

## Development Alternatives Joins International Workshop on Technologies for Low-carbon and Lean Construction in Chennai



A glimpse of a workshop at IIT Madras on various technologies for low-carbon and lean construction (TLC2)

**D**evelopment Alternatives participated at ‘A Week of Technologies for Low Carbon and Lean Construction’ (TLC2) organised by the Center of Excellence on TLC2 and Department of Civil Engineering, Indian Institute of Technology (IIT) Madras, Chennai. The week of workshops, which was held from 30 January, 2023 to 3 February, 2023, focused on building industry–academia collaborations. TARA (Development Alternatives Group) team participated on days 3 and 4, which were dedicated to the issues such as Advanced construction material, C&D waste, Corrosion in concrete, Agro waste, Sustainability for low carbon, Circular economy, and other similar topics.

The TLC2 group at IIT Madras has been working on new technological innovations since last 2 years. These innovations include-

- 1) Use of concentrated solar energy for thermo-mechanical beneficiation of concrete waste
- 2) Robotic arm for intelligent segregation of waste
- 3) Glass textile reinforced concrete tanks for modular sewage treatment plants
- 4) Mobile crushing unit for C&D waste with Chennai Metro Rail Limited.



Supporters of the Workshop

The workshop on Technologies for Low-carbon and Lean Construction to Enhance the Circular Economy and Sustainability of the Concrete Construction Industry Worldwide brought together students, faculty members, researchers, and practitioners from the two broad areas – construction materials and construction management. During this workshop, partnership between IIT Madras and TARA, which has significantly contributed to the development of low carbon building materials such as LC<sup>3</sup>, was highlighted.



A 3D Printed House in IIT Madras campus

Participants were introduced to high-quality and advanced technologies that would contribute to net-zero carbon emissions in the near future such as a 3D printed house, which is made of LC<sup>3</sup>, within the IIT Madras campus.

The participants attended the sessions to gain insights and knowledge on the latest advancements, strategies, and techniques in sustainable construction practices, understand the significance of low carbon and lean construction practices, explore innovative ideas, and network with industry experts and like-minded professionals in promoting sustainable development.