

# ICI-Bangalore Centre

## Report on Concrete Panorama and Deminar 2016

**Indian Concrete Institute-Karnataka Bangalore Centre** conducted their regular flagship event Concrete Panorama & Deminar 2016 on 25-26th February 2016 at Nimhans Convention Centre, Bangalore. The **Concrete Panorama** was a 2 day National Program on "**CONCRETE Admixtures & Waterproofing Systems – Best practices for Durable Structures**" showcasing latest developments in India and abroad.

The **DEMINAR** was a unique feature of "Concrete Panorama" wherein live demonstration of applications of Concrete Admixtures & Waterproofing Systems was carried out simulating field conditions, which was beamed live to the audience in the seminar hall. In addition, an **Exhibition facility** was also provided to showcase the products and systems on Concrete Admixtures & Waterproofing.

*This event is being organized in association with "Association of Consulting Civil Engineer-ACCE(I), Structural Engineers World Congress (SEWC), Association of Waterproofing Contractors (AWC), Ready-mixed Concrete Manufacturers Association (RMCMA) of India, INSTRUCT, Construction Chemical Manufacturers Association (CCMA) in India and India Chapter of American Concrete Institute (ACI). In the country, these associations are involved to assure quality in operations and methods of using CONCRETE ADMIXTURES & WATERPROOFING SYSTEMS the best practices for durable structures in India & abroad.*

### **ABOUT THE THEME OF DEMINAR 2016:**

#### **Concrete Admixtures:**

Modern day concrete cannot be thought of without concrete admixtures. As per one of the surveys in civil engineering, the maximum number of research projects are in the area of concrete technology worldwide. The challenging demands of modern day designs; be it architectural, structural or construction can be met with the wonder material called concrete. This is the reason the per capita consumption of concrete is only next to that of drinking water and so the usage of admixtures has enormously increased in the recent past.

The developments of High Strength Concrete, High Performance Concrete, Self-Compacting concrete, Ultra High Performance Concrete, Geo-polymer Concrete etc., have necessitated developments of both Chemical and mineral concrete admixtures employing new technology platforms. Earlier plasticizers were replaced by superplasticizers and now by Hyper Plasticizers. This has paved the way for concrete technologists to think in terms of cement replacements such as fly ash, GGBFS and other Pozzolanic material up to proportions exceeding 70%.

**Chemical Admixtures** are classified according to their function. The primary types of chemical admixtures fall in the categories of water reducing, retarding, accelerating and plasticizing functions of concrete. All other varieties of admixtures fall into the specialty category whose functions include corrosion inhibition, shrinkage reduction, alkali-silica reactivity reduction, workability enhancement, bonding, damp proofing and coloring. Air-entraining admixtures are

used to purposely place microscopic air bubbles into the concrete to enhance durability of structures.

**Mineral Admixtures** are also called 'Supplementary Cementing Materials' used when special performance such as increase in strength, reduction in water demand, impermeability, low heat of hydration, improved durability, correcting deficiencies in aggregate gradation (as fillers), etc., are needed. The usage of mineral admixtures also results in cost and energy savings by way of replacement of cement as the energy required to process these materials is also much lower than cement. Environmental damage and pollution is minimized by the use of these by-products. When used as cement replacement materials, about 6-7% of total CO<sub>2</sub> emission in the atmosphere is reduced which is estimated to be the contribution from the production of Portland cement.

### **Waterproofing:**

Water leakage is a universal problem. In spite of a number of advances in construction technology and waterproofing systems, waterproofing has remained as a serious challenge to our living shelters. The increasing complexity of construction today demands better design and execution methodologies of waterproofing. Of late, in the race to build fast, due attention is not paid to basic waterproofing principles. Compromising on design, detailing and execution has become very common. In today's construction where there is a complex interfacing of different streams of engineering (MEP, HVAC, etc.), failure in waterproofing can lead to technical and contractual disputes such as disruption to business, lack of access to leaking areas, endangerment to electrical installations, reduction of the structural integrity of the building and surrounding structures in extreme cases.

