



**Department of Mechanical Engineering**  
**Virtual Laboratory Session Handled Report on**  
**Fluid Mechanics and Machinery**

**Name of the Session: Virtual Lab**

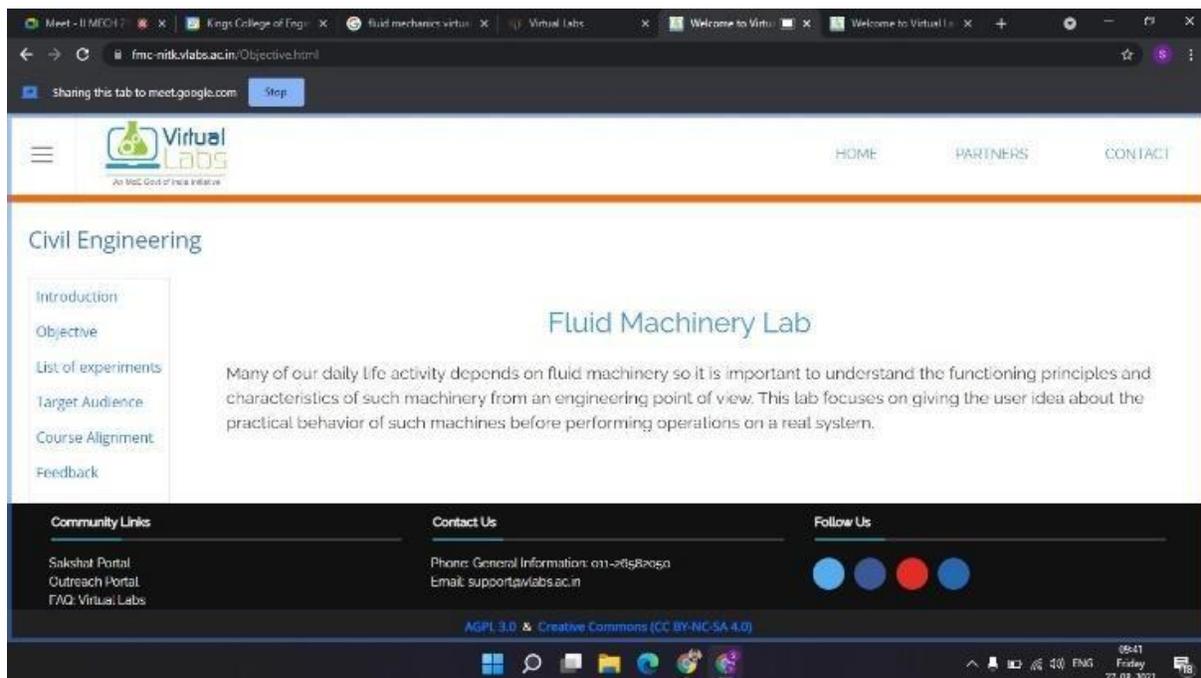
**Subject: Fluid Mechanics and Machinery**

**Date: 27/08/2021**

**Time: 09.30 AM to 10.30 AM**

In order to assist the knowledge of II Mechanical Engineering students of strength 52 students along with lateral entry students (08 Students), Virtual lab session was handled by Mr. S. Sabanayagam, AP/Mechanical under the experiments of Centrifugal Pump, Kaplan Turbine, Francis Turbine, Bernoulli's Theorem and Pump bursting. The student utilized the session and gained knowledge about pumps and turbines which covers the syllabus of Fluid Mechanics and Machinery framed by Anna University – CBCS.

