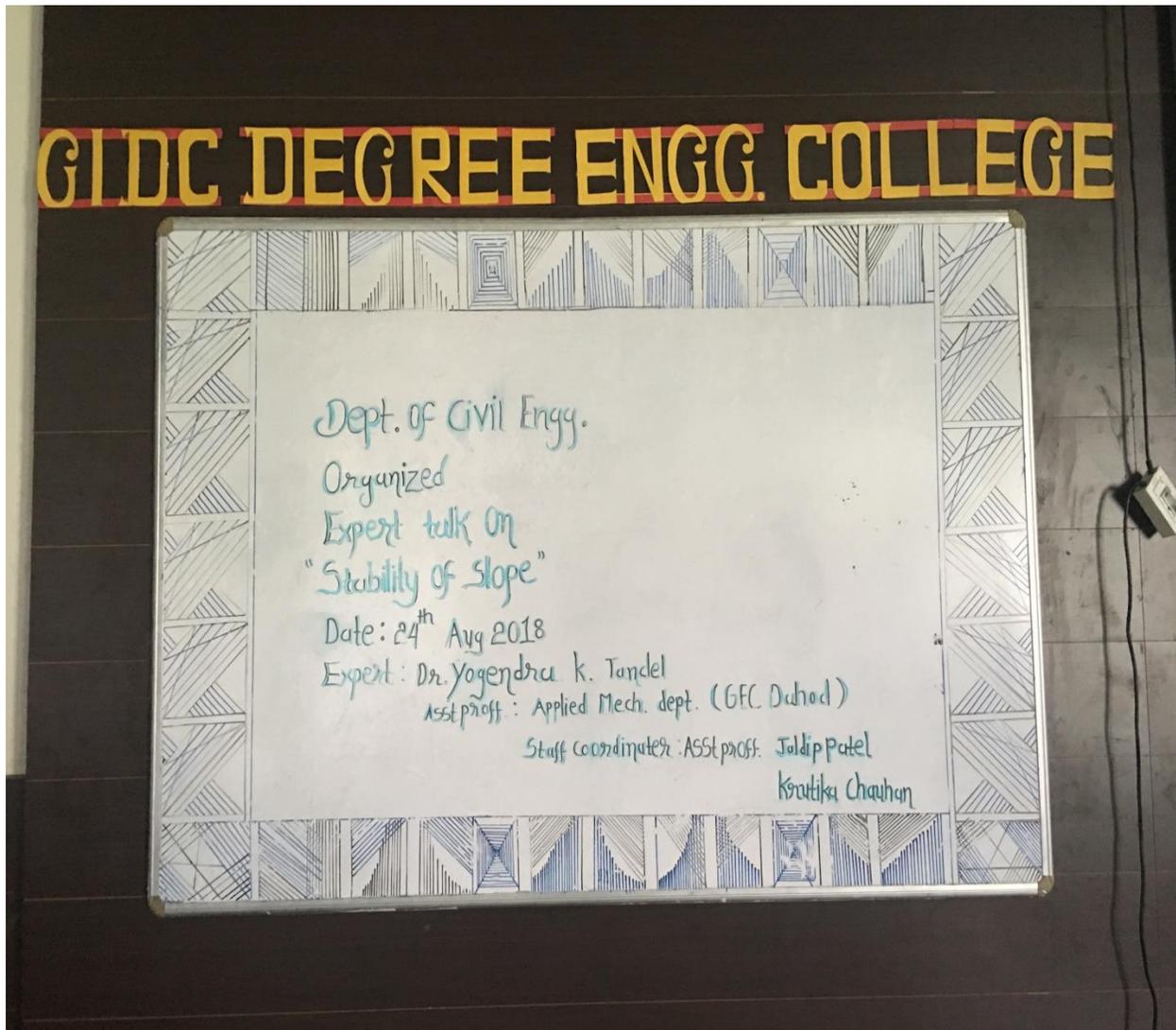


Expert Lecture on "Stability of Slope"

Civil Engineering Department of GIDC Degree Engineering College Abrama, Navsari organised expert lecture on "stability of slope" in Geotechnical Engineering Field for 3rd year students. Expert lecture delivered by Dr. Yogendra k. Tandel whose working as Assistant Professor in Applied Mechanics department at Government Engineering College, Dahod. Assist. Prof. Jaldip Patel and Assist. Prof. Krutika Chauhan are coordinate of whole program.

