

**SCHOOL OF INFRASTRUCTURE**  
**DEPARTMENT OF CIVIL ENGINEERING**

Ref. : 1275-A/ Dean(Sol)/0925

Date: 09.09.2025

**REPORT ON GUEST LECTURE**

Date & Time	Speaker	Title	Venue
<b>25.08.2025</b> <b>11:00 AM to 12:30 PM</b>	<b>Dr. S. Sundar Kumar serves as Principal Scientist at the Advanced Materials Laboratory, CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai</b>	<b>Sustainability in Construction Through the Incorporation of New Materials</b>	<b>Seminar Hall, Dept. of Civil Engineering, BSACIST</b>

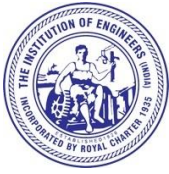
**I. PREAMBLE:**

The Department of Civil Engineering organized a guest lecture titled “Sustainability in Construction Through the Incorporation of New Materials” on August 25, 2025. The session took place from 11:00 AM to 12:30 PM in the Seminar Hall, Department of the Civil Engineering, BSACIST.

**II. ABOUT THE SPEAKER:**

Dr. S. Sundar Kumar serves as Principal Scientist at the Advanced Materials Laboratory, CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai. He holds a Bachelor’s degree in Civil Engineering and a Master’s degree in Computer-Aided Design of Structures, both from Visvesvaraya Technological University, Belagavi, Karnataka. He earned his Ph.D. in Civil Engineering from Anna University, Chennai.

Dr. Sundar Kumar is actively involved in several R&D initiatives at CSIR-SERC, focusing on areas such as concrete technology, geopolymer concrete, non-destructive testing (NDT) of concrete, and the repair, rehabilitation, and retrofitting of concrete structures. With over 19 research publications to his credit, he is also an esteemed member of professional organizations including the Institution of Engineers (IEI), Indian Concrete Institute (ICI), and the BIS subcommittee CED 53.2 on Cement Matrix Products.



### III. EVENT HIGHLIGHTS

The session commenced with a warm welcome by Dr. P. Vasanthi, Professor of Civil Engineering. Dr. M. S. Haji Sheik Mohammed, Professor and Dean, School of Infrastructure, extended his felicitations and honored the guest speaker with a shawl and memento.

The program began with a Qirath recitation by Mr. Waqas Ahmad Sheikh, a second-year M.Tech student in Structural Engineering. The guest speaker was introduced by Ms. Jessica James, also a second-year M.Tech student in Structural Engineering.

### IV. LECTURE OVERVIEW

The guest speaker delivered an insightful presentation focusing on sustainable practices in construction and the use of alternative materials to replace conventional ones. Key concepts from concrete technology were discussed, including the significance of pH values, pozzolanic materials, and cementitious components.

A strong emphasis was placed on adopting a holistic approach to sustainability within the civil engineering domain. The speaker stressed the importance of minimizing carbon emissions and mitigating the environmental impact caused by industrial activities and greenhouse gases.

The lecture also cautioned against the over-commercialization of products under the guise of sustainability. A detailed explanation of geopolymers was provided, highlighting their unique properties, working principles, and distinctions from traditional concrete.

#### **Practical Insights**

The speaker shared several alternative materials suitable for concrete production, such as:

- Construction and Demolition (C&D) waste
- Marine sand
- Copper slag

Participants were encouraged to explore local infrastructure sites like thermal power plants and dams to gain practical exposure. The session was highly interactive, with the speaker engaging the audience through basic questions to maintain interest and participation.



The lecture aligns with the syllabus of the course CEEY108 – Waterproofing of Concrete and Masonry Structures, particularly under the topic of various waterproofing techniques. It provided relevant insights that complement the academic framework of the subject.

The event concluded with a vote of thanks delivered by Dr. A. K. Kaliluthin, Associate Professor, Department of Civil Engineering, marking the end of a thought-provoking and enriching session.

In the name of Allah, the most Beneficent, the most Merciful

**School of Infrastructure**  
**Department of Civil Engineering**  
*in association with*  
**The Institution of Engineers (India)**  
Kancheepuram Local Centre  
*Organizes*

**GUEST LECTURE**  
on  
**"Sustainability in Construction  
through the Incorporation of New Materials"**  
(As part of the course CEEY 108 – Waterproofing of Concrete and Masonry Structures)

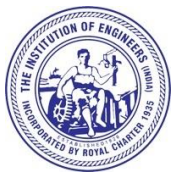
**Aug 25<sup>th</sup> 2025 (Monday) 11.00am**  
**Venue Seminar Hall, Civil Engineering Department**

**Guest Speaker**  
  
**Dr. S. Sundar Kumar**  
Principal Scientist, Advanced Materials Laboratory,  
CSIR – SERC, Chennai.

**Conveners**  
**Dr. P. Vasanthi, FIE**  
Professor of Civil Engineering  
**Dr. M.S. Haji Sheik Mohammed**  
Dean, School of Infrastructure

**Coordinator**  
**Dr. A. K. Kaliluthin, MIE**  
Associate Professor

### Guest Lecture Brochure



**Felicitation by Dr. M.S. Haji Sheik Mohammed (Professor and Dean, Sol) & Dr. P. Vasanthi (Professor of Civil Engineering)**



**Qirath recitation by Waqas Ahmad Sheikh  
(2<sup>nd</sup> Year, M. Tech. Structural Engineering student)**





**Guest Speaker Introduction by Ms. Jessica James  
(2<sup>nd</sup> Year, M. Tech. Structural Engineering student)**



**Research Scholars, M.Tech Structural Engineering Students (1<sup>st</sup> & 2<sup>nd</sup> Year),  
M. Tech CEPM (1<sup>st</sup> Year) and B. Tech Final Year Civil Engineering Students**