Repair costs can be equivalent to replacement costs in extreme cases. A clear understanding of waterproofing from a holistic perspective will eliminate or can limit direct and consequential damages. It is well known today that 99 percent of leak occurs through 1 percent of the building envelope. To prevent this leakage, we have to pay 100 percent attention to detailed engineering, waterproofing product quality and professional installation by the qualified and experienced personnel.

This Seminar addressed critical issues related to concrete admixtures and focused deliberations on water leakages and more light on the material science, methodologies and techniques of design and execution of waterproofing.

**ICI-KBC had lined up excellent speakers** from all over **India (Prof. M S Shetty, Er. Sheshadri, Mr. M N Ramesh, and host of others speakers) and Abroad (Dr. Thomas Tiechmann & Er. Robin Debeer)** for the seminar, who were experts from their respective field and also product demonstrations of the **CONCRETE ADMIXTURES & WATERPROOFING SYSTEMS**, special concretes, and mineral admixtures were conducted.

Companies and their subsidiary service providers make use of this opportunity to show case their products. This kind of Seminar is the only one in India which is very popular among engineers and practitioners to learn through practical demonstration, exhibitions and seminar about new products and technologies.

There was a **participation of 920 (600 plus Industry + 315 Students) plus delegates** from various applicators, producers, construction industry, structural consultants, building material

manufacturers decision makers from Govt. Agencies such as BBMP, Bangalore Metro, Bangalore Development Authority, CPWD, PWD, BWSSB, KRDC, KUIDFC & 300 academic and research experts and students across India and abroad for the two-days event.

**Chief Guest & program inauguration by:**

**Prof. M S Shetty**

Consultant & Author on Concrete Technology  
Past Chairman – C E D 41, Bureau of Indian Standards,  
Waterproofing & Damp - proofing

**Presided by:**

**Dr. Manamohan R. Kalgal**

President – Indian Concrete Institute

**The Guests of Honor:**

**Er. Vivek Naik**

President Elect – ICI

**Dr. Ing. Thomas Teichmann**

CEO (Concrete Research & Consulting)  
G Tecz Engineering Kassel, Germany

**Er. K Jayasankar**

Vice President (South) – ICI

**Er. R Radhakrishnan**

Secretary General – ICI

**Er. M Ravishankar**

President – RMCMA & G.C. Member – ICI

**Welcome Address by: Dr. Aswath M U**, Chairman – ICI-KBC

**Address by Guests of Honour:**

**Dr. Manamohan R. Kalgal**, President, Indian Concrete Institute, gave the presidential address followed by the briefing of Deminar 2016 highlights.

**The usage of chemical admixtures with Ready-mix concrete scenario in India by:**

**Shri. M Ravishankar**, President RMCMA & G.C. Member ICI

**Vote of thanks – Er. Kaushik Hajra**, Secretary, ICI – KBC.

**Er. N R Ashok, Mr. Nagesh Puttaswamy were the Anchors** for the two day program. All the senior members of ICI-Bangalore Centre, Advisory committee members and organizing committee members actively participated in the event to make the program a grand success.

**During “CONCRETE PANORAMA”, following activities were conducted:**

## **Presentation of State of the Art Technologies & Waterproofing Systems:**

- **Presentations from Eminent Personalities related to Concrete admixtures & Waterproofing Systems.**
  1. **Prof. M S Shetty** – Presentation on “**Temperature Controlled Concrete for Effective Waterproofing**”.
  2. **Dr. Thomas Tiechmann** – Presentation on “**Outstanding UHPC materials with generative development and optimisation methods**”.
  3. **Er. S Sheshadri** – Presentation on “**Spray Applied 2 Component PU WP System**”.
  4. **Mr. M N Ramesh** – Presentation on “**Special Purpose Concrete Admixtures**”.
  5. **Er. Sunny Surlaker** – Presentation on “**State of the Art Waterproofing Systems**”.
  6. **Er. Srinivas Prasad** – Presentation on “**La Green Products**”.
- **Presentations of Performance Enhancing Mineral Admixtures in concrete.**
  1. **Er. Yatin Joshi** – Presentation on Alucofine
  2. **Er. L R Manjunath** – Presentation on JSW Slag
  3. **Er. Robin Debeer** – Presentation on Ashtech Processed Fly Ash.