Assist Prof. Tilva Vikunj (HOD, CIVIL ENGINEERING DEPARTMENT, GDEC, NAVSARI)

Photos:





CAUSES OF SLOPE FAILURE

- (1) **Erosion** - The wind and flowing water, erosion of the surface of slope and causes the slope steep.
- (2) **Steady Seepage** - Change in pore water pressure and increase in pore water pressure and cause the slope - saturation. In saturation, the pore water pressure decreases the slope strength.
- (3) **Sudden Drawdown** - The pore water pressure in the slope changes are more than the saturated soil weight.



GIDC DEGREE ENGG. COLLEGE

Dept. of Civil Engrg.
Geotechnical
Lecture notes on
"Stability of Slope"
Date: 24th Aug 2018
Lecturer: Dr. Vinayakumar K. Sankar
Assistant Prof. (SIT, Dahanu)
Sri. Lakshminarayana Acharya, Jalgaon
Pravin Chaudhari

STABILITY ANALYSIS OF INFINITE SLOPE

Failure is assumed to occur along a plane parallel to the surface.

Volume of the prism = $b \cos \beta \cdot x \times 1$

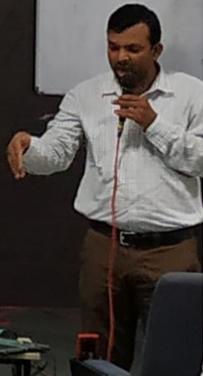
Weight of prism: $W = \gamma (b \cos \beta x)$

The component of W parallel to slope: $T = W \sin \beta$

The component of W Perpendicular to slope: $N = W \cos \beta$

$N = \gamma b x \cos^2 \beta$

$T = \gamma b x \cos \beta \sin \beta$





GIDC DEGREE ENGG. COLLEGE

Slope of Civil Engg.
Definition
Types of Slope
Classification of Slope
Slope of Highway
Slope of Railway
Slope of Dam
Slope of Embankment
Slope of Cut
Slope of Retaining Wall
Slope of Foundation
Slope of Foundation
Slope of Foundation
Slope of Foundation

