



**DEPARTMENT OF CIVIL ENGINEERING**  
**ACADEMIC YEAR 2023 - 2024**  
**CIRCULAR**

**DATE: 04.03.2024**

This is to inform our department faculty that there will be an internal staff seminar. The details of the staff seminar are given below.

Name of the faculty : Mr. K.SRI RAM GOPAL, AP/CIVIL

Date : 06.03.2024

Venue : Smart classroom (Hall no 236)

Time : 12:30 PM

*D. Nandakumar*  
04/03/24  
DRC MEMBER

*R. Srinivasan*  
04/03/24  
HOD/CIVIL

**DEPARTMENT OF CIVIL ENGINEERING**  
**ACADEMIC YEAR 2023-2024/EVEN SEMESTER**  
**INTERNAL STAFF SEMINAR – REPORT**

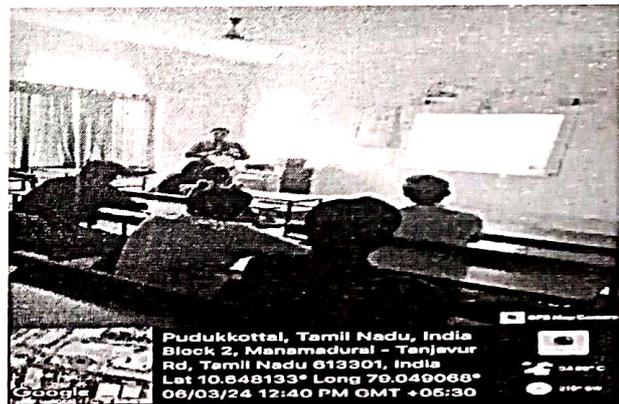
**08/03/2024**

**Background & Objective**

Department of Civil Engineering had organized an Internal Seminar for the Department staff members for accessing online journals. The purpose of this seminar is to equip the faculty in new techniques through accessing online journals like MAT, Springer etc.

**Seminar Session**

This Seminar session was held at the Department of Civil Engineering on 06th March, 2024 at 12:30pm. **Mr. SRI RAM GOPAL. K , AP/CIVIL** was delivered his seminar talk on **Effects of Corn Cob Ash as Partial Replacement of Cement for Stabilization of an Expansive Clay by Worku Yifru et al .** The paper was referred from Hindawi Journal, Advances in Civil Engineering Volume 2022, Article ID 6788120, 13 pages, Heritage science (2021) published on NOV 2022.



**Internal Seminar Session by Mr. SRI RAM GOPAL. K AP/CIVIL**

**Theme:**

In this study, an attempt has been made to assess the effects of corn cob ash (CCA) as a partial replacement of cement for the stabilization of expansive clay to be used as road

subgrade material. Corn cob is a waste agricultural product obtained during the production of corn. After it has been converted to ash, tests are carried out on the pozzolanic property and elemental composition of corn cob ash (CCA).

**Scope for future work:**

- ❖ Preliminary tests were performed on the natural soil sample for purposes of classification and identification of some required properties of the sample.
- ❖ Following the required preliminary laboratory analysis, the clay was stabilized with cement and CCA in varying proportions of 2, 4, 6, and 8%, separately.
- ❖ The maximum stabilization effect occurs at 8 and 4% of cement and CCA, respectively.
- ❖ With this percentage, the CBR of the sample increased from 2.62% at 0% to 10.47% and 3.31% at 8 and 4% of cement and CCA, respectively.
- ❖ As a result, 8% of cement was taken as the total amount for different cement and corn cob ash (C: CCA) ratios of 1: 1, 1: 2, 1: 3, and 1: 4 in the blending stabilization.

**Outcome:**

- ❖ When the mix ratio was at its ideal, the plasticity index (PI) reduced from 57.11% to 27.65% in the soil sample (1: 2 C: CCA).
- ❖ When treating expansive soil with CCA-cement addition agents, the MDD shows a modest rise while the OMC is reduced. When the mix ratio is at its ideal level, MDD rises from 1.385 g/cm<sup>3</sup> to 1.40 g/cm<sup>3</sup> and OMC reduces from 36.5% to 30.5% (1:2, C:CCA). Increasing the cement in a CCA-cement mix ratio often causes the maximum dry density and optimal moisture content to increase and decrease, respectively.
- ❖ The initial rise for the CBR test was from the control value of 2.62% to 6.72%, at an optimal mix ratio of at (1:2 C: CCA). This was followed by a reduction in the CCA-cement mix ratio as CCA dosage was increased.
- ❖ Finally, Staff members shared their views regarding seminar and gave their valuable feedback.

  
HOD/CIVIL 21/03/2024

Good.

J. Prasad  
21/3/2024  
PRINCIPAL



**KINGS**  
COLLEGE OF ENGINEERING  
An Autonomous Institution  
Affiliated to Anna University, Chennai, Approved by AICTE, New Delhi



**DEPARTMENT OF CIVIL ENGINEERING**  
**INTERNAL STAFF SEMINAR - ATTENDANCE AND FEED BACK**

S.NO	NAME	FEEDBACK	SIGN
1	Dr.R.Saravanan	EXcellent Presentation.	R. Sundharam 06/03/24.
2	Mr. R.Sundharam	Good Presentation. clear Information received.	R. Sundharam 06/03/24
3	Mr.K.Arun	Very good topic with clear Explanation	K. Arun 06/03/24
4	Mr. D.Nandha Kumar	Excellent Presentation.	D. Nandha Kumar 06/03/24
5	Mrs.A.Suganya	Innovative and conceptual Presentation	A. Suganya 06/03/24.
6	Mr.A.Sagaya Albert	Very nice presentation with informative content	Sagaya Albert 06/03/24
7	Mrs.K.Kanimozhi.	Innovative content with Excellent performance	K. Kanimozhi 06/03/24.