



# UNION CHRISTIAN COLLEGE ALUVA-2



SSR 5<sup>th</sup> CYCLE 2023



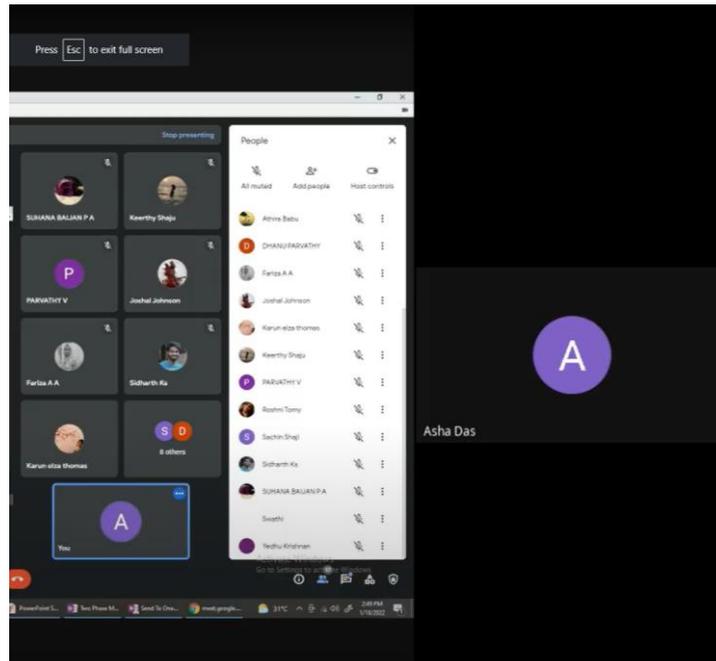
Criterion 1

## 1.1.1 Curriculum Planning and Implementation



## GOOGLE MEET

One can create, start, and join a class video meeting in Google Meet, where an impromptu meeting can be started anytime or one can join a previously set up one. Teachers use Google Meet as part of revision strategies and flipped classrooms.



### Use of Artificial Variables

- If the constraints are of ( $\geq$ ) type, no starting basic feasible solution
- Artificial variable
  - A non-negative variable is added to the left side of each of equation that lacks the starting basic variables.

- Consider LPP

Minimize  $z = \sum_{i=1}^m c_i x_i$ , subject to constraints:  
 $\sum_{j=1}^n a_{ij} x_j \geq b_i, x_j \geq 0$

The inequality is transformed by subtracting the surplus variable

$$\sum_{j=1}^n a_{ij} x_j - s_i = b_i \quad x_j, s_i \geq 0$$

By  $x_j = 0, j = 1, 2, \dots, n$ , initial solution is  $s_i = -b_i$ , which violates non-negativity.

- In order to preserve non-negativity of surplus variables, add artificial variables  $A_i, i = 1, 2 \dots m$  to get the initial basic feasible solution

$$\sum_{j=1}^n a_{ij} x_j - s_i + A_i = b_i \quad x_j, s_i, A_i \geq 0$$

$A_1 = 5$

$$4x_1 + 4x_2 \geq 5$$

$$4x_1 + 4x_2 - s_1 + A_1 = 5$$

$$-s_1 = 5$$

$$s_1 = -5$$

$x_1, x_2, s_1, s_2 \geq 0$

Asha Das