INTRODUCTION

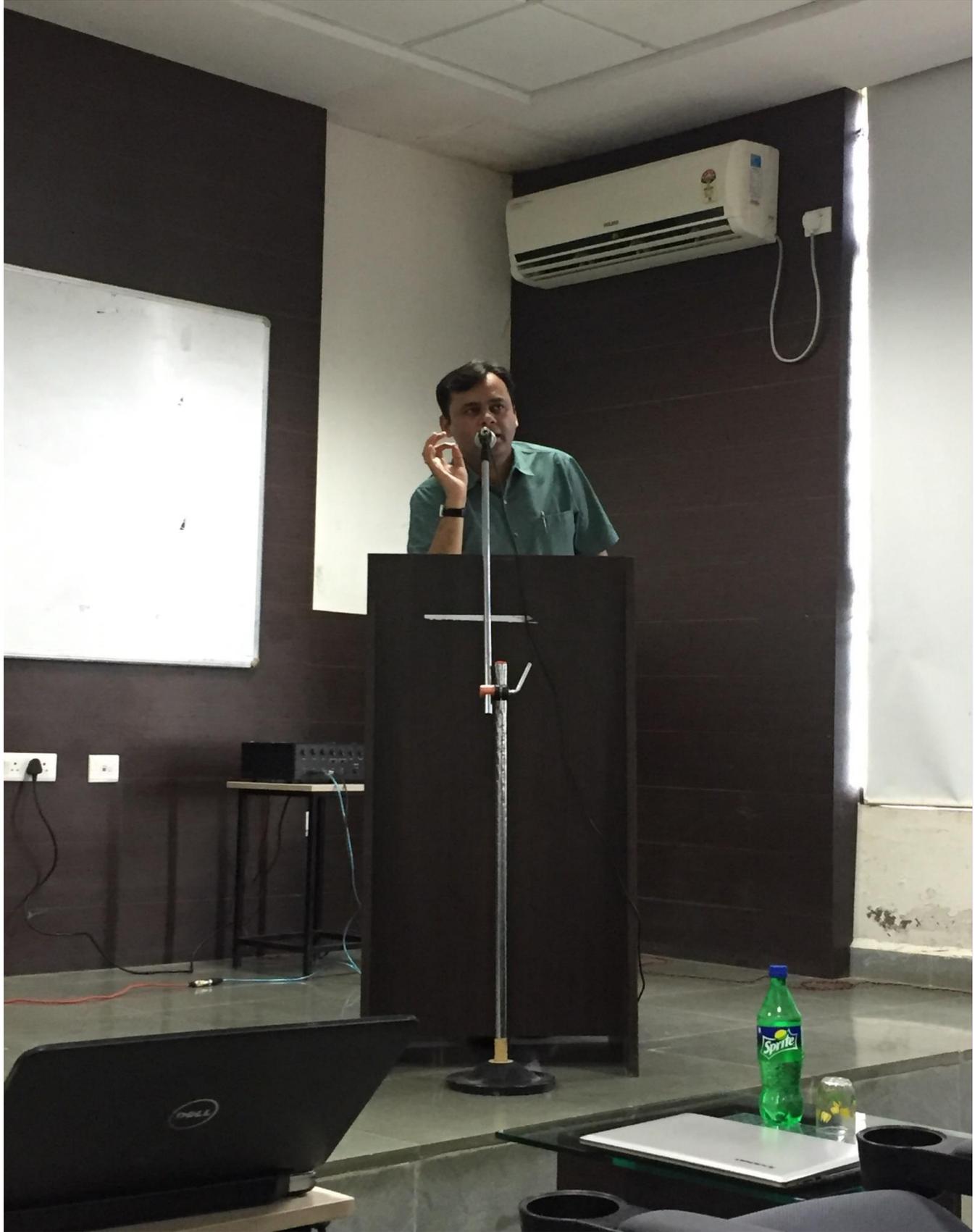
- Slope: An exposed ground surface that stands at an angle with the horizontal is called slope.
- Types of slopes: (i) Natural slopes, (ii) Man-made slopes.
- Man-made slopes: Embankments for railways & highways, earth dams, levees, etc.



Natural slope
Embankment
Earth dam
Levee

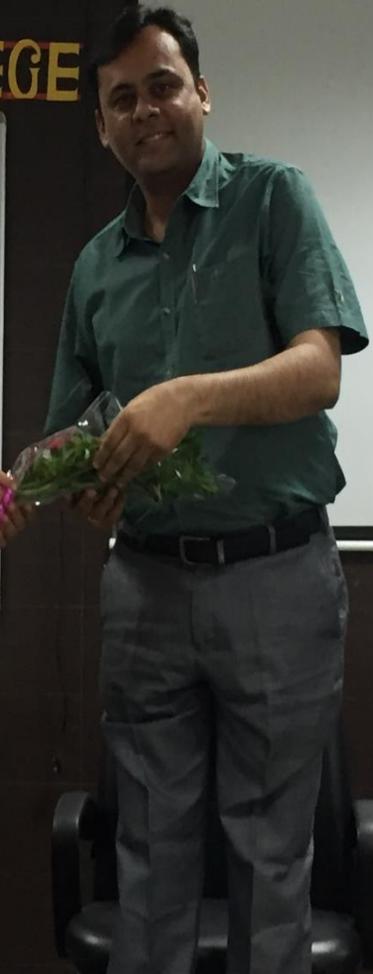






C DEGREE ENGG. COLLEGE

Dept. of Civil Enngg.
Organized
Expert talk On
"Stability of Slope"
Date: 24th Aug 2018
Expert: Dr. Yogendra K. Tandel
Asst. Prof. Applied Mech.
Staff coordinate



NGG. COLLEGE

dept (GFC Dohod)
Asst. prof: Jalip Patel
Kavita Chauhan