## **Demonstration of State of the Art Technologies & Waterproofing Systems:**

- **Demonstration of New generation superplasticizers for achieving desired properties of concrete in fresh and hardened state.**
  1. Mr. M N Ramesh – Talrak High Performance Concrete
  2. Mr. Tapan Kr. Maji – HR Johnson & (RMC India) – Previous Concrete.
  3. Mr. Nagaraj B S - Demo of Fosroc - Polyurea system Solution for Green roof/Podium waterproofing.
  4. Er. Jaswanth Sobhana – BASF INDIA LTD – Demo on “Waterproofing Protective Systems for – Wet areas, Showers & Bathrooms.
  5. Dr. Shivaprasad - Kiran Global Chems Limited – Demo on - Geopolymer Concrete & Geo-Cement.
- **Demonstration of Innovative Quality Control Devices.**
  1. Thermal Imaging – FLIR (Identification of Cracks)
- **Demonstration of use of alternative materials.**
  1. Dr. Ramani – Geopolymer Concrete
  2. Er. Renukaprasanna – Temperature Controlled Concrete, Building Products
  3. Er. Parthiban – Triveni Sand

## **Exhibition of products, materials, systems, equipment related to Concrete admixtures & Waterproofing Systems.**

1. 45 Exhibitors – Most No. of Stalls from the previous Deminar’s (Details of Chief Patron & Patron – 2, Sponsors – 13, exhibitors - 24, Supporting Organisations – 6)

## **New Category Introduced for the First Time:**

- **Felicitation of Industry Professional – Unsung Hero.**

1. Sri. M Dinakaran
2. Sri. D Raji Rajan
3. Sri. C N Kumar
4. Sri. C V Parthasarathy
5. Sri. Ramesh Lakshman Bhat Joshi

- **Student Chapter Activity for Concrete Panorama:**

1. **Prize for Best Student Movie Making Competition:**

- a. MSRIT College of Engineering, Bangalore.
- b. BIT College of Engineering, Bangalore.

2. **Prize for Best Student Model Making Competition:**

- a. MVJ College of Engineering, Bangalore.
- b. JSSAT College of Engineering, Bangalore.

- **Game Changer Awards for Best Demonstration and Exhibition:**

1. **Best Demonstration:**

- a. RMC Ready Mix India – Pervious Concrete.
- b. Fosroc India Private Limited – **Polyurea system-Solution for Green roof/Podium waterproofing.**
- c. Kiran Global Chems Limited – Demo on Geopolymer Concrete & Geo-Cement.

2. **Best Exhibition:**

- a. Silicon Valley W/P Systems
- b. La Green
- c. Pidilite Industries Limited.

### **Interactive Session with the Industry Experts:**

1. Prof. M S Shetty
2. Dr. M U Aswath
3. Er. Ravishankar
4. Er. M S Venkatesh
5. Er. N Venkatesh

### **Program ended with National Anthem**

PHOTO GALLERY – will be added only, when the above is corrected.









**AUDIENCE AT AUDITORIUM:**









DIGNITARY'S SPEECH:





**FELICITATION TO DIGNITARIES ON THE DIAS:**







**INAUGURATION OF SOUVENIR & EXHIBITION:**







**SPONSORS FOR DEMINAR-2016:**







**SPONSORS STALLS:**





REGISTRATION COUNTER:





PRESENTATION BY: PROF. M S SHETTY



BASF PRESENTATION & DEMO:







**PRESS RELEASE ON ICI-DEMINSAR 2016:**



**Dr. ASWATH MU – Press Release during the ICI-Deminar 2016 program at Nimhans Auditorium, Bangalore.**



## TRIVENI SAND & AGGREGATES: DEMO





MOVIE MAKING BY BIT-STUDENTS:



DAY-01: EVENING CULTURAL PROGRAM:





**DEMONSTRATION: BY ASHTECH INDIA PVT LTD**



**RMC READY-MIX INDIA LTD: DEMO ON PERVOIS CONCRETE**





**SPOSNORS STALLS:**







**PRESENTATION & DEMO: BY FOSROC CHEMICALS INDIA LTD**