**Session Photos**



Meet - II MEC17 x Kings College of Eng... fluid mechanics virtua... Virtual Labs x Welcome to Virtu... Welcome to Virtual L... +

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**Virtual Labs**  
An IITC God of India Initiative

HOME PARTNERS CONTACT

## Civil Engineering

Introduction

Objective

List of experiments

Target Audience

Course Alignment

Feedback

### Fluid Machinery Lab

1. Performance Characteristics of Centrifugal Pump
2. Performance Characteristics of Hydraulic Ram
3. Performance Characteristics of Kaplan Turbine
4. Double Acting Reciprocating Pump
5. Performance Characteristics of Pelton Turbine
6. Pipe Bursting
7. Performance Characteristics of Francis Turbine

Community Links: Sakshat Portal

Contact Us: Phone: General Information: 011-26580500

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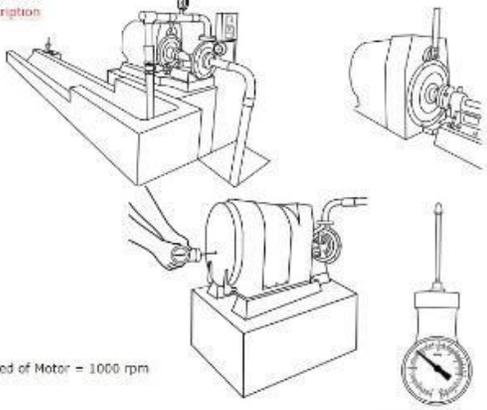
fmc-nitkylabs.ac.in/exp/centrifugal-pump/simulation.html

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## PERFORMANCE CHARACTERISTICS OF CENTRIFUGAL PUMP

**STEP 2** Rotate the handle to set the speed of motor to be constant and check the speed using tachometer.

**Description**



Speed of Motor = 1000 rpm

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### PERFORMANCE CHARACTERISTICS OF CENTRIFUGAL PUMP

**Objective**  
To construct the performance test set up for a centrifugal pump and to plot its operating characteristics.  
**Apparatus used:** Centrifugal Pump Setup, Windmills, Testometer, Pressure gauge, Measuring tank.

**Diagram:**

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9:53 AM | II MECH 21-22 ODD ONLINE

People

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In call

- Sabanayagam S (You) Muting host
- Sabanayagam S Your presentation
- 04-Anbarasan V
- 06-ARUNKUMAR M

Praveen kumar R

25 others

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### PERFORMANCE CHARACTERISTICS OF HYDRAULIC RAM

**STEP 5** Determine the useful water discharge by calculating the time required by water to collect upto 10cm in the collecting tank.

