

Kings College of Engineering, Punalkulam



DEPARTMENT OF CIVIL ENGINEERING ACADEMIC YEAR 2023 - 2024 CIRCULAR

DATE: 16.02.2024


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 : D.NANDAKUMAR.

Date : 19.02.2024

Venue : Smart classroom (Hall no 236)

Time : 12:30 PM


DRC MEMBER 16/02/2024


HOD/CIVIL 16/02/2024.

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

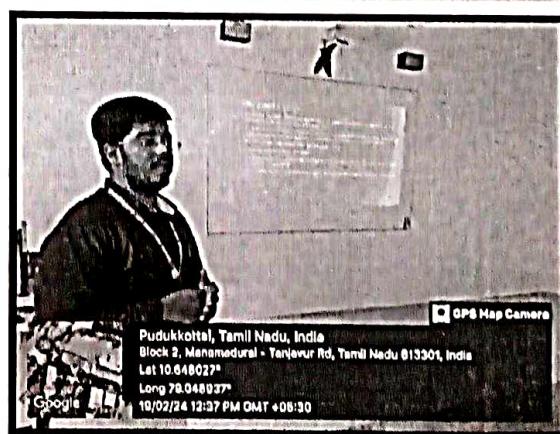
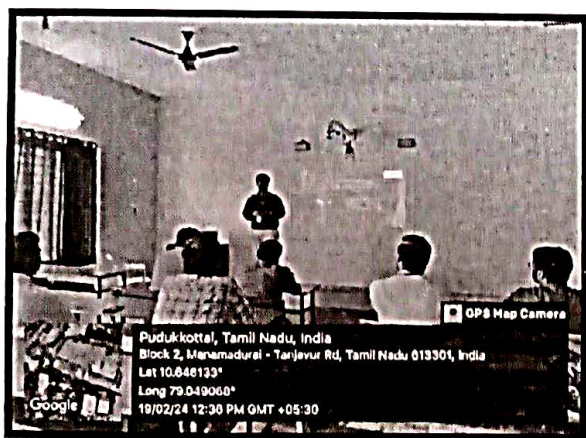
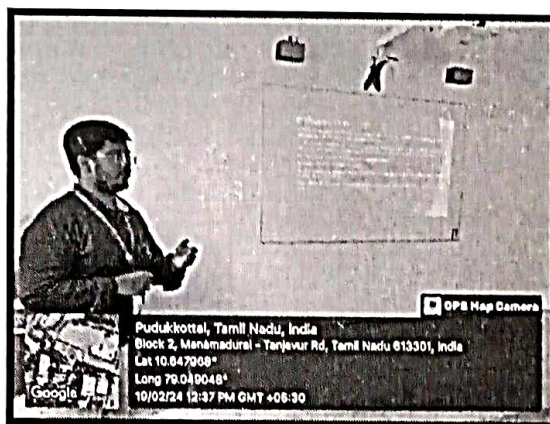
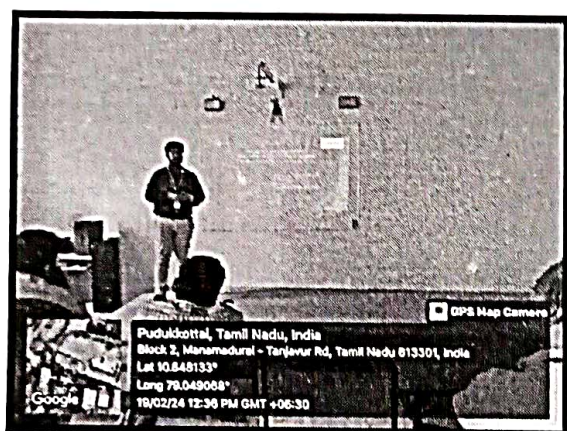
19/02/2024

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

A Seminar was held in the Department of Civil Engineering on 19th February, 2024 at 12:30 PM. Mr.D.Nandakumar/AP delivered his seminar talk on “The use of *Robiniapseudoacacia*L fruit extract as a green corrosion inhibitor in the protection of copper-based objects”. The paper was referred from SPRINGER Journal, Heritage science(2021).



Internal Seminar Session by Mr.D.NANDAKUMAR /AP CIVIL

Theme:

This work presents the the acacia fruit extract (200 ppm to 1800 ppm) was used to the prevention of corrosion inhibition of bronze alloy in corrosive sodium chloride solution 0.5 M, for 4 weeks consecutively. The Bronze alloy used in this research, was made based on the same percentage as the ancient alloys (Cu-10Sn). $I_E\%$ was used to obtain the inhibitory efficiency percentage and R_p can be calculated from the resistance of polarization. SEM-EDX was used to evaluate the surfaces of alloy as well as inhibitory. The experiment was conducted in split plot design in time based on the RCD in four replications.

Scope for future work:

- The use of this type of green inhibitors allows low-cost carbon steel to be used as a structural material.
- These corrosion inhibitors are prevent the corrosion in the way of eco-friendly.
- The alternative solution for the toxic with more costly inorganic inhibitors in future.

Outcome:

- The Seminar clearly highlighted the comparison of test results has been done through the corrosion studies (weight loss, Half-cell, Accelerated corrosion test), surface studies (SEM, EDX, AFM test) and spectroscopic studies (FTIR test).
- These test results show the formation of the Inhibition thin layer above the steel surface that contains S, N, O and P as well as phytochemical Compounds like alkaloids, tannins, flavonoids and steroids.
- Finally, Staff members shared their views regarding seminar and gave their valuable feedback.


29/02/2024.
HOD/CIVIL


24/2/2024
PRINCIPAL

19/02/2024



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

S.NO	NAME	FEEDBACK	SIGN
1	Dr.R.Saravanan	Excellent presentation	<i>R. Saravanan</i> 19/02/24
2	Mr. R.Sundharam	Nice presentation	<i>R. Sundharam</i> 19/02/24
3	Mr.K.Arun	Innovative topic with good explanation	<i>K.Arun</i> 19/02/24
4	Mr.R.Ramchandrar	Good presentation	<i>R. Ramchandrar</i> 19/02/24
5	Mrs.A.Suganya	Informative presentation	<i>A.Suganya</i> 19/02/24
6	Mr.A.Sagaya Albert	Very good presentation with informative content	<i>Sagaya Albert</i> 19/02/24
7	Mr.K.Sriram gopal	Good communication skills, presentation was Excellent	<i>K.Sriram gopal</i> 19/02/24
8	Mrs.K.Kanimozhi.	Good presentation with innovative content	<i>K.Kanimozhi</i> 19/02/24