Veermata Jijabai Technological Institute Matunga, Mumbai - 400019

Civil and Environmental Engineering Department

Brief report on "Indian Concrete Institute (I.C.I.) – VJTI Student Chapter"

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I C I

Indian Concrete Institution (ICI) –V J T I Student Chapter

Industry-Institution-Interaction Expert Lecture On

"Low Carbon Construction"

by
Mr. Vijay Kulkarni
(Ex. President, Indian Concrete Institution)

ON Tuesday 24th January 2023

Time: 2.30 PM Onwards Venue: Civil Seminar Hall

Organising Committee

Dr Sumedh Mhaske Mentor, ICI- VJTI Student Chapter Dr Abhaykumar Wayal Head, Civil and Env Engg dept

Dr Vishal Thombare Chairman ICI Mumbai Chapter

Mr Pravin Chaudhari (Assistant Prof., VJTI)
Mr. Chetan Bhole (Lecturer, VJTI)

"Indian Concrete Institute (I.C.I.) - VJTI Student Chapter"

Veermata Jijabai Technological Institute, Civil and Environmental Engineering Department in collaboration with Indian Concrete Institute (I.C.I.) inaugurated a student chapter on Tuesday 24^{th} of January 2023



Inauguration of ICI - VJTI student chapter

Honourable Chief Guest Mr. Vijaykumar R. Kulkarni (ICI Mumbai Chapter) were welcomed by Dr. Sumedh Mhaske and Dr. Abhaykumar Wayal.



About Low carbon construction:

Low carbon is a term applied to an economy, industry, product or activity to describe the relatively low amount of carbon dioxide generated by it over a specific time.

Carbon-dioxide from vehicle exhausts, manufacturing, construction, heating and cooling etc, accumulates in the atmosphere contributing to the greenhouse effect and consequently climate change. It is for this reason that achieving a low-carbon economy has become an objective for many countries, regions, businesses and individuals.

Being low-carbon (or decarbonised) essentially requires reducing the direct use of fossil fuels - coal, gas and oil - and also, activities which rely indirectly on fossil fuels, such as cooking and washing, which usually require gas or electricity generated at power stations using fossil fuels (e.g coal and oil).





Dr Sumedh Mhaske invited Mr. Vijay Kulkarni (ICI Mumbai chapter) to share few words and give information about low carbon construction – VJTI student Chapter

Objectives of Low carbon construction:

- Reducing energy demand by improving energy efficiency.
- Use of Renewable sources to cater to the Operation energy requirements.
- Reducing Embodied carbon stored in building materials.
- To promote growth of concrete construction and its sub-specializations.

Strategies to reduce carbon:

- Use of AI technique.
- Mass concrete (large scope for carbon footprint reduction).
- Specify long service life.
- Use HSC/HPC (HSC saves concrete and steel).
- R&D works in carbon mitigation.
- Mitigation commitments by professional bodies. (shown in below picture).

Mitigation Commitments by Professional Bodies Reducing Operational WORLD GREEN **Carbon from New** BUILDING **Buildings to zero by** COUNCIL 2030 **Reducing both** Operational and **Embodied Carbon** The Institution of StructuralEngineers



from all Buildings to

net zero by 2050

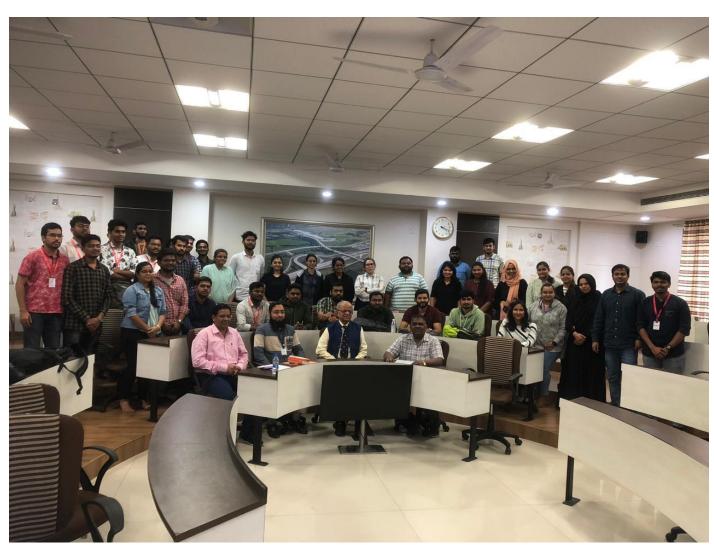
Dr Sumedh Mhaske (Mentor) sharing few words about low carbon construction-VJTI Student Chapter



Mr. Vijay Kulkarni offering low carbon manual to Dr. Sumedh Mhaske



(Dr. A.S Wayal sharing few words on Carbon construction)



(A group photo after interaction on low carbon construction with M.tech Construction Management students and M.tech Environmental engineering students)