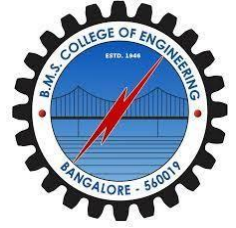




INDIAN CONCRETE INSTITUTE
BENGALURU CENTRE, KARNATAKA



In Association with

BMS COLLEGE OF ENGINEERING,
BENGALURU

PRESENTS

**TWO DAY INTERNATIONAL SEMINAR CUM DEMINAR - LIVE PRODUCT
DEMONSTRATION AND EXHIBITION ON**

**ALTERNATIVE MATERIALS AND INNOVATIVE
TECHNOLOGIES IN CONCRETE CONSTRUCTION**

On 16th & 17th March 2021, Tuesday-Wednesday
Venue: Sports Complex, BMS College of Engineering, Bengaluru.

Alternative Materials and Technologies

In this fast developing world, it becomes very important for us as Civil Engineers, Architects and Builders to focus both on the global development and also its impact on the environment. This kind of approach leads to many innovations and researches which helps in conserving the environment without compromising on the developments. Construction industry has been associated with the materials which were being used about a century back and are still very popular. Variety of alternative building materials which are eco-friendly and sustainable are made available which provide better, efficient, durable and cost effective construction and also ensure judicious utilization of available limited resources with least possible degradation of environment.

Building materials and technologies and building practices have evolved continuously. Housing and building conditions reflect the living standards of a society. Stones, mud, thatch and timber represent the earliest building materials used for the construction of dwellings. Hardly any energy is spent in manufacturing and use of these materials for construction. Durability of the materials, directly derived from the natural materials like soil, thatch, timber etc. is questionable.

The demand for building materials has been continuously rising with the increasing need for housing both in rural and urban areas. Commercial exploitation of traditional building materials by various industries has aggravated the situation. It has, therefore become necessary to think over this problem seriously and to provide some sustainable solution to make the alternative materials available to solve the housing problem.

A large number of viable alternative building materials and technologies have been developed and disseminated in the recent times. Some of these materials are supplementary cementitious materials (SCMs) like Fly ash, GGBS, Ultrafine Slag, Ultrafine fly ash, Micro silica, Metakaolin, Rice husk ash which help in partial replacement of OPC Cement. Per tonne of OPC Cement liberates about 0.6 to 0.8 mt of CO₂ in manufacturing process contributing to 5 to 6 % of the total global CO₂ emissions and also consuming about 1.5 mt of Lime stones from Nature. Now a days there are many Alternatives products to river sand and Aggregates

The Alternative building technologies are; Dry wall technologies, Precast products, Architectural decorative products, Stabilized mud blocks, AAC Blocks, Fine concrete blocks, Rammed earth blocks, Mud concrete blocks, Lime pozolona cement, Soil-lime plaster, Composite mortars for masonry, Composite beam and panel roofs, Reinforced brickwork roof, Ferro cement and ferroconcrete roofing systems, Geo-polymer concrete, Unreinforced masonry vaults and domes, Ribbed slab construction, Filler slab roofs, Rammed earth foundations, Reinforced block-work lintels and precast chejjas.

It is important to educate the people in the industry to bring awareness about the alternate building materials and technologies and make them to understand and adopt them in their constructions. Usage of

the eco-friendly and sustainable materials will only prove to be beneficial in the future, helping the construction industry to use sustainable construction solutions and making the world a better place.

In line with the above developments ICI-BC is organizing a two days International seminar and Deminar 2021 on “Alternative materials and Technologies ”

Master of Ceremonies



Er. H. R. Girish



Dr. H. R. Pradeep

Dignitaries on the Dias: Inauguration & Release of Souvenir book



FELICITATION TO THE DIGNITARIES ON THE DIAS



Sri. Aviram Sharma
Trustee, BMSET



Er. Vinay Gupta
President – ICI



Dr. P Prasanna Kumar
Head-Dept of Civil Engg, BMSCE



DR. SHAILESH KR. AGARWAL



Dr. S Muralidhara
Vice Principal, BMS College of Engineer

Er. R Radhakrishnan
Secretary General ICI

Lectures given by the eminent speakers:

Keynote Speaker: Dr. Shailesh Kr. Agrawal,

Topic on – “Emerging construction systems for mass housing & technology transition through Light House projects”

Invited Speaker: Er. G.H. Basavaraj,

Topic on – “Outside Cement & Steel: C-PC Polymer Composites Based Civil & Structural Engineering Applications”

(Virtual) Invited Speaker: Dr. Harald Justnes, PhD

Topic on – “Durable Aluminium Reinforced Environmentally-friendly Concrete Construction”

Invited Speaker: Dr. K S Nanjunda Rao,

Topic on – “Dynamic behavior of reinforced masonry structures”

(Virtual) Invited Speaker: Er Kshemendranath,

Topic on – “Recycling of Construction Demolition Waste”

Invited Speaker: Er. Chuckerbutty Nandita Sujitkumar

Topic on “Precast Tunnel lining segment casting, stacking and transporting”

Technical Presentation & Demonstration:

M/s. JSW Cement Limited –

Technical Presentation on “Alternative Materials for Sustainable Construction”

Fosroc Chemicals (India) Pvt Ltd -

Demonstration on “Reuse of discarded concrete as recycled aggregate”

M/s. Asian Paints Ltd –

Technical Presentation on “Chemical Admixtures”

M/s. Nuvoco Vistas Corp Ltd

Demonstration on: “Instamix - Ready to use bagged concrete with Five force Advantage”

M/s. Ultrafine Mineral & Admixtures

Demonstration on: “High Strength Concrete using Ultrafine”

M/s. JSW Cement Limited

Demonstration on: “Flow Parameters of Slag Sand in Comparison with Crushed stone sand”

Keynote & Invited Speakers



Industry - Institute interactive session



Industry - Institute interactive session



Vote of thanks:

Dr. RL Ramesh, Secretary ICI-BENC thanked all the members present in the Deminar & also thanked the Dignitaries on Dias, Speakers, Sponsors and Coordinators of ICI-BENC, to conduct the program successfully & delivered the vote of thanks. The Deminar witnessed more than 500 enthusiastic participation by Delegates through interactive Q&A sessions. At the end of the session, Delegates were appreciative of the way the Deminar was conducted and tangible advantages that they derived.