

**Event**

**Coordinator(s)**

**Prof. Prajakta  
Subhedar**

**Prof. Viren  
Deshpande**

**Time& Place:**

**26<sup>th</sup> March  
2021 Saturday**

**(7 to 8 pm)**

**Online Zoom  
Platform**

**Department:**

**FE**

**No of  
participant:**

**115**

The First Year Engineering department had arranged a Guest lecture for students of First year on 26/03/2021.

The resource person was Prof. Manish Mishra from Applied Sciences and Humanities Department, Vidyalankar Institute of Technology, Wadala.

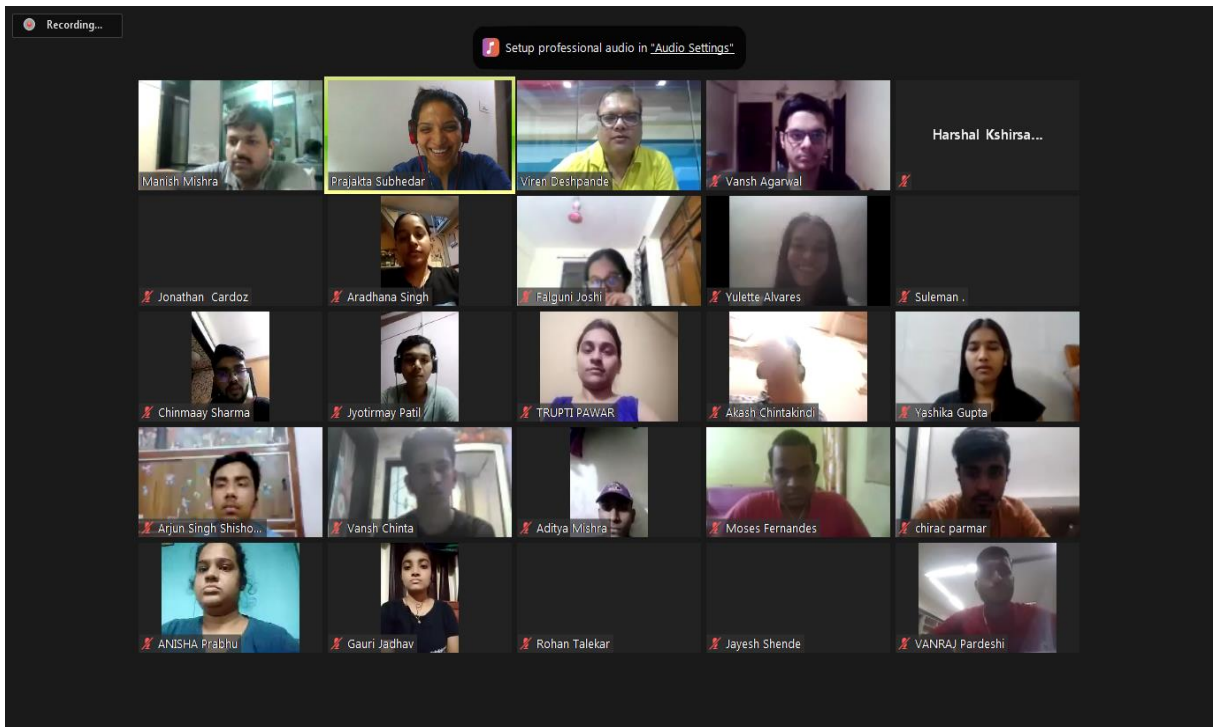
No of interested students who enrolled for the lectures were 150.

The session on Kinetics of a particle was held with topics including Newton's second law ,work -energy principle,workdown by force, principle of conservation of energy, power,impulse momentum principle. A revision of theory related to the above topics and relevant problems were solved during the session. The session was interactive, as students asked many questions to the resource person.

The lecture had been recorded for future reference of students if they need any help with the discussed topic.

Average attendance of the students in each session was 114.

The sessions were helpful to the students who will be appearing for Sem-I exam in 2021, as it was a revision of concepts studied in their pre engineering year. Feedback received from the students was encouraging.



Zoom Meeting    You are viewing Manish Mishra's screen    View Options

Recording...    Setup professional audio in "Audio Settings"

devang    ASAD SHAIKH    Jyotirmay Patil    W    Adit Anil Deshm...

Prajakta Sub...    Waqur Ansari

Two blocks, shown in figure start from rest. If the chord is in extensible, friction and are negligible, calculate acceleration of each block and tension in each chord.

Soln:-

$981 \text{ N} \Rightarrow 0.15 \text{ N}$   
 $0.25 \text{ N}$   
 $N$   
 $2T_1$   
 $a_2$

$T_1$   
 $490.5 \text{ N}$   
 $a_1$

$T_2$   
 $T_2 = 2T_1$

**FBD of Blocks**

$2T_1 x_2 - T_1 x_1 = 0$   
 Diff. twice, we get,  
 $2x/a_2 - x/a_1 = 0$   
 $a_1 = 2a_2$  — ①  
 or  
 $a_2 = \frac{a_1}{2}$

Considering FBD of block ①,  
 $\Sigma F_y = ma_y$  — By NSL  
 $T_1 - 490.5 = -50a_1$   
 $T_1 + 50a_1 = 490.5$  — ②

Considering FBD of block ②,  
 $\Sigma F_y = ma_y$   
 $N = 981 \text{ N}$   
 $\Sigma F_x = ma_x$   
 $2T_1 - (0.25 \times 981) = 100a_2$   
 $2T_1 - 100 \times \frac{a_1}{2} = \dots$

Unmute    Start Video    Security    81 Participants    Chat    Share Screen    Pause/Stop Recording    Reactions    Leave

7:32 PM  
3/26/2021

SD/-  
 Prof Prajakta Subhedar  
 Prof Viren Deshpande  
 (Asst Prof-AS&H)

SD/-  
 Dr Madhavi Parimi  
 (HoD-AS&H)