Student teams compete in one of the six building types that need customised and scalable solutions.



Their solutions need to excel in each of the 10 contests, which makes this a Decathlon.



We provide students with learning modules on net-zero building science, industry expert mentors and simulation tools. We facilitate their partnerships with the industry and provide opportunities for internships and incubation programs. We conduct faculty development programs for the exchange of best practices of teaching for climate action.



Partners

Building an Impactful Ecosystem

Solar Decathlon India is also a platform for the real estate industry to explore climate change solutions with students and faculty and apply feasible technology and design innovations in their projects.

- 2Getherments Infra Pvt.
- A One Lifestyle
- Advance India Projects
- Agami Realty
- Albuquerque Hotels
- Amar Infrastructure
- Apeejay Global Industrial and Logistic Park
- Betweenlines
- Brookfield Properties
- Casa Grand Athens
- Dhamam Infra Projects
- DHUN Jaipur
- DND BuildHome
- Essen Realtors
- Excel Ventures
- Express Realty
- Ganesh Infrastructure
- Goel International
- Harasiddh Projects
- Home Life Buildcon
- Incolt Infra Engineering
- Infosys
- Innards Infrastructure
- InStyle Homes
- Kolte Housing and Infrastructure
- Larsen & Toubro
- Mahindra Lifestyle Developers
- Manohar Builders
- Marian Projects
- Maxel Procon
- Mindset Estates
- MK Developers
- Namrata Group
- Navira
- ORD Towers
- Ozone Groups
- Raghuvver Buildcon
- Sarda Energy & Minerals
- Savvy Siddhi Realty & Infrastructure
- Shapoorji Pallonji and Company
- Sobha Developers
- Step Stone Construction
- Subhaprada Builders
- TATA Housing Development Company
- Tata Realty and Infrastructure
- Trimurti Builders and Developers
- Trimurty Landcon (India)
- Under Mango Tree
- URC Construction
- Vaikhari Developers, Builders And Promoters
- ASEEM Foundation
- BAIF Development Research Foundation
- Bhandarkar Oriental Research Institute
- Maharashtra Social Housing and Action League
- Ramakrishna Sarada Samiti
- Samarpan Foundation
- Samuchit Enviro Tech
- SEEDS India
- SELCO Foundation
- Society for Human Welfare & Education
- The Energy Swaraj Foundation
- UN Habitat
- Brihan Mumbai Municipal Corporation
- Commercial Tax Office Building, Bhubaneswar
- Gujarat International Finance Tec-City
- Karnataka Housing Board
- MAHA Metro, Pune
- National Health Mission
- National Institute Of Urban Management
- Vidyabharti Paschim Maharashtra Prant

PRIVATE SECTOR

NGO

GOVERNMENT AGENCY



Testimonials

Igniting Passion and Partnerships



If your project (Team Arnima) is really so cheap, I'd be interested in buying your project because it is a prime and great example of something that can actually go get built.

L Venkatesh, Director

Integrated Digital Delivery, Invicara Jury, 2021-22 Challenge

Some of these solutions are very implementable. Will I bank my money on doing this (Team Ecocult) project?
Yes. It makes sense, it can be done. It can stand.

Harleen Oberoi, Senior Vice President

Tata Realty Project Partner and Real Estate Industry Jury, 2021-22 Challenge



The design that we have submitted to Solar Decathlon India is something that the client also has approved. Around the later part of the year, the construction will start.

Prof. Abu Talha Farooqi

Jindal School of Art and Architecture Faculty Mentor, 2021-22 Challenge

Through the SDI Internship Fair, I got to connect with firms and companies working in sustainable architecture. I interviewed with a few, including our project partner SELCO where I landed a 6 months internship. SDI provided a platform that acquainted me with an array of different kinds of opportunities.

Pratishtha Pandey

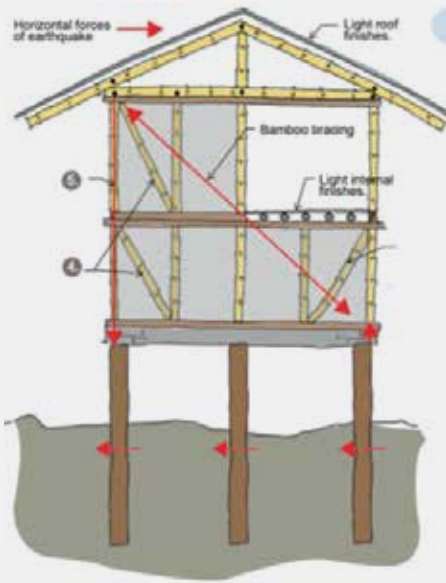
Participant, 2020-21 Challenge



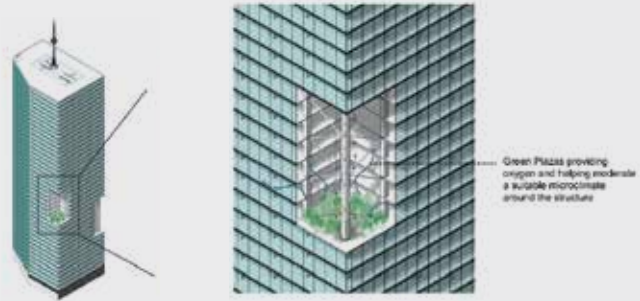
Student Work

Designing Tomorrow, Today

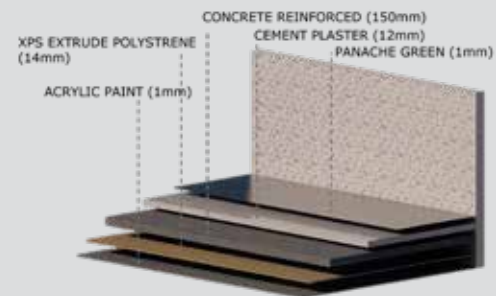
Team Tejasvi
Community Resilience
Shelter Division



Team X : Y : Z
Office Division



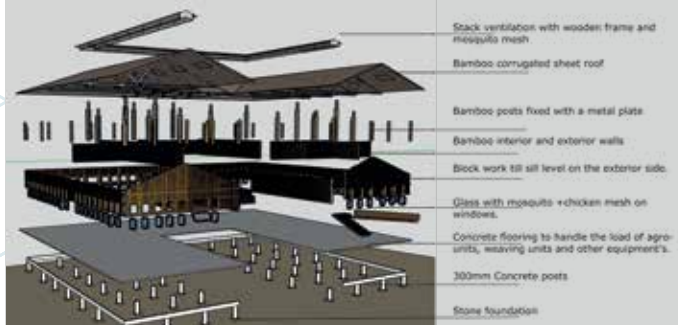
Team Amigos
Single Family Housing Division



Team Samanvit
On-Site Construction
Worker Housing Division



Team Sthairyam
Community Resilience Shelter Division



Team X : Y : Z
Office Division



Team Grey
Office Division