### III. DETAILS OF PARTICIPANTS:

The following are the list of participants attended the lecture:

S. No	NAME	RRN	BRANCH
1.	M. Derrick Shalvin	241202601001	2 <sup>nd</sup> Yr/ M.Tech/ SE
2.	M.Giri Ravendar	241202601002	2 <sup>nd</sup> Yr/ M.Tech/ SE
3.	Hudson Gnanadurai C.	241202601004	2 <sup>nd</sup> Yr/ M.Tech/ SE
4.	Jessica James	241202601005	2 <sup>nd</sup> Yr/ M.Tech/ SE
5.	Lavanya D.	241202601006	2 <sup>nd</sup> Yr/ M.Tech/ SE
6.	Mohamed Zuhairudeen	241202601008	2 <sup>nd</sup> Yr/ M.Tech/ SE
7.	A.Sethuraman R.	241202601009	2 <sup>nd</sup> Yr/ M.Tech/ SE
8.	Waqas Ahmad Sheikh	241202601010	2 <sup>nd</sup> Yr/ M.Tech/ SE
9.	Guruprasadh A.	251202601001	1 <sup>st</sup> Yr/ M.Tech/ SE
10.	Rahini D. A.	251202601002	1 <sup>st</sup> Yr/ M.Tech/ SE
11.	Shameer M.	251202601003	1 <sup>st</sup> Yr/ M.Tech/ SE
12.	Aasad M S	252202601001	1 <sup>st</sup> Yr/ M.Tech/ CEPM
13.	Bhupathirajan A P	252202601003	1 <sup>st</sup> Yr/ M.Tech/ CEPM
14.	Deeparatchagan R	252202601004	1 <sup>st</sup> Yr/ M.Tech/ CEPM
15.	Leela.M	252202601005	1 <sup>st</sup> Yr/ M.Tech/ CEPM
16.	Rakshidha D	252202601006	1 <sup>st</sup> Yr/ M.Tech/ CEPM
17.	Sanmati K	252202601007	1 <sup>st</sup> Yr/ M.Tech/ CEPM
18.	Praveen Khanna	252202601008	1 <sup>st</sup> Yr/ M.Tech/ CEPM
19.	Mohamed Safwan	252202601009	1 <sup>st</sup> Yr/ M.Tech/ CEPM
20.	Nimal H P	252202601010	1 <sup>st</sup> Yr/ M.Tech/ CEPM
21.	Amjath T T	220011601006	4 <sup>th</sup> Yr/ B. Tech/ Civil
22.	Areeb Rohan K	220011601009	4 <sup>th</sup> Yr/ B. Tech/ Civil
23.	Ashwitha M	220011601010	4 <sup>th</sup> Yr/ B. Tech/ Civil
24.	Mohamed Jafron S	220011601015	4 <sup>th</sup> Yr/ B. Tech/ Civil
25.	Pradeep D	220011601019	4 <sup>th</sup> Yr/ B. Tech/ Civil
26.	Raseth Imam Noor	220011601021	4 <sup>th</sup> Yr/ B. Tech/ Civil



27.	Roshan Akthar M I	220011601023	4 <sup>th</sup> Yr/ B. Tech/ Civil
28.	Sai Easwar S S	220011601024	4 <sup>th</sup> Yr/ B. Tech/ Civil
29.	Sharon Akram A	220011601025	4 <sup>th</sup> Yr/ B. Tech/ Civil
30.	Syed Talha S H	220011601026	4 <sup>th</sup> Yr/ B. Tech/ Civil
31.	Ishak Ahamed A	220011602002	4 <sup>th</sup> Yr/ B. Tech/ Civil
32.	Md Abubakar S	220011602003	4 <sup>th</sup> Yr/ B. Tech/ Civil
33.	Mohamed Abu Riyas S	220011602005	4 <sup>th</sup> Yr/ B. Tech/ Civil
34.	Mohamed Anas S	220011602006	4 <sup>th</sup> Yr/ B. Tech/ Civil
35.	Mohamed Faisal	220011602008	4 <sup>th</sup> Yr/ B. Tech/ Civil
36.	Mohamed Faizal	220011602009	4 <sup>th</sup> Yr/ B. Tech/ Civil
37.	Mohamed Kalifa K	220011602010	4 <sup>th</sup> Yr/ B. Tech/ Civil
38.	Mohamed Sameer Km	220011602011	4 <sup>th</sup> Yr/ B. Tech/ Civil
39.	Mohamed Uvais M	220011602012	4 <sup>th</sup> Yr/ B. Tech/ Civil
40.	Shafi Ahmed S	2200116020013	4 <sup>th</sup> Yr/ B. Tech/ Civil
41.	Syed Raashid Moulana S	220011602015	4 <sup>th</sup> Yr/ B. Tech/ Civil

#### IV. OUTCOME OF THE GUEST LECTURE:

The session empowered students with the knowledge to identify and utilize alternative materials in concrete construction, promoting a reduction in carbon emissions and minimizing environmental impact. Participants gained valuable insight into the importance of resisting excessive commercialization of construction materials. The lecture emphasized that achieving true sustainability in civil engineering requires a comprehensive, holistic approach. This initiative supports the advancement of Sustainable Development Goals—specifically SDG 9 and SDG 11—by encouraging the development of resilient infrastructure, promoting environmentally responsible industrial practices, and fostering innovation in construction.

**Dr.A.K.Kaliluthin**  
Associate Professor

**Dr.P.Vasanthi**  
Professor

**Dr.M.S.Haji Sheik Mohammed**  
Dean, School of Infrastructure