**TRIAL : 1**

Dimension of useful water tank

Time required by water to fill 10cm height(H) = 64 sec

Discharge of useful water (Q) =  $0.00014 \frac{m^3}{sec}$

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People

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Jahanraj J

KABIL V

KABILAN G

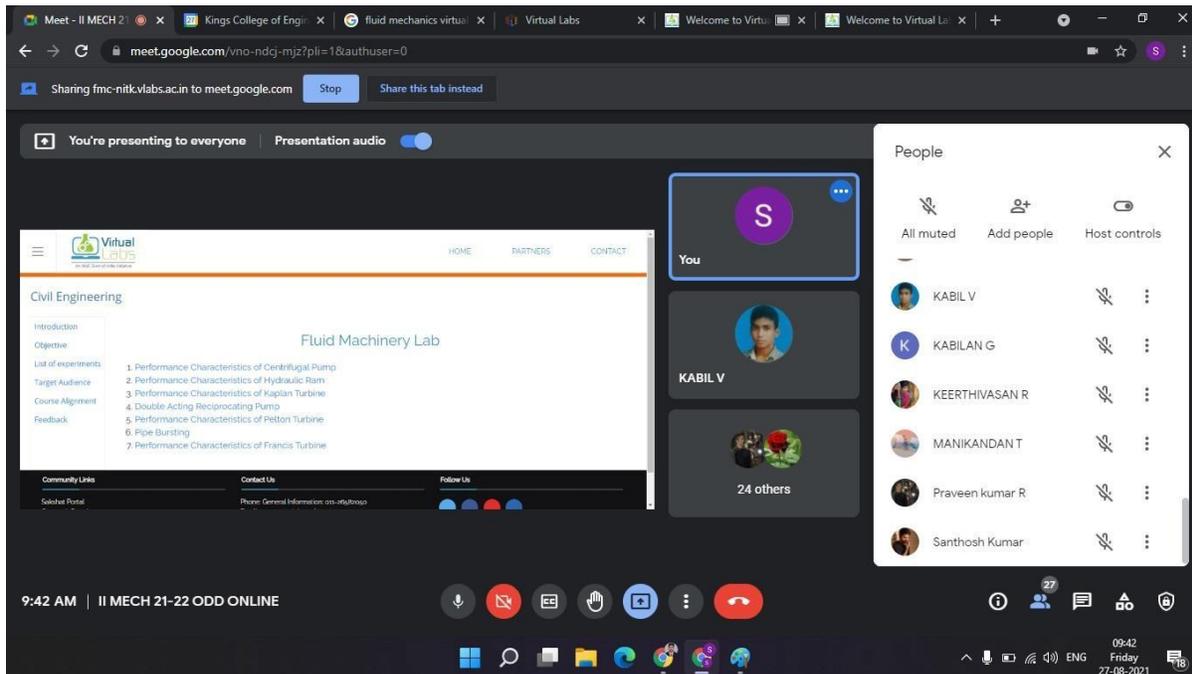
KEERTHIVASAN R

MANIKANDAN T

Praveen kumar R

25 others

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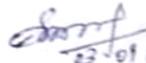


## Feedback from the Students (Collected through Google Form)

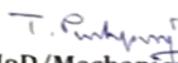
The screenshot shows a Google Sheet with the following data:

	A	B	C	D	E	F	G
1	Content of the Session	Resource person delivery towards th	Audio/Video Clarity	Overall feedback about tl	Name	Class	Email Address
2	Excellent	Good	Excellent	Good	AADHIKARUNESAN M	II Mech	aagikaruna2003@gmail.com *
3	Excellent	Good	Good	Excellent	AJAY J	II Mech	akashmathiyazhan2003@gmail.com *
4	Excellent	Good	Excellent	Excellent	AKASH M	II Mech	akash97@gmail.com *
5	Excellent	Excellent	Excellent	Excellent	ANBARASAN V	II Mech	anbarasanv997@gmail.com *
6	Excellent	Excellent	Excellent	Good	ARUN E	II Mech	arunarasai001@gmail.com *
7	Excellent	Excellent	Excellent	Excellent	ARUNKUMAR M	II Mech	arunsteyn77@gmail.com *
8	Excellent	Good	Excellent	Excellent	ARUNKUMAR P	II Mech	aruns97@gmail.com *
9	Excellent	Excellent	Excellent	Excellent	ARUNKUMAR S	II Mech	ddhiva168@gmail.com *
10	Excellent	Excellent	Excellent	Excellent	BACKIYARAJ S	II Mech	bbackiyarajs@gmail.com *
11	Good	Good	Good	Excellent	BHARANI S	II Mech	gssam0386@gmail.com *
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15	Good	Good	Excellent	Excellent	GNANASEKARAN S	II Mech	gnana07@gmail.com *
16	Excellent	Good	Excellent	Good	HARIHARAN K	II Mech	k59435858@gmail.com *
17	Excellent	Excellent	Excellent	Excellent	HARI PRASATH R	II Mech	harip2002@gmail.com *
18	Excellent	Excellent	Excellent	Excellent	HEMANATHAN E	II Mech	hnathan2k@gmail.com *

Parameter	Excellent	Satisfactory	Good	Yet to be improved
Content of the Session	17	09	04	Nil
Resource person delivery towards the prescribed content within the given time	21	07	02	Nil
Audio/Video Clarity	24	06	Nil	Nil
Overall feedback about the session	26	04	Nil	Nil

  
 23/01/21  
 [S. SABANAYA G.A.M.]  
 Staff in-Charge

  
 6/9/2021  
 Principal

  
 3/9/21  
 HoD/Mechanical