



Online
Advanced Course on
"Geopolymer Concrete"
(GCON-2022)
27th & 28th January 2022

















Organised by
CSIR-Structural Engineering Research Centre
CSIR Campus, Taramani,
Chennai – 600 113, India

## **CSIR-Structural Engineering Research Centre**

CSIR-Structural Engineering Research Centre, Chennai, one of the national laboratories under the Council of Scientific Industrial Research, India has built up excellent facilities and expertise for the analysis, design and testing of structures and structural components. Services of CSIR-SERC are being extensively used by the Central and State governments, public undertakings and private sector. Scientists at CSIR-SERC serve on many national and international standards/committees. The Centre is recognized at the national and international levels as a leading research institution in the field of Structural Engineering. CSIR-SERC is conducting skill development programme with the motive of creating skilled workforce for the Industrial/societal requirements as a part of the skill initiative programme of CSIR.

# **Background**

Concrete is the most widely used man-made material in existence. It is second only to water as the most-consumed resource on the planet. Portland cement the key ingredient in concrete is the source of about 8% of the world's carbon dioxide emissions, according to think tank Chatham House. There is an urgent need to reduce the damage caused by concrete to the environment in order to protect the life of future generation. Hence, there is a constant quest to find alternative greener material for Portland cement. Geopolymerization/Alkali activation of siliceous materials can be a viable alternative, especially in our country where major demand for electricity is met by coal fired thermal power stations.

### **Objectives**

Being relatively a newer material, it is felt there is a need to share the gained knowledge on geopolymer concrete among the students, practicing engineers and end users. This course aims to bring clarity about the new material for the participants from civil engineering perspective. The nature of this material, its properties, limitations and production methodology will be highlighted during the course.

#### **Course Content**

The course will cover introduction to geopolymers, characterization methodologies, material development, production guidelines, high/ultra-high strength geopolymer concrete, structural behaviour of geopolymer concrete, durability properties, field experience etc.

#### **Resource Persons**

Dr. S. Sundar Kumar, Mr. V. Srinivasan, Dr. S. Maheswaran, Dr. P. S. Ambily, & Dr. K. N Lakshmikandan from CSIR-SERC

Prof. K. V. L. Subramanian from IIT Hyderabad Dr. Sanjay Kumar from CSIR-NML, Jamshedpur

Laboratory demonstrations will be made into short videos and streamed to the participants.

#### Fees and Registration

INR 1000/- per participant (inclusive of GST) for Indian nationals and US \$ 25 for foreign nationals. The course registration can be completed online by clicking here:

## (http://forms.serc.res.in/view.php?id=33087).

Select 'Geopolymer Concrete (27-28, Jan 2022)' in the course title and fill all the particulars online. The registration fee for the course can be paid by clicking the SBI collect link in the registration form.

"Certificate will be issued to all registered participants"

### Requirements for online mode

Desktop/Laptop/Smartphone with good internet speed and sufficient data pack. A web link will be sent to the registered participants for joining the course.

### For further details, contact course co-ordinators

Sri. V. Srinivasan & Dr. S. Sundar Kumar Advanced Materials Laboratory